Mr. JOHNSON. Inclement weather is a significant problem for home-builders in almost all parts of the country. Construction problems of rain, mud, snow, and freezing temperatures are readily apparent. However, even in some normally good climates, high temperatures and blowing dust and sand cause weather-related construction problems.

Inclement weather is a very significant and, perhaps, the primary reason for seasonality in residential construction. It increases the cost of residential construction in several ways: Bad weather adds direct labor time; increases scrap and waste materials; increases the use of some materials such as gravel, increases construction time; increases site equipment time; and increases supervision time. All of these add extra cost. In addition, in certain kinds of weather, alternate building methods must sometimes be used such as thawing frozen ground and heating concrete during freezing weather, and these add to construction costs.

I will examine the direct and indirect cost-increasing factors in more detail later but would like to mention now two other factors that probably increase residential construction costs in relation to seasonality.

First the unit cost of many building materials is probably higher due to seasonality, because the manufacturer must make the capital investment in machinery and equipment to produce at the highest rate required by his customers, but this only occurs during peak production periods. This adds to the cost of producing building materials and products in the same way that peak power production capability to handle peakloads affects the cost of energy produced by utility companies.

Second, it is probable that hourly wage rates are higher in the construction industry than they would be if workmen could be expected to be employed throughout the year. I have no rational way of assessing the extent to which these two factors increase cost of construction, but together, they probably importantly affect construction cost.

To comment rationally on your questions, I divided the cost of construction into the logical categories used in the residential building industry. These are sales, financing, overhead and indirect costs, land, and direct construction costs. After doing this, I tried to determine whether seasonality had any effect on these costs.

In our industry, of course, we are extremely concerned about costs because we continuously are trying to get the price cost of housing down and the value up.

Weather and seasonality have probably a very slight effect on the cost of sales. If you are having an open house and a parade of homes and spend a lot of money on advertising and the weather is very bad and nobody comes out and you have to do it the next week, there is a slight factor, probably small overall.

Financing costs, though, can be divided into cost of construction or interim financing and permanent or mortgage financing. Inclement weather most certainly delays construction, and, therefore, increases the cost of interest on construction loans. It is reasonable to assume that the average construction loan will be at least $10,000 during the