

hired labor costs. By adding operator and hired labor costs the following total labor costs are obtained for size classes 1 to 5; \$3.61, \$7.31, \$6.46, \$5.67 and \$5.64. Over the range of enterprise size studied, the managers of larger enterprises were able to use labor more efficiently than the managers of smaller wheat enterprises.

The economies in operator labor costs, depreciation, and variable costs can be further demonstrated in analyzing the returns from growing wheat in the Panhandle. Shown in Table 2 are the returns of growing wheat for the five enterprise size classes using a wheat price of \$1.79 per bushel. Gross returns per acre and the ASCS normal yields were nearly the same for all five size classes. Fixed costs as a percent of gross returns declined throughout all five size classes with the major difference between size classes 1 and 2.

TABLE 2.— RETURNS PER ACRE, AGRICULTURAL STABILIZATION AND CONSERVATION YIELD, HOURS OF OPERATORS' LABOR, AND RETURN TO MANAGEMENT BY SIZE CLASS FOR WHEAT ENTERPRISE, NEBRASKA PANHANDLE.

Item	Size class 1	Size class 2	Size class 3	Size class 4	Size class 5
Gross returns per acre.....	\$47.67	\$48.18	\$49.27	\$49.84	\$47.63
Variable cost as a percent of gross returns.....	32.8	26.9	26.5	26.4	30.5
Fixed cost as a percent of gross returns.....	69.5	59.5	53.9	53.8	50.2
Total cost as a percent of gross returns.....	102.3	86.4	80.4	80.2	80.7
Returns over budgeted cost per acre ¹	-\$1.11	\$6.55	\$9.63	\$9.89	\$9.17
Hours per acre for the operator.....	4.17	3.69	3.16	2.39	1.39
Returns to operators' labor and management per acre.....	\$6.60	\$13.38	\$15.48	\$14.31	\$11.74
Returns to operators' labor and management per hour.....	\$1.58	\$3.63	\$4.90	\$5.99	\$8.45
Return to management per hour.....	-\$0.27	\$1.78	\$3.05	\$4.14	\$6.60
Agricultural stabilization and conservation yield (bushels per acre).....	26.68	26.97	27.57	27.89	26.64

¹ Since no management cost was included, this is the return to management.

Total budgeted costs as a percentage of gross returns were over 100% in size class 1 indicating that some grower resources included in size class 1 (average of 59 acres of wheat per farm) did not receive the returns assumed in developing the budgets. A negative \$1.11 per acre was budgeted as the return over costs, the return to management. Returns to management per hour in size classes 1 to 5 were—\$0.27, \$1.78, \$3.05, \$4.14, and \$6.60 respectively. Farms in size classes 4 and 5 produced wheat at nearly the same cost as in size class 3. However, the return to management per hour increased throughout these classes since fewer hours of the operators' time were used in producing wheat on farms with the larger wheat enterprises.

CONCLUSIONS

The cost of wheat production in the Nebraska Panhandle is summarized by enterprise size class and production area in Table 3.

TABLE 3.—SUMMARY OF WHEAT COST OF PRODUCTION PER BUSHEL BY ENTERPRISE SIZE CLASS AND PRODUCTION AREA, NEBRASKA PANHANDLE¹

	Size class 1 (11 farms)	Size class 2 (14 farms)	Size class 3 (15 farms)	Size class 4 (17 farms)	Size class 5 (10 farms)	Overall average ²
Area 1 (20 farms).....	\$1.68	\$1.49	\$1.31	\$1.32	\$1.36	\$1.36
Area 2 (26 farms).....	1.79	1.61	1.47	1.58	1.53	1.54
Area 3 (21 farms).....	2.01	1.48	1.47	1.34	1.31	1.39
Size average ³	1.83	1.53	1.44	1.43	1.44	1.45

¹ Costs do not include a management charge.

² Weighted average cost per bushel for the 5 size classes for each of the 3 areas studied.

³ Weighted average cost per bushel for the enterprise in the 3 areas included in each size class.

Economies of size in wheat production were found to be statistically significant. As illustrated in Figure 2, costs of production decline from size class 1 to 3 and remain at approximately the same level for the larger size classes studied.