A closer evaluation of the relationship of prices to output and wages was obtained by a multiple cross-section regression analysis covering the two subperiods 1947–53 and 1953–58. The percentage change in the wholesale price index was tested against (1) the percentage change in output and (2) the percentage change in direct labor costs per unit of output per total worker man-hour. The latter variable thus takes account of the effects of productivity on labor costs as well. The results are shown in table 10. Output was not a significant variable during either subperiod (after taking account of changes in unit direct labor costs); on the other hand, direct labor costs were highly correlated with price changes during the 1953–58 period, but much less strongly so from 1947 to 1953. In general, these findings are consistent with those indicated by the simple correlation analysis.

TABLE 10.—*Cross-section regression equations: Prices*

Independent variable	Regression coefficient	Partial correlation coefficient	Beta coefficient	Standard error of beta coefficient
1947–53:				
Percent change:				
Output	0.1891	0.2516	0.2365	0.2522
Direct labor costs per unit of output per total worker man-hour	.4982	.3730	.3661	.2522
1953–58:				
Percent change:				
Output	.2395	.3681	.3261	.2284
Direct labor costs per unit of output per total worker man-hour	[1].9367	[1].7630	.9724	.2284

Regression constants:	
1947–53	6.84
1953–58	3.76
Multiple correlation coefficient:	
1947–53	R = .4209
1953–58	R = [1].7916
Coefficient of multiple determination:	
1947–53	R^2 = .1772
1953–58	R^2 = [1].6266
Degrees of freedom	N-3=13

[1] Significant at the 5 percent level.

Similar relationships were shown by time series analyses, although the small number of observations and the major structural shifts which occurred in the economy during the 1947–58 period limit the usefulness of time series for this purpose. In table 11, the simple correlation coefficients are given for each two-digit industry, indicating the relationship between price changes and several other variables from 1947 to 1958. Table 12 summarizes the results of a multiple regression analysis, relating the percent change in prices to (1) the percent change in output, and (2) the percent change in gross hourly earnings. In both cases, the price-output relationship was very weak, while the price-gross hourly wage relationship was strong. In 8 of the 16 industries, the price-wage correlation was significant at the 5-percent level; in 2 more, it was close to that level of significance. In addition, the simple correlation coefficients between price changes and profit levels were at or close to 5-percent significance level in nine industries. Thus the time series data tend to corroborate the general results of the cross-section analysis.