nates. The distinguished feature of the cooperative model is the separation of milk produced by cooperative-member producers from milk produced by independent producers. This separation was required to account for the service fee and reduction in handling costs on member produced milk. Note that all producers receive the Class I premium. The distinction between member and non-member produced milk is not carried over to the processor segment of the model. That is, the same proportion of member and non-member produced milk is allocated to each use. Since remaining segments of the cooperative model are essentially the same as in the basic model, they are omitted from Figure 6.

A question arises concerning the evaluation of the cooperative model. Should the behavior of the cooperative model be compared with the behavior of the real system or the basic model? Since the cooperative model is essentially a modification of the basic model and the latter adequately represents the real system, comparisons are made between the cooperative and basic models. Six variables are selected for comparison: monthly production rate (MPR), rate of allocation to Class I (RAC1) and Class II (RAC2), producer net returns (PRNR), processor net returns (PCNR) and total retail returns (TRR).

Results

Table 2 contains the values of six selected variables generated by the basic and cooperative models and the differences between these values expressed in actual and percentage terms. Tabled values are monthly averages for the three months in each quarter. Except for processor net returns, variables for the cooperative model exceed those for the basic model in every quarter. The differences in milk production rates for the two models exhibit a systematic pattern. The largest differences occur in the second quarter followed in descending order of magnitude by the first, third, and fourth quarters. The average percentage difference for MPR over the entire period is quite small at 1.18 percent. Percentage differences in RAC1 are also small ranging from .93 to .99 in the first, third, and fourth quarters and 1.30 to 1.39 in the second quarter with an average difference of 1.06 percent. Differences in RAC2 are also quite small averaging 3.07 percent.

Despite minor differences in MPR, RAC1, and RAC2, producer net returns under the cooperative model are 26 to 68 per-