Instructions for Using Pivot Tables

A Quick Guide to Navigating Pivot Tables

Pivot tables allow multiple ways to organize and present large quantities of data. Users can select what data will appear in the table by manipulating the grey buttons known as "fields."

The fields that appear in the upper left corner of the spreadsheet are called "page fields." In both the revenue and expenditure files, these fields include State, Government Level, Census Code, and Normalization. (The meaning of these categories is explained below.)

Below the page fields is a data table. In the corner of the data table, there is a field that reads Sum of Amount.[1] Immediately below this field are two more grey buttons. In the revenue file, they are Revenue Type 1 and Revenue Type 2. In the expenditure file, they are Function 1 and Function 2. These fields are known as "row fields." Below these fields are values for these categories (e.g., K-12 Education, Higher Education, etc. for Function 1).

To the right of the Sum of Amount field is a grey button that reads Year. This is a "column field." Each year available in the data is listed in a separate column below and to the right of this field.

Users can change the content of the data table in two ways:

1. To use the page fields in the upper left corner, click on the downward arrow to the right of one of these buttons, highlight a choice in the drop-down menu, then click OK.

   For example, to change the Government Level, click on the arrow to the right of this button and select State Total rather than the default option of State + Local, and click OK.

2. To use the row or column fields, click on an arrow next to that button. A drop down menu with several checked boxes will appear. Check or uncheck boxes for the desired information.

Users may also drag page fields into row and column fields, or row and columns fields up into the page field area. Please see the tutorial for a demonstration of this way to manipulate pivot tables.

Please note some items are missing or have zero values for some combinations of years and levels of government. For example, because personal income taxes are generally collected by states rather than local governments, no values will exist for this type of revenue when Local

[1] By right-clicking the button, users will obtain a menu of options to change the format of the data table. For example, users can elect whether to display Grand Totals for rows and columns.

Total is the selected Government Level. Also, the Census Bureau did not release state-level totals for local government finances in years 2001 and 2003.

Data Definitions

The revenue and expenditure files contain multiple fields. Below are brief descriptions of the data contained in these fields. For further information, please refer to the Census Bureau's *Government Finance and Employment Classification Manual*, available at http://www.census.gov/govs/www/class.html and to the web-only PPIC publication, *Data Appendix: Comparisons between Census of Governments and California Finance Data Sources*.

Revenue and Expenditure Files

Year – Years available are 1972 and 1977 to 2004.

State – The state field contains all fifty states, the District of Columbia, a United States total, and a United States total excluding California. The state codes are listed alphabetically. Because this field contains pre-calculated totals for the U.S. and U.S. without California, choosing the option "(All)" in the page fields creates meaningless totals and therefore should not be used.

Government Level – This field contains eight levels of detail: State + Local, State Total, Local Total, County, City, Township (only applicable in some states), Special District, and School District totals. State Totals plus Local Total does not sum to State + Local because the Census Bureau subtracts duplicative intergovernmental transfers (i.e. state payments to local governments which are then spent by local governments). Because this field contains pre-calculated totals, choosing the option "(All)" in the page fields creates meaningless totals and therefore should not be used.

Census Code – The Census Code field includes the Census Bureau code for each revenue or expenditure item. This field will be of interest only to those who are familiar with the Census of Governments classification system and want to obtain data on a specific code. Codes are listed alphabetically.

Normalization – This field enables users to view data in nominal dollars, real dollars ($2002), real dollars per capita, and dollars as a share of personal income.

Revenue File

In addition to the above fields, the revenue file contains the following fields:

Revenue Type 1 – This field contains nine broad categories of revenues: Federal Intergovernmental Revenue, State Intergovernmental Revenue, Local Intergovernmental Revenue, Taxes, Charges, Miscellaneous General Revenue, Utility Charges, Liquor Charges, and Insurance Trust Revenue. These revenue types are defined briefly below.

Intergovernmental revenue comprises monies from other governments, identified by the level of government from which they originated (i.e. federal, state, or local). Depending on what level of government has been chosen, certain intergovernmental revenue types may not apply (i.e., a state government will not receive money from itself). Intergovernmental revenue is further classified by its function (e.g., Highways) in Revenue Type 2 as described below.

Taxes are compulsory contributions exacted by a government for public purposes and are allocated by the level of government that actually imposes the tax. Taxes are further classified by the type of tax imposed (i.e. Property), rather than the function of the tax, in the field Revenue Type 2.

Charges are monies imposed for providing current services and are allocated by the level of government imposing the charge. Charges are further classified by their function (e.g., Highways) in the field Revenue Type 2.

Miscellaneous general revenue comprises all other general revenue of governments from their own sources. Miscellaneous revenue is further classified by the type of revenue (e.g., Lottery) in the field Revenue Type 2.

Intergovernmental revenue, taxes, charges, and miscellaneous revenue are all considered General Revenue as described in the *Classification Manual* and in the section below titled "Correspondence to Census Summary Tables." Utility charges, liquor charges, and insurance trust revenue are *not* considered General Revenue.

Utility charges are charges specifically imposed for the four types of government utilities recognized by the Census Bureau: water supply, electric supply, gas supply, and public mass transit. Utility charges are further classified by function (e.g., Transit) in the field Revenue Type 2.

Liquor charges are receipts from government owned and operated liquor stores (only applicable in some states).

Insurance trust revenue refers to contributions from employers and employees to social insurance programs operated by the public sector plus net earnings on investments of these funds. It excludes contributions from the government administering the system. This revenue type is further classified by the type of insurance trust system (e.g., public employee retirement, unemployment insurance, and workers' compensation).

<u>Revenue Type 2</u> – This second level revenue field contains refined data for the nine types of revenues listed under Revenue Type 1. For intergovernmental revenue, charges, and utility charges, this field contains a description of the function to which the revenue is dedicated (e.g., Highways). For taxes, miscellaneous revenue, and insurance trust revenue, this field contains a more precise definition of the revenue type. Thus, certain categories under Revenue Type 2 are not applicable for certain categories in Revenue Type 1.

Expendíture file

In addition to the fields appearing in both revenue and expenditure files, the expenditure file contains the following fields:

Expenditure Type – The Expenditure Type field designates the nature of the expenditure, which is classified as: Current Operations, Construction, Land and Equipment, Assistance and Subsidies, Intergovernmental, Interest, and Insurance Benefits and Payments.

Current operations are any expenditures for compensation of own officers and employees and for supplies, materials, and contractual services, except any amounts for capital outlay. These expenditures also include maintenance and repair.

Construction expenditures are for production, additions, replacements, or major structural alterations to fixed works.

Land and equipment expenditures are for the acquisition of land and equipment assets. The sum of construction and land and equipment expenditures equals capital outlay expenditures. The Census of Governments does report totals for equipment separately from land and equipment (code “K”), but these pivot tables do not contain equipment expenditure data.

Assistance and subsidy expenditures represent direct cash assistance to private individuals and nongovernmental organizations, not in return for goods and services. Assistance and subsidy expenditures are limited to two functions: Higher Education and Social Services.

Intergovernmental expenditures are amounts paid to governments for the performance of specific functions or general financial support. These pivot tables contain intergovernmental expenditure data to the following levels of government: Federal, State, General, Other Local, Township, City, Special District, and School District. As noted earlier, the Census Bureau subtracts these amounts when calculating total expenditures for multiple levels of government (e.g., State + Local).

Interest expenditures are amounts paid for the use of borrowed money. Interest expenditures are further classified as either General Debt (all government functions except utilities) or Utility Debt.

Insurance benefits and payments are social insurance payments to beneficiaries, employee retirement annuities and other benefits, and withdrawal of insurance or employee retirement contributions. Administrative insurance trust expenditures are classified as current operations.

Function 1 – This field contains the function or purpose for which moneys are expended based on the Census Bureau’s classification system. Function 1 contains twelve broad categories of government activities: K-12 Education, Higher Education, Social Services, Health, Transportation, Public Safety, Environment and Housing, General Government, Interest on Debt, Other, Utility, and Insurance Trust.

Each of these categories has one or more types of expenditures associated with it. For instance, K-12 Education expenditures may include current operations, construction, or land and equipment. However, interest on debt expenditures consist solely of interest expenditures.

The categories in this field are slightly different from those used in the Census Bureau's summary tables, available at http://www.census.gov/govs/www/estimate.html. For example, K-12 Education and Higher Education are listed separately here rather than being combined into one Education category, as in the Census summary tables. In addition, Health and Social Services are listed separately.[2]

Function 2 – This field classifies expenditures at a more detailed level than the categories listed in Function 1. For instance, in the Function 1 category of Public Safety, Function 2 lists five more detailed categories: Correction Institutions, Correction Other, Fire Protection, Police Protection, and Protective Inspection. Each Function 2 category is listed under only one Function 1 category. In other words, no Function 2 category appears more than once.

Correspondence to Census Summary Tables

These pivot tables on Revenues and Expenditures correspond for the most part to the summary tables available on the Census of Governments website at http://www.census.gov/govs/www/estimate.html. The following tables explain formulas used in these summary tables.

Revenue Equations

Total Revenue	General Revenue	General Own Source Revenue
Taxes	Taxes	Taxes
Charges	Charges	Charges
Miscellaneous General Revenue	Miscellaneous General Revenue	Miscellaneous General Revenue
Intergovernmental Revenue	Intergovernmental Revenue	
Utility Charges		
Liquor Charges		
Insurance Trust Revenue		

Expenditure Equations

Total Expenditure	Direct Expenditure	Direct General Expenditure

[2] In these pivot tables, K-12 Education includes the Function 2 categories K-12 Education, Other Education, and Libraries. Higher Education includes Higher Education Auxiliary, Higher Education Other, and Education Assistance. Social Services includes Social Insurance Administration, Federal Categorical Cash Assistance, Other Cash Assistance, Other Vendor Payments, Welfare Institutions, Other Welfare, Veterans' Bonuses and Veterans' Services. Health includes Health, Own Hospitals, Other Hospitals, and Vendor Payments for Medical Care.

K-12 Education	K-12 Education	K-12 Education
Higher Education	Higher Education	Higher Education
Social Services	Social Services	Social Services
Health	Health	Health
Transportation	Transportation	Transportation
Public Safety	Public Safety	Public Safety
Environment & Housing	Environment & Housing	Environment & Housing
General Government	General Government	General Government
Interest on General Debt	Interest on General Debt	Interest on General Debt
Other	Other	Other
Utility	Utility	
Liquor Store	Liquor Store	
Insurance Trust Expenditures	Insurance Trust Expenditures	
Intergovernmental Expenditure		

Direct Expenditure
Current Operations
Construction
Land & Equipment
Assistance & Subsidies
Interest on Debt
Insurance Benefits

Pivot Table Source Data

U.S. Bureau of the Census. *Annual Survey of State and Local Government Finances*, multiple years. Rex-Dac.zip files available at ftp://ftp2.census.gov/pub/outgoing/govs/special60/ Last accessed October 2006.

Population data correspond to the Decennial Census data (April 1980, 1990, 2000) and Annual Estimates by State data (taken July of each non-Census year) http://www.census.gov/popest/states/ Last accessed December 2006.

Personal income data correspond to the Bureau of Economic Analysis personal income data, Regional Economic Accounts, Annual State Personal Income, SA04.010: http://www.bea.gov/bea/regional/spi/ Last accessed September 2006.

Consumer price index data were used to create revenues and expenditures in real dollars, CPI All Urban Consumers (U.S. City Average, all items), CUUR0000SA0, CUUS0000SA0 http://www.bls.gov/cpi/home.htm Last accessed June 2006.