4.4 Housing Analysis

4.4.1 Homeowner Data Analysis

One of the most important factors relating to the price of a home is the number of square feet of living space. In the past, OPM directed the contractor to rank housing data high to low and trim equal numbers of observations from both ends of the data. The average of the remaining values was then used. This year, OPM changed the methodology and used the median home value rather than trimming and averaging. The median is the middle value in a rankordered set of observations. The purpose of either approach is to reduce the volatility of the housing data from one survey to the next because a relatively few extremely high or low home prices could significantly influence average housing costs.

For each income profile in each allowance area and the Washington, DC, area, JFA computed the median price per square foot for the comparables. This value was then multiplied by the reference square footage for the profile to determine the average home value for the profile.

Another change that OPM made this year was to ask JFA to use historical housing data in addition to data collected this year. These data are found in Appendix 10 of this report. The historical data are from previous livingcost surveys that were published in the Federal Register beginning with the 1990 report. (See Appendix 1 for a listing of these publications). The data for the period prior to 1990 were published with the results of the 1991-1992 living cost surveys at 57 FR 58618. All housing values are based on the community selections and analytical methodologies used at the time of each respective survey.

The historical housing data used were the estimated annual principal plus interest payments by income level in each area. To combine these data, OPM supplied JFA with weights that were derived from the 1992 Federal Employee Housing and Living Patterns Survey. These weights reflect the proportion of Federal employee homeowners by year of purchase or acquisition in all allowance areas and in the Washington, DC, area. The historical housing weights and analyses are shown in Appendix 11.

4.4.2 Rental Data Analysis

JFA assigned each rental quote data point to a single income level, based on the following criteria:

—One bedroom apartments: Lower Income Level,

- —Two bedroom apartments: Middle Income Level, and
- Townhouses and detached houses with a minimum of two bedrooms: Upper Income Level.

As discussed earlier, there were essentially two sources of rental information: broker and non-broker sources. In each area, the quantity of data obtained from either source-type varied significantly. Therefore, analyzing all of the rental data (both broker and non-broker) together for an area and income level was undesirable.

Instead, OPM instructed JFA to analyze broker and non-broker data separately by income level. As with the housing data analyses, OPM changed from the use of trimming and averaging to the use of the median. Therefore, for each income level, JFA ranked the rental rates from low to high separately for broker and non-broker data. The median values for broker and non-broker data for each group were determined and then averaged to compute a single rental value for each income level. Because OPM has no information on how the Federal employees who rent generally secure their lodgings, OPM requested that JFA apply equal weights to the broker and nonbroker data to compute an overall average rental rate for the area and income level. The broker and nonbroker medians and final results are shown in Appendix 12.

4.5 Housing Survey Results

In the above sections, the processes used for determining the costs for maintenance, insurance, utilities, real estate taxes, rents, and homeowner mortgages were described. Appendix 13 shows the cost of each of these items for renters and homeowners in each allowance area and in the Washington, DC, area.

Appendix 14 compares the total cost of these items by income level in each allowance area with the total cost of the same items by income level in the Washington, DC, area. Again, there are separate comparisons for renters and homeowners.

The final housing-cost comparisons take the form of indexes that are used in Appendix 20 to derive the total, overall index for owners and renters. (Refer to Section 2.6 for a discussion of the general formulae and how the component indexes are combined.)

5. Transportation

5.1 Component Overview

The transportation component consists of two categories: Automobile Expense and Other Transportation Costs. The Automobile Expense Category reflects costs relating to owning and operating a car in each area. The Other Transportation Costs Category is represented by the cost of air travel from each location to a common point within the contiguous 48 states.

5.2 Private Transportation Methodology

As was done in previous surveys, JFA analyzed automobile transportation costs for three commonly purchased vehicles: a domestic auto, an import auto, and a utility vehicle. New car costs were used for these analyses because it was believed that pricing used vehicles of equivalent quality in each area could introduce inconsistencies because of the value judgements that would be required.

5.2.1 Vehicle Selection and Pricing

The three vehicles selected for analysis were:

Domestic—Ford Taurus GL 4-door sedan 3.0L 6 cyl,

Import—Honda Civic DX 4-door sedan 1.5L 4 cyl, and

Utility—Chevrolet S10 Blazer 4X4 2 door 4.3L 6 cyl.

These are the same models that were surveyed in previous years and were selected based on their popularity in the United States as demonstrated by owner registration data.

For each model car, JFA collected new vehicle prices at dealerships in each area and from secondary sources, such as the *Kelly Blue Book*. All prices were based on the manufacturers' suggested retail prices (MSRP) for 1994. (OPM did not believe it was feasible to collect information on the negotiated price for these vehicles.) All vehicles were equipped with standard options, such as automatic transmission, AM/FM stereo radio and air conditioning.

In addition to the MSRP, the price included additional charges such as shipping, dealer preparation, additional dealer markup, excise tax, sales tax, and any other one-time taxes or charges. In Hawaii, for example, documentation fees were also included as part of the new-vehicle costs.

Rustproofing was priced in all areas, including the Washington, DC, area. In previous surveys, the contractor found that auto dealers in the DC area did not recommend vehicle rustproofing, although it was a commonly suggested option in the allowance areas. This year, the information collected suggested that rustproofing was a commonly offered option in all areas. Therefore, OPM directed JFA to include the cost of rustproofing in the DC area as well as the allowance areas.