

§ 591.219

simple average for each item based on the average prices from each DC survey area. On an item-by-item basis, OPM divides the COLA survey area average price by the DC average price and produces a price index.

§ 591.219 How does OPM compute shelter price indexes?

(a) In addition to rental and rental equivalence prices and/or estimates, OPM obtains for each unit surveyed information about the important characteristics of the unit, such as size, number of bathrooms, and other amenities that reflect the quality of the unit.

(b) OPM then uses these characteristics and rental prices and/or estimates in hedonic regressions (a type of multiple regression) to compute for each COLA survey area the price index for rental and/or rental equivalent units of comparable quality and size between the COLA survey area and the Washington, DC, area.

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§ 591.220 How does OPM calculate energy utility cost indexes?

(a) OPM calculates energy utility cost indexes based on the relative cost of maintaining a standard size dwelling in each area at a given ambient temperature and the cost of other energy uses. Although the dwelling size may vary from one COLA survey area to another, OPM compares the utility cost for the same size dwelling in the COLA survey area and the Washington, DC, area.

(b) OPM applies the following six-step process to compute a cost index(es) for heating and cooling a standard home to a given ambient temperature and to combine the cost index(es) by energy type (e.g., electricity and natural gas) with cost indexes for other energy uses.

(1) *Step 1.* OPM obtains technical information about the requirements by major energy type for heating and cooling a standard size dwelling, built according to current local building practices and codes in each area, given local climatic conditions (e.g., seasonal temperature and humidity). OPM also obtains similar information for use of energy types in other household oper-

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ations (e.g., hot water, cooking, cleaning, recreation).

(2) *Step 2.* OPM obtains from the shelter survey, a survey of Federal employees, or other appropriate sources, information on dwelling size and the types and prevalence of heating and cooling equipment and energy types (e.g., electricity, gas, and oil) in each area.

(3) *Step 3.* OPM computes estimates of total home energy requirements by energy type attributable to heating and cooling plus all other household energy uses for the COLA survey area and the Washington, DC, area.

(4) *Step 4.* OPM surveys utility prices for each major energy type appropriate to the area.

(5) *Step 5.* OPM combines the above data to produce for each COLA survey area the cost of maintaining the standard size dwelling at a given ambient temperature and the cost of other household energy uses.

(6) *Step 6.* OPM compares the COLA survey area cost with the DC area cost to produce a price index.

§ 591.221 How does OPM compute the consumer expenditure weights it uses to combine price indexes?

OPM uses the following ten-step process to compute consumer expenditure weights:

(a) *Step 1.* OPM obtains the latest BLS tabulated CES data nationwide and for the Washington, DC, area.

(b) *Step 2.* In both the nationwide and DC area tabulated data, OPM replaces the homeowners' expenditures for shelter with estimated rental values of owned homes that are available elsewhere in tabulated CES data. Note: These replacements are consistent with the rental equivalence approach described in § 591.219.

(c) *Step 3.* OPM selects the central income groups in the nationwide CES tabulation.

(d) *Step 4.* OPM calculates the expenditure shares (*i.e.*, percentages) for each central income group by dividing each of its DEC expenditures by total expenditures for the income group. OPM also calculates expenditure shares for total nationwide expenditures by dividing each nationwide DEC expenditure by total nationwide expenditures.