TARGET-SETTING STRATEGIES AND CONSIDERATIONS

This resource focuses on key considerations for California Community College (CCC) Institutional Research, Planning, and Effectiveness (IRPE) professionals who are leading and/or supporting local planning efforts to set targets for institutional and/or programmatic indicators / metrics.

What is target-setting?

In this resource, we broadly describe target-setting as the process for developing a target or benchmark that reflects the successful achievement of specific goals and objectives. While the performance can be measured and targets set at any level of the institution (e.g., course, department), this resource focuses specifically on institution-level target-setting examples and considerations. Moreover, it is important to note that the process of target-setting is one part of a larger ecosystem of data-informed and evidence-based planning and implementation.

The following are examples where target-setting is planned and expected for institutional effectiveness and improvement purposes:

- ***Accreditation***
- Support of systemwide priorities and goals, such as:
    - ***Vision for Success Goals***
    - ***Student Equity and Achievement Plans***
- Strategic enrollment management
    - ***SCFF***

Targets are established for metrics based on the anticipated level the institution has set for itself in determining whether its goals and objectives will be met. Targets are generally connected to objectives and are usually measured numerically.[1] In other words, targets reflect the desired level of performance, as measured by indicators, that represent the successful achievement of an outcome (aspirational level of achievement based on past information and current vision).

The level of performance for targets can be thought of as being on a continuum – at a minimum, targets should meet the institution-set standards (floor) for related metrics or they can be aspirational (i.e., stretch) on the high end.

Moreover, targets should have the following characteristics:

- Delineates a specific, numerical outcome
- Includes measurable outcome(s)
- Provides a time by when target should be met
- Aligns with goal(s) and objective(s)
- Is achievable

[1] ***Planning Resource Guide, 1997***

Target-setting strategies and methods

There are several methods for setting targets, some that use historical data and others that do not. This resource discusses two common types of strategies:

- Align target with state or district data or goals
- Use historical data to set targets

For each strategy, we provide a concrete example using the data in Table 1 below to illustrate the method(s) that can be used to a set floor (or Institutional-Set Standard) and an aspirational (or stretch) target. Table 1 provides annual data on the number of students who earn an associate degree over a five-year time period and calculates the completion rate based on the total number of students enrolled at the institution in the same year. For comparison purposes, the State Data column provides cumulative degree attainment rates for the same five-year time period.

TABLE 1. EXAMPLE USING THE NUMBER OF ASSOCIATE DEGREES EARNED ANNUALLY

	Year 1	Year 2	Year 3	Year 4	Year 5 (Baseline)	Year 5 (State Data)
Total students earning degrees	1,288	1,494	1,422	1,712	1,795	121,357
Total number of enrolled students	29,956	28,929	28,181	28,491	28,388	2,022,884
Completion Rate	4%	5%	5%	6%	6%	6%

STRATEGY 1: ALIGN TARGET WITH STATE OR DISTRICT DATA OR GOALS.

Using this method, a college could use the data or targets (a) set by the state (e.g., Vision for Success), (b) set by colleges within the same district (if applicable), and/or (c)set by colleges within the same geographic region or with similar student populations.

- **Institution-Set Standard:** A college would select data from outside the institution to use as a basis for comparison. In this example, the college data compares the current year's rate of associate degree earners (6%, in this case) to the rate at the state level (6%). To determine whether the college met its floor standard for the number of students who earned associate degree, a researcher may compare the college rates over time to see if they were equal or greater than the state rate, which would indicate the standard was met.
- **Stretch Target:** Similar to the previous example, data from outside the institution can be used to develop stretch targets. In this case, we can look to the CCCCO's Vision for Success, which calls for an increase of at least 20% to the number of CCC students who annually acquire associate degrees. Using this method, a college may select to adopt the same 20% increase goal for their students (1,795 + 20%= 2,154), meaning that the college would need 2,154 students to earn an associate degree in a given year to meet its goal.

STRATEGY 2: USE HISTORICAL DATA TO SET TARGETS.

There are at least two methods for using historical data to set targets:

- Average (mean)
- Standard deviation

In both cases, colleges would use their own institutional data to set targets. Please note that for these examples, five years of data are being used, but more or fewer years of data can be used depending on what data are available and the quality of that data.

METHOD 2A: AVERAGE

An average, or mean, is a measure of central tendency that reflects a typical value within a data set. It is a commonly used measure of performance and may be easily understood by colleagues.

- **Institution-Set Standard:** The target may be set by using historical data and taking a percentage of the institution's average performance on a measure (e.g., 95%). In this case, the average number of associate degree earners for the last five years (μ = 1,542.2) is multiplied by a predetermined level of performance and then rounded to a whole number (1,542.2 * .95 = 1,465.09), meaning that the college would need 1,465 students to earn an associate degree in a given year to meet its institution-set standard.
- **Stretch Target:** An aspirational target can be determined by taking the average or mean performance of a measure and deciding on a percentage increase to apply (e.g., 25% increase). In this example, the average number of associate degree earners for the last five years (μ = 1,542.2) is multiplied by percentage increase and rounded up to the nearest whole number (1,542.2 +25% = 1,927.75), meaning that the college would need 1,928 students to earn an associate degree in a given year to meet its stretch target.

METHOD 2B: STANDARD DEVIATION

The standard deviation (SD) is a measure of dispersion and reflects the average amount of variability in the data set that reflects, on average, how far each value differs from the mean. High SD values mean that values are far away from the mean and can indicate more growth potential, while low SD values mean that values are clustered together near the mean, which can indicate. SD can be calculated manually or through the use of Microsoft Excel (stdev function) or other statistical software packages (SPSS, R, SAS, etc.). The sample standard deviation formula is $\sqrt{\frac{\Sigma(X-\bar{\mu})^2}{n-1}}$, where X = observed values, $\bar{\mu}$ = sample mean, n = number of values in sample. In this example, $\sqrt{\frac{(1288-1242.2)^2+(1494-1242.2)^2+(1422-1242.2)^2+(1712-1242.2)^2+(1795-1242.2)^2}{5-1}}$ = 208.6. Although this method may be more difficult to explain to colleagues, it is useful in cases where performance values are not linear and it is unclear what percentage increase an institution should set.

- **Institution-Set Standard**: The floor target may be set by taking a percentage of the standard deviation and subtracting it from the most recent year. In this example, the standard deviation is multiplied by 1.96, which represents the area of a normal distribution where 95% of the cases lie (208.6*1.96 = 408.9), that value is then subtracted from the most recent year (1,795 – 408.9 = 1,386.1 or 1,386). Based on this calculation, the college would need 1,386 students to earn an associate degree in a given year to meet its institution-set standard.
- **Stretch Target:** The aspirational target can be determined by using a percentage of the standard deviation and the average mean. In this example, the standard deviation is multiplied by 1.96 (208.6*1.96 = 408.9), then added to the average or mean performance of the last five years (μ = 1,542.2 + 408.9 = 1,951.1). After rounding the value to the nearest whole, the college would need 1,951 students to earn an associate degree in a given year to meet its stretch target.

Table 2 summarizes what the targets would look like based on the strategies and methods discussed. The institution-set standard targets differed more than the stretch target values, when comparing average and standard deviation methods. This is because the number of students earning a degree did not grow evenly (or at the same rate) over the five-year period.

TABLE 2. SUMMARY OF TARGETS BASED ON DEGREE ATTAINMENT RATE EXAMPLE

Strategy and Method	Institution-Set	Stretch
1. Align with state goals	6% increase	20% increase
2a. Using an average	1,465 students	1,928 students
3a. Using a standard deviation	1,386 students	1,951 students

Table 3 provides a brief comparison of two common methods in terms of their advantages and key considerations.

TABLE 3. COMPARISON OF TWO COMMON TARGET-SETTING STRATEGIES

Strategy	Advantages	Considerations
1. Aligning the target to state or district goals	• Alignment of strategic goals and plans across the district or state • Does not require analysis or historical data to establish goal • Easy to explain	• It is possible that the college's priorities do not align with state/district goals • State or district data may not be available for a particular measure
2. Using historical data (averages or standard deviations)	• Uses historical data to help identify patterns and trends that can be used to inform the target setting • Target goals can feel more realistic or attainable • Can use local knowledge of current campus initiatives to help set realistic targets	• How targets are set can be difficult to explain to colleagues (standard deviation method) • May be difficult to decide the percentage growth that should be applied (average method) • Need to be thoughtful about the data sources used to calculate goals because of potential variability in data collection and reporting practices (e.g., internal data versus data available from CCCCO) • Need to decide how much historical data to include (e.g., 3, 5, 6, or 10 years)

Key Considerations

No matter what strategy is being used to develop targets, the following are key considerations for the target-setting process:

1. **Collaborate across the institution to ensure transparency of the process and clarity around the purpose and intent of the targets related to the goals and priorities.**

   Collaborating with key stakeholders will allow colleges to document and address concerns and/or questions that can be used to inform future presentations or target-setting activities.

- Clearly explain the purpose, definition, and intent of the targets and identify the appropriate stakeholders to engage in the target-setting process.
- If possible, create a team to consult on or review targets, including Academic Senate, vice president/deans of Instruction and Student Services, etc.

2. **Discuss how targets will be integrated into planning, evaluation, and accreditation processes, where applicable.**

   Ideally, target-setting should be linked to micro- and macro-planning processes. The targets should be embedded in each of the planning processes to help ensure they are building towards and moving the needle on the same overarching goals.

   - Consider providing contextualizing data, such as enrollment trends, student achievement patterns, college initiative progress (e.g., Guided Pathways, AB705, etc.), to inform the benchmarks setting discussion.
   - Where possible, explain where the targets/benchmarks are situated among your college's plans (e.g., Strategic Plan, Enrollment Management Plan), initiative (e.g., SEA, Guided Pathways), and other goal setting (e.g., institution-set Standards, Vision for Success).
   - Discuss how and who will be responsible for monitoring and evaluating the targets and what actions will be taken, if any, when targets are or are not being met.

3. **Consider adopting standard-setting methodologies rather than the target alone.**

   Focusing on the methodology rather than a target per se will ensure colleges can stay agile in the process and create a more solid foundation in the event that data, data sources, and/or goals change.

   Regardless of the methods used to create a target, it may also be useful to create targets that are short- or intermediate-term and can be measured annually to track progress. Intermediate goals can provide a path to achieving larger, overarching goals and help the college get feedback quicker (so as not to wait for the end of plan to review data) and manage and prioritize tasks. For example, a college can take a long-term goal and divide the progress by the years included in a college plan. In the example when a college aligns their stretch target to the state, a target of a 20% increase in the number of students who annually acquire associate degrees was set over the life of a five-year college master plan. The annual target would be (on average) a 4% increase of the number of associate degree earners each year (20% increase/five years). Other considerations include the types of values to track and report, including but not limited to reporting percentage changes vs. counts/totals to accommodate differences in data sources, methodologies, etc.