Calculating Key Performance Indicators
Speakers

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Learning Objectives

• Discuss how the resource was developed.

• Calculate and apply MEQ, ADP, & MPLH to achieve financial goals.

• Discover how interactive spreadsheets can be used to analyze financial data.
Essential KPIs for SN Success

- Completed in 2017
- Assistance of 25 SN Professionals
- Straight-forward
- Easy-to-use reference
- Applying KPIs
WHAT ARE KPIs?

• Measures of performance
• Rigorous / Numbers-oriented / Objective
• Provide standards
• Identify where to invest resources
• Track major initiatives
Chapter 1

12 KPIs

• Description
• Why Calculate
• How Often to Calculate
• How to Calculate
• Sample Calculations

• Where to Capture Data
• How to Use
• Industry Standards
• Factors that Influence
• References
Chapter 2

Case Study
- Cover all KPIs
- Shared background

Chapter 3

How to Utilize KPIs
- Benchmarking
- Trend Analysis
- Action Plans
- Communicating KPIs
12 Key Performance Indicators (KPIs)

- Meal Equivalents (MEQ)
- Average Daily Participation
- Revenues
- Expenditures
- Revenue Per Meal Equivalent
- Cost Per Meal Equivalent
- Cost as a Percentage of Revenue
- Break-even Point
- Inventory Turnover Rate
- Meals Per Labor Hour (MPLH)
- Staff Turnover Rate
- Absenteeism Rate
Meal Equivalents

• Meal equivalents (MEQs) are the conversion of different meal services (i.e., breakfast, supper, and snacks) and nonprogram food sales to one federally reimbursable student lunch.
### Meal Equivalents

<table>
<thead>
<tr>
<th>Meal Service</th>
<th>Conversion Factor</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Lunch or 1 Supper (Student or Adult)</td>
<td>= 1.00</td>
<td>All student reimbursable lunches, student reimbursable suppers, and full-paid adult lunches are counted as one MEQ. If a student purchases more than one lunch on a given day, the second lunch is considered non-reimbursable, and is reported as a non-program food sale. The category for reporting is determined by State agency requirements. Lunches eaten by SN employees at no charge are considered “in-kind” meals, and should not be counted as a meal equivalent.</td>
</tr>
<tr>
<td>1 Breakfast</td>
<td>= 0.67</td>
<td>The most common calculation for determining breakfast MEQs specifies that three breakfasts meals count as two MEQs (2÷3=0.67). However, it is important to note that the MEQ ratio used for calculating breakfast MEQs varies from state to state, and SN administrators should check with their State agencies for guidance. Once a ratio is selected, it should remain consistent for the entire reporting period (year) for comparison and benchmarking purposes.</td>
</tr>
</tbody>
</table>
## Meal Equivalents

<table>
<thead>
<tr>
<th>Meal Service</th>
<th>Conversion Factor</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Snack</td>
<td>0.33</td>
<td>National School Lunch Program (NSLP) snacks are served to children and youth in after-school care programs that are eligible for United States Department of Agriculture (USDA) reimbursement. While there are no current research studies to support the meal equivalency ratio, a survey of selected State agencies indicated most states use a 3-to-1 ratio of snacks to MEQs. Using this equivalency, snacks can be converted to MEQs as follows: MEQ = Number of snacks served x conversion factor (1/3 = 0.33).</td>
</tr>
<tr>
<td>Nonprogram Food Sales</td>
<td>= Dollar amount of nonprogram food sales / (current free lunch reimbursement rate / current USDA Food value [which changes annually])</td>
<td>The MEQ calculations for all other SN program categories are based on the annual federal reimbursement rate for a free lunch plus the entitlement USDA Foods value. The same formula would apply for other school nutrition program events, such as catered meals or special school functions. Nonprogram Food Sales = Free lunch reimbursement rate + USDA Foods value</td>
</tr>
</tbody>
</table>
## Activity: Calculating MEQ

<table>
<thead>
<tr>
<th>Meal Categories</th>
<th>Conversion Factors</th>
<th>Meal Equivalents</th>
</tr>
</thead>
<tbody>
<tr>
<td>11,000 student reimbursable breakfasts</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>400 adult non-reimbursable breakfast</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>24,000 student reimbursable lunches</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>700 adult lunches</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>8,000 student reimbursable suppers</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>20,000 after-school snacks</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>$9,000 dollars in non-program food sales</td>
<td>÷</td>
<td></td>
</tr>
<tr>
<td>Total Meal Equivalents</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Average Daily Participation (ADP)

Average daily participation is the average number of student reimbursable meals served in a school nutrition program on a daily basis.
Why Calculate ADP?

Average daily participation can assist you with

➢ Forecasting
➢ Decision making
➢ Informed decisions on labor requirements, food purchasing, and non-food purchasing
➢ Strengthen the program’s resources through cost control
How to Calculate ADP

ADP Breakfast = Number of Breakfasts Served in a Month

= Number of Operating Days in that Month

ADP Lunch = Number of Lunches Served in a Month

= Number of Operating Days in that Month

ADP Supper = Number of Suppers Served in a Month

= Number of Operating Days in that Month
Activity: Calculating ADP

Calculate the ADP using the formulas previously discussed.

ABC School District served
11,400 reimbursable student breakfast,
24,700 reimbursable student lunches, and
14,756 reimbursable student suppers

Operating days: 21
Activity Answer Key

ADP Breakfast  =  21  =  
11,400

ADP Lunch  =  21  =  
24,700

ADP Supper  =  21  =  
14,756
Meal Per Labor Hour (MPLH)

Meals Per Labor Hour (MPLH) is the measure of productivity and production efficiency for school nutrition programs.
Why calculate MPLH?

- Meals Per Labor Hour can help you determine how many employees you need
  or
- How many scheduled hours per employee are needed each day.
How to calculate MPLH

Number of Meals or Meal Equivalents

\[ \text{MPLH} = \frac{\text{Number of Planned Productive Labor Hours}}{\text{Number of Meals or Meal Equivalents}} \]
Easy as 1, 2, 3

Step 1: Calculate total MEQ for the period.

Step 2: Calculate total hours of labor paid monthly, including all SN employees and managers/supervisors.

Step 3: Divide the total MEQ by the total paid labor hours (excluding sick, personal, and holiday pay).
## Activity: Calculating MPLH

**What is the Meals Per Labor Hour?**

41,643 /   =

<table>
<thead>
<tr>
<th>Number of Staff Members That Work the Same Number of Hours Daily</th>
<th>Hours Worked Daily</th>
<th>Total Hours Worked Daily</th>
<th>Days in the Period</th>
<th>Total Staff Hours Planned for the Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>X 7 = 14</td>
<td>X 21 =</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>X 6 = 42</td>
<td>X 21 =</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>X 5 = 35</td>
<td>X 21 =</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>X 3 = 18</td>
<td>X 21 =</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>21 109 X 21 =</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How Many Hours Per Day?

• Decide the desired number of MPLH for the district or school for a month. Example, the desired MPLH is 17.

• Divide the total MEQ by the desired number of MPLH to determine the total labor hours needed per month.

\[
\frac{41,643 \text{ (Total MEQs)}}{17 \text{ (Desired MPLH)}} = 2,449.58 \text{ or } 2,450 \text{ (Total labor hours needed per month)}
\]
# Staffing Reference

## Meals Per Labor Hour for Low and High Productivity

<table>
<thead>
<tr>
<th>Number of Meal Equivalents</th>
<th>Conventional System MPLH</th>
<th>Convenience System MPLH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Up to 100</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>101 – 150</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>151 – 200</td>
<td>10-11</td>
<td>12</td>
</tr>
<tr>
<td>201 – 250</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>251 – 300</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>301 – 400</td>
<td>14</td>
<td>16</td>
</tr>
<tr>
<td>401 – 500</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>501 – 600</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>601 – 700</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>701 – 800</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>801 and up</td>
<td>18</td>
<td>20</td>
</tr>
</tbody>
</table>

ICN Website

• Find the KPI Spreadsheets at the following URL

https://theicn.org/
Tutorial Review

- Content Page
- MEQ
- ADP
- Revenues and Expenditures
- Revenue & Cost Per MEQ

- BEP
- Inventory Turnover Rate
- MPLH
- Staff Turnover Rate
- Absenteeism
Remember

• Do not rely totally on spreadsheets
• Excel Sheets are extremely helpful but there is always room for human error
• Check with your calculator
Professional Standards Code

• This session provides one (1) CEU
  - **Key Area:** Administration-3000
  - **Key Topic:** Calculating KPIs