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**Public Institutions: Accounting
for and Reporting Financial Aid
as a Discount**

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Public Institutions: Accounting for and Reporting Financial Aid as a Discount

Introduction

This Advisory reviews the current state of accounting for and reporting financial aid as a discount to tuition and other fee revenues (“the discount”), including certain auxiliary revenues for public institutions. It supersedes NACUBO Advisory Report 2000-05, *Accounting and Reporting Scholarship Discounts and Allowances to Tuition and Other Fee Revenues by Public Institutions of Higher Education*.

Under the GAAP hierarchy established by the Governmental Accounting Standards Board (GASB), this Advisory is not considered to be authoritative guidance. In other words, it does not establish GAAP in and of itself. Rather, it presents practice guidance for public institutions to consider when interpreting and applying certain reporting provisions of GASB Statements 34 and 35.

The primary conclusions of the Advisory are:

- The Alternate Method of calculating the estimated discount, as presented in NACUBO Advisory 2000-05, is no longer endorsed by NACUBO.
- Any methodology used to determine the amount of institutional aid (tuition and fee and auxiliary discounts) reported in the financial statements should be rooted in business rules that operationalize the institution’s financial aid award policies.¹
- Methodologies should be consistent with both (1) current GASB revenue and expense guidance, and (2) anticipated changes to GASB’s revenue and expense guidance.

Background

How We Got Here

Before 2000, public institution financial statements were fund focused. The fund statements were concerned primarily with the assets, liabilities, and fund balance of each fund, and the activity statements showed the components of the change in fund balance on a gross basis. That is, if a class of transactions increased fund balance, it was reported as a revenue; if fund balance decreased, the class of transactions was reported as an expense.

In this approach, financial statement “geography” (where a class of transactions is reported) was not important. Tuition and fees were reported as revenues, while student financial aid applied to student balances was reported as an expense. Geography made no difference to

¹ For purposes of this Advisory, “institutional aid” includes scholarships paid from institutional funds, Pell Grants, and any other student aid which must be allocated between the discount and financial aid expense. Discounts lower a student’s real cost. Although loans are a form of student aid, students must repay them, thus, loan funds applied against a student’s account are effectively a payment from the student.

the bottom line – change in fund balance. There was no compelling reason to present revenues net of discounts, or any other contra-revenues.

In June 1999, GASB issued Statement No. 34, *Basic Financial Statements – and Management’s Discussion and Analysis – for State and Local Governments*. This was followed in November 1999 by Statement No. 35, *Basic Financial Statements – and Management’s Discussion and Analysis – for Public Colleges and Universities*. Statement No. 35 brings public institutions into the scope of Statement No. 34.

The major impact of these statements on public institutions’ financial statements was that fund accounting and reporting, for the most part, was no longer appropriate. Instead, except in specific situations, public institutions were required to report as special purpose governments engaged only in business-type activities (BTA). Among other things, this had the effect of shifting the focus from fund balance to institution-wide activities.

Footnote 41 of Statement No. 34 set out a new requirement to present revenues net of discounts and allowances on the Statement of Revenues, Expenses, and Changes in Net Assets (later retitled Statement of Revenues, Expenses, and Changes in Net Position (SRECNP)). Thus, geography became important.

In response, NACUBO issued [Advisory Report 2000-05, Accounting and Reporting Scholarship Discounts and Allowances to Tuition and Other Fee Revenues by Public Institutions of Higher Education](#) (Advisory 2000-05). Advisory 2000-05 sets out much of the conceptual and explanatory material related to the discount. It also presents some 24 examples of accounting for and reporting the discount.

The provided examples were for specific student cases when, in practice, according to Advisory 2000-05, “most institutions do not post their financial aid on a case-by-case basis.” Further, when aid is applied *en masse* and/or different types of aid are applied on different dates, determination of the discount is dependent on the order in which the institution applies the aid to the student account.

For example, assume a student pays the balance in full, then has a Pell grant posted two days later. Looking at the individual transactions “in real time,” this would result in no discount, and the payment of the Pell grant to the student would be an expense. But if the student’s payment arrived the day after the Pell grant posted, some or all of the Pell grant would be treated as a discount. There would be different financial reporting of the discount, ***even though the substance of the transactions is the same.***

Thus, it is impractical and potentially misleading to determine the discount in real time, as Advisory 2000-05’s examples seem to suggest. In recognition of this, Advisory 2000-05 presented an “Alternate Method” that allocates institutional aid between the discount and student aid expense on a proportional basis.

In practice, the Alternate Method was implemented by almost all public institutions for two main reasons. First, the student and/or general ledger systems used at the time did not track institutional aid in sufficient detail to allow specific application of the aid to revenue discounts or student aid expense. Second, the Alternate Method was a practical expedient presented in a

paper that “represents preferred industry practice, and...should be followed by all public [institutions].”² It was easier, and it was GAAP.

Why We Need to Change

The Alternate Method calculates the discount amount by subtracting the amount reported as student aid expense from total institutional aid. Because total institutional aid is derived from a scholarship expense calculation that includes *all* possible disbursements to students – including campus-provided student loans, credit hour adjustment refunds, and other items that by nature would not be considered a discount – the methodology results in a less accurate estimate.

Expense calculation issues

The calculation of student aid expense in the Alternate Method treats all student refund sources equally – institutional grants, waiver status changes, partial withdrawal refunds, Pell grants and other federal and state aid programs, external grants, loans, and third-party payments. Not all these items would be classified as expenses. **This results in the calculated expense being inflated. Because the Alternate Method “backs into” the discount, by subtracting a derived expense from total aid, this overstated expense estimate causes the discount to be correspondingly understated.**

Aid (discount) allocation distortion

The already understated discount is then allocated on a pro rata basis between tuition and fees and auxiliary revenues (based on total revenues or total charges). Such an allocation does not consider the institution’s policy for awarding aid. For example, the majority of institutional aid is – explicitly or implicitly – allocated to tuition and fees. Any remaining aid is then allocated to housing, board, and other charges. When aid is assumed to apply equally to all charges, then allocated between tuition and fees and room and board on a pro rata basis, the discount allocated to non-tuition items is misleading, because most students – except those with the highest need (or Division I athletes) – do not receive aid explicitly allocated to room and board.

Better estimates are possible

Today’s student information systems are more capable of matching student aid with student charges – using ordering rules for applying aid that are based on institutional policy – and associating aid with the academic term and applicable additional charges and adjustments. The student account shows the individual charges and payments to some degree of detail. Therefore, it is reasonable to expect that data elements needed to calculate the discount reside in the student information system and can be aggregated for discount calculation purposes.

Issues With Student System Transactions. Institutions have informed NACUBO that because multiple transactions are generated whenever charges are posted, payments are made, and payments are unapplied and re-applied, it can be impractical to analyze the plethora of student account **transactions**.

Net Transaction Results. Although approaching a discount analysis based on individual transaction details presents a challenge, for purposes of estimating (calculating) the discount, *net* transaction results reflected in the student account balance can be used. When using a net

² NACUBO Advisory Report 2000-05, page 1

transaction approach, institutions' aid awarding policies should be used to create business rules that can be applied to student account balance results.

Anticipated changes to GASB revenue recognition guidance

Although any changes to existing GASB revenue recognition guidance are several years away, changes to the discount calculation methodology should be robust enough to be acceptable under both existing and anticipated GASB guidance.

In June 2020, GASB issued a preliminary views document (PVD) entitled *Revenue and Expense Recognition*. For purposes of discount calculation, the most important consideration is that the PVD would require revenue to reflect the actual agreement institutions enter into with their students. Put another way, institutions should recognize revenue based on how charges and payments flow through the student account, which is based on institutional policies and procedures.

* * * * *

For the reasons noted above, NACUBO concludes there are better, more accurate ways to estimate the discount than the Alternate Method.

The Alternate Method results in a less accurate estimate of the discount and a less accurate allocation between tuition and fees and auxiliary revenue. It also does not reflect the agreement with students. The remainder of this Advisory presents a conceptual framework that institutions can use to establish appropriate methodologies for calculating the discount. Some example calculation models are presented at the end of the Advisory.



NACUBO makes no specific recommendations about which calculation methodology institutions should use, nor does it continue to endorse prior practice. Institutions must develop a method that fits their specific circumstances and adheres to the conceptual framework presented below.

Conceptual Framework

The framework presented below provides a conceptual basis for the discount calculation methodology. Institutions should make appropriate modifications to reflect specific institutional aid policies and local circumstances, e.g., third party payments limited to tuition and fees, outside aid not refundable to the student, etc.

Further, this framework decouples the discount calculation from the underlying SIS processes of unapplying and applying payments against specific charges based on SIS rules. The discount is based on an after-the-fact analysis based on the substance of the agreement with the student, not on the mechanics of applying payments to charges in real time. The purpose of taking this after-the-fact approach is to avoid a situation where the timing of posting transactions skews the financial reporting results in ways that do not reflect the substance of the student aid awards and potentially creates inconsistent results, either from one student to the next or from one reporting period to the next.

The results of this after-the-fact analysis become the basis for allocating institutional aid among tuition and fees discount, auxiliary revenue discount, and student aid expense across

the entire portfolio of student aid. While this is still an estimate, this portfolio approach – grounded in a snapshot of current student charges and institutional aid data for the reporting period – provides a sound basis and more accurate representation for financial reporting purposes.

Although it is possible to calculate the discount very accurately using student account transaction information, the benefit of a more accurate number likely does not outweigh the cost of calculation. That said, a greater degree of accuracy may be required for other external reporting purposes. If those amounts can be reliably determined in time to be used for financial statement preparation, NACUBO encourages institutions to utilize them in their discount calculation to the extent practicable.

What is the “discount”?

In higher education the term “discount” means the reduction of stated tuition rates (“sticker price”) to a net price actually paid by the student. Institutional aid (from resources such as endowment funds, contributions, reserves, and other undesignated institutional resources) are considered institutional grants that reduce what students pay for college. For many independent institutions, the discount is a metric related to competitive enrollment strategies. The NACUBO *Tuition Discounting Study* and other analyses deal with this connotation of “discount.”

Public institutions, however, have not traditionally competed using net price to the same extent as independent institutions. Although tuition discounting has not been extensively studied, public institutions have self-reported increased aid to students.

The table below shows where different aid types are reported for public and independent institutions. The aid types above cells shaded in aqua are those included in the discount. (Note: the source of institutional funds can be endowments, contributions, any funding source for which the institution selects the students who receive aid, institutional reserves, and other undesignated resources.).

Table 1

	Institutional Funds	Pell Grants	Loans
Public institutions	Statement of Revenues, Expenses, and Changes in Net Position		Statement of Net Position
Independent institutions	Statement of Activities	Statement of Financial Position	

The key difference is that publics must report Pell grants (and similar items, per GASB) as revenues, whereas independents treat them as agency transactions. For this reason, “discount” for publics is a broader term, and is defined for purposes of this Advisory as:

Amounts awarded by institutions to students that reduce their out-of-pocket costs for tuition and fees and/or auxiliary services costs (such as residential services).

Using this definition, loans (whether institutional or direct lending) are excluded from the discount calculation. This is because loans must be repaid, and thus do not reduce amounts students pay for college.

Base assumptions

Four critical base assumptions underlie this framework:

1. The institution's student information system (SIS) tracks student charges and aid in sufficient detail to allow accumulation of data elements needed to calculate the discount;
2. The discount calculation reflects the institutional financial aid awarding policy;
3. Institutional aid is applied to the student account before any other payments; and
4. Individual student account activity is aggregated for the calculation period.

It is also important to note that the framework calculates and allocates the discount directly; the amount of student aid expense is a residual amount. That is, the reported expense is the amount of institutional aid remaining after the discount.

Data elements

Because the objective of any discount calculation methodology is to allocate institutional aid between revenue discounts and student aid expense, it is important to extract individual student data at the appropriate level of detail. At a minimum, the data elements should include:

- Total institutional aid awarded (i.e., credited to student accounts);
- Institutional aid **required** to be used for room, board, books, and any other student charges from the institution's auxiliary operations;
- Tuition and fee charges; and
- Auxiliary operation charges.

Because the discount is reported in the financial statements, the data elements should be collected on a fiscal year basis rather than an academic or aid year basis. There likely will be some student account transactions during a fiscal year that apply to an academic term not in that fiscal year.

For example, after the end of the fiscal year, a student may receive aid that relates to the spring term of the previous fiscal year. The aggregate amount of such transactions will normally be immaterial to the discount and expense reported in both years. Accordingly, the date of the transaction – not the academic term to which it applies – determines the fiscal year in which the transaction is reflected in the financial statements.

For many institutions, their fiscal year end falls in the middle of the summer academic term. To determine how much of the discount should be apportioned to each fiscal year, **the institution should generally use the same methodology used to apportion the related tuition revenue**. Note, however, that because tuition/fees and financial aid may be posted to the student account at different times, it is important to ensure that the apportionment of the discount reflects the underlying agreement with the student, as discussed in the following section.

Underlying business process

Considering the anticipated change in GASB’s revenue recognition guidance, any methodology must reflect the underlying agreement – the institution provides educational services in exchange for payment – between the institution and the student. The financial manifestation of that agreement is student account activity.

Note: Tuition remission granted to employees and/or dependents is an employee benefit, part of the employee’s compensation agreement. As such, amounts recorded for tuition remission should be included in benefits expense and are excluded from the analyses of discounts and financial aid expense described in this Advisory.

Thus, the data elements noted above are captured from the SIS, not the institution’s general ledger system. Depending on the general ledger configuration, postings in the general ledger which originate in the SIS typically are either too detailed or too summarized to be useful in the calculation.

The flowcharts on the following pages reflect these base assumptions. They present a high-level logical flow of institutional aid through the student account to the financial statements. Some terminology used in the flowcharts and the discussion below:

Allocated aid	The lesser of (1) the amount of aid available to cover charges, or (2) the amount of those charges.
Auxiliary aid (“Aux Aid”)	Student aid that is <i>required</i> to be allocated to auxiliary charges on the student account. In other words, the terms of the aid stipulate that it must be applied to auxiliary charges (e.g., athletes’ room and board scholarships).
Excess aid	Aid remaining after applicable charges have been covered. For example, if a student has \$1,000 of tuition and fee charges and \$1,200 of aid allocated to those charges, the excess aid is \$200. Excess aid is then allocated to other charges or disbursed to the student, as appropriate.
Other aid (“Other Aid”)	Institutional aid other than Aux Aid.
Student aid expense	The amount of institutional aid disbursed to the student after tuition and fees and any auxiliary charges are covered.



This Advisory uses the term “allocated to” to indicate that the methodology uses institutional aid to cover certain student charges. This is done to avoid confusing the estimation process with the operational SIS process of applying/unapplying payments to student charges.

The logical flows shown below should be expanded or modified as needed. For example, if the institution wants to allocate aid as discounts to individual auxiliary operations, it can add additional if/then logic to the flow.

Allocation of payments

To simplify the calculation, the framework assumes that institutional aid is allocated to student charges before any other payment types, such as cash payments, loans, or third-party payments. This is a critical assumption, because it implies that refunds to students are composed primarily of non-institutional aid and payments. If an institution's methodology starts with refunds and works backwards to the discount and expense amounts, it is equally important to establish an accounting policy that specifies the order of allocation of payments.

Aggregation

Due to the sheer volume of transactions generated by an SIS, it is impractical to analyze each individual transaction and calculate the discount "on the fly". Aggregating the transactions for a specified period of time essentially removes the "noise" caused by the mechanics of the application of payment rules to the daily student account activity. Because student account transactions are aggregated, the amounts of institutional aid apportioned between tuition and fees and auxiliary operations are estimates, albeit relatively precise ones.

Proof of Basic Concept

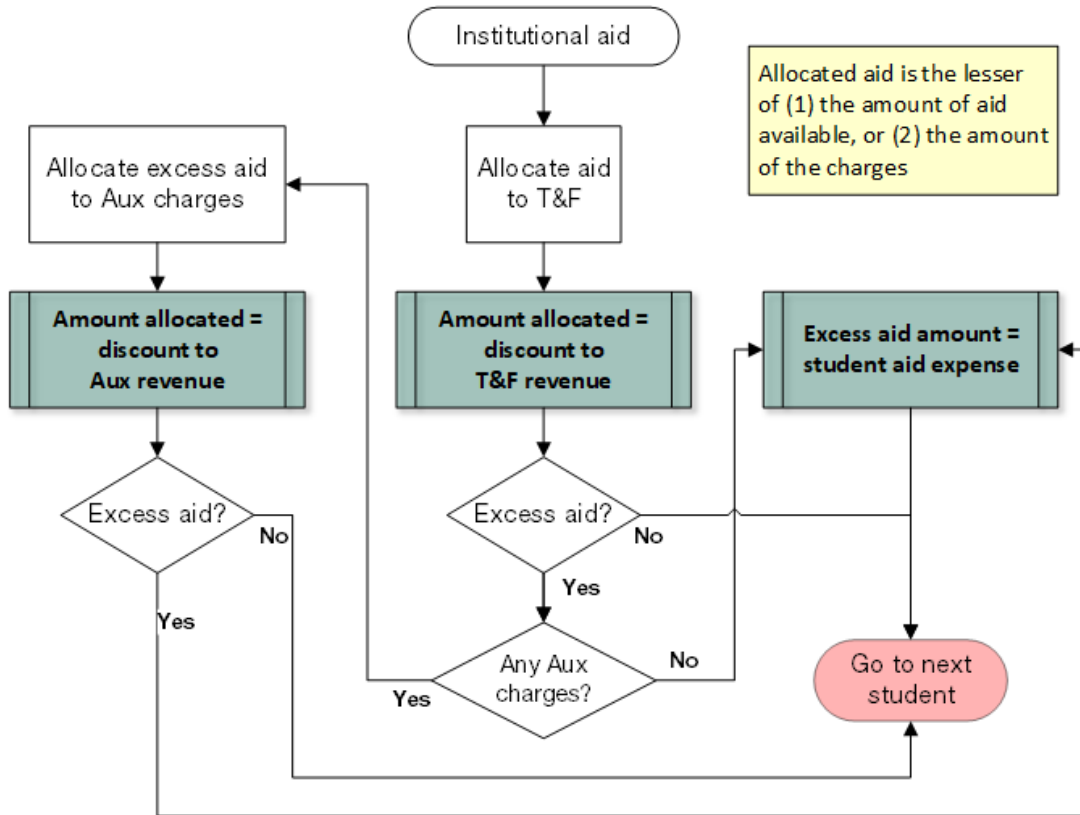
This example serves to present the basic estimation concept. In this proof of concept, all institutional aid is in a single bucket. That is, either the institution does not have awards explicitly required to be used for auxiliary charges, or its SIS does not have the capability of aggregating institutional aid into more than one bucket.

If the institution has the capability to aggregate its institutional aid awards into two buckets—one for Aux Aid and one for other institutional aid—NACUBO suggests expanding the methodology to incorporate both buckets. Methods A and B presented later in this Advisory are examples of such a two-bucket approach.

Flowchart 1 – the "basic" version

This flowchart illustrates the basic logic flow. Institutional aid is allocated to tuition and fee charges first, then to any auxiliary charges (room and board, for example). Any excess aid is reported as student aid expense.

Allocation of Institutional Aid to Discount and Expense – Basic Version



For simplicity, if a student’s institutional aid amount is negative, indicating that a previous period’s aid was reduced in the current period, the negative amount reduces the tuition and fee discount. Likewise, if a student received a previous period’s aid in the current period – and the student has no current period charges – the aid is reported as student aid expense.

Table 2 – Detail by Student by Term, Proof of Concept

Student Term	Total institutional aid	Aid Allocated to T&F		Aid Allocated to Aux		Student Aid Expense	
		T&F charges	Aid allocated to T&F (discount)	Aid available for Aux discount	Aux charges	Aid allocated to Aux (discount)	Excess aid
	A	B	C = Lesser of A or B	D = A - C	E	F = Lesser of D or E	G = D - F
<i>[Multiple rows hidden for presentation purposes]</i>							
13 1	-	1,225.00	-	-	-	-	-
20 1	3,098.00	3,655.00	3,098.00	-	-	-	-
20 2	3,097.00	3,655.00	3,097.00	-	-	-	-
23 1	(761.00)	-	(761.00)	-	-	-	-
97 1	500.00	-	-	500.00	-	-	500.00
97 2	200.00	1,161.00	200.00	-	-	-	-
149 1	10,186.50	10,162.00	10,162.00	24.50	-	-	24.50
149 2	10,187.50	11,720.00	10,187.50	-	-	-	-
1134 1	8,500.00	9,383.00	8,500.00	-	3,490.50	-	-
1134 2	8,500.00	9,383.00	8,500.00	-	1,847.33	-	-
2566 1	5,673.00	3,655.00	3,655.00	2,018.00	4,808.50	2,018.00	-
2969 2	8,280.50	3,955.00	3,955.00	4,325.50	2,074.08	2,074.08	2,251.42
10021 2	955.00	955.00	955.00	-	-	-	-
	19,806,538.44	63,376,955.50	18,323,570.64	1,482,967.80	5,664,860.62	211,464.14	1,271,503.66

Each of the orange cells in Table 2 above represents one of the data elements that needs to be extracted from the institution’s SIS. The red text shows how the values in each column are calculated for each student, following the logic flow presented in Flowchart 1. The bold totals at the bottom of the table are the sums of the individual student amounts in each column.

Example Calculation Methods

The remainder of this Advisory presents four example calculation methods. Conceptually, NACUBO believes the “detail by student” methods are most appropriate. The four methods are:

- A. Detail by student, by term
- B. Detail by student, by fiscal year;
- C. High-level estimation, data aggregated for the institution for the entire fiscal year; and
- D. Adjusted refunds for the entire fiscal year.

These examples are for illustrative purposes only and are not intended to be prescriptive. Institutions will need to tailor these methods, or develop other methods, to appropriately reflect their specific facts and circumstances. In each of the examples, institutional aid is assumed to be allocated first.



Example data set. The data set used in the following examples is derived from actual student data for a single fiscal year. It reflects headcount enrollment of less than 7,000 students, and 10,021 unique students for the

fiscal year.³ This data set was extracted from a file (the “original data file”) showing all student account postings for the fiscal year; this file contains roughly 129,660 records.

Excel pivot tables were used to create tables with one row per student/term combination. The pivot table grouped the required data elements for each row. Each method presented below utilizes this data set. While these examples were created in Excel, it is also possible to extract data from the institution’s SIS at the requested level of detail with aggregated information on charges and aid, as well as calculated columns to automate and streamline the analysis. The full logic is described here to aid in understanding of the various methods.

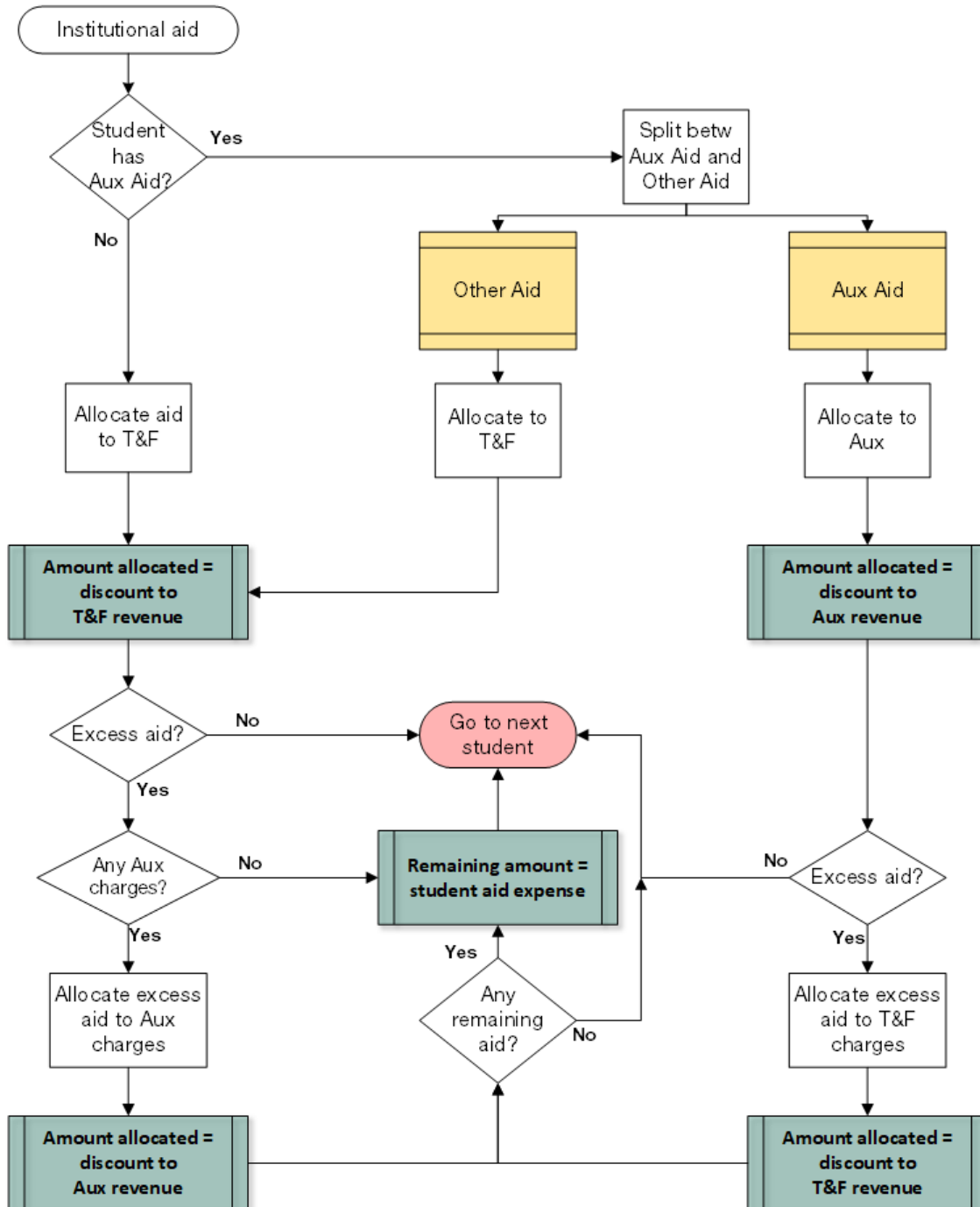
A more accurate estimation is possible when data is aggregated by term. However, the volume of data that would result may make a by-term calculation difficult or impractical, especially for large institutions.

³ This seeming discrepancy is the result of “churn” in the student population. Although over 10,000 individual students were enrolled at some point during the fiscal year, no more than 7,000 were enrolled for any one term.

Flowchart 2 – the “expanded” version

When a student receives Aux Aid, the logic flow splits into two branches, one for the student’s Aux Aid, and one for any Other Aid awarded to the student.

Allocation of Institutional Aid to Discount and Expense – Expanded Version



Method A – Detail by student, by term

This method, because it is based on more detailed data than the other methods, yields a more accurate estimate of the discount. Each of the orange cells in Table A below represents one of the data elements that needs to be extracted from the institution’s SIS. The other cells are calculated values, following the logic flow in Flowchart B.

Table A – Detail by Student by Term

Student Term	Institutional Aid		Aid Allocated to T&F			Aid Allocated to Aux			Student Aid Expense	
	Total institutional aid	Aux Aid	Other Aid available for T&F discount	T&F charges	Other Aid allocated to T&F (discount)	Other Aid available for Aux discount	Aux Aid	Aux charges	Aid allocated to Aux (discount)	Excess aid
	A	B	C = A - B	D	E = Lesser of C or D	F = C - E	= B	G	H = Lesser of G or (F + B)	I = F + B - H
<i>[Multiple rows hidden for presentation purposes]</i>										
13 1	-	-	-	1,225.00	-	-	-	-	-	-
20 1	3,098.00	-	3,098.00	3,655.00	3,098.00	-	-	-	-	-
20 2	3,097.00	-	3,097.00	3,655.00	3,097.00	-	-	-	-	-
23 1	(761.00)	-	(761.00)	-	(761.00)	-	-	-	-	-
97 1	500.00	-	500.00	-	-	500.00	-	-	-	500.00
97 2	200.00	-	200.00	1,161.00	200.00	-	-	-	-	-
149 1	10,186.50	-	10,186.50	10,162.00	10,162.00	24.50	-	-	-	24.50
149 2	10,187.50	-	10,187.50	11,720.00	10,187.50	-	-	-	-	-
1134 1	8,500.00	3,200.00	5,300.00	9,383.00	5,300.00	-	3,200.00	3,490.50	3,200.00	-
1134 2	8,500.00	1,600.00	6,900.00	9,383.00	6,900.00	-	1,600.00	1,847.33	1,600.00	-
2566 1	5,673.00	2,000.00	3,673.00	3,655.00	3,655.00	18.00	2,000.00	4,808.50	2,018.00	-
2969 2	8,280.50	2,074.08	6,206.42	3,955.00	3,955.00	2,251.42	2,074.08	2,074.08	2,074.08	2,251.42
10021 2	955.00	-	955.00	955.00	955.00	-	-	-	-	-
19,806,538.44 204,442.37 19,602,096.07 63,376,955.50 18,137,956.83 1,464,139.24 204,442.37 5,664,860.62 392,713.22 1,275,868.39										

The red text shows how the values in each column are calculated for each student; the bold totals at the bottom of the table are the sums of the individual student amounts in each column.



It is critical to understand the underlying business processes when extracting data by term, and to make appropriate adjustments. In the example data set, the initial assessment of tuition and fees for the spring term took place in December. Left unadjusted, this would have understated the discount and overstated excess aid, due to timing differences between when spring charges were posted (December) and when spring aid was posted (January). Such timing differences should be addressed by ensuring that charges and the related aid are included in the same period for calculation purposes.

Method B – Detail by student, by FY

This method is identical to Method A, except it aggregates the student data elements over a fiscal year. When fiscal year aggregation is used, some noise is introduced. For example, if a student receives a new institutional aid award in the second term, Method B ends up allocating some of that new award to first term charges, even if that new award is fully paid to the student as excess aid in the second term. In other words, Method B allocates more institutional aid to the tuition and fee discount than Method A.

Table B1 below uses the same example data set and data elements as the Method A example. The only difference is the period of aggregation, i.e., term-based for Method A rather than fiscal year-based for Method B.

Institutions participating in NCAA Division I athletics provide significant room and board scholarships to student-athletes. In addition, high-need students sometimes receive awards to be used specifically for room and board, books, or other auxiliary charges. Both situations introduce Aux Aid into the discount estimation methodology, and the logical flow must be modified accordingly.

In Method B, the institution has identified all institutional aid that is required to be used for auxiliary charges. Aux Aid is “carved out” of institutional aid before the allocation to tuition and fees is calculated. The amount available to be allocated to auxiliary revenues is thus the sum of (1) aid remaining after the allocation to tuition and fees, and (2) Aux Aid. Flowchart 2 illustrates this expanded logical flow.

Table B1 – Detail by Student by Year

Student	Institutional Aid		Aid Applied to T&F			Aid Applied to Aux				Student Aid Expense
	Total institutional aid	Aux Aid	Other Aid associated for T&F discount	T&F charges	Other Aid associated to T&F (discount)	Other Aid available for Aux discount	Aux Aid	Aux charges	Aid associated to Aux (discount)	Excess aid
	A	B	C = A - B	D	E = Lesser of C or D	F = C - E	= B	G	H = Lesser of G or (F + B)	I = F + B - H
13	-	-	-	1,225.00	-	-	-	-	-	-
20	6,195.00	-	6,195.00	7,310.00	6,195.00	-	-	-	-	-
23	(761.00)	-	(761.00)	-	(761.00)	-	-	-	-	-
97	700.00	-	700.00	1,161.00	700.00	-	-	-	-	-
149	20,374.00	-	20,374.00	21,882.00	20,374.00	-	-	-	-	-
1134	17,000.00	4,800.00	12,200.00	18,766.00	12,200.00	-	4,800.00	5,337.83	4,800.00	-
2566	5,673.00	2,000.00	3,673.00	3,655.00	3,655.00	18.00	2,000.00	4,808.50	2,018.00	-
2969	17,061.00	6,074.08	10,986.92	9,410.00	9,410.00	1,576.92	6,074.08	6,882.58	6,882.58	768.42
10021	955.00	-	955.00	955.00	955.00	-	-	-	-	-
	19,806,538.44	204,442.37	19,602,096.07	63,376,955.50	18,355,015.08	1,247,080.99	204,442.37	5,664,860.62	384,676.13	1,066,847.23

Method B is less precise than Method A, because it is based on data aggregated for an entire fiscal year. However, for institutions that do not split charges or aid equally across all academic terms (for example, if housing is charged on an annual basis, or aid is awarded for the full academic year rather than by specific term), Method B may be more appropriate.

Table B2: Comparison of Methods A and B

	Total Institutional Aid	Tuition and Fee Discount	Auxiliary Discount	Financial Aid Expense
Method A	\$19,806,538	\$18,137,957	\$392,713	\$1,275,868
Method B	\$19,806,538	\$18,355,015	\$384,676	\$1,066,847

For this particular data set, which has similar aid patterns for fall and spring terms, the two methods yield similar results. When this is the case, Method B is an acceptable streamlined

alternative because the results are not materially different from those of the more precise Method A.

Method C – High-level estimation, by FY

This method seeks to address the identified problems with the existing Alternate Method, while retaining the benefit of using aggregated institution-level data rather than detailed student data. It does this by making explicit assumptions about the order in which payments are associated to student accounts:

1. The majority of institutional aid, if it were directly identified, would reduce tuition and fee revenue. Room and board discounts are generally immaterial.
2. Refunds consist primarily of loan proceeds disbursed to students to cover living expenses. If total refunds are greater than loan disbursements, the excess is reported as expense.
3. If total room and board revenues are comparable to, or exceed, gross tuition and fee revenue, a portion of the discount should be allocated to auxiliary revenues.

However, the relationship between the calculation and the underlying business processes is not as explicit as Methods A and B. This method introduces a second level of aggregation into the calculation, which results in even more noise in the calculation. Accordingly, Method C is not as conceptually preferable as Methods A and B.

The examples below use the same example student information used for Methods A and B.

Table C1: High-Level Estimation by Fiscal Year (Method C1)

	Total	T&F Discount	Aux Discount	Expense
1 Total institutional aid	19,806,538			
2 Allocation based on institutional policy re: application of payments	(19,806,538)	19,806,538		-
3 Total discount before allocation to auxiliary		19,806,538	-	-
4 Discount allocated to auxiliary		-	-	
Total		19,806,538	-	-
5 Total charges		63,782,948	5,664,861	

In this example, the entire amount of institutional aid (line 1) is allocated to the tuition and fee discount (line 2). There would be no excess aid reported as financial aid expense.

Method C1 does not capture athletic room and board scholarships or any other Aux Aid. If the institution awards significant room and board scholarships (e.g., if the institution competes in NCAA Division I athletics), Method C1 understates the auxiliary discount. To address this shortcoming, the institution can compile room and board awards for student-athletes and move those awards from the tuition and fee discount to the auxiliary discount. In this case, it is critical to include as discount only those room and board awards that are allocated to auxiliary charges. Any room and board awards paid directly to the student (to cover off-campus housing, for example) should be reported as student aid expense.

The following example includes \$204,442 of institutional athletic room and board scholarships used to cover auxiliary charges for housing and meal plans:

Table C2: High-Level Estimation by Fiscal Year – Practical Expedient (Method C2)

	Total	T&F Discount	Aux Discount	Expense
1 Total institutional aid	19,806,538			
2 Allocation based on institutional policy re: application of payments	(19,806,538)	19,806,538		-
3 Total discount before allocation to auxiliary		19,806,538	-	-
4 Discount allocated to auxiliary - athlete R&B		(204,442)	204,442	
Total		19,602,096	204,442	-
5 Total charges		63,782,948	5,664,861	

The inclusion of the room and board scholarships (line 4) as auxiliary discount makes Method C2 more conceptually appropriate. Because the data is aggregated at the institutional level rather than by student, financial aid expense is almost certainly understated to some degree. The institution must analyze institutional aid and/or refunds to ensure that this understatement is not material.

Method D – Adjusted refunds, by FY

Each of the previous three methods calculates the discount directly, using a “forward flow” concept. That is, they begin with total institutional aid (at the applicable level of aggregation) and allocate discount among tuition and fee revenue and auxiliary revenue. The portion of institutional aid included in financial aid expense is simply whatever is left after the allocation.

Method D uses a “backward flow” approach, starting with *total refunds issued to students who received institutional aid*. Total refunds are adjusted to remove non-institutional aid payments (loans, cash payments, etc.). As with Method C, a critical assumption is that refunds are assumed to be mainly the result of loan proceeds disbursed to students to cover living expenses.

Method D requires the following data elements *for students who received institutional aid*:

1. Total institutional aid received;
2. Institutional aid required to be used for room, board, books, and any other student charges from the institution’s auxiliary operations;
3. Tuition and fee charges;
4. Auxiliary operation charges;
5. Total refunds;
6. Total student loans; and
7. Total cash payments

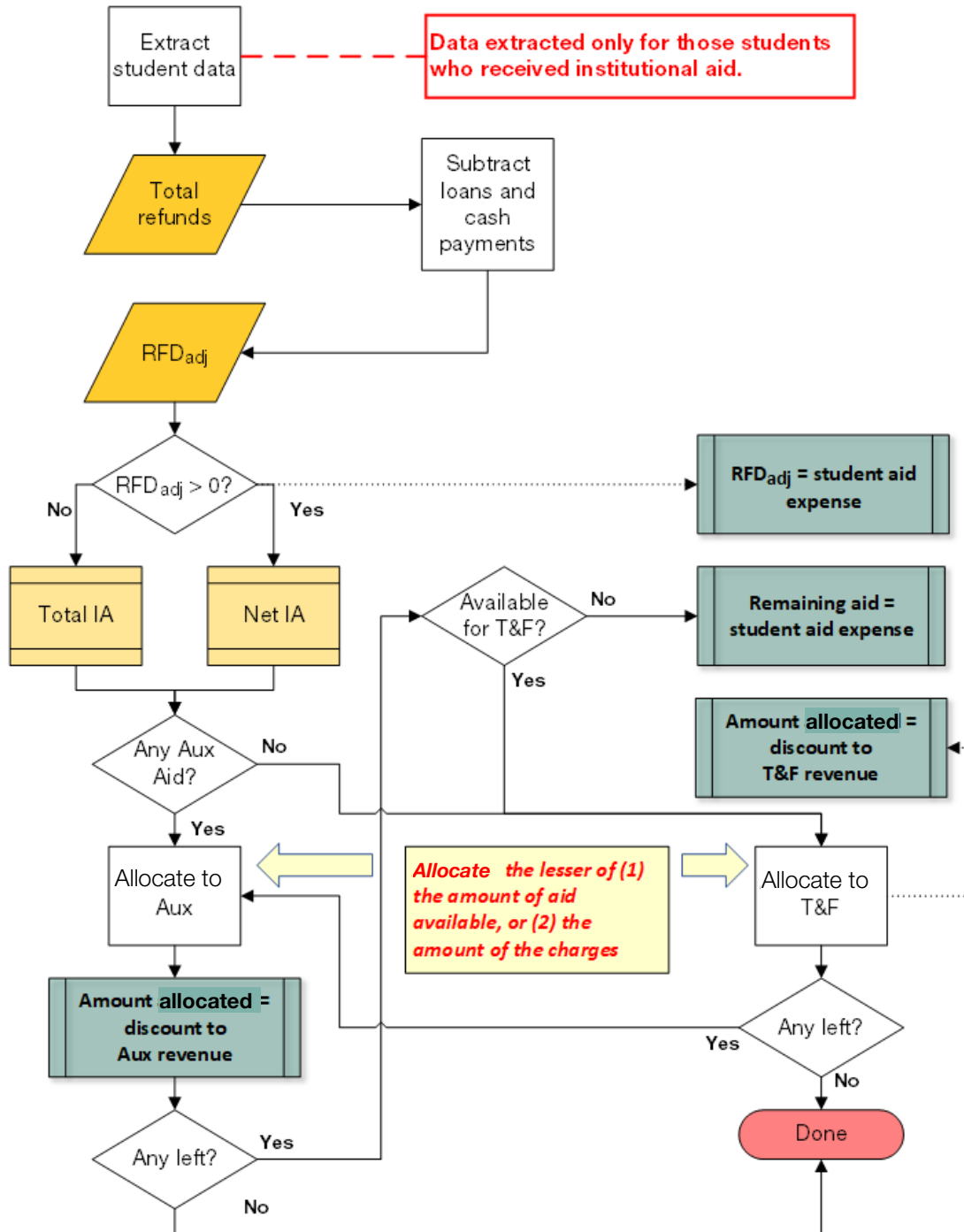
These data elements are not examined on a student-by-student basis. Rather, they are aggregated at the institution level. This method *must* start with this subset of students because the amount of loans for all students will greatly exceed the amount of refunds issued. This would result in institutional aid being allocated entirely to discount.

Flowchart 3 below depicts the logical flow of Method D. Once the amount of adjusted refunds is determined, the allocation flow is essentially the same as that presented earlier in this Advisory. For simplicity and readability, the following abbreviations and definitions are used in the chart:

- IA – total institutional aid
- RFD_{adj} – this is equal to total refunds minus the sum of student loans and cash payments.
- Net IA – total institutional aid less RFD_{adj}

Flowchart 3

Allocation of Institutional Aid to Discount and Expense – Method D



Here are two examples of Method D, both using the same data set used in the previous examples.

Table D1: RFD_{adj} is negative

	Total	T&F Discount	Aux Discount	Expense
1 Total refunds to students receiving institutional aid	15,084,706			
2 Less: payments via loans and cash	(30,293,988)			
3 RFD_{adj}	(15,209,282)	-	-	-
4 Total institutional aid to be allocated	19,806,538			
5 Aux Aid - athletes' room and board	(204,442)		204,442	
6 Discount allocated to tuition and fees	(19,602,096)	19,602,096		
Total		19,602,096	204,442	-
7 Total charges		63,782,948	5,664,861	

Because loans and cash payments made by students who received institutional aid (line 2) exceed the amount of refunds received by those students (line 1), none of their institutional aid is allocated to expense. Of the institutional aid those students received, \$204,442 is allocated to the auxiliary discount (line 5), because that aid is limited to auxiliary charges. The remaining institutional aid is allocated to the tuition and fee discount.

Table D2: RFD_{adj} is positive

In this table, we assume that student loans and cash payments are \$17 million less than the amount shown in Table D1.

	Total	T&F Discount	Aux Discount	Expense
1 Total refunds to students receiving institutional aid	15,084,706			
2 Less: payments via loans and cash	(13,293,988)			
3 RFD_{adj}	1,790,718	-	-	-
4 Institutional aid allocated to expense	-			1,790,718
5 Total net institutional aid to be allocated	18,015,820			
6 Aux Aid - athletes' room and board	(204,442)		204,442	
7 Discount available for tuition and fees	17,811,378	-	204,442	1,790,718
8 Discount allocated to tuition and fees	(17,811,378)	17,811,378		
Total		17,811,378	204,442	1,790,718
9 Total charges		63,782,948	5,664,861	

Refunds (line 1) exceed loan and cash payments (line 2), which means a portion of the refunds is generated by institutional aid. RFD_{adj} (line 3) is allocated to student aid expense (line 4). Net institutional aid (line 5), that is, total institutional aid less RFD_{adj} , is allocated as discount. Allocation of net institutional aid between tuition and fee discount and auxiliary discount follows the same logic as in Table D1.

For both examples, it is important to note that the amount of aid being allocated to the tuition and fee discount cannot exceed the total tuition and fee charges. Any excess is allocated first to the auxiliary discount, then to expense if necessary.

Table E: Comparison of All Methods

	Total Institutional Aid	Tuition and Fee Discount	Auxiliary Discount	Financial Aid Expense
Method A	\$19,806,538	\$18,137,957	\$392,713	\$1,275,868
Method B	\$19,806,538	\$18,355,015	\$384,676	\$1,066,847
Method C2	\$19,806,538	\$19,602,096	\$204,442	\$0
Method D1 – negative RFD_{adj}	\$19,806,538	\$19,602,096	\$204,442	\$0
Method D2 – positive RFD_{adj}	\$19,806,538	\$17,811,378	\$204,442	\$1,790,718

As expected, the discount calculations yield different results depending on the method used. The only exception is that Method C2 and Method D1 give the same allocation of institutional aid between discount and expense. This is because in both cases, the total institutional aid is less than the associated tuition and fee (and auxiliary) charges.

The relatively small spreads between these calculations (\$1.79 million for the tuition and fee discount and financial aid expense, \$188,271 for the auxiliary discount) are likely immaterial to the institution's overall financial statements. Thus, institutions have the flexibility to choose a method that best represents their underlying business processes and for which they have data available to prepare the analysis. Again, the four example calculation methods are presented here as non-authoritative practice guidance and are not prescriptive; institutions may also develop their own calculation method following the principles outlined herein.

Are We Throwing Out the Baby with the Bath Water?

One thing we have not examined to this point is the discount and expense amounts calculated for this data set using the Advisory 2000-05 Alternate Method. Clearly, the Alternate Method is not as conceptually acceptable as the methods presented above. But if it yields amounts consistent with those shown in Table E above, is it still acceptable?

To answer this question, we can compare the Alternate Method results with the results of Methods C2 and D1. Each of these methods uses aggregated data rather than detailed student data in the calculation.

Table F: Comparison of Methods C2 and D1 with the Existing Alternate Method

	Total Institutional Aid	Tuition and Fee Discount	Auxiliary Discount	Financial Aid Expense
Methods C2 and D1	\$19,806,538	\$19,602,096	\$204,442	\$0
Existing Alternate Method	\$19,806,538	\$10,374,240	\$927,287	\$8,505,011

This is a hugely significant difference. As we pointed out earlier in this Advisory, the Alternate Method understates the tuition and fee discount, and overstates both the auxiliary discount and financial aid expense. For this particular institution, with \$63.8 million of total tuition and fees before the discount, the discount difference of \$8.5 million (over 13%) between Method C2 and the Alternate Method may very well be considered material to its financial statements.

Note that this large a difference may not be representative of the effects all institutions will see when moving away from the Alternate Method. There are a number of reasons for this, all of which ultimately are driven by the fact that institutions – and their students – are different. For example, a community college with low tuition rates may end up with very little net tuition revenue, while a four-year university in the same location may see a much smaller impact.

Feedback from other institutions indicates that there is an expected difference of 8% to 10% between the Alternate Method and a methodology based on detailed student account activity. Accordingly, although institutions may conclude that the Alternate Method remains appropriate in their specific circumstances, NACUBO no longer endorses the Alternate Method. Instead, NACUBO recommends using a methodology which more appropriately reflects the institution's specific facts and circumstances, such as one of the example methods discussed previously.

Accounting for and Reporting a Change in Discount Estimate Methodology

At the time this Advisory was written (2022), GASB Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*, was the applicable authoritative literature concerning changes in estimates.

If an institution changes its discount calculation methodology for its fiscal year 2023 financial statements, the change is to be applied prospectively (GASB 62, paragraph 83). No additional disclosures are required, although NACUBO recommends that the institution consider making the disclosures noted below when changing from the Alternate Method to another method. In addition, the impact of the change should be discussed with the institution's auditors.

In June 2022, GASB issued Statement No. 100, *Accounting Changes and Error Corrections, an amendment of GASB Statement No. 62*. It is effective for reporting periods beginning after June 15, 2023. The statement still requires prospective implementation, but it also requires the following disclosures in the notes to the financial statements (paragraph 21):

1. The nature of the change in accounting estimate, including identification of the financial statement line items (excluding totals and subtotals) affected.
2. If the change in accounting estimate results from a change in measurement methodology, the reason for the change in measurement methodology, including an explanation of why the new measurement methodology is preferable.

The second disclosure requirement is applicable when the discount calculation methodology is changed.

Conclusions

Several conclusions may be drawn from the information in this Advisory.

First and foremost: NACUBO concludes there are better, more accurate ways to estimate the discount than the Alternate Method presented in Advisory 2000-05.

Second, institutions can estimate the discount using either detailed or aggregated data, as described in the example methods presented.

Third, any methodology to estimate the discount amounts reported in the financial statements should reflect the institution's aid awarding policies, and the flow of institutional financial aid through student accounts should be based on business processes (rules) that support those policies.

Fourth, the methodology used should be consistent with both (1) current Governmental Accounting Standards Board (GASB) revenue and expense guidance, and (2) anticipated changes to GASB's revenue and expense guidance.

Fifth, calculations by student (such as in example Methods A and B) are preferable, because they achieve the most precise estimates. With today's student information systems, it is likely feasible for institutions of all sizes to extract the necessary data elements and perform the relatively simple calculations and allocation.

Sixth, models using highly aggregated data, such as example Methods C and D, are acceptable when the allocation of institutional aid is based on actual circumstances. "Actual circumstances" includes specific identification of institutional aid that can be used only for certain charges, or other similar policies and restrictions that would require adjustment to allocation assumptions.

* * * * *

NACUBO recommends that institutions implement the guidance in this Advisory as soon as practicable, but no later than fiscal year 2025. To help explain what is likely a large change in the affected SRECNP line items, NACUBO further recommends that the institution's management's discussion and analysis point out that the change in methodology has no impact on the change in net position for prior years.