

seek to keep their marketing options open for possible sales to subject retailers. USDA Economic Research Service (ERS) estimates of food disappearance for 2001 are used to measure the flow of covered commodities through intermediaries (Ref. 26). Food disappearance includes imports, which are impacted by the proposed rule, but does exclude exports, which are not.

For intermediaries, Table 4 shows total beef, pork, and lamb disappearance measured on a carcass-weight basis. Fresh, frozen, and canned fish and shellfish food disappearance is shown as edible meat weight. Total disappearance of fresh and frozen fruits and vegetables is computed from per capita consumption data measured on a farm-weight basis. Peanut disappearance is measured on a farmers' stock basis. The quantity of 713 million pounds shown in Table 4 is 32 percent of total peanut food disappearance to estimate peanut use in product forms subject to this proposed rule—snack peanuts (23 percent) and roasted in-shell peanuts (9 percent) (Ref. 27).

For retailers, food disappearance figures are adjusted to estimate consumption through retailers as defined by the statute. For each covered commodity, disappearance figures are multiplied by 0.414, which represents the estimated share of production sold through retailers covered by this proposed rule. To derive this share, the factor of 0.629 is used to remove the 37.1 percent food service quantity share of total food in 2002 (Ref. 28). This factor is then multiplied by 0.658, which was the share of sales by supermarkets, warehouse clubs and superstores of food for home consumption in 2002 (Ref. 29). In other words, USDA assumes supermarkets,

warehouse clubs and superstores represent the retailers as defined by PACA, and these retailers are estimated to account for 65.8 percent of retail sales of the covered commodities.

Other retail food outlets were assumed not to meet the statutory definition of a retailer under PACA. These latter outlets include convenience stores, other grocery stores, specialty food stores, mass merchandisers, other stores, home delivered and mail order, and farmers, processors, wholesalers, and other. USDA recognizes that not all supermarkets meet the statutory definition of a PACA retailer, while other retail outlets would meet the definition. USDA assumes that the relative volumes of covered commodities moving through supermarkets that are not PACA retailers offset the quantities of commodities moving through PACA retailers that are not supermarkets or warehouse clubs and superstores. USDA invites comments on the validity of this assumption.

Beef, pork, and lamb retail movement is measured on a retail-weight basis. Beef and lamb retailer estimates shown in Table 4 are retail-weight food disappearance figures for 2001 multiplied by the factor of 0.414. Unlike beef and lamb, however, much of the pork carcass typically is processed into products that would not be covered commodities under the proposed rule. For example, most of the ham and bacon are cured, and other cuts such as picnic meat are used for sausage and other processed products. Thus, an additional factor of 0.375 is used for pork, which is the estimate of the proportion of the retail-weight pork carcass that is used for fresh pork cuts that would be classified commodities under the proposed rule. The cuts assumed to be

covered commodities are fresh ham, all of the loin cuts, spareribs, and the entire Boston butt. Estimates of the retail weight of these cuts and other cuts are taken from the National Pork Board (Ref. 30). USDA recognizes that some of these cuts will be processed into items not covered by the proposed rule, while other cuts will be sold in unprocessed forms that would be covered by the proposed rule. Nonetheless, USDA believes that 37.5 percent represents the best available estimate of the proportion of the retail pork carcass that would be covered. When combined with the 41.4 percent of commodities estimated to be sold by subject retailers, USDA estimates that 15.5 percent of estimated pork consumption would be covered by the proposed rule.

Estimated fresh, frozen, and canned fish and shellfish retailer volume shown in Table 4 is measured by edible meat weight. Fresh and frozen fruit and vegetable retailer volume is measured by farm weight. Retailer peanut volume is measured on a kernel basis, as the majority of peanuts sold at retail are without the shell.

Table 5 summarizes the upper range of direct, incremental costs that USDA believes firms will incur during the first year as a result of this proposed rule. These estimates are derived primarily from the available studies that addressed cost impacts of mandatory COOL. As discussed above, USDA believes that implementation of mandatory COOL will entail additional recordkeeping burden at the least and likely will entail other costs as well. Thus, to determine the upper range of implementation costs, we focus on available studies that attempt to account for costs beyond the recordkeeping burden.

TABLE 5.—UPPER RANGE ESTIMATES OF FIRST-YEAR IMPLEMENTATION COSTS PER AFFECTED INDUSTRY SEGMENT

[In millions of dollars]

	Beef	Pork	Lamb	Fish	F & V	Peanuts	Total
Producer	368	150	15	19	24	1	578
Intermediary	538	368	7	21	580	4	1,517
Retailer	780	155	9	119	720	3	1,787
Total	1,686	673	32	159	1,324	8	3,882

For beef producers, the range of Sparks/CBW cost estimates is \$8.63 to \$10.63 per head, with estimated costs of \$4.88 per head for cow-calf producers and backgrounders and \$3.75 to \$5.75 per head for feedlots (Ref. 19). Davis (Ref. 21) estimates costs for beef producers of up to \$15.30 per head, with \$13.30 per head for cow-calf

producers, \$1 per head for stockers, and \$1 per head for feedlots.

USDA believes that implementation costs per head for cow-calf producers will be relatively small because many cow-calf operators likely already maintain much of the information that will be needed to substantiate country of origin, such as breeding records,

production records, and other business records. Costs for backgrounders, stockers, and feeders likely will be higher because of the need to track country of origin information on cattle from multiple sources. Animal identification tags, development of data bases, and additional hardware for accounting and tracking likely will be