

ularly relevant that the data may be revenue or expenditures. itures are someone else's revenue.

ing a Budget History in Current instant Dollars

it to examine past data. What was spent last year? What was spent ? Twenty years ago? The reason we do this is that the best pre- at the future brings is the past, particularly the most recent past.

ing Percentages

ntages to compare data from one year with another year as well e the unit of analysis with a reference group. There are two rea- ing percentages. First, when comparing multiple jurisdictions or of very different sizes, percentages provide a more realistic iparison than dollar figures; second, large numbers can be con- arcentages are something many people understand.

three different methods of comparison: **percentage change**, **of total**, and **reference groups**. Each of these methods can ex- useful ways. Below are examples of how each of these methods . The examples are drawn from expenditures of the Health De- New York City and are portrayed in thousands (see Table 4.1).

York City, Fiscal Years 1996-2007 (in thousands)

int	Hospitals Department	New York City's total health expenditures	New York City's total expenditures	CPI
5	\$1,090,173	\$1,828,756	\$32,066,586	166.9
4	682,924	1,448,483	33,736,152	170.8
5	684,601	1,552,726	34,923,250	173.6
2	722,094	1,650,989	35,858,612	177.0
6	735,127	1,777,299	37,879,886	182.5
4	757,023	1,959,084	40,226,977	187.1
4	826,307	2,131,506	40,860,000	191.9
-	826,572	2,241,495	44,340,229	197.8
-	976,875	2,418,122	47,292,395	204.8
-	992,136	2,424,183	52,789,712	212.7
-	1,290,016	2,757,802	53,999,075	220.7
-	758,603	2,272,482	58,705,982	229.5

The Department of Health consists of three departments: Health, Mental Health, and Hospitals.

There are two different ways of calculating percentage change, one using current dollars and one using constant dollars. The first example in the next subsection uses current dollars, which are dollars not adjusted for inflation. The second example demonstrates how to control for inflation by converting current dollars to constant dollars. These techniques are useful in examining historical data for both government and nonprofit groups.

PERCENTAGE CHANGE. Percentages can be used in several ways. Percent- age change explains changes in data from year to year or for several years. Data in Table 4.1 show the percentage change in the expenditures for the De- partment of Health from fiscal year 1996 to fiscal year 1997 to be 0.2 percent. When you have several years of data, percentage changes are particularly useful for discovering patterns in expenditure data.

Percentage change is calculated by subtracting the older year from the newer year and then dividing by the older year. This is usually done in a spreadsheet. If this calculation is done on a calculator, the student should multiply times 100. See an example below using the data in Table 4.1:

Newer year - older year / older year * 100 (when using a calculator)

	FY 1997	FY 1996
Department of Health expenditures	\$420,275,000	\$419,308,000

To find percentage growth of expenditures FY 1997:

$$\frac{\$420,275,000 - \$419,308,000}{\$419,308,000} \times 100 = 0.2 \text{ percent}$$

Thus, the percentage change for the Department of Health from FY 1996 to FY 1997 is less than 1 percent, or 0.2 percent. Percentage change can be calculated over several years, not just from one year to another. For example, with the data in Table 4.1 we can calculate the total percentage change for an eleven-year period for the Department of Health:

Percentage growth of expenditures for FY 2007 compared with FY 1996:

$$\frac{\$1,513,879,000 - \$419,308,000}{\$419,308,000} \times 100 = 261.0 \text{ percent}$$