

Function	2016 to 2017	Average over budget	2016 to 2021
Core govt services	-2.9%	-2.8%	-15.1%
Defence	2.0%	-0.2%	-1.2%
Education	-1.6%	-1.6%	-7.9%
Finance costs	-3.7%	-2.2%	-10.9%
Health	-0.1%	-1.5%	-7.5%
Law and order	5.3%	-0.2%	-1.4%
Welfare	0.9%	-1.1%	-5.6%
NZ super	2.5%	1.8%	9.1%
All other	7.1%	8.9%	50.8%
Total core Crown expenses excluding losses	1.0%	0.3%	1.5%

Methodology and Data Limitations

Our time series from 2001 onward is taken from the New Zealand Treasury's archive of Economic and Fiscal Updates, available [here](#). Data for years prior to 2001 is from Statistics New Zealand's Infoshare data base (Central Government Accounts - Government Expenditure - June year (Annual-Jun)), available [here](#).

The analysis is based on the Classifications of the Functions of Government (COFOG) tables, which are typically reported in the budget under "Core Crown Expense Tables". These classifications are an OECD-developed framework, which differ from votes or appropriations and do not map on to them directly.

Real, per capita measures of spending have been reached by adjusting all areas of functional classifications of expenses for inflation and population changes.

Our focus is on inputs to government services. As such, we are making no comments about outputs, or the purposes to which spending is directed.

Cost-Adjustment

Inflation adjustments have been made according to the Consumer Price Index (CPI). Historical data on the CPI has been taken from the [Reserve Bank of New Zealand](#). The quarterly annualised rates have been averaged to a yearly figure to the June Quarter (Q2), which better aligns the inflation figures with both the budget year and the population figures.

For the forecast years included in Budget 2017, we have adopted the forecasts set out in 2017 Budget Economic and Fiscal Update.

As an index of price changes, the CPI is a common and simplified measure, but it is constructed to be representative of the prices faced by private consumers – not government departments. It therefore does not provide a direct measure of cost pressures for any specific area of government spending, and we urge caution in drawing direct conclusions to that effect. We also encourage other researchers to build upon this analysis by taking appropriate account of actual cost pressures in specific areas.

Instead, an adjustment of government spending on the basis of the CPI is simply to take account of the general change in price levels, according to the most commonly-used price index. At a more technical level, adjustment for the CPI can also be understood as a measure of the opportunity cost of government spending. This is because all government spending is funded out of taxation, and the CPI provides the most comprehensive measure of how such resources would otherwise have been consumed.

Population Adjustments

Historical population figures have been taken from Statistics New Zealand's [Infoshare database](#), "Estimated Residential Population (Mean Quarter Ended) by Sex (1991+) (Qrtly – Mar/Jun/Sep/Dec)". Figures to Q2 each year have been used to align more closely with the budget year, as well as the annualised CPI data (as discussed).

Population projections have been taken from Statistics New Zealand's "National Population Projections, Characteristics, 2016(base) - 2068" dataset, available [here](#). The median (50th percentile) has been used for all forecast years to 30 June.

Adjustments to Data

In all instances, more recent revisions of historical data have been used, in order to account for changes in financial reporting. One notable revision occurred in the year ending June 2008, due to the implementation of International Financial Reporting Standards (IFRS). Revised historical

data has been used for budget year 2003 onward, due to these previous years being available in the 2008 budget documentation; however, caution is warranted in making comparisons with years for which revised data is not available (2002 and earlier).

For the forecast fiscal years, both Forecast New Operating Spending and Top-down Expense Adjustments have been allocated to core crown expenditure classes in accordance with the formula set out in the 2016 Fiscal Strategy Model. These shares of both categories are based on historical shares of government spending, and allocating them according to this formula avoids what would be a misleading spending trajectory for specific categories over the medium-term.