

**STATISTICAL APPENDIX TO  
UGPTI REPORTS 3, 4, 5, AND 6**

**By**

**Clair W. Cudworth**

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**STATISTICAL APPENDIX TO  
UGPTI REPORTS 3, 4, 5, AND 6**

**SUPPLY, DEMAND, AND TRANSPORTATION RATES  
USED IN OPTIMUM DISTRIBUTION ANALYSIS  
OF DURUM, HARD RED SPRING, AND HARD  
RED WINTER WHEAT, AND FLOUR 1965 AND  
PROJECTED TO 1970 AND 1975**

**BY**

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**in cooperation with**

**North Dakota State Wheat Commission  
Bismarck, North Dakota**

**MAY 1969**

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## FOREWARD

This report is one of a series of five reports prepared for the North Dakota State Wheat Commission under a project entitled IMPACT OF CHANGING RAIL FREIGHT RATES ON MARKETS FOR NORTH DAKOTA HARD RED SPRING AND DURUM WHEAT. The preparation of this report was financed in part through a contract grant from the Commission to the Upper Great Plains Transportation Institute. Other reports in this series are:

Optimum Distribution Patterns for Durum Wheat and Flour in Domestic and Export Markets, 1965, and Projected to 1970 and 1975, UGPTI Report No. 3

Optimum Distribution Patterns for Hard Red Spring Wheat and Flour in Domestic and Export Markets, 1965, and Projected to 1970 and 1975, UGPTI Report No. 4

Optimum Distribution Patterns for Durum, Hard Red Spring, Hard Red Winter Wheat and Flour, Considering Substitutability in Domestic and Export Markets, 1965, and Projected to 1970 and 1975, UGPTI Report No. 5

Competitive Transportation Rate Ranges for North Dakota Hard Red Spring and Durum Wheat and Flour in Domestic and Export Markets, 1965, and Projected to 1970 and 1975, UGPTI Report No. 6

Alternative market outlets for wheat production of North Dakota and the Upper Great Plains are important. Hard red spring and durum wheat produced in this area can now be sold in either domestic or export markets. These alternatives provide more competition among buyers for these products. This situation provides a partial solution to a basic problem that has faced area farmers for many years. That is, the production of spring wheat has been tied to the activity of the Minneapolis and Duluth markets. During periods of labor problems and/or when the Great Lakes become impassable, these markets become narrower or disappear. There is evidence that the remaining mills located in the Twin Cities and southern Minnesota are looking toward hard winter wheat supply areas for more and more wheat inputs. In addition, a trend exists toward moving milling capacity to points of consumption, i.e., where population is centralizing and expanding at rapid rates. Reductions in the costs of hauling the raw product encourage these types of changes.

Reductions in westbound export rail rates on wheat have played an important role in providing an additional market outlet for spring wheat produced in the Upper Great Plains. It is important to recognize, however, that these reductions apply only on westbound movements consigned to destinations outside of the United States. Therefore, this product is not legally available to millers of the Northwest and the West Coast of the United States except through the existing structure of high domestic freight rates.

In order to intelligently negotiate adjustments in rail rates, railroad management and farm producers must possess objective analyses of the impact of such adjustments. The effects of adjustments on existing distribution patterns for substitutable wheats must be known. The several reports from this study are intended to partially satisfy the requirements for information to answer the questions of carriers and producers.

David C. Nelson  
Director

APPENDIX TABLE 1. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF HARD RED SPRING WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975

		Total Millers' Purchases = Demand I <sup>a</sup>			Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand II = Demand III <sup>c</sup>				
Area	Year	(1) Production <sup>d</sup>	(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand	-Demand	
										III Surplus	III Deficit	
Washington	1965	Ae	115	2,891	0	2,776	1,649	0	1,534	--	--	--
		B <sup>f</sup>	69	1,735	0	1,666	989	0	920	--	--	--
		C <sup>g</sup>	50	1,267	0	1,217	724	0	672	+544	544	0
	1970	A	157	2,561	0	2,404	1,647	0	1,490	--	--	--
		B	94	1,537	0	1,442	988	0	894	--	--	--
		C	69	1,122	0	1,053	720	0	653	+401	401	0
	1975	A	157	2,187	0	2,030	1,671	0	1,514	--	--	--
		B	94	1,312	0	1,218	1,003	0	908	--	--	--
		C	69	958	0	889	733	0	663	+226	226	0
Oregon	1965	A	344	2,672	0	2,328	1,078	0	734	--	--	--
		B	206	1,603	0	1,397	647	0	440	--	--	--
		C	150	1,170	0	1,020	472	0	321	+698	698	0
	1970	A	476	3,005	0	2,529	1,103	0	627	--	--	--
		B	286	1,803	0	1,517	662	0	376	--	--	--
		C	209	1,316	0	1,107	483	0	274	+833	833	0
	1975	A	476	3,210	0	2,734	1,135	0	659	--	--	--
		B	286	1,926	0	1,640	681	0	395	--	--	--
		C	209	1,406	0	1,197	497	0	288	+909	909	0
California	1965	A	0	2,653	0	2,653	10,212	0	10,212	--	--	--
		B	0	1,592	0	1,592	6,127	0	6,127	--	--	--
		C	0	1,162	0	1,162	4,479	0	4,479	-3,311	0	3,311
	1970	A	0	2,932	0	2,932	11,153	0	11,153	--	--	--
		B	0	1,759	0	1,759	6,692	0	6,692	--	--	--
		C	0	1,284	0	1,284	4,886	0	4,886	-3,601	0	3,601

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APPENDIX TABLE 1. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF HARD RED SPRING WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year	(1) Production <sup>d</sup>	Total Millers' Purchases = Demand I <sup>a</sup>			Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand III <sup>c</sup>			
			(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus III	-Demand III Deficit III	
California	1975	A <sup>e</sup>	0	3,154	0	3,154	12,207	0	12,207	--	--	--
		B <sup>f</sup>	0	1,892	0	1,892	7,324	0	7,324	--	--	--
		C <sup>g</sup>	0	1,381	0	1,381	5,354	0	5,354	-3,965	0	3,965
Nevada	1965	A	0	0	0	0	240	0	240	--	--	--
		B	0	0	0	0	144	0	144	--	--	--
		C	0	0	0	0	105	0	105	-105	0	105
	1970	A	0	0	0	0	290	0	290	--	--	--
		B	0	0	0	0	174	0	174	--	--	--
		C	0	0	0	0	127	0	127	-127	0	127
	1975	A	0	0	0	0	319	0	319	--	--	--
		B	0	0	0	0	191	0	191	--	--	--
		C	0	0	0	0	140	0	140	-140	0	140
Idaho	1965	A	10,275	22	10,273	0	384	9,891	0	--	--	--
		B	6,165	13	6,164	0	230	5,935	0	--	--	--
		C	3,699	9	3,690	0	169	4,333	0	-160	0	160
	1970	A	14,115	6	14,109	0	382	13,733	0	--	--	--
		B	8,469	4	8,465	0	229	8,240	0	--	--	--
		C	6,182	3	6,179	0	167	6,015	0	-164	0	164
	1975	A	14,115	0	14,115	0	384	13,731	0	--	--	--
		B	8,469	0	8,469	0	230	8,239	0	--	--	--
		C	6,182	0	6,182	0	169	6,014	0	-169	0	169

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Area	Year	(1) Production <sup>d</sup>	Total Millers' Purchases = Demand I <sup>a</sup>			Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand II = Demand III <sup>c</sup>			
			(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus III	-Demand III Deficit III	
Utah	1965	A <sup>e</sup>	447	62	385	0	551	0	104	--	--	--
		B <sup>f</sup>	268	37	231	0	331	0	62	--	--	--
		C <sup>g</sup>	196	27	169	0	242	0	45	-215	0	215
	1970	A	584	0	584	0	578	6	0	--	--	--
		B	350	0	350	0	347	4	0	--	--	--
		C	256	0	256	0	253	3	0	-253	0	253
	1975	A	584	0	584	0	610	26	0	--	--	--
		B	350	0	350	0	366	16	0	--	--	--
		C	256	0	256	0	268	12	0	-268	0	268
Arizona	1965	A	0	0	0	0	874	0	874	--	--	--
		B	0	0	0	0	524	0	524	--	--	--
		C	0	0	0	0	383	0	383	-383	0	383
	1970	A	0	0	0	0	970	0	970	--	--	--
		B	0	0	0	0	582	0	582	--	--	--
		C	0	0	0	0	425	0	425	-425	0	425
	1975	A	0	0	0	0	1,075	0	1,075	--	--	--
		B	0	0	0	0	645	0	645	--	--	--
		C	0	0	0	0	472	0	472	-472	0	472
Montana	1965	A	34,788	4,013	30,775	0	390	34,398	0	--	--	--
		B	20,873	2,408	18,465	0	234	20,639	0	--	--	--
		C	15,237	1,758	13,479	0	171	15,066	0	+1,587	1,587	0

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Area	Year	(1) Production <sup>d</sup>	Total Millers' Purchases = Demand I <sup>a</sup>		Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand III <sup>c</sup>				
			(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus III	-Demand III Deficit III	
Montana	1970	A <sup>e</sup>	33,841	3,840	30,001	0	387	33,454	0	--	--	--
		B <sup>f</sup>	20,305	2,304	18,001	0	232	20,073	0	--	--	--
		C <sup>g</sup>	14,822	1,682	13,141	0	169	14,653	0	+1,513	1,513	0
	1975	A	33,841	3,376	30,463	0	401	33,441	0	--	--	--
		B	20,305	2,026	18,278	0	241	20,064	0	--	--	--
		C	14,822	1,479	13,343	0	170	14,652	0	+1,309	1,309	0
Wyoming	1965	A	264	0	264	0	183	81	0	--	--	--
		B	158	0	158	0	110	48	0	--	--	--
		C	115	0	115	0	80	35	0	-80	0	80
	1970	A	292	0	292	0	178	114	0	--	--	--
		B	175	0	175	0	107	68	0	--	--	--
		C	128	0	128	0	79	49	0	-78	0	78
	1975	A	292	0	292	0	179	113	0	--	--	--
		B	175	0	175	0	107	68	0	--	--	--
		C	128	0	128	0	79	49	0	-79	0	79
Colorado	1965	A	34	165	0	131	1,081	0	1,047	--	--	--
		B	20	99	0	79	649	0	629	--	--	--
		C	15	72	0	57	474	0	459	-402	0	402
	1970	A	41	163	0	122	1,128	0	1,087	--	--	--
		B	25	98	0	73	677	0	652	--	--	--
		C	18	72	0	54	494	0	476	-422	0	422

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Area	Year		Total Millers' Purchases = Demand I <sup>a</sup>			Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand II = Demand III <sup>c</sup>			
			(1) Production <sup>d</sup>	(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus III	-Demand III Deficit III
Colorado	1975	A <sup>e</sup>	41	155	0	114	1,183	0	1,142	--	--	--
		B <sup>f</sup>	25	93	0	58	710	0	685	--	--	--
		C <sup>g</sup>	18	68	0	50	519	0	501	-451	0	451
New Mexico	1965	A	0	0	0	0	562	0	562	--	--	--
		B	0	0	0	0	337	0	337	--	--	--
		C	0	0	0	0	247	0	247	-247	0	247
	1970	A	0	0	0	0	580	0	580	--	--	--
		B	0	0	0	0	348	0	348	--	--	--
		C	0	0	0	0	254	0	254	-254	0	254
	1975	A	0	0	0	0	614	0	614	--	--	--
		B	0	0	0	0	368	0	368	--	--	--
		C	0	0	0	0	270	0	270	-270	0	270
North Dakota	1965	A	115,824	3,291	112,533	0	361	115,463	0	--	--	--
		B	69,494	1,975	67,520	0	217	67,377	0	--	--	--
		C	50,731	1,442	49,290	0	159	50,572	0	+1,283	1,283	0
	1970	A	162,569	3,132	159,437	0	350	162,218	0	--	--	--
		B	97,541	1,879	95,662	0	210	97,331	0	--	--	--
		C	71,205	1,372	69,833	0	153	71,052	0	+1,219	1,219	0
	1975	A	162,569	2,972	159,597	0	342	162,227	0	--	--	--
		B	97,541	1,783	95,758	0	205	97,336	0	--	--	--
		C	71,205	1,302	69,903	0	150	71,055	0	+1,152	1,152	0

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Area	Year		Total Millers' Purchases = Demand I <sup>a</sup>			Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand III <sup>c</sup>			
			(1) Production <sup>d</sup>	(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus III	-Demand III Deficit III
South Dakota	1965	A <sup>e</sup>	26,792	530	26,262	0	380	26,412	0	--	--	--
		B <sup>f</sup>	16,075	318	15,757	0	228	15,847	0	--	--	--
		C <sup>g</sup>	11,735	232	11,503	0	167	11,568	0	+65	65	0
	1970	A	45,228	345	44,883	0	365	44,923	0	--	--	--
		B	27,137	207	26,966	0	219	26,954	0	--	--	--
		C	19,836	151	19,685	0	160	19,677	0	-9	0	9
	1975	A	45,228	318	44,910	0	355	44,873	0	--	--	--
		B	27,137	191	26,946	0	213	26,924	0	--	--	--
		C	19,836	139	19,671	0	156	19,680	0	-17	0	17
Nebraska	1965	A	0	0	0	0	809	0	809	--	--	--
		B	0	0	0	0	485	0	485	--	--	--
		C	0	0	0	0	355	0	355	-355	0	355
	1970	A	0	0	0	0	788	0	788	--	--	--
		B	0	0	0	0	473	0	473	--	--	--
		C	0	0	0	0	346	0	346	-346	0	346
	1975	A	0	0	0	0	778	0	778	--	--	--
		B	0	0	0	0	467	0	467	--	--	--
		C	0	0	0	0	341	0	341	-341	0	341
Kansas	1965	A	0	2,600	0	2,600	1,247	0	1,247	--	--	--
		B	0	1,560	0	1,560	748	0	748	--	--	--
		C	0	1,139	0	1,139	547	0	547	+592	592	0

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APPENDIX TABLE 1. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF HARD RED SPRING WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year	(1) Production <sup>d</sup>	Total Millers' Purchases = Demand I <sup>a</sup>			Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand II = Demand III <sup>c</sup>			
			(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus	-Demand III Deficit	
Kansas	1970	A <sup>e</sup>	0	4,174	0	4,174	1,223	0	1,223	--	--	--
		B <sup>f</sup>	0	2,504	0	2,504	734	0	734	--	--	--
		C <sup>g</sup>	0	1,828	0	1,828	536	0	536	+1,292	1,292	0
	1975	A	0	4,122	0	4,122	1,212	0	1,212	--	--	--
		B	0	2,473	0	2,473	727	0	727	--	--	--
		C	0	1,805	0	1,805	532	0	532	+1,273	1,273	0
Oklahoma	1965	A	0	182	0	182	1,358	0	1,358	--	--	--
		B	0	109	0	109	814	0	814	--	--	--
		C	0	80	0	80	596	0	596	-516	0	516
	1970	A	0	248	0	248	983	0	1,347	--	--	--
		B	0	149	0	149	590	0	808	--	--	--
		C	0	109	0	109	431	0	590	-322	0	322
	1975	A	0	291	0	291	1,343	0	1,343	--	--	--
		B	0	175	0	175	806	0	806	--	--	--
		C	0	128	0	128	589	0	589	-461	0	461
Texas	1965	A	0	150	0	150	5,877	0	5,877	--	--	--
		B	0	90	0	90	3,526	0	3,526	--	--	--
		C	0	66	0	66	2,578	0	2,578	-2,512	0	2,512
	1970	A	0	188	0	188	6,082	0	6,082	--	--	--
		B	0	113	0	113	3,649	0	3,649	--	--	--
		C	0	82	0	82	2,664	0	2,664	-2,582	0	2,582

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APPENDIX TABLE 1. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF HARD RED SPRING WHEAT—GRAIN AND WHEAT—FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year	(1) Production <sup>d</sup>	Total Millers' Purchases = Demand I <sup>a</sup>		Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand II = Demand III <sup>c</sup>				
			(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus III	-Demand III Deficit III	
Texas	1975	A <sup>e</sup>	0	222	0	222	6,315	0	6,315	--	--	--
		B <sup>f</sup>	0	133	0	133	3,789	0	3,789	--	--	--
		C <sup>g</sup>	0	97	0	97	2,770	0	2,770	-2,673	0	2,673
Region 1	1965	A	20,228	40,057	0	19,828	5,813	14,417	0	--	--	--
		B	12,137	24,034	0	11,897	3,488	8,650	0	--	--	--
		C	8,860	17,545	0	8,685	2,546	6,314	0	+14,999	14,999	0
	1970	A	27,722	38,241	0	10,520	5,697	22,190	0	--	--	--
		B	16,633	22,945	0	6,312	3,418	13,314	0	--	--	--
		C	12,142	16,750	0	4,608	2,495	9,720	0	+14,255	14,255	0
	1975	A	27,222	36,380	0	8,658	5,710	22,012	0	--	--	--
		B	16,633	21,828	0	5,195	3,426	13,207	0	--	--	--
		C	12,142	15,934	0	3,792	2,501	9,641	0	+13,433	13,433	0
Region 2	1965	A	0	3,233	0	3,233	8,408	0	8,408	--	--	--
		B	0	1,940	0	1,940	5,045	0	5,045	--	--	--
		C	0	1,416	0	1,416	3,683	0	3,683	-2,267	0	2,267
	1970	A	0	2,148	0	2,148	8,365	0	8,365	--	--	--
		B	0	1,289	0	1,289	5,019	0	5,019	--	--	--
		C	0	941	0	941	3,664	0	3,664	-2,723	0	2,723
	1975	A	0	1,054	0	1,054	8,468	0	8,468	--	--	--
		B	0	632	0	632	5,081	0	5,081	--	--	--
		C	0	461	0	461	3,709	0	3,709	-3,248	0	3,248

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APPENDIX TABLE 1. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF HARD RED SPRING WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year	(1) Production <sup>d</sup>	Total Millers' Purchases = Demand I <sup>a</sup>		Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand II = Demand III <sup>c</sup>				
			(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus III	-Demand III Deficit III	
Region 3	1965	A <sup>e</sup>	0	0	0	0	6,072	0	6,072	--	--	--
		B <sup>f</sup>	0	0	0	0	3,643	0	3,643	--	--	--
		C <sup>g</sup>	0	0	0	0	2,659	0	2,659	-2,659	0	2,659
	1970	A	0	0	0	0	6,348	0	6,348	--	--	--
		B	0	0	0	0	3,809	0	3,809	--	--	--
		C	0	0	0	0	2,781	0	2,781	-2,781	0	2,781
	1975	A	0	0	0	0	6,500	0	6,500	--	--	--
		B	0	0	0	0	3,900	0	3,900	--	--	--
		C	0	0	0	0	2,847	0	2,847	-2,847	0	2,847
Region 4	1965	A	0	2,268	0	2,268	14,795	0	14,795	--	--	--
		B	0	1,361	0	1,361	8,877	0	8,877	--	--	--
		C	0	994	0	994	6,480	0	6,480	-5,486	0	5,486
	1970	A	0	1	0	1	14,757	0	14,757	--	--	--
		B	0	1	0	1	8,854	0	8,854	--	--	--
		C	0	1	0	1	6,432	0	6,432	-6,432	0	6,432
	1975	A	0	1	0	1	14,965	0	14,965	--	--	--
		B	0	1	0	1	8,979	0	8,979	--	--	--
		C	0	1	0	1	6,554	0	6,554	-6,554	0	6,554
Region 5	1965	A	0	0	0	0	4,882	0	4,882	--	--	--
		B	0	0	0	0	2,929	0	2,929	--	--	--
		C	0	0	0	0	2,138	0	2,138	-2,138	0	2,138

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APPENDIX TABLE 1. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF HARD RED SPRING WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year	(1) Production <sup>d</sup>	Total Millers' Purchases = Demand I <sup>a</sup>			Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand II = Demand III <sup>c</sup>			
			(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus III	-Demand III Deficit III	
Region 5	1970	A <sup>e</sup>	0	0	0	4,942	0	4,942	--	--	--	
		B <sup>f</sup>	0	0	0	2,965	0	2,965	--	--	--	
		C <sup>g</sup>	0	0	0	2,164	0	2,164	-2,164	0	2,164	
	1975	A	0	0	0	5,037	0	5,037	--	--	--	
		B	0	0	0	3,022	0	3,022	--	--	--	
		C	0	0	0	2,206	0	2,206	-2,206	0	2,206	
Region 6	1965	A	0	0	0	6,198	0	6,198	--	--	--	
		B	0	0	0	3,719	0	3,719	--	--	--	
		C	0	0	0	2,715	0	2,715	-2,715	0	2,715	
	1970	A	0	0	0	6,213	0	6,213	--	--	--	
		B	0	0	0	3,728	0	3,728	--	--	--	
		C	0	0	0	2,721	0	2,721	-2,721	0	2,721	
	1975	A	0	0	0	6,318	0	6,318	--	--	--	
		B	0	0	0	3,791	0	3,791	--	--	--	
		C	0	0	0	2,767	0	2,767	-2,767	0	2,767	
Region 7	1965	A	0	32,523	0	32,523	20,260	0	20,260	--	--	--
		B	0	19,514	0	19,514	12,156	0	12,156	--	--	--
		C	0	14,245	0	14,245	8,874	0	8,874	+5,371	5,371	0
	1970	A	0	33,046	0	33,046	20,353	0	20,353	--	--	--
		B	0	19,824	0	19,824	12,212	0	12,212	--	--	--
		C	0	14,472	0	14,472	8,915	0	8,915	+5,557	5,557	0

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APPENDIX TABLE 1. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF HARD RED SPRING WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year	(1) Production <sup>d</sup>	Total Millers' Purchases = Demand I <sup>a</sup>		Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand II = Demand III <sup>c</sup>				
			(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus III	-Demand III Deficit III	
Region 7	1975	A <sup>e</sup>	0	33,489	0	33,489	20,643	0	20,463	--	--	--
		B <sup>f</sup>	0	20,093	0	20,093	12,386	0	12,386	--	--	--
		C <sup>g</sup>	0	14,668	0	14,668	9,042	0	9,042	+5,626	5,626	0
Region 8	1965	A	0	126	0	126	5,708	0	5,708	--	--	--
		B	0	76	0	76	3,425	0	3,425	--	--	--
		C	0	55	0	55	2,500	0	2,500	-2,445	0	2,445
	1970	A	0	108	0	108	5,863	0	5,863	--	--	--
		B	0	65	0	65	3,518	0	3,518	--	--	--
		C	0	47	0	47	2,568	0	2,568	-2,521	0	2,521
	1975	A	0	91	0	91	6,067	0	6,067	--	--	--
		B	0	55	0	55	3,640	0	3,640	--	--	--
		C	0	40	0	40	2,657	0	2,657	-2,617	0	2,617
Region 9	1965	A	0	303	0	303	7,075	0	7,075	--	--	--
		B	0	182	0	182	4,245	0	4,245	--	--	--
		C	0	133	0	133	3,100	0	3,100	-2,967	0	2,967
	1970	A	0	486	0	486	7,480	0	7,480	--	--	--
		B	0	292	0	292	4,488	0	4,488	--	--	--
		C	0	213	0	213	3,276	0	3,276	-3,063	0	3,063
	1975	A	0	718	0	718	7,970	0	7,970	--	--	--
		B	0	431	0	431	4,782	0	4,782	--	--	--
		C	0	315	0	315	3,491	0	3,491	-3,176	0	3,176

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APPENDIX TABLE 1. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF HARD RED SPRING WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year	(1) Production <sup>d</sup>	Total Millers' Purchases = Demand I <sup>a</sup>			Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand II = Demand III <sup>c</sup>			
			(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus III	-Demand III Deficit III	
TOTALS	1965	A <sup>e</sup>	209,113	97,741	180,492	69,101	106,492	200,662	97,996	--	57,399	66,105
		B <sup>f</sup>	125,468	58,645	108,295	41,461	63,895	120,397	58,798	--	34,940	39,663
		C <sup>g</sup>	91,592	42,811	79,055	30,267	46,643	87,890	42,923	--	25,506	28,954
	1970	A	285,697	94,623	249,301	58,906	108,234	276,638	99,958	--	57,233	70,820
		B	171,418	56,774	149,581	35,344	64,924	165,983	59,975	--	34,340	42,492
		C	125,135	41,445	109,194	25,801	47,362	121,168	43,782	--	25,068	31,019
	1975	A	285,697	91,739	249,961	56,678	111,801	276,063	103,146	--	54,630	74,705
		B	171,418	55,043	149,977	34,007	67,080	165,638	61,888	--	32,778	44,823
		C	125,135	40,181	109,483	24,825	48,983	120,916	45,178	--	23,928	32,721

<sup>a</sup>Data used in Model I, Phase I.

<sup>b</sup>Data used in Model II and Model III.

<sup>c</sup>Data used in Model I, Phase II.

<sup>d</sup>Production figures calculated in bushels of wheat or hundredweights of wheat-grain and wheat-flour equivalents.

<sup>e</sup>Thousand bushels of grain.

<sup>f</sup>Thousand hundredweights of grain.

<sup>g</sup>Thousand hundredweights of flour.

APPENDIX TABLE 2. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF HARD RED WINTER WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975

Area	Year		Total Millers' Purchases = Demand I <sup>a</sup>				Total Per Capita = Demand II <sup>b</sup>		
			(1) Production <sup>c</sup>	(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II
Washington	1965	A <sup>d</sup>	8,533	11,896	0	3,363	3,363	5,672	0
		B <sup>e</sup>	5,120	7,138	0	2,018	2,018	3,403	0
		C <sup>f</sup>	3,738	5,211	0	1,473	1,475	2,482	0
	1970	A	9,035	10,244	0	1,209	3,353	5,682	0
		B	5,421	6,146	0	725	2,012	3,409	0
		C	3,957	4,487	0	529	1,469	2,488	0
	1975	A	9,035	8,490	545	0	3,406	5,629	0
		B	5,421	5,094	327	0	2,047	3,377	0
		C	3,957	3,719	239	0	1,494	2,463	0
Oregon	1965	A	422	7,320	0	6,898	2,192	0	2,192
		B	253	4,392	0	4,139	1,315	0	1,315
		C	185	3,206	0	3,021	962	0	962
	1970	A	0	6,753	0	6,753	2,248	0	2,248
		B	0	4,052	0	4,052	1,349	0	1,349
		C	0	2,958	0	2,958	984	0	984
	1975	A	0	5,958	0	5,958	2,308	0	2,308
		B	0	3,575	0	3,575	1,386	0	1,385
		C	0	2,145	0	2,610	1,012	0	1,012
California	1965	A	0	8,888	0	8,888	20,819	0	20,819
		B	0	5,333	0	5,333	12,491	0	12,491
		C	0	3,893	0	3,893	9,132	0	9,132
	1970	A	0	8,959	0	8,959	22,740	0	22,740
		B	0	5,375	0	5,375	13,644	0	13,644
		C	0	3,924	0	3,924	9,960	0	9,960

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APPENDIX TABLE 2. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF HARD RED WINTER WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year		Total Millers' Purchases = Demand I <sup>a</sup>				Total Per Capita = Demand II <sup>b</sup>		
			(1) Production <sup>c</sup>	(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II
California	1975	A <sup>d</sup>	0	8,815	0	8,815	24,877	0	24,877
		B <sup>e</sup>	0	5,289	0	5,289	14,926	0	14,926
		C <sup>f</sup>	0	3,861	0	3,861	10,911	0	10,911
Nevada	1965	A	2	0	2	0	490	0	490
		B	1	0	1	0	215	0	294
		C	1	0	1	0	215	0	215
	1970	A	0	0	0	0	592	0	592
		B	0	0	0	0	355	0	355
		C	0	0	0	0	259	0	259
	1975	A	0	0	0	0	651	0	651
		B	0	0	0	0	391	0	391
		C	0	0	0	0	286	0	286
Idaho	1965	A	19,626	971	18,655	0	784	20,299	0
		B	11,776	583	11,193	0	471	12,179	0
		C	8,596	426	8,171	0	344	8,891	0
	1970	A	21,083	194	20,889	0	777	20,307	0
		B	12,649	116	12,533	0	466	12,184	0
		C	9,234	85	9,149	0	340	8,894	0
	1975	A	21,083	0	21,083	0	783	20,300	0
		B	12,650	0	12,650	0	471	12,180	0
		C	9,234	0	9,234	0	344	8,899	0
Utah	1965	A	3,868	11,155	0	7,287	1,124	3,394	0
		B	2,321	6,693	0	4,372	675	2,036	0
		C	1,694	4,886	0	3,192	493	1,934	0

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APPENDIX TABLE 2. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF HARD RED WINTER WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year		Total Millers' Purchases = Demand I <sup>a</sup>				Total Per Capita = Demand II <sup>b</sup>		
			(1) Production <sup>c</sup>	(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II
Utah	1970	A <sup>d</sup>	4,518	11,402	0	6,884	11,750	3,342	0
		B <sup>e</sup>	2,711	6,841	0	4,130	705	2,005	0
		C <sup>f</sup>	1,979	4,994	0	3,015	515	1,463	0
	1975	A	4,518	11,489	0	6,971	2,073	3,274	0
		B	2,711	6,893	0	4,182	1,244	1,964	0
		C	1,979	5,032	0	3,053	546	1,433	0
Arizona	1965	A	95	93	2	0	1,781	0	1,781
		B	57	56	1	0	1,069	0	1,069
		C	42	41	1	0	782	0	782
	1970	A	0	215	0	215	1,978	0	1,978
		B	0	129	0	129	1,187	0	1,187
		C	0	94	0	94	867	0	867
	1975	A	0	205	0	205	2,191	0	2,191
		B	0	123	0	123	1,315	0	1,315
		C	0	90	0	90	961	0	961
Montana	1965	A	66,726	2,344	64,382	0	795	65,931	0
		B	40,036	1,406	38,629	0	478	39,559	0
		C	29,226	1,026	28,199	0	349	28,878	0
	1970	A	100,883	2,227	98,656	0	785	100,098	0
		B	60,530	1,336	59,192	0	471	60,059	0
		C	44,187	975	43,210	0	344	43,843	0
	1975	A	100,883	1,942	98,941	0	787	100,096	0
		B	60,530	1,165	59,365	0	472	60,058	0
		C	44,187	850	43,336	0	345	43,842	0

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APPENDIX TABLE 2. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF HARD RED WINTER WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year		Total Millers' Purchases = Demand I <sup>a</sup>				Total Per Capita = Demand II <sup>b</sup>		
			(1) Production <sup>c</sup>	(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II
Wyoming	1965	A <sup>d</sup>	2,144	0	2,144	0	373	1,886	0
		B <sup>e</sup>	1,286	0	1,286	0	225	1,132	0
		C <sup>f</sup>	939	0	939	0	164	746	0
	1970	A	2,259	0	2,259	0	363	1,897	0
		B	1,355	0	1,355	0	218	1,138	0
		C	989	0	989	0	159	831	0
	1975	A	2,259	0	2,259	0	364	1,865	0
		B	1,355	0	1,355	0	219	1,119	0
		C	989	0	989	0	160	644	0
Colorado	1965	A	19,034	9,028	10,006	0	2,204	48,390	0
		B	11,420	5,417	6,004	0	1,325	29,034	0
		C	8,337	3,954	4,383	0	967	21,351	0
	1970	A	50,959	8,873	42,081	0	2,298	48,655	0
		B	30,573	5,324	25,249	0	1,379	29,193	0
		C	22,318	3,887	18,432	0	1,007	21,311	0
	1975	A	50,959	8,461	42,493	0	2,412	48,182	0
		B	30,573	5,077	25,496	0	1,449	28,909	0
		C	22,318	3,706	18,612	0	1,058	21,260	0
New Mexico	1965	A	4,919	514	4,405	0	1,147	4,123	0
		B	2,951	308	2,643	0	689	2,474	0
		C	2,154	225	1,929	0	503	1,805	0
	1970	A	5,270	430	4,840	0	1,180	4,088	0
		B	3,162	258	2,904	0	708	2,453	0
		C	2,308	188	2,120	0	517	1,791	0

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APPENDIX TABLE 2. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF HARD RED WINTER WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year		Total Millers' Purchases = Demand I <sup>a</sup>				Total Per Capita = Demand II <sup>b</sup>		
			(1) Production <sup>c</sup>	(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II
New Mexico	1975	A <sup>d</sup>	5,270	410	4,860	0	1,252	4,656	0
		B <sup>e</sup>	3,162	246	2,916	0	752	2,794	0
		C <sup>f</sup>	2,308	180	2,129	0	549	1,759	0
North Dakota	1965	A	680	1,263	0	583	737	0	737
		B	408	7,578	0	350	444	0	442
		C	298	5,532	0	210	324	0	324
	1970	A	0	1,198	0	1,198	715	0	713
		B	0	719	0	719	429	0	428
		C	0	525	0	525	313	0	313
	1975	A	0	1,131	0	1,131	697	0	697
		B	0	678	0	678	419	0	418
		C	0	495	0	495	306	0	306
South Dakota	1965	A	14,465	1,286	13,179	0	776	13,689	0
		B	8,679	772	7,907	0	466	8,213	0
		C	6,336	564	5,772	0	340	5,995	0
	1970	A	23,150	1,592	21,558	0	742	22,407	0
		B	13,890	955	12,935	0	445	13,444	0
		C	10,140	697	9,443	0	325	9,814	0
	1975	A	23,150	1,529	21,621	0	723	22,427	0
		B	13,890	955	12,973	0	434	13,456	0
		C	10,140	697	9,470	0	317	9,822	0
Nebraska	1965	A	54,540	6,827	47,713	0	1,650	35,820	0
		B	32,724	4,096	28,628	0	992	22,092	0
		C	23,889	2,990	20,898	0	724	15,540	0

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APPENDIX TABLE 2. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF HARD RED WINTER WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year		Total Millers' Purchases = Demand I <sup>a</sup>				Total Per Capita = Demand II <sup>b</sup>		
			(1) Production <sup>c</sup>	(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II
Nebraska	1970	A <sup>d</sup>	37,132	4,082	33,050	0	1,610	35,523	0
		B <sup>e</sup>	22,279	2,449	19,830	0	966	21,314	0
		C <sup>f</sup>	16,264	1,788	14,476	0	705	15,560	0
	1975	A	37,132	1,043	36,089	0	1,585	35,547	0
		B	22,279	626	21,654	0	952	21,328	0
		C	16,264	457	15,807	0	695	15,568	0
Kansas	1965	A	236,386	80,827	155,559	0	2,543	310,428	0
		B	141,832	48,496	93,335	0	1,527	186,257	0
		C	103,537	35,402	68,135	0	1,115	135,966	0
	1970	A	312,971	79,298	233,673	0	2,495	310,477	0
		B	187,782	47,576	140,204	0	1,497	186,286	0
		C	137,081	34,657	102,349	0	1,093	135,989	0
	1975	A	312,971	76,708	236,263	0	2,471	310,500	0
		B	187,782	46,025	141,758	0	1,485	186,300	0
		C	137,081	33,598	103,483	0	1,084	136,697	0
Oklahoma	1965	A	132,650	15,470	117,180	0	2,769	78,271	0
		B	79,590	9,282	70,308	0	1,664	46,963	0
		C	55,181	6,776	51,325	0	1,215	34,281	0
	1970	A	81,040	15,242	65,798	0	2,747	78,295	0
		B	48,625	9,145	39,479	0	1,648	46,977	0
		C	35,496	6,676	28,820	0	1,203	34,293	0
	1975	A	81,040	14,275	66,765	0	2,737	78,303	0
		B	48,625	8,565	40,059	0	1,645	46,982	0
		C	35,496	6,252	29,243	0	1,201	34,295	0

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APPENDIX TABLE 2. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF HARD RED WINTER WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year		Total Millers' Purchases = Demand I <sup>a</sup>				Total Per Capita = Demand II <sup>b</sup>		
			(1) Production <sup>c</sup>	(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II
Texas	1965	A <sup>d</sup>	73,246	27,788	45,458	0	11,981	25,665	0
		B <sup>e</sup>	43,948	16,678	27,275	0	7,199	15,399	0
		C <sup>f</sup>	32,082	12,175	19,911	0	5,255	11,234	0
	1970	A	37,646	26,704	10,942	0	12,400	25,247	0
		B	22,588	16,022	6,565	0	7,440	15,148	0
		C	16,489	11,696	4,792	0	5,431	11,058	0
	1975	A	37,646	24,397	13,249	0	12,869	24,777	0
		B	22,588	14,638	7,949	0	7,732	14,866	0
		C	16,489	10,686	5,803	0	5,644	10,845	0
Region 9	1965	A	1,310	15,708	0	14,398	11,828	0	10,520
		B	786	9,425	0	8,639	7,097	0	6,312
		C	574	6,880	0	6,306	5,181	0	4,608
	1970	A	0	17,674	0	17,674	11,615	0	11,615
		B	0	10,604	0	11,604	6,969	0	6,969
		C	0	7,741	0	7,741	5,087	0	5,087
	1975	A	0	19,577	0	19,577	11,635	0	11,635
		B	0	11,734	0	11,734	6,981	0	6,981
		C	0	8,566	0	8,566	5,096	0	5,096
Region 10	1965	A	52,618	52,188	430	0	17,143	34,475	0
		B	31,571	31,318	258	0	10,286	21,285	0
		C	23,047	22,862	188	0	7,509	15,538	0
	1970	A	56,472	56,588	0	116	17,053	39,420	0
		B	33,884	33,953	0	70	10,232	23,652	0
		C	24,735	24,786	0	51	7,469	17,266	0

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APPENDIX TABLE 2. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF HARD RED WINTER WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year		(1) Production <sup>c</sup>	Total Millers' Purchases = Demand I <sup>a</sup>			Total Per Capita = Demand II <sup>b</sup>		
				(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II
Region 10	1975	A <sup>d</sup>	56,472	60,980	0	4,508	17,252	39,220	0
		B <sup>e</sup>	33,884	36,588	0	2,705	10,351	23,532	0
		C <sup>f</sup>	24,735	26,709	0	1,975	7,556	17,179	0
Region 11	1965	A	453	0	453	0	12,797	0	12,343
		B	271	0	272	0	7,678	0	7,406
		C	198	0	198	0	5,605	0	5,407
	1970	A	0	0	0	0	12,943	0	12,943
		B	0	0	0	0	7,766	0	7,766
		C	0	0	0	0	5,669	0	5,669
	1975	A	0	0	0	0	13,243	0	13,243
		B	0	0	0	0	7,946	0	7,946
		C	0	0	0	0	5,801	0	5,801
Region 12	1965	A	856	2,189	0	1,333	30,100	0	29,243
		B	514	1,313	0	800	18,060	0	17,546
		C	375	958	0	584	13,184	0	12,809
	1970	A	0	0	0	0	30,082	0	30,082
		B	0	0	0	0	18,049	0	18,049
		C	0	0	0	0	13,177	0	13,177
	1975	A	0	0	0	0	30,495	0	30,495
		B	0	0	0	0	18,297	0	18,297
		C	0	0	0	0	13,357	0	13,357
Region 13	1965	A	226	0	226	0	9,952	0	9,952
		B	136	0	136	0	5,971	0	5,836
		C	99	0	99	0	4,359	0	4,260

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APPENDIX TABLE 2. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF HARD RED WINTER WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year	(1) Production <sup>c</sup>	Total Millers' Purchases = Demand I <sup>a</sup>			Total Per Capita = Demand II <sup>b</sup>			
			(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	
Region 13	1970	A <sup>d</sup>	0	0	0	10,142	0	10,142	
		B <sup>e</sup>	0	0	0	6,085	0	6,085	
		C <sup>f</sup>	0	0	0	4,442	0	4,442	
	1975	A	0	0	0	10,263	0	10,263	
		B	0	0	0	6,158	0	6,158	
		C	0	0	0	4,495	0	4,495	
Region 14	1965	A	0	0	0	12,627	0	12,627	
		B	0	0	0	7,576	0	7,576	
		C	0	0	0	5,530	0	5,530	
	1970	A	0	0	0	12,665	0	12,665	
		B	0	0	0	7,599	0	7,599	
		C	0	0	0	5,547	0	5,547	
	1975	A	0	0	0	12,875	0	12,875	
		B	0	0	0	7,725	0	7,725	
		C	0	0	0	5,639	0	5,639	
Region 15	1965	A	58	20,521	0	20,463	41,315	0	41,258
		B	35	12,313	0	12,279	24,789	0	24,755
		C	25	8,988	0	8,964	18,096	0	18,071
	1970	A	0	20,371	0	20,371	41,493	0	41,493
		B	0	12,223	0	12,223	24,896	0	24,896
		C	0	8,923	0	8,923	18,174	0	18,174
	1975	A	0	20,185	0	20,185	42,068	0	42,068
		B	0	12,111	0	12,111	25,241	0	25,241
		C	0	7,267	0	7,267	18,426	0	18,426

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APPENDIX TABLE 2. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF HARD RED WINTER WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year		Total Millers' Purchases = Demand Ia				Total Per Capita = Demand II <sup>b</sup>		
			(1) Production <sup>c</sup>	(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II
Region 16	1965	A <sup>d</sup>	9,328	76	9,252	0	11,637	0	2,309
		B <sup>e</sup>	5,596	46	5,550	0	6,982	0	1,385
		C <sup>f</sup>	4,085	34	4,051	0	5,097	0	1,011
	1970	A	9,794	65	9,729	0	11,955	0	2,161
		B	5,876	39	5,837	0	7,173	0	1,297
		C	4,289	28	4,261	0	5,236	0	947
	1975	A	10,283	54	10,229	0	12,363	0	2,080
		B	6,170	32	6,138	0	7,418	0	1,248
		C	4,504	23	4,481	0	5,415	0	911
Region 17	1965	A	0	1,513	0	1,513	14,430	0	14,430
		B	0	908	0	908	8,658	0	8,658
		C	0	672	0	672	6,320	0	6,320
	1970	A	0	1,978	0	1,978	15,248	0	15,248
		B	0	1,187	0	1,187	9,149	0	9,149
		C	0	867	0	867	6,679	0	6,679
	1975	A	0	2,524	0	2,524	16,242	0	16,242
		B	0	1,514	0	1,514	9,745	0	9,745
		C	0	1,105	0	1,105	7,114	0	7,114

<sup>a</sup>Data used in Model I, Phase I.

<sup>b</sup>Data used in Model II and Model III.

<sup>c</sup>Production figures calculated in bushels of wheat or hundredweights of wheat-grain and wheat-flour equivalents.

<sup>d</sup>Thousand bushels of grain.

<sup>e</sup>Thousand hundredweights of grain.

<sup>f</sup>Thousand hundredweights of flour.

APPENDIX TABLE 3. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF DURUM WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975

Area	Year	(1) Production <sup>d</sup>	Total Millers' Purchases = Demand I <sup>a</sup>			Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand II = Demand III <sup>c</sup>			
			(2) Demand I	(1)-(2) Surplu: I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus III	-Demand III Deficit III	
Washington	1965	A <sup>e</sup>	0	824	0	824	381	0	381	--	--	--
		B <sup>f</sup>	0	494	0	494	229	0	229	--	--	--
		C <sup>g</sup>	0	361	0	361	167	0	167	+194	194	0
	1970	A	0	964	0	964	380	0	380	--	--	--
		B	0	578	0	578	228	0	228	--	--	--
		C	0	422	0	422	167	0	167	+255	255	0
	1975	A	0	1,017	0	1,017	386	0	386	--	--	--
		B	0	610	0	610	232	0	232	--	--	--
		C	0	445	0	445	169	0	169	+276	276	0
Oregon	1965	A	285	425	0	140	248	0	248	--	--	--
		B	171	255	0	84	149	0	149	--	--	--
		C	125	186	0	61	109	0	109	+77	77	0
	1970	A	250	568	0	318	255	0	5	--	--	--
		B	150	341	0	191	153	0	3	--	--	--
		C	110	249	0	139	112	0	2	+137	137	0
	1975	A	250	679	0	429	261	0	11	--	--	--
		B	150	408	0	258	157	0	7	--	--	--
		C	110	298	0	188	115	0	5	+183	183	0
California	1965	A	285	414	0	129	2,362	0	2,080	--	--	--
		B	171	249	0	78	1,417	0	1,248	--	--	--
		C	125	182	0	57	1,036	0	911	-729	0	729

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APPENDIX TABLE 3. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF DURUM WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year		Total Millers' Purchases = Demand I <sup>a</sup>			Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand III <sup>c</sup>			
			(1) Production <sup>d</sup>	(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus III	-Demand III Deficit III
California	1970	A <sup>e</sup>	537	586	0	49	2,580	0	2,043	--	--	--
		B <sup>f</sup>	322	352	0	30	1,548	0	1,226	--	--	--
		C <sup>g</sup>	235	257	0	22	1,130	0	895	-873	0	873
	1975	A	537	750	0	213	2,822	0	2,285	--	--	--
		B	322	450	0	128	1,693	0	1,371	--	--	--
		C	235	329	0	94	1,238	0	1,003	-761	0	761
Nevada	1965	A	0	0	0	0	55	0	53	--	--	--
		B	0	0	0	0	32	0	32	--	--	--
		C	0	0	0	0	24	0	24	-53	0	53
	1970	A	0	0	0	0	67	0	67	--	--	--
		B	0	0	0	0	40	0	40	--	--	--
		C	0	0	0	0	29	0	29	-29	0	29
	1975	A	0	0	0	0	73	0	73	--	--	--
		B	0	0	0	0	44	0	44	--	--	--
		C	0	0	0	0	32	0	32	-32	0	32
Idaho	1965	A	0	53	0	53	88	0	88	--	--	--
		B	0	32	0	32	53	0	53	--	--	--
		C	0	23	0	23	39	0	39	-16	0	16
	1970	A	0	15	0	15	88	0	88	--	--	--
		B	0	9	0	9	53	0	53	--	--	--
		C	0	2	0	2	39	0	39	-37	0	37

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APPENDIX TABLE 3. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF DURUM WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year	(1) Production <sup>d</sup>	Total Millers' Purchases = Demand I <sup>a</sup>			Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand II = Demand III <sup>c</sup>			
			(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus	-Demand III Deficit	
Idaho	1975	A <sup>e</sup>	0	1	0	1	88	0	88	--	--	--
		B <sup>f</sup>	0	1	0	1	53	0	53	--	--	--
		C <sup>g</sup>	0	1	0	1	39	0	39	-39	0	39
Utah	1965	A	0	0	0	0	127	0	127	--	--	--
		B	0	0	0	0	76	0	76	--	--	--
		C	0	0	0	0	56	0	56	-56	0	56
	1970	A	0	0	0	0	133	0	133	--	--	--
		B	0	0	0	0	80	0	80	--	--	--
		C	0	0	0	0	58	0	58	-58	0	58
	1975	A	0	0	0	0	141	0	141	--	--	--
		B	0	0	0	0	85	0	85	--	--	--
		C	0	0	0	0	62	0	62	-62	0	62
Arizona	1965	A	0	0	0	0	204	0	204	--	--	--
		B	0	0	0	0	122	0	122	--	--	--
		C	0	0	0	0	90	0	90	-90	0	90
	1970	A	0	0	0	0	225	0	225	--	--	--
		B	0	0	0	0	135	0	135	--	--	--
		C	0	0	0	0	98	0	98	-98	0	98
	1975	A	0	0	0	0	248	0	248	--	--	--
		B	0	0	0	0	155	0	155	--	--	--
		C	0	0	0	0	109	0	109	-109	0	109

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APPENDIX TABLE 3. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF DURUM WHEAT-  
GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year	(1) Production <sup>d</sup>	Total Millers' Purchases = Demand Ia			Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand II = Demand III <sup>c</sup>			
			(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus III	-Demand III Deficit III	
Montana	1965	A <sup>e</sup>	3,021	311	2,710	0	90	3,534	0	--	--	--
		B <sup>f</sup>	1,813	187	1,626	0	54	2,120	0	--	--	--
		C <sup>g</sup>	1,323	137	187	0	40	1,548	0	+97	97	0
	1970	A	4,173	387	3,786	0	88	4,085	0	--	--	--
		B	2,504	232	2,272	0	53	2,451	0	--	--	--
		C	1,828	169	1,659	0	39	1,789	0	+130	130	0
	1975	A	4,173	425	3,748	0	89	4,084	0	--	--	--
		B	2,504	255	2,249	0	53	2,451	0	--	--	--
		C	1,828	186	1,642	0	39	1,789	0	+147	147	0
Wyoming	1965	A	0	0	0	0	42	0	42	--	--	--
		B	0	0	0	0	25	0	25	--	--	--
		C	0	0	0	0	19	0	19	-19	0	19
	1970	A	0	0	0	0	42	0	42	--	--	--
		B	0	0	0	0	25	0	25	--	--	--
		C	0	0	0	0	18	0	18	-18	0	18
	1975	A	0	0	0	0	41	0	41	--	--	--
		B	0	0	0	0	25	0	25	--	--	--
		C	0	0	0	0	18	0	18	-18	0	18
Colorado	1965	A	0	0	0	0	250	0	250	--	--	--
		B	0	0	0	0	150	0	150	--	--	--
		C	0	0	0	0	110	0	110	-110	0	110

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APPENDIX TABLE 3. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF DURUM WHEAT-  
GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year		Total Millers' Purchases = Demand Ia			Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand II = Demand III <sup>c</sup>			
			(1) Production <sup>d</sup>	(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus III	-Demand III Deficit III
Colorado	1970	A <sup>e</sup>	0	0	0	0	262	0	262	---	---	---
		B <sup>f</sup>	0	0	0	0	157	0	157	---	---	---
		C <sup>g</sup>	0	0	0	0	114	0	114	-114	0	114
	1975	A	0	0	0	0	273	0	273	---	---	---
		B	0	0	0	0	164	0	164	---	---	---
		C	0	0	0	0	120	0	120	-120	0	120
New Mexico	1965	A	0	0	0	0	130	0	130	---	---	---
		B	0	0	0	0	78	0	78	---	---	---
		C	0	0	0	0	57	0	57	-57	0	57
	1970	A	0	0	0	0	133	0	133	---	---	---
		B	0	0	0	0	80	0	80	---	---	---
		C	0	0	0	0	59	0	59	-59	0	59
	1975	A	0	0	0	0	142	0	142	---	---	---
		B	0	0	0	0	85	0	85	---	---	---
		C	0	0	0	0	62	0	62	-62	0	62
North Dakota	1965	A	61,411	2,436	58,975	0	83	73,992	0	---	---	---
		B	36,847	1,462	35,385	0	50	44,395	0	---	---	---
		C	26,898	1,067	25,831	0	37	32,408	0	+1,030	1,030	0
	1970	A	84,851	2,554	82,297	0	80	84,771	0	---	---	---
		B	50,911	1,532	49,379	0	48	50,863	0	---	---	---
		C	37,165	1,118	36,047	0	35	37,130	0	+1,083	1,083	0
	1975	A	84,851	2,667	82,184	0	79	84,772	0	---	---	---
		B	50,911	1,600	49,311	0	47	50,864	0	---	---	---
		C	37,165	1,168	35,997	0	35	37,130	0	+1,133	1,133	0

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APPENDIX TABLE 3. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF DURUM WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year	(1) Production <sup>d</sup>	Total Millers' Purchases = Demand I <sup>a</sup>			Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand II = Demand III <sup>c</sup>			
			(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus III	-Demand III Deficit III	
South Dakota	1965	A <sup>e</sup>	2,266	0	2,266	0	88	2,609	0	--	--	--
		B <sup>f</sup>	1,360	0	1,360	0	53	1,565	0	--	--	--
		C <sup>g</sup>	993	0	993	0	39	1,143	0	-39	0	39
	1970	A	3,060	0	3,060	0	83	2,977	0	--	--	--
		B	1,836	0	1,836	0	50	1,786	0	--	--	--
		C	1,340	0	1,340	0	37	1,303	0	-37	0	37
	1975	A	3,060	0	3,060	0	82	2,978	0	--	--	--
		B	1,836	0	1,836	0	49	1,787	0	--	--	--
		C	1,340	0	1,340	0	36	1,304	0	-36	0	36
Nebraska	1965	A	0	8,693	0	8,693	187	0	187	--	--	--
		B	0	5,216	0	5,216	112	0	112	--	--	--
		C	0	3,808	0	3,808	82	0	82	+3,726	3,726	0
	1970	A	0	12,053	0	12,053	178	0	178	--	--	--
		B	0	7,232	0	7,232	107	0	107	--	--	--
		C	0	5,279	0	5,279	80	0	80	+5,199	5,199	0
	1975	A	0	14,754	0	14,754	179	0	179	--	--	--
		B	0	8,853	0	8,853	110	0	110	--	--	--
		C	0	6,463	0	6,463	79	0	79	+6,384	6,384	0
Kansas	1965	A	0	0	0	0	288	0	288	--	--	--
		B	0	0	0	0	173	0	173	--	--	--
		C	0	0	0	0	127	0	127	-127	0	127
	1970	A	0	0	0	0	283	0	283	--	--	--
		B	0	0	0	0	170	0	170	--	--	--
		C	0	0	0	0	124	0	124	-124	0	124

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APPENDIX TABLE 3. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF DURUM WHEAT-  
GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year	(1) Produc- tion <sup>d</sup>	Total Millers' Purchases = Demand I <sup>a</sup>			Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand II = Demand III <sup>c</sup>		
			(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus III	-Demand III Deficit III
Kansas	1975	A <sup>e</sup>	0	0	0	280	0	280	--	--	--
		B <sup>f</sup>	0	0	0	168	0	168	--	--	--
		C <sup>g</sup>	0	0	0	123	0	123	-123	0	123
Oklahoma	1965	A	0	0	0	314	0	314	--	--	--
		B	0	0	0	188	0	188	--	--	--
		C	0	0	0	138	0	138	-138	0	138
	1970	A	0	0	0	312	0	312	--	--	--
		B	0	0	0	187	0	187	--	--	--
		C	0	0	0	136	0	136	-136	0	136
	1975	A	0	0	0	310	0	310	--	--	--
		B	0	0	0	186	0	186	--	--	--
		C	0	0	0	136	0	136	-136	0	136
Texas	1965	A	0	0	0	1,359	0	1,359	--	--	--
		B	0	0	0	815	0	815	--	--	--
		C	0	0	0	596	0	596	-596	0	596
	1970	A	0	0	0	1,407	0	1,407	--	--	--
		B	0	0	0	844	0	844	--	--	--
		C	0	0	0	616	0	616	-616	0	616
	1975	A	0	0	0	1,459	0	1,459	--	--	--
		B	0	0	0	875	0	875	--	--	--
		C	0	0	0	640	0	640	-640	0	640

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APPENDIX TABLE 3. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF DURUM WHEAT-  
GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year	(1) Production <sup>d</sup>	Total Millers' Purchases = Demand Ia			Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand II = Demand III <sup>c</sup>			
			(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus III	-Demand III Deficit III	
Region 1	1965	A <sup>e</sup>	2,883	22,480	0	19,597	1,345	1,538	0	--	--	--
		B <sup>f</sup>	1,730	13,488	0	11,758	807	923	0	--	--	--
		C <sup>g</sup>	1,263	9,846	0	8,583	589	674	0	+9,846	9,846	0
	1970	A	3,455	21,825	0	18,370	1,317	2,138	0	--	--	--
		B	2,073	13,095	0	11,022	790	1,283	0	--	--	--
		C	1,513	9,559	0	8,046	577	936	0	+9,559	9,559	0
	1975	A	3,455	21,138	0	17,683	1,320	2,135	0	--	--	--
		B	2,073	12,683	0	10,610	792	1,281	0	--	--	--
		C	1,513	9,258	0	7,745	578	935	0	+9,258	9,258	0
Region 2	1965	A	0	0	0	0	1,945	0	1,945	--	--	--
		B	0	0	0	0	1,167	0	1,167	--	--	--
		C	0	0	0	0	852	0	852	-852	852	0
	1970	A	0	0	0	0	1,935	0	1,935	--	--	--
		B	0	0	0	0	1,161	0	1,161	--	--	--
		C	0	0	0	0	847	0	847	-847	847	0
	1975	A	0	0	0	0	1,957	0	1,957	--	--	--
		B	0	0	0	0	1,174	0	1,174	--	--	--
		C	0	0	0	0	857	0	857	-857	857	0
Region 3	1965	A	0	0	0	0	1,452	0	1,452	--	--	--
		B	0	0	0	0	871	0	871	--	--	--
		C	0	0	0	0	636	0	636	-636	636	0
	1970	A	0	0	0	0	1,468	0	1,468	--	--	--
		B	0	0	0	0	881	0	881	--	--	--
		C	0	0	0	0	643	0	643	-643	643	0

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APPENDIX TABLE 3. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF DURUM WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year	(1) Production <sup>d</sup>	Total Millers' Purchases = Demand I <sup>a</sup>			Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand II = Demand III <sup>c</sup>		
			(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus III	-Demand III Deficit III
Region 3	1975	A <sup>e</sup>	0	0	0	1,502	0	1,502	--	--	--
		B <sup>f</sup>	0	0	0	901	0	901	--	--	--
		C <sup>g</sup>	0	0	0	658	0	658	-658	0	658
Region 4	1965	A	0	0	0	3,422	0	3,422	--	--	--
		B	0	0	0	2,053	0	2,053	--	--	--
		C	0	0	0	1,499	0	1,499	-1,499	0	1,499
	1970	A	0	0	0	3,413	0	3,413	--	--	--
		B	0	0	0	2,048	0	2,048	--	--	--
		C	0	0	0	1,495	0	1,495	-1,495	0	1,495
	1975	A	0	0	0	3,460	0	3,460	--	--	--
		B	0	0	0	2,076	0	2,076	--	--	--
		C	0	0	0	1,515	0	1,515	-1,515	0	1,515
Region 5	1965	A	0	0	0	1,130	0	1,130	--	--	--
		B	0	0	0	678	0	678	--	--	--
		C	0	0	0	495	0	495	-495	0	495
	1970	A	0	0	0	1,143	0	1,143	--	--	--
		B	0	0	0	686	0	686	--	--	--
		C	0	0	0	501	0	501	-501	0	501
	1975	A	0	0	0	1,165	0	1,165	--	--	--
		B	0	0	0	699	0	699	--	--	--
		C	0	0	0	510	0	510	-510	0	510

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APPENDIX TABLE 3. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF DURUM WHEAT-  
GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year	(1) Production <sup>d</sup>	Total Millers' Purchases = Demand I <sup>a</sup>			Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand II = Demand III <sup>c</sup>		
			(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus III	-Demand III Deficit III
Region 6	1965	A <sup>e</sup>	0	0	0	1,433	0	1,433	--	--	--
		B <sup>f</sup>	0	0	0	860	0	860	--	--	--
		C <sup>g</sup>	0	0	0	627	0	627	-627	0	627
	1970	A	0	0	0	1,400	0	1,400	--	--	--
		B	0	0	0	840	0	840	--	--	--
		C	0	0	0	613	0	613	-613	0	613
	1975	A	0	0	0	1,460	0	1,460	--	--	--
		B	0	0	0	876	0	876	--	--	--
		C	0	0	0	640	0	640	-640	0	640
Region 7	1965	A	0	0	0	4,688	0	4,688	--	--	--
		B	0	0	0	2,813	0	2,813	--	--	--
		C	0	0	0	2,053	0	2,053	-2,053	0	2,053
	1970	A	0	0	0	4,708	0	4,708	--	--	--
		B	0	0	0	2,825	0	2,825	--	--	--
		C	0	0	0	2,062	0	2,062	-2,062	0	2,062
	1975	A	0	0	0	4,772	0	4,772	--	--	--
		B	0	0	0	2,863	0	2,863	--	--	--
		C	0	0	0	2,090	0	2,090	-2,090	0	2,090
Region 8	1965	A	0	0	0	1,320	0	1,320	--	--	--
		B	0	0	0	792	0	792	--	--	--
		C	0	0	0	578	0	578	-578	0	578
	1970	A	0	0	0	1,357	0	1,357	--	--	--
		B	0	0	0	814	0	814	--	--	--
		C	0	0	0	594	0	594	-594	0	594

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APPENDIX TABLE 3. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF DURUM WHEAT-  
GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year	(1) Production <sup>d</sup>	Total Millers' Purchases = Demand Ia			Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand II = Demand III <sup>c</sup>			
			(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus III	-Demand III Deficit III	
Region 8	1975	Ae	0	0	0	1,403	0	1,403	--	--	--	
		Bf	0	0	0	842	0	842	--	--	--	
		Cg	0	0	0	614	0	614	-614	0	614	
Region 9	1965	A	0	0	0	1,637	0	1,637	--	--	--	
		B	0	0	0	982	0	982	--	--	--	
		C	0	0	0	717	0	717	-717	0	717	
	1970	A	0	0	0	1,730	0	1,730	--	--	--	
		B	0	0	0	1,038	0	1,038	--	--	--	
		C	0	0	0	758	0	758	-758	0	758	
	1975	A	0	0	0	1,843	0	1,843	--	--	--	
		B	0	0	0	1,106	0	1,106	--	--	--	
		C	0	0	0	807	0	807	-807	0	807	
TOTALS	1965	A	70,151	35,636	63,951	29,436	24,668	81,673	22,778	--	--	--
		B	42,092	21,383	38,371	17,662	14,799	49,003	10,853	--	--	--
		C	30,727	15,610	28,011	12,893	10,812	35,773	9,982	--	--	--
	1970	A	84,188	38,952	77,455	32,219	25,067	82,279	23,162	--	--	--
		B	50,512	23,450	46,017	19,411	15,041	49,368	13,898	--	--	--
		C	36,874	17,117	33,592	14,170	10,981	36,037	10,145	--	--	--

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APPENDIX TABLE 3. ACTUAL AND PROJECTED VOLUME OF PRODUCTION, DEMAND, SURPLUS, AND DEFICIT OF DURUM WHEAT-GRAIN AND WHEAT-FLOUR IN THE UNITED STATES BY STATE AND REGION FOR 1965, 1970, AND 1975 - continued

Area	Year	(1) Production <sup>d</sup>	Total Millers' Purchases = Demand I <sup>a</sup>			Total Per Capita = Demand II <sup>b</sup>			Demand I (Less) Demand II = Demand III <sup>c</sup>		
			(2) Demand I	(1)-(2) Surplus I	(2)-(1) Deficit I	(3) Demand II	(1)-(3) Surplus II	(3)-(1) Deficit II	(2)-(3) Demand III	+Demand III Surplus III	-Demand III Deficit III
TOTALS	1975	A <sup>e</sup> 84,188	41,430	77,304	34,546	25,835	82,279	23,932	--	--	--
		B <sup>f</sup> 50,512	24,859	46,382	20,729	15,510	49,368	14,344	--	--	--
		C <sup>g</sup> 36,874	18,147	33,859	15,132	11,321	36,038	10,485	--	--	--

<sup>a</sup>Data used in Model I, Phase I.

<sup>b</sup>Data used in Model II and Model III.

<sup>c</sup>Data used in Model I, Phase II.

<sup>d</sup>Production figures calculated in bushels of wheat or hundredweights of wheat-grain and wheat-flour equivalents.

<sup>e</sup>Thousand bushels of grain.

<sup>f</sup>Thousand hundredweights of grain.

<sup>g</sup>Thousand hundredweights of flour.

APPENDIX TABLE 4. TOTAL WHEAT GROUND (I), REPORTED WHEAT GROUND (II), AND RATIO ESTIMATORS (III) BY STATE AND REGION FOR 1950, 1955, 1960, AND 1965

AREA	1950			1955			1960			1965		
	I	II	III <sup>d</sup>	I	II	III <sup>d</sup>	I	II	III <sup>d</sup>	I	II	III <sup>d</sup>
	000 bushels	bushels		000 bushels	bushels		000 bushels	bushels		000 bushels	bushels	
<b>State</b>												
Washington	20,686	449	46,071.2695	21,587	7,400,500	2.9170	23,115	14,391,997	1.6061	19,087	11,745,518	1.6250
Oregon	10,608	4,000,000	2.6520	14,731	10,044,000	1.4666	15,251	12,956,000	1.1771	14,930	14,930,000	1.0000
California	10,441	572,764	18.2291	12,975	779,110	16.6536	14,801	8,005,267	1.8489	17,584	13,626,601	1.2904
Nevada <sup>b</sup>	0	0	0	0	0	0	0	0	0	0	0	0
Idaho	3,535	500,000	7.0700	1,534	630,000	2.4349	1,499	630,000	2.3793	1,046	569,000	1.8383
Utah	8,761	82,500	106.1939	11,078	98,000	113.0408	13,068	3,489,442	3.7450	12,023	193,636	62.0907
Arizona	290	183,349	1.5816	893	366,682	2.4353	952	400,015	2.3799	828	450,570	1.8377
Montana	7,153	6,599,967	1.0837	7,685	6,403,707	1.2000	6,775	6,775,088	1.0000	6,668	6,559,686	1.0165
Wyoming <sup>b</sup>	0	0	0	0	0	0	0	0	0	0	0	0
Colorado <sup>a</sup>	8,781	8,781,000	1.0000	9,435	9,435,000	1.0000	9,415	9,415,000	1.0000	9,193	9,193,000	1.0000
New Mexico	442	150,000	2.9466	852	350,000	2.4342	714	300,000	2.3800	514	280,000	1.8357
North Dakota	6,285	4,038,974	1.5560	6,703	4,954,500	1.3529	7,655	4,223,836	1.8123	6,990	5,823,819	1.2002
South Dakota	1,406	890,050	1.5796	2,365	971,043	2.4355	3,169	1,331,678	2.3797	1,816	1,512,859	1.2004
Nebraska	13,201	12,750	1,035.3725	14,889	355,696	41.8587	16,350	313,032	52.2310	15,520	411,180	37.7450
Kansas	82,364	3,193,245	25.7931	69,408	13,771,866	5.0398	91,509	25,039,910	3.6545	86,650	26,558,872	3.2626
Oklahoma	24,283	10,816,128	2.2450	22,441	8,293,094	2.7059	21,000	9,729,755	2.1583	15,652	6,018,783	2.6005
Texas	31,364	10,847,977	2.8912	28,354	11,224,627	2.5260	34,451	11,659,062	2.9548	29,601	13,340,196	2.2189
<b>Region</b>	000 bushels	000 bushels		000 bushels	000 bushels		000 bushels	000 bushels		000 bushels	000 bushels	
1	79,914	32,778	2.4400	84,188	33,826	2.4900	85,336	41,975	2.0300	78,245	45,405	1.7200
2	76,755	21,419	3.5800	79,754	23,340	3.4200	86,456	334,448	2.5100	77,384	43,084	1.8000
3 <sup>b</sup>	0	0	0	0	0	0	0	0	0	0	0	0
4	49,872	16,003	3.1200	49,959	16,385	3.0500	57,377	22,028	2.6000	68,139	21,929	3.1100
5	12,278	3,165	3.8800	8,965	3,682	2.4400	9,009	3,786	2.3800	21,367	4,260	5.0100
6 <sup>b</sup>	0	0	0	0	0	0	0	0	0	0	0	0
7	66,759	32,744	2.0400	65,593	32,684	2.0100	74,623	33,956	2.2000	71,920	24,840	2.9000
8	6,885	1,861	3.7000	4,793	1,968	2.4400	6,220	2,614	2.3800	6,467	2,564	2.5200
9	2,000	1,970	1.0200	4,668	917	2.4300	4,710	1,979	2.3800	4,598	1,823	2.5200
Total <sup>c</sup>	523,441	151,827	3.4500	522,851	179,445	2.9100	583,453	240,032	2.4300	564,724	245,926	2.3000

<sup>a</sup>No reported grindings assuming 100 percent reported.

<sup>c</sup>Totals were calculated before they were rounded to thousands.

<sup>b</sup>Wheat ground in these regions was insignificant.

<sup>d</sup>Column I divided by column II equals column III.

Source: Columns I, total grindings were obtained from Current Industrial Reports, Series M20 A, Bureau of Census, U. S. Department of Commerce, Washington, D. C., 1964-1967. Columns II, reported grindings and all regional data were obtained from Robert G. Thompson's, An Analysis of Domestic Demand for Wheat by Class, Master of Science Thesis, Department of Agricultural Economics, North Dakota State University, Fargo, North Dakota, 1968, Table 21, p. 93.

APPENDIX TABLE 5. REPORTED MILLERS' PURCHASES FOR ALL CLASSES OF WHEAT IN THE WESTERN UNITED STATES BY STATE FOR 1950, 1955, 1960, AND 1965

Class of Wheat	Year	State																
		Washington	Oregon	California	Nevada	Idaho	Utah	Arizona	Montana	Wyoming	Colorado	New Mexico	North Dakota	South Dakota	Nebraska	Kansas	Oklahoma	Texas
		bushels																
SRW	1950	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	180,900
	1955	0	0	0	0	0	0	0	0	0	0	0	0	0	1,088,000	0	0	177,200
	1960	0	0	2,248,347	0	0	0	0	0	0	0	0	0	818	1,118,000	0	0	183,200
	1965	0	0	884,463	0	0	0	0	0	0	0	0	0	0	988,000	0	0	749,100
HRW	1950	367	3,400,000	348,698	0	500,000	78,000	16,682	2,473,287	0	0	150,000	817,004	469,025	12,750	3,188,245	10,816,128	10,667,077
	1955	3,000,418	6,241,000	441,020	0	550,000	91,000	25,015	2,543,137	0	0	350,000	1,037,060	699,831	183,623	12,498,201	8,293,094	11,047,427
	1960	6,355,213	8,049,000	1,973,703	0	540,000	2,172,859	33,348	2,646,178	0	0	300,000	956,505	948,975	149,568	23,214,437	9,729,755	11,475,862
	1965	7,320,436	7,867,000	6,887,406	0	528,000	179,656	50,570	2,305,990	0	0	280,000	1,052,089	1,071,302	180,879	24,773,865	5,948,783	12,523,452
HRS	1950	82	600,000	76,894	0	0	2,000	0	4,126,680	0	0	0	2,100,011	421,025	0	5,000	0	0
	1955	3,000,082	2,407,000	98,663	0	0	4,000	0	3,860,570	0	0	0	2,866,478	271,212	0	185,665	0	0
	1960	4,033,071	2,436,000	1,227,448	0	0	466,772	0	4,128,910	0	0	0	2,475,314	382,703	0	707,473	0	0
	1965	1,779,082	2,672,000	2,015,578	0	12,000	1,000	0	3,947,560	0	0	0	2,741,736	441,557	0	797,007	70,000	67,644
White	1950	0	0	147,172	0	0	2,500	166,667	0	0	0	0	0	0	0	0	0	0
	1955	1,400,000	1,319,000	227,427	0	0	3,000	341,667	0	0	0	0	0	0	0	0	0	0
	1960	3,817,431	2,150,000	2,160,990	0	0	849,811	366,667	0	0	0	0	0	0	0	0	0	0
	1965	2,139,000	3,966,000	3,518,056	0	0	12,980	400,000	0	0	0	0	0	0	0	0	0	0
Durum	1950	0	0	0	0	0	0	0	0	0	0	1,121,959	0	0	0	0	0	0
	1955	0	77,000	12,000	0	80,000	0	0	0	0	0	1,050,962	0	172,073	0	0	0	0
	1960	186,282	321,000	394,779	0	90,000	0	0	0	0	0	792,017	0	162,646	0	0	0	0
	1965	507,000	425,000	321,098	0	29,000	0	0	306,136	0	0	2,029,994	0	230,301	0	0	0	0
Total	1950	449	4,000,000	572,764	0	500,000	82,500	183,349	6,599,967	0	0	150,000	4,038,974	890,050	12,750	3,193,245	10,816,128	10,847,977
(All	1955	7,400,500	10,044,000	779,110	0	630,000	98,000	366,682	6,403,707	0	0	350,000	4,954,500	971,043	355,696	13,771,866	8,293,094	11,224,627
classes)	1960	14,391,997	12,956,000	8,005,267	0	630,000	3,489,442	400,015	6,775,088	0	0	300,000	4,223,836	1,331,678	313,032	25,039,910	9,729,755	11,659,062
	1965	11,745,518	14,930,000	13,626,601	0	569,000	193,636	450,570	6,559,686	0	0	280,000	5,823,819	1,512,859	411,180	26,558,872	6,018,783	13,340,196
Total	1950	449	3,460,000	425,592	0	500,000	80,000	16,682	6,599,967	0	0	150,000	4,038,974	890,050	12,750	3,193,245	10,816,128	10,667,077
(HRW,	1955	6,000,500	7,877,700	551,683	0	630,000	95,000	25,015	6,403,707	0	0	350,000	4,954,500	971,043	355,696	13,633,066	8,293,094	11,047,427
Durum,	1960	10,382,284	10,517,100	6,595,930	0	630,000	2,639,631	33,348	6,775,088	0	0	300,000	4,223,836	1,331,678	312,214	23,921,910	9,729,755	11,475,862
)	1965	9,150,218	10,964,000	9,224,082	0	569,000	180,656	50,570	6,559,686	0	0	280,000	5,823,819	1,512,859	411,180	26,460,072	6,018,783	12,591,096

Source: Flour Mill Survey conducted by Robert G. Thompson, Department of Agricultural Economics, North Dakota State University, Fargo, North Dakota, 1968.

APPENDIX TABLE 6. TOTAL MILLERS' PURCHASES FOR ALL CLASSES OF WHEAT IN THE WESTERN UNITED STATES FOR 1950, 1955, 1960, AND 1965

Class of Wheat	Year	State																
		Washington	Oregon	California	Nevada	Idaho	Utah	Arizona	Montana	Wyoming	Colorado	New Mexico	North Dakota	South Dakota	Nebraska	Kansas	Oklahoma	Texas
		bushels																
SRW	1950	0	0	0 0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	523018
	1955	0	0	0 0	0	0	0	0 0	0	0	0	0	0	0	5483302	0	0	447607
	1960	0	0	4156968 0	0	0	0	0 0	0	0	0	0	0	42724	4085731	0	0	541319
	1965	0	0	1141311 0	0	0	0	0 0	0	0	0	0	0	0	322344	0	0	1662177
HRW	1950	16908156	9016800	6356450 0	3535000	8283124	26384	2680301 0	8622942	441990	1271258	740871	13200999	82234722	24282207	30840653		
	1955	8752219	9153051	7344570 0	1339195	10286712	60919	3051764 0	9265170	851970	1403038	1704438	7686220	62988433	22440283	27905800		
	1960	10207108	9474478	3582619 0	1284822	8137356	79364	2646178 0	9245530	714000	1733474	2258275	7812086	84837160	20999730	33908877		
	1965	11895709	7320436	8887508 0	970622	11154966	92932	2344038 0	9027526	513996	1262717	1285990	6827277	80827211	15469810	27788287		
HRS	1950	3777844	1591200	1401708 0	0	212387	0	4472083 0	158058	0	3267617	665051	0	128965	0	0	0	0
	1955	8751239	3530106	1643094 0	0	452163	0	4632684 0	169830	0	3878058	660536	0	935714	0	0	0	0
	1960	6477515	2867416	2269428 0	0	1748061	0	4128910 0	169470	0	4486011	910718	0	2585460	0	0	0	0
	1965	2891008	2672000	2652517 0	22059	62090	0	4012694 0	165474	0	3290631	530045	0	2600315	182035	150095		
White	1950	0	0	2682813 0	0	265484	263600	0 0	0	0	0	0	0	0	0	0	0	0
	1955	4083800	1943445	3787478 0	0	339122	832061	0 0	0	0	0	0	0	0	0	0	0	0
	1960	6131765	2530765	3995454 0	0	3182542	872630	0 0	0	0	0	0	0	0	0	0	0	0
	1965	3475875	3966000	4539699 0	0	805937	735080	0 0	0	0	0	0	0	0	0	0	0	0
Durum	1950	0	0	0 0	0	0	0	0 0	0	0	1745768	0	0	0	0	0	0	0
	1955	0	112928	199843 0	194792	0	0	0 0	0	0	1421846	0	7202752	0	0	0	0	0
	1960	299188	377849	729906 0	214137	0	0	0 0	0	0	1435372	0	8495163	0	0	0	0	0
	1965	823875	425000	414344 0	53310	0	0	311187 0	0	0	2436399	0	8692711	0	0	0	0	0
Total (All classes)	1950	20686023	10608000	10440972 0	3535000	8760996	289984	7152384 0	8781000	441990	6284643	1405922	13200999	82363687	24282207	31363671		
	1955	21587259	14730530	12974986 0	1533987	11077998	892980	7684448 0	9435000	851970	6702943	2364975	14888972	69407450	22440283	28353407		
	1960	23114986	15250508	14800938 0	1498959	13067960	951995	6775088 0	9415000	714000	7654857	3168994	16349974	91508351	20999730	34450196		
	1965	19086467	14930000	17583765 0	1045992	12022994	828012	6667920 0	9193000	513996	6989747	1816035	15519989	86650975	15651845	29600560		
Total (HRW, HRS, Durum)	1950	20686023	10608000	7758159 0	3535000	8495512	26384	7152384 0	8781000	441990	6284643	1405922	13200999	82263687	24282207	30840653		
	1955	17503459	12796085	9187508 0	1533987	10738876	60919	7684448 0	9435000	851970	6702943	2364975	14888972	63924147	22440283	27905800		
	1960	16983810	12719743	6581953 0	1498959	9885418	79365	6775088 0	9415000	714000	7654857	3168994	16307250	87422620	20999730	33908877		
	1965	15610592	10417436	11954369 0	1045992	11217057	92932	6667920 0	9193000	513996	6989747	1816035	15519988	83427426	15651845	27938383		

Source: Selected questionnaires of the Flour Mill Survey conducted by Robert G. Thompson, Department of Agricultural Economics, North Dakota State University, Fargo, North Dakota, 1968.

APPENDIX TABLE 7. PROJECTED TOTAL MILLERS' PURCHASES OF HARD RED SPRING, HARD RED WINTER, AND DURUM WHEAT IN THE WESTERN UNITED STATES FOR 1970 AND 1975

Class of Wheat	Year	State																
		Washington	Oregon	California	Nevada	Idaho	Utah	Arizona	Montana	Wyoming	Colorado	New Mexico	North Dakota	South Dakota	Nebraska	Kansas	Oklahoma	Texas
		bushels																
HRS	1970	2560955	3004992	2932276	0	6024	0	0	3840142	0	162641	0	3132351	344645	0	4173600	247834	188242
	1975	2186736	3210250	3154448	0	0	0	0	3377656	0	155096	0	2972066	317578	0	4122364	291319	221566
HRW	1970	10243821	6753487	8959041	0	194481	11402102	215134	2226637	0	8872987	430268	1197866	1591561	4082168	79298392	15241814	26703508
	1975	8489683	5957672	8814647	0	0	11488624	205154	1941577	0	8461372	410308	1130604	1528808	1042593	76708312	14274615	24396914
Durum	1970	963800	567953	586455	0	14629	0	0	387241	0	0	0	2554071	0	12052882	0	0	0
	1975	1017359	679470	750453	0	0	0	0	425079	0	0	0	2667412	0	14754265	0	0	0
Total (HRS, HRW, Durum)	1970	13768576	10326432	12477772	0	215134	11402102	215134	6454020	0	9035628	430268	6884288	1936206	16135050	83471992	15489648	26891750
	1975	11693778	9847392	12719548	0	0	11488624	205154	5744312	0	8616468	410308	6770082	1846386	15796858	80830676	14565934	24618480

Source: Projections of selected questionnaires of the Flour Mill Survey conducted by Robert G. Thompson, Department of Agricultural Economics, North Dakota State University, Fargo, North Dakota, 1968.

APPENDIX TABLE 8. STATE PROPORTIONS OF WHEAT PURCHASED IN THE WESTERN UNITED STATES FOR 1950, 1955, 1960, 1965, AND PROJECTED 1970 AND 1975

Year	State																Total	
	Washington	Oregon	California	Nevada	Idaho	Utah	Arizona	Montana	Wyoming	Colorado	New Mexico	North Dakota	South Dakota	Nebraska	Kansas	Oklahoma		Texas
	percent																	
Total																		
1950	9.20	4.70	3.40	0	1.60	3.8	.1	3.20	0	3.80	.2	2.80	.60	5.80	36.40	10.8	13.60	100
1955	8.40	6.20	4.40	0	.70	5.2	.1	3.70	0	4.50	.4	3.20	1.10	7.20	30.70	10.8	13.40	100
1960	7.30	5.40	2.80	0	.60	4.2	.1	2.80	0	4.00	.2	3.30	1.40	7.00	37.40	9.0	14.50	100
1965	7.20	4.80	5.50	0	.50	5.0	.1	3.10	0	4.20	.2	3.10	.80	7.10	38.30	7.2	12.80	100
Percentage Change																		
1950-1955	-.80	+1.50	+1.00	0	-.90	+1.4	0	+.50	0	+.70	+.2	+.40	+.50	+1.40	-5.70	0	-.20	--
1955-1960	-1.10	-.80	-1.60	0	-.10	-1.0	0	-.90	0	-.50	-.2	+.10	+.30	-.20	+6.70	+1.8	+1.10	--
1960-1965	-.10	-.60	+2.70	0	-.10	+.8	0	+.30	0	+.20	0	-.10	-.60	+.10	+.90	-1.8	-1.70	--
Total Percentage Change	-2.00	+.10	+1.10	0	-1.10	+1.2	0	-.10	0	+.40	0	+.40	+.20	+1.30	+1.90	0	-.80	--
Average Percentage Change																		
1970	6.40	4.80	5.80	0	.10	5.3	.1	3.00	0	4.20	.2	3.20	.90	7.50	38.80	7.2	12.50	100
1975	5.70	4.80	6.21	0	0	5.6	.1	2.80	0	4.20	.2	3.30	.90	7.70	39.40	7.1	12.00	100

Source: Expanded from Robert G. Thompson's Flour Mill Survey, Department of Agricultural Economics, North Dakota State University, Fargo, North Dakota, 1968.

APPENDIX TABLE 9. CLASS PROPORTIONS OF WHEAT PURCHASED IN THE WESTERN UNITED STATES FOR 1950, 1960, 1965, AND PROJECTED 1970 AND 1975

Year	Class of Wheat	State																
		Washington	Oregon	California	Nevada	Idaho	Utah	Arizona	Montana	Wyoming	Colorado	New Mexico	North Dakota	South Dakota	Nebraska	Kansas	Oklahoma	Texas
		percent																
1950	HRW	81.7	85.0	81.9	0	100.0	97.5	100.0	37.5	0	98.2	100.0	20.2	52.7	100.0	99.9	100.0	100.0
	HRS	18.3	15.0	18.1	0	0	2.5	0	62.5	0	1.8	0	52.0	47.3	0	.1	0	0
	Durum	0	0	0	0	0	0	0	0	0	0	0	27.8	0	0	0	0	0
			100.0	100.0	100.0	0	100.0	100.0	100.0	100.0	0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1955	HRW	50.0	71.5	79.9	0	87.3	95.8	100.0	39.7	0	98.2	100.0	20.9	72.1	51.6	98.5	100.0	100.0
	HRS	50.0	27.6	17.9	0	0	4.2	0	60.3	0	1.8	0	57.9	27.9	0	1.5	0	0
	Durum	0	.9	2.2	0	12.7	0	0	0	0	0	0	21.2	0	48.4	0	0	0
			100.0	100.0	100.0	0	100.0	100.0	100.0	100.0	0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1960	HRW	60.1	74.5	54.4	0	85.7	82.3	100.0	39.1	0	98.2	100.0	22.6	71.3	47.9	97.0	100.0	100.0
	HRS	38.1	22.5	34.5	0	0	17.7	0	60.9	0	1.8	0	58.6	28.7	0	3.0	0	0
	Durum	1.8	3.0	11.1	0	14.3	0	0	0	0	0	0	18.8	0	52.1	0	0	0
			100.0	100.0	100.0	0	100.0	100.0	100.0	100.0	0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1965	HRW	76.2	70.3	74.3	0	92.8	99.4	100.0	35.2	0	98.2	100.0	18.1	70.8	44.0	96.9	98.8	99.5
	HRS	18.5	25.6	22.2	0	2.1	.6	0	60.2	0	1.8	0	47.1	29.2	0	3.1	1.2	.5
	Durum	5.3	4.1	3.5	0	5.1	0	0	4.6	0	0	0	34.8	0	56.0	0	0	0
			100.0	100.0	100.0	0	100.0	100.0	100.0	100.0	0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

-continued-

APPENDIX TABLE 9. CLASS PROPORTIONS OF WHEAT PURCHASED IN THE WESTERN UNITED STATES FOR 1950, 1960, 1965, AND PROJECTED 1970 AND 1975 - continued

Year	Class of Wheat	State																
		Washington	Oregon	California	Nevada	Idaho	Utah	Arizona	Montana	Wyoming	Colorado	New Mexico	North Dakota	South Dakota	Nebraska	Kansas	Oklahoma	Texas
		percent																
1970 <sup>a</sup>	HRW	74.4	65.4	71.8	0	90.4	100.0	100.0	34.5	0	98.2	100.0	17.4	82.2	25.3	95.0	98.4	99.3
	HRS	18.6	29.6	23.5	0	2.8	0	0	59.5	0	1.8	0	45.5	17.8	0	5.0	1.6	.7
	Durum	7.0	5.5	4.7	0	6.8	0	0	6.0	0	0	0	37.1	0	74.7	0	0	0
		100.0	100.0	100.0	0	100.0	100.0	100.0	100.0	0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1975 <sup>a</sup>	HRW	72.6	60.5	69.3	0	88.0	100.0	100.0	33.8	0	98.2	100.0	16.7	82.8	6.6	94.9	98.0	99.1
	HRS	18.7	32.6	24.8	0	3.5	0	0	58.8	0	1.8	0	43.9	17.2	0	5.1	2.0	.9
	Durum	8.7	6.9	5.9	0	8.5	0	0	7.4	0	0	0	39.4	0	93.4	0	0	0
		100.0	100.0	100.0	0	100.0	100.0	100.0	100.0	0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

<sup>a</sup>These years were estimated through the use of average proportional changes.

Source: Expanded from Robert G. Thompson's Flour Mill Survey, Department of Agricultural Economics, North Dakota State University, Fargo, North Dakota, 1968.

APPENDIX TABLE 10. POPULATION ESTIMATES (SERIES I-B) FOR THE UNITED STATES FOR THE YEARS 1965, 1970, AND 1975

Area	1965	1970	1975
	thousands		
Region I			
Minnesota	3,562	3,684	3,905
Iowa	2,758	2,748	2,807
Wisconsin	4,140 ( $\epsilon=10,460$ )	4,296 ( $\epsilon=10,728$ )	4,557 ( $\epsilon=11,269$ )
Region II			
Illinois	10,641	11,115	11,840
Missouri	4,492 ( $\epsilon=15,133$ )	4,636 ( $\epsilon=15,751$ )	4,870 ( $\epsilon=16,710$ )
Region III			
Arkansas	1,941	2,053	2,184
Louisiana	3,560	3,819	4,162
Mississippi	2,309	2,413	2,560
Alabama	3,486 ( $\epsilon=11,296$ )	3,670 ( $\epsilon=11,955$ )	3,922 ( $\epsilon=12,829$ )
Region IV			
Michigan	8,317	8,706	9,259
Indiana	4,893	5,095	5,417
Ohio	10,241	10,721	11,461
Kentucky	3,173 ( $\epsilon=26,624$ )	3,265 ( $\epsilon=27,787$ )	3,400 ( $\epsilon=29,537$ )
Region V			
Tennessee	3,850	4,072	4,345
North Carolina	4,935 ( $\epsilon=8,785$ )	5,232 ( $\epsilon=9,304$ )	5,596 ( $\epsilon=9,941$ )
Region VI			
Maine	986	998	1,031
Vermont	404	418	441
New Hampshire	673	731	800
Massachusetts	5,361	5,544	5,842
Rhode Island	891	920	959
Connecticut	2,830 ( $\epsilon=11,145$ )	3,088 ( $\epsilon=11,699$ )	3,397 ( $\epsilon=12,470$ )
Region VII			
New York	18,106	19,157	20,450
Pennsylvania	11,583	11,758	12,141
New Jersey	6,781 ( $\epsilon=36,470$ )	7,411 ( $\epsilon=38,826$ )	8,156 ( $\epsilon=40,747$ )
Region VIII			
West Virginia	1,815	1,766	1,755
Virginia	4,420	4,806	5,243
Delaware	503	555	617
Maryland	3,534 ( $\epsilon=10,272$ )	3,915 ( $\epsilon=11,042$ )	4,359 ( $\epsilon=11,974$ )

-continued-

APPENDIX TABLE 10. POPULATION ESTIMATES (SERIES I-B) FOR THE UNITED STATES FOR THE YEARS 1965, 1970, AND 1975 - continued

Area	1965	1970	1975
	thousands		
Region IX			
Georgia	4,391	4,741	5,142
Florida	5,796	6,654	7,720
South Carolina	2,550 ( $\epsilon=12,737$ )	2,689 ( $\epsilon=14,084$ )	2,869 ( $\epsilon=15,731$ )
States			
Washington	2,973	3,098	3,304
Oregon	1,938	2,076	2,239
California	18,403	21,004	24,129
Nevada	434	547	632
Idaho	693	717	760
Utah	994	1,087	1,207
Arizona	1,575	1,828	2,126
Montana	703	725	764
Wyoming	330	335	354
Colorado	1,949	2,124	2,340
New Mexico	1,014	1,091	1,215
North Dakota	652	659	677
South Dakota	686	686	702
Nebraska	1,459	1,486	1,538
Kansas	2,248	2,304	2,397
Oklahoma	2,448	2,536	2,655
Texas	10,591	11,452	12,482

Source: Population Estimates, Current Population Reports, U. S. Department of Commerce, Bureau of the Census, Series P-25, No. 388, March 14, 1968, p. 66.

APPENDIX TABLE 11. EXPORT VOLUMES OF HARD RED SPRING, HARD RED WINTER, AND DURUM WHEAT-GRAIN FOR 1965, 1970, AND 1975

Class of Wheat	Year	Item	Area				Total
			Great Lakes	Atlantic	Gulf	Pacific	
HRS	1965	000 bushels	12,835	39,603	11,089	19,929	83,456
		000 hundredweights	7,701	23,762	6,653	11,957	50,074
	1970	000 bushels	12,257	20,329	10,714	70,688	113,988
		000 hundredweights	7,354	12,197	6,428	42,413	68,393
	1975	000 bushels	12,257	20,329	10,714	55,252	98,551
		000 hundredweights	7,354	12,197	6,428	33,151	59,131
HRW	1965	000 bushels	0	1,064	457,823	71,413	530,000
		000 hundredweights	0	638	274,694	42,848	318,000
	1970	000 bushels	472	4,442	318,452	49,214	272,580
		000 hundredweights	283	2,665	191,071	29,528	163,548
	1975	000 bushels	472	4,442	99,858	49,214	153,987
		000 hundredweights	283	2,265	59,915	29,528	92,392
Durum	1965	000 bushels	11,037	14,650	8,007	158	33,852
		000 hundredweights	6,622	8,790	4,804	95	20,311
	1970	000 bushels	42,102	8,186	3,029	1,199	54,516
		000 hundredweights	25,261	4,912	1,817	719	32,710
	1975	000 bushels	36,862	8,186	3,029	1,199	49,276
		000 hundredweights	22,117	4,912	1,817	719	29,566

APPENDIX TABLE 12. HIGHWAY MILEAGES FOR DOMESTIC WHEAT-GRAIN SHIPMENTS BETWEEN UNITED STATES ORIGINS AND DESTINATIONS

ORIGIN	DESTINATION	Washington	Oregon	California	Nevada	Idaho	Utah	Arizona	Montana	Wyoming	Colorado	New Mexico	North Dakota	South Dakota	Nebraska	Kansas	Oklahoma	Texas	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	
Washington		0																										
Oregon		360	0																									
California		1227	980	0																								
Nevada		621	513	591	0																							
Idaho		512	436	962	460	0																						
Utah		732	802	730	362	366	0																					
Arizona		1369	1366	409	755	978	653	0																				
Montana		549	657	1234	806	494	500	1147	0																			
Wyoming		1022	1238	1188	819	762	458	949	700	0																		
Colorado		1112	1258	1134	866	842	507	840	792	99	0																	
New Mexico		1343	1425	806	964	815	625	459	1111	520	421	0																
North Dakota		924	1262	1667	1259	1026	960	1501	628	583	685	1105	0															
South Dakota		1021	1356	1558	1310	1064	851	1341	699	441	523	1020	362	0														
Nebraska		1378	1691	1662	1270	1255	955	1335	1056	493	540	895	581	390	0													
Kansas		1563	1784	1402	1326	1348	1005	1032	1241	590	507	596	791	584	303	0												
Oklahoma		1714	1893	1380	626	1216	1108	987	1392	725	623	550	960	741	454	157	0											
Texas		2138	2239	1573	1795	1797	1451	1144	1813	1122	1023	829	1417	1210	898	612	454	0										
Region 1		1352	1690	1972	1577	1422	1239	1630	1056	817	841	1247	498	280	391	655	1671	1209	0									
Region 2		1820	2096	1888	1719	1660	1368	1478	1498	874	865	1058	980	823	454	450	506	816	546	0								
Region 3		2392	2541	1909	2093	2105	1739	1503	2070	1383	1282	1155	1604	1416	1026	833	678	360	1241	684	0							
Region 4		2067	2405	2186	2001	1944	1644	1816	1770	1182	1169	1378	1143	1059	691	788	844	1040	705	354	854	0						
Region 5		2223	2398	2058	2193	1962	1670	1725	1800	1200	1158	1289	1299	1125	756	698	1684	783	861	302	530	290	0					
Region 6		2747	3085	3052	2730	2705	2405	2682	2451	1943	1311	2194	1823	1739	1449	1654	1684	1916	1358	1208	1549	876	1165	0				
Region 7		2301	2639	2606	2290	2258	1958	2236	2005	1496	865	1767	1377	1293	1003	1208	1308	1470	939	741	1302	430	719	449	0			
Region 8		2459	2797	2695	2435	2418	2118	2325	2163	1656	1701	1889	1535	1451	1163	1297	1321	1449	1097	839	1147	498	725	407	371	0		
Region 9		2467	2654	2197	2519	2218	1900	1810	2053	1456	1401	1396	1543	1381	1012	895	845	814	1105	558	493	461	256	1068	877	669	0	

Source: Standard Highway Mileage Guide, Rand McNally and Company, Chicago, New York, Washington, D. C., and San Francisco, 1966, pp. 6-191.

APPENDIX TABLE 13. HIGHWAY MILEAGES FOR EXPORT WHEAT-GRAIN SHIPMENTS BETWEEN UNITED STATES ORIGINS AND DESTINATIONS

ORIGIN	West Coast		Great Lakes		Atlantic		Gulf	
	Portland, Oregon	San Francisco, California	Duluth, Minnesota Superior, Wisconsin	Chicago, Illinois	Philadelphia, Pennsylvania	Baltimore, Maryland	Houston, Texas	New Orleans, Louisiana
Spokane, Washington	360	--	1,363	1,774	2,534	2,459	2,138	2,392
Portland, Oregon	0	--	1,701	2,112	2,872	2,797	2,239	2,541
Winnemucca, Nevada	513	303	756	--	--	2,435	1,806	--
Idaho Falls, Idaho	436	658	1,215	--	2,485	2,418	1,797	2,105
Salt Lake City, Utah	802	759	1,352	1,431	2,186	2,118	1,451	1,739
Phoenix, Arizona	1,366	800	1,791	1,722	2,163	2,325	1,144	1,503
Billings, Montana	657	1,134	1,067	--	2,238	2,163	1,813	2,070
Cheyenne, Wyoming	1,238	1,220	492	968	1,725	1,656	1,122	1,383
Denver, Colorado	1,258	1,270	1,002	1,016	1,770	1,701	1,023	1,282
Albuquerque, New Mexico	1,425	1,127	1,348	1,289	1,918	1,889	829	1,155
Minot, North Dakota	1,262	1,633	479	850	1,610	1,535	1,417	1,604
Huron, South Dakota	1,356	1,609	405	--	1,526	1,451	1,210	1,416
Lincoln, Nebraska	1,691	1,713	514	--	1,230	1,163	898	1,026
Hutchinson, Kansas	1,784	1,721	808	--	1,436	1,297	612	833
Oklahoma City, Oklahoma	1,893	1,678	948	--	1,391	1,321	454	678
Houston, Texas	2,239	1,955	1,351	1,085	1,546	1,449	0	360
Minneapolis, Minnesota	1,690	1,997	153	412	1,172	1,097	1,209	1,241
St. Louis, Missouri	2,096	2,126	665	291	885	839	816	684

Source: Standard Highway Mileage Guide, Rand McNally and Company, Chicago, New York, Washington, D. C., and San Francisco, 1966, pp. 6-191.

APPENDIX TABLE 14. TRUCK RATES FOR DOMESTIC SHIPMENTS OF WHEAT-GRAIN FOR 1969

ORIGIN	DESTINATION	Washington	Oregon	California	Nevada	Idaho	Utah	Arizona	Montana	Wyoming	Colorado	New Mexico	North Dakota	South Dakota	Nebraska	Kansas	Oklahoma	Texas	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9		
		cents per hundredweight																											
Washington		0																											
Oregon		36.8	0																										
California		125.4	100.2	0																									
Nevada		63.5	52.4	60.4	0																								
Idaho		52.0	44.6	98.3	41.0	0																							
Utah		74.8	82.0	74.6	37.0	37.4	0																						
Arizona		139.9	139.6	41.8	77.2	100.0	66.8	0																					
Montana		56.0	67.2	126.1	82.4	50.5	51.1	117.2	0																				
Wyoming		104.5	126.6	121.4	83.7	77.9	46.8	97.0	71.6	0																			
Colorado		113.7	128.6	115.9	88.5	86.1	51.8	85.9	81.0	10.1	0																		
New Mexico		137.3	145.7	82.4	98.5	83.3	63.9	46.9	113.6	53.2	43.0	0																	
North Dakota		94.5	129.0	170.4	128.7	104.9	98.1	153.4	64.2	59.6	70.0	113.0	0																
South Dakota		104.4	138.6	159.3	133.9	108.8	87.0	137.1	71.5	45.1	53.5	104.3	37.0	0															
Nebraska		140.9	172.9	169.9	129.8	128.3	97.6	136.5	107.9	50.4	55.2	91.5	59.4	39.9	0														
Kansas		159.8	182.4	143.3	135.5	137.8	102.7	105.5	126.9	60.3	51.8	60.9	80.9	59.7	31.0	0													
Oklahoma		175.2	193.5	141.1	64.0	124.3	113.3	100.9	142.3	74.1	63.7	56.2	98.1	75.4	46.4	16.0	0												
Texas		218.6	228.9	160.8	183.5	183.7	148.3	116.9	185.3	114.7	104.6	84.7	144.8	123.7	91.8	62.6	46.4	0											
Region 1		138.2	172.8	201.6	161.2	145.4	126.7	166.6	107.9	83.5	86.0	127.5	50.9	28.6	40.0	67.0	170.8	123.6	0										
Region 2		186.0	214.3	193.0	175.7	169.7	139.8	151.1	153.1	89.3	88.4	108.2	100.2	84.1	46.4	46.0	51.7	83.4	55.8	0									
Region 3		244.5	259.7	195.1	133.3	215.2	177.8	153.6	211.6	141.4	131.0	118.1	164.0	144.7	104.9	85.2	69.3	36.8	126.9	69.9	0								
Region 4		211.3	245.8	223.6	204.5	198.7	168.1	185.6	180.9	120.8	119.5	140.9	116.8	108.3	70.6	80.6	86.3	106.3	72.1	36.2	87.3	0							
Region 5		227.2	245.1	210.4	224.1	200.6	170.7	176.3	184.0	122.7	118.4	131.8	132.8	115.0	77.3	71.4	172.1	80.0	88.0	30.9	54.2	29.6	0						
Region 6		280.8	315.4	312.0	279.0	276.5	245.8	274.2	250.5	198.6	134.0	224.3	186.4	177.8	148.1	169.1	172.1	195.9	138.8	123.5	158.3	89.5	119.1	0					
Region 7		235.2	269.8	266.4	234.1	230.8	200.2	228.6	205.0	152.9	88.4	180.6	140.8	132.2	102.5	123.5	133.7	150.3	96.0	75.7	133.1	44.0	73.5	45.9	0				
Region 8		251.4	285.9	275.5	248.9	247.2	216.5	237.7	221.1	169.3	173.9	193.1	156.9	148.3	118.9	132.6	135.0	148.1	112.1	85.8	117.2	50.9	74.1	41.6	37.9	0			
Region 9		252.2	271.3	224.6	257.5	226.7	194.2	185.0	210.0	148.8	143.2	142.7	157.7	141.2	103.4	91.5	86.4	83.2	113.0	57.0	50.4	47.1	26.2	109.2	89.6	68.4	0		

Source: Casavant, Kenneth L., An Economic Analysis of the Costs of Operating Agricultural Trucking Firms in North Dakota, Master of Science Thesis, Department of Agricultural Economics, North Dakota State University, Fargo, North Dakota, May, 1967, p. 124. Rates were computed assuming a 22 cents per mile one-way operating cost, a trailer capacity of 750 bushels, and a 2 cents per hundredweight additional cost for inflation.

APPENDIX TABLE 15. TRUCK RATES FOR EXPORT SHIPMENTS OF WHEAT-GRAIN FOR 1969

ORIGIN	West Coast		Great Lakes		Atlantic		Gulf	
	DESTINATION Portland, Oregon	San Francisco, California	Duluth, Minnesota Superior, Wisconsin	Chicago, Illinois	Philadelphia, Pennsylvania	Baltimore, Maryland	Houston, Texas	New Orleans, Louisiana
	cents per hundredweight							
Spokane, Washington	--	--	139.3	181.3	259.0	251.4	218.6	244.5
Portland, Oregon	--	--	173.9	215.9	293.6	285.9	228.9	259.7
Winnemucca, Nevada	--	31.0	77.3	--	--	248.9	184.6	--
Idaho Falls, Idaho	44.6	67.3	124.2	--	254.0	247.2	183.7	215.2
Salt Lake City, Utah	82.0	77.6	138.2	146.3	223.5	216.5	148.3	177.8
Phoenix, Arizona	139.6	81.8	183.1	176.0	221.0	237.7	116.9	153.6
Billings, Montana	67.2	115.9	109.1	--	228.8	221.1	185.3	211.6
Cheyenne, Wyoming	126.6	124.7	50.3	99.0	176.3	169.3	114.7	141.4
Denver, Colorado	128.6	129.8	102.4	103.9	180.9	173.9	104.6	131.0
Albuquerque, New Mexico	145.7	115.2	--	131.8	196.1	193.1	84.7	118.1
Minot, North Dakota	129.0	166.9	49.0	86.9	164.6	156.9	144.8	163.4
Huron, South Dakota	138.6	164.5	41.4	--	156.0	148.3	123.7	144.7
Lincoln, Nebraska	172.9	175.1	52.5	--	125.7	118.9	91.8	104.9
Hutchinson, Kansas	182.4	175.9	82.6	--	146.8	132.6	62.6	85.2
Oklahoma City, Oklahoma	193.5	171.5	96.9	--	142.2	135.0	46.4	69.3
Houston, Texas	228.9	199.8	138.1	110.9	158.0	148.1	--	--
Minneapolis, Minnesota	172.8	204.1	--	--	119.8	112.1	123.6	126.9
St. Louis, Missouri	214.3	217.3	68.0	29.7	90.5	85.8	83.4	69.9

Source: Casavant, Kenneth L., An Economic Analysis of the Costs of Operating Agricultural Trucking Firms in North Dakota, Master of Science Thesis, Department of Agricultural Economics, North Dakota State University, Fargo, North Dakota, May, 1967, p. 124. Rates were computed assuming a 22 cents per mile one-way operating cost, a trailer capacity of 750 bushels, and a 2 cents per hundredweight additional cost for inflation.

APPENDIX TABLE 16. BARGE RATES FOR WHEAT AND FLOUR AS OF JULY 1, 1968

ORIGIN	DESTINATION								
	Texas	Region 1 <sup>e</sup>	Region 2	Region 3	Region 4	Region 5	Region 9	Gulf Export	Lakes Export
	cents per hundredweight								
Nebraska	36.30 <sup>d</sup>	--	18.60 <sup>d</sup>	30.00 <sup>d</sup>	26.55 <sup>d</sup>	35.60 <sup>d</sup>	--	30.00 <sup>d</sup>	24.35 <sup>d</sup>
Kansas	30.50 <sup>d</sup>	--	12.80	24.20 <sup>d</sup>	20.75 <sup>d</sup>	29.80 <sup>d</sup>	--	24.20 <sup>d</sup>	18.55 <sup>d</sup>
Texas	--	58.00 <sup>a</sup>	31.35 <sup>c</sup>	21.45 <sup>d</sup>	38.60 <sup>d</sup>	--	--	21.45 <sup>d</sup>	--
Region 1	29.75 <sup>d</sup>	--	12.00 <sup>a</sup>	22.05 <sup>d</sup>	24.20 <sup>b</sup>	30.20 <sup>d</sup>	36.00 <sup>d</sup>	22.05 <sup>a</sup>	22.05 <sup>d</sup>
Region 2	20.10 <sup>c</sup>	23.20 <sup>a</sup>	--	13.80 <sup>a</sup>	13.45 <sup>a</sup>	18.40 <sup>d</sup>	--	13.80 <sup>d</sup>	10.10 <sup>d</sup>
Region 3	21.45 <sup>a</sup>	44.70 <sup>a</sup>	26.80 <sup>a</sup>	--	31.95 <sup>d</sup>	--	--	--	--
Region 4	23.60 <sup>c</sup>	41.50 <sup>a</sup>	20.75 <sup>a</sup>	17.30 <sup>a</sup>	--	--	--	17.30 <sup>d</sup>	--

<sup>a</sup>Rate subject to a minimum weight of 600 net tons.

<sup>b</sup>Rate subject to a minimum weight of 750 net tons.

<sup>c</sup>Rate subject to a minimum weight of 1,000 net tons.

<sup>d</sup>Rate subject to a minimum weight of 1,200 net tons.

<sup>e</sup>All rates to Region 1 apply on grain and grain products in packages only.

Source: Mississippi Valley Barge Line Company, Union Barge Line Corporation; Federal Barge Lines, Incorporated; Gulf Canal Lines, Incorporated, and Waterways Freight Bureau Tariff No. 7, I.C.C., 10.

Rates are applicable on the Mississippi, Ohio, and Tennessee rivers and on the Illinois and Gulf intracoastal waterways.

APPENDIX TABLE 17. EXISTING LEAST-COST DOMESTIC RAIL RATES FOR WHEAT-GRAIN

ORIGIN	DESTINATION	Spokane, Washington	Portland, Oregon	Los Angeles, California	Winnemucca, Nevada	Idaho Falls, Idaho	Salt Lake City, Utah	Phoenix, Arizona	Billings, Montana	Cheyenne, Wyoming	Denver, Colorado	Albuquerque, New Mexico	Minot, North Dakota	Huron, South Dakota	Lincoln, Nebraska	Hutchinson, Kansas	Oklahoma City, Oklahoma	Houston, Texas	Minneapolis, Minnesota	St. Louis, Missouri	New Orleans, Louisiana	Cincinnati, Ohio	Knoxville, Tennessee	Boston, Massachusetts	Buffalo, New York	Baltimore, Maryland	Savannah, Georgia
		0	21.0	126.5	90.0	89.5	89.5	156.0	--	115.5	115.5	156.0	115.5	115.5	115.5	115.5	156.0	115.5	115.5	127.5	147.8	163.0	145.0	187.0	174.5	82.0	169.8
Spokane, Washington		36.5	0	--	90.0	--	--	--	91.0	115.5	115.5	156.0	115.5	115.5	115.5	115.5	156.0	115.5	115.5	127.5	147.8	163.0	145.0	187.0	174.5	82.0	169.8
Portland, Oregon		--	86.0	--	0	70.5	60.0	126.5	--	115.5	115.5	--	134.0	134.0	115.5	115.5	115.5	115.5	134.0	141.0	177.5	176.5	158.4	205.0	188.0	200.0	173.3
Winnemucca, Nevada		33.7	39.4	59.1	70.5	0	53.5	102.0	--	72.0	72.0	--	--	--	82.0	109.5	114.5	131.0	76.0	101.5	130.8	146.0	127.9	175.5	157.5	170.5	142.8
Idaho Falls, Idaho		90.0	90.0	53.0	60.0	53.5	0	95.0	--	--	--	--	--	--	58.5	78.0	77.0	104.0	74.0	78.0	98.3	109.5	95.4	143.0	125.0	138.0	106.3
Salt Lake City, Utah		134.0	134.0	30.5	126.5	134.0	125.5	0	--	115.5	115.5	95.0	134.0	134.0	115.5	115.5	115.5	115.5	134.0	127.0	177.5	176.5	144.4	205.0	188.0	200.0	173.3
Phoenix, Arizona		51.5	65.0	102.5	105.5	--	125.5	156.0	0	78.5	86.5	145.5	80.0	80.0	106.5	134.0	139.0	165.5	87.5	128.0	148.3	163.5	145.4	193.0	175.0	188.0	160.3
Billings, Montana		134.0	134.0	134.0	134.0	100.5	100.5	134.0	78.5	0	24.0	85.0	51.5	--	44.0	69.0	82.0	114.0	70.0	69.5	89.8	105.0	86.9	134.5	116.5	129.5	101.8
Cheyenne, Wyoming		134.0	134.0	134.0	134.0	52.0	30.0	134.0	--	24.0	0	76.0	--	--	44.0	69.0	82.0	114.0	70.0	69.5	89.8	105.0	86.9	134.5	116.5	129.5	101.8
Denver, Colorado		158.5	158.5	62.5	134.0	195.0	163.5	90.0	118.5	110.0	76.0	0	134.0	134.0	115.5	115.5	115.5	115.5	134.0	127.0	177.5	176.5	192.0	205.0	188.0	200.0	208.5
Albuquerque, New Mexico		134.0	134.0	145.5	145.5	134.0	145.5	145.5	82.0	95.5	95.5	112.5	0	68.5	80.5	112.5	111.0	138.5	44.5	85.0	90.0	92.0	95.0	127.0	114.5	122.0	117.3
Minot, North Dakota		134.0	134.0	145.5	145.5	134.0	145.5	145.5	134.0	106.5	106.5	118.5	81.5	0	42.0	74.0	91.5	101.0	30.0	69.0	89.3	93.0	86.4	117.0	109.5	112.0	101.3
Huron, South Dakota		134.0	134.0	134.0	134.0	134.0	121.0	145.5	93.5	44.0	44.0	101.0	78.5	49.5	0	38.0	54.0	74.0	37.0	43.5	63.8	79.0	60.4	94.5	76.5	89.0	75.8
Lincoln, Nebraska		134.0	134.0	134.0	134.0	122.5	133.0	134.0	138.5	51.5	51.5	81.0	115.5	60.5	38.0	0	38.0	81.0	63.5	50.5	70.8	85.5	67.9	115.0	97.5	110.0	82.8
Hutchinson, Kansas		158.5	158.5	134.0	134.0	161.5	159.5	134.0	--	72.0	72.0	76.0	142.0	--	54.5	38.0	0	60.0	90.5	76.0	77.5	111.5	67.1	119.5	101.5	114.5	--
Oklahoma City, Oklahoma		158.5	158.5	134.0	134.0	--	--	134.0	--	99.0	99.5	--	--	--	92.0	73.5	60.0	0	122.0	90.5	110.8	126.0	--	155.5	137.5	150.5	124.5
Houston, Texas		134.0	134.0	145.5	145.5	134.0	134.0	145.5	134.0	77.0	77.0	112.5	--	--	38.0	65.0	77.5	95.5	0	49.5	69.8	47.5	66.9	85.0	70.5	80.0	81.8
Minneapolis, Minnesota		151.0	151.0	151.0	151.0	122.5	185.0	151.0	--	94.5	61.5	98.5	--	--	28.5	34.0	59.5	55.5	46.0	0	20.3	44.5	17.4	84.0	51.5	79.0	32.3
St. Louis, Missouri		--	158.5	145.5	--	--	--	--	--	--	--	--	143.0	100.3	--	151.0	--	67.5	85.3	29.3	0	31.2	--	117.0	100.0	96.0	--
New Orleans, Louisiana		--	193.0	193.0	--	--	--	--	193.0	--	--	--	134.3	91.8	--	104.0	--	99.0	68.8	20.8	84.5	14.4	0	84.0	72.0	62.5	70.5
Knoxville, Tennessee		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

<sup>a</sup>Exclusive of ExParte 256 and 259.

APPENDIX TABLE 18. EXISTING LEAST-COST EXPORT RATES FOR WHEAT-GRAIN

ORIGIN	DESTINATION			
	West Coast	Gulf	Atlantic	Great Lakes
	cents per hundredweight <sup>a</sup>			
Spokane, Washington	--	122.0 R	185.0 R	118.5 R
Portland, Oregon	--	122.0 R	185.0 R	118.5 R
Winnemucca, Nevada	31.0 T	122.0 R	178.0 R	173.9 T
Idaho Falls, Idaho	44.6 T	122.0 R	185.0 R	118.5 R
Salt Lake City, Utah	49.7 R	122.0 R	185.0 R	138.6 T
Phoenix, Arizona	25.5 R	122.0 R	221.0 T	176.0 T
Billings, Montana	65.0 R	122.0 R	188.0 R	80.0 R
Cheyenne, Wyoming	70.0 R	69.0 R	169.3 T	50.3 T
Denver, Colorado	70.0 R	68.0 R	97.0 R	44.0 R
Albuquerque, New Mexico	74.0 R	80.0 R	158.0 R	131.8 T
Minot, North Dakota	70.0 R	66.6 RB	95.5 R	44.5 R
Huron, South Dakota	70.0 R	50.7 RB	122.0 R	40.0 R
Lincoln, Nebraska	70.0 R	30.0 B	40.8 R	27.5 R
Hutchinson, Kansas	89.0 R	24.2 B	88.0 R	58.5 R
Oklahoma City, Oklahoma	99.5 R	29.0 R	103.0 R	73.5 R
Houston, Texas	82.0 R	21.5 B	158.0 T	110.9 T
Minneapolis, Minnesota	134.0 R	22.1 B	55.0 R	13.8 T
St. Louis, Missouri	107.5 R	13.8 B	55.0 R	29.7 T
Knoxville, Tennessee	193.0 R	50.4 R	62.5 R	72.0 R

B - Barge  
T - Truck  
R - Rail

<sup>a</sup>Exclusive of ExParte 256 and 259.

APPENDIX TABLE 19. EXISTING LEAST-COST DOMESTIC RAIL RATES FOR WHEAT-FLOUR

ORIGIN	DESTINATION																											
	Spokane, Washington	Portland, Oregon	Los Angeles, California	Winnemucca, Nevada	Idaho Falls, Idaho	Salt Lake City, Utah	Phoenix, Arizona	Billings, Montana	Cheyenne, Wyoming	Denver, Colorado	Albuquerque, New Mexico	Minot, North Dakota	Huron, South Dakota	Lincoln, Nebraska	Hutchinson, Kansas	Oklahoma City, Oklahoma	Houston, Texas	Minneapolis, Minnesota	St. Louis, Missouri	New Orleans, Louisiana	Cincinnati, Ohio	Knoxville, Tennessee	Boston, Massachusetts	Buffalo, New York	Baltimore, Maryland	Savannah, Georgia		
	cents per hundredweight <sup>a</sup>																											
Spokane, Washington	0	21.0	90.0	90.0	89.5	89.5	156.0	91.0	115.5	115.5	156.0	115.5	115.5	115.5	115.5	156.0	115.5	115.5	127.5	180.5	163.0	192.0	187.0	174.5	185.5	169.8		
Portland, Oregon	1.6	0	90.0	90.0	44.6	82.0	139.6	91.0	115.5	115.5	156.0	115.5	115.5	115.5	115.5	156.0	115.5	102.5	130.5	180.5	163.0	192.0	190.5	174.5	185.5	169.8		
Winnemucca, Nevada	63.5	86.0	55.0	0	70.5	60.0	126.5	118.5	115.5	115.5	98.5	134.0	134.0	115.5	115.5	115.5	115.5	134.0	134.0	177.5	176.5	192.0	205.5	188.0	200.0	208.5		
Idaho Falls, Idaho	33.7	39.4	65.0	70.5	0	53.5	102.0	50.5	77.9	86.1	83.3	146.0	116.5	82.0	109.5	115.5	131.0	96.0	110.5	130.8	146.5	127.5	175.5	157.5	170.5	142.5		
Salt Lake City, Utah	90.0	90.0	53.0	60.0	53.5	0	48.1	51.1	46.8	51.8	63.9	98.1	87.0	58.5	78.0	77.0	104.0	74.0	78.0	98.0	109.5	95.5	143.0	125.0	138.0	106.0		
Billings, Montana	51.5	65.0	102.5	105.5	50.5	125.5	131.0	0	78.5	86.5	145.5	52.0	80.0	106.5	134.0	139.0	115.5	82.0	122.5	177.5	144.0	185.5	168.5	155.5	163.0	199.0		
Cheyenne, Wyoming	134.0	134.0	134.0	134.0	107.0	100.5	134.0	78.5	0	24.0	36.1	113.5	84.0	44.0	69.0	82.0	70.0	92.0	69.5	113.5	83.5	145.5	134.5	72.5	129.5	101.8		
Denver, Colorado	134.0	134.0	134.0	134.0	107.0	87.5	134.0	113.6	24.0	0	36.1	70.0	53.5	44.0	69.0	82.0	70.0	92.0	69.5	113.5	83.5	145.5	134.5	116.5	129.5	101.8		
Albuquerque, New Mexico	158.5	158.5	134.0	134.0	195.0	163.5	90.0	118.5	110.0	76.0	0	134.0	134.0	115.0	115.0	115.5	115.0	134.0	134.0	177.5	176.5	192.0	205.5	188.0	200.0	208.5		
Minot, North Dakota	134.0	134.0	145.5	145.5	134.0	145.5	145.5	109.0	68.5	68.5	112.5	0	68.5	80.5	112.5	111.0	113.0	41.0	81.5	132.5	103.0	134.5	127.5	144.5	115.5	158.5		
Huron, South Dakota	134.0	134.0	145.5	145.5	134.0	145.5	135.0	134.0	106.5	106.5	118.5	81.5	0	42.0	74.0	91.5	99.0	30.0	66.0	117.5	93.0	130.0	117.5	104.5	112.5	144.5		
Lincoln, Nebraska	134.0	134.0	134.0	134.0	134.0	121.0	134.0	93.5	51.5	51.5	55.0	78.5	48.5	0	38.0	54.0	65.0	37.0	43.5	73.2	79.5	111.7	95.5	76.5	89.5	41.5		
Hutchinson, Kansas	134.0	134.0	134.0	134.0	122.5	117.5	134.0	138.0	51.5	51.5	55.0	109.5	60.5	38.0	0	38.0	51.5	65.0	50.5	90.5	86.0	112.5	116.0	97.5	110.5	126.0		
Oklahoma City, Oklahoma	134.0	134.0	134.0	134.0	161.5	159.5	134.0	149.5	72.0	72.0	55.0	142.0	105.5	54.5	38.0	0	42.0	85.5	54.0	59.2	68.0	50.0	119.5	101.5	114.5	86.4		
Houston, Texas	134.0	134.0	134.0	134.0	183.7	148.3	134.0	185.3	99.0	99.5	84.7	156.2	123.7	92.0	73.5	60.0	0	113.0	81.0	59.0	116.0	118.0	146.5	128.0	144.5	124.5		
Minneapolis, Minnesota	134.0	134.0	145.2	145.5	134.0	134.0	135.0	134.0	77.0	77.0	128.5	52.0	25.5	26.5	65.0	77.5	82.5	0	40.5	90.5	61.0	102.5	85.0	71.0	80.5	116.0		
St. Louis, Missouri	151.0	151.0	151.0	151.0	122.5	159.0	151.0	2.1	94.5	61.0	98.5	94.0	77.0	35.0	34.0	59.5	42.5	46.0	0	61.0	35.5	77.5	40.0	50.5	40.0	75.5		
Cincinnati, Ohio	176.0	188.5	188.5	176.0	122.5	176.0	204.0	176.0	77.5	61.0	73.5	111.0	100.5	28.5	91.0	59.0	72.5	82.0	43.0	84.5	0	48.5	38.5	46.5	38.5	68.5		
Buffalo, New York	201.0	201.0	201.0	201.0	201.0	201.0	201.0	186.0	146.5	153.5	197.5	162.0	133.0	111.0	127.5	106.0	123.5	87.5	68.5	129.0	50.5	98.5	43.0	0	37.5	119.0		

<sup>a</sup>Exclusive of ExParte 256 and ExParte 259.

APPENDIX TABLE 20. CARLOAD MILEAGE COST SCALES BASED ON 1966 OPERATIONS OF BOX-GENERAL SERVICE FOR 800 AND 1,300 HUNDREDWEIGHT LOADS AND COVERED HOPPERS FOR 1,800 HUNDREDWEIGHT LOADS

Short Line Miles	Fully Distributed		
	800 Box-General Service	1,300 Box-General Service <sup>a</sup>	1,800 Covered Hopper
cents per hundredweight			
<u>Territory - Official</u>			
10	12.2	8.6	7.2
32	13.6	9.8	8.5
50	14.6	10.5	9.2
100	17.1	12.6	11.3
150	19.6	14.6	13.3
200	22.1	16.6	15.4
300	27.2	20.7	19.5
400	32.2	24.7	23.6
500	37.2	28.7	27.7
750	49.8	38.9	38.0
1,000	62.4	49.0	48.3
1,250	75.0	59.1	58.6
1,500	87.6	69.2	68.9
2,000	112.9	89.5	89.5
<u>Territory - Southern</u>			
10	8.5	6.0	5.0
50	10.6	7.8	6.8
56	10.9	8.0	7.1
100	12.7	9.5	8.6
150	14.8	11.3	10.3
200	16.9	13.0	12.1
300	21.1	16.4	15.6
400	25.4	19.9	19.1
500	29.6	23.3	22.5
750	40.1	32.0	31.3
1,000	50.6	40.6	40.0
1,250	61.1	49.2	48.7
1,500	71.6	57.8	57.4
2,000	92.6	75.1	74.8

-continued-

APPENDIX TABLE 20. CARLOAD MILEAGE COST SCALES BASED ON 1966 OPERATIONS OF BOX-GENERAL SERVICE FOR 800 AND 1,300 HUNDREDWEIGHT LOADS AND COVERED HOPPERS FOR 1,800 HUNDREDWEIGHT LOADS - continued

Short Line Miles	Fully Distributed		
	800 Box-General Service	1,300 Box-General Service <sup>a</sup>	1,800 Covered Hopper
cents per hundredweight			
<u>Territory - Western</u>			
10	13.1	9.4	7.7
50	15.5	11.4	9.8
62	16.3	12.0	10.4
100	18.0	13.5	11.9
150	20.4	15.4	13.9
200	22.7	17.3	15.9
300	27.3	21.2	19.9
400	32.0	25.0	23.3
500	36.6	28.9	27.9
750	48.3	38.5	37.8
1,000	59.9	48.1	47.7
1,250	71.6	57.8	57.7
1,500	83.2	67.4	67.6
2,000	106.5	86.7	87.5

<sup>a</sup>Does not include transit out-of-pocket terminal costs. Transit costs for the 1,300 hundredweight load can be calculated by adding the following. They are: Official, 5.671 cents per hundredweight; Southern, 3.905 cents per hundredweight; and Western, 6.178 cents per hundredweight.

Source: Rail Carload Cost Scales by Territories for the Year 1966, Statement No. 2-68, Bureau of Accounts, Interstate Commerce Commission, Washington, D. C., May, 1968.

APPENDIX TABLE 21. SHORT LINE RAIL DISTANCES OF DOMESTIC WHEAT SHIPMENTS BETWEEN VARIOUS POINTS IN THE UNITED STATES

ORIGIN	DESTINATION	Spokane, Washington	Portland, Oregon	Los Angeles, California	Winnemucca, Nevada	Idaho Falls, Idaho	Salt Lake City, Utah	Phoenix, Arizona	Billings, Montana	Cheyenne, Wyoming	Denver, Colorado	Albuquerque, New Mexico	Minot, North Dakota	Huron, South Dakota	Lincoln, Nebraska	Hutchinson, Kansas	Oklahoma City, Oklahoma	Houston, Texas	Minneapolis, Minnesota	St. Louis, Missouri	New Orleans, Louisiana	Cincinnati, Ohio	Knoxville, Tennessee	Boston, Massachusetts	Buffalo, New York	Baltimore, Maryland	Savannah, Georgia		
		miles																											
Spokane, Washington		0																											
Portland, Oregon		370	0																										
Los Angeles, California		1556	1082	0																									
Winnemucca, Nevada		930	682	769	0																								
Idaho Falls, Idaho		557	765	995	478	0																							
Salt Lake City, Utah		777	885	774	398	221	0																						
Phoenix, Arizona		1645	1397	424	1084	1181	960	0																					
Billings, Montana		592	934	1441	925	447	667	1627	0																				
Cheyenne, Wyoming		1102	1210	1237	789	546	463	1200	606	0																			
Denver, Colorado		1213	1321	1227	900	627	570	1047	656	106	0																		
Albuquerque, New Mexico		1763	1725	723	1448	1242	1055	499	1201	578	472	0																	
Minot, North Dakota		954	1324	1917	1402	923	1143	2103	476	968	1029	1501	0																
Huron, South Dakota		1625	1867	2052	1604	1451	1671	2015	1304	643	704	1176	347	0															
Lincoln, Nebraska		1707	1805	1832	1384	1141	1058	1795	1201	455	484	894	662	319	0														
Hutchinson, Kansas		1831	1829	1549	1449	1167	1083	1262	1379	573	467	633	922	579	261	0													
Oklahoma City, Oklahoma		1997	2005	1490	1784	1311	1254	1317	1394	775	684	648	1094	751	432	228	0												
Houston, Texas		1982	2185	1641	1692	1660	1607	1060	1625	1138	1033	925	1534	1191	888	664	436	0											
Minneapolis, Minnesota		1413	1732	2088	1709	1393	1333	1791	1074	814	850	1280	470	289	396	647	792	1198	0										
St. Louis, Missouri		1867	2103	2103	1823	1488	1409	1621	1310	942	938	1180	1051	728	505	522	540	921	582	0									
New Orleans, Louisiana		2408	2690	2149	2191	1918	1800	1570	2051	1411	1291	1229	1672	1329	1041	888	607	300	1210	678	0								
Cincinnati, Ohio		2064	2383	2365	2106	1735	1708	1956	1725	1189	1209	1528	1147	880	734	811	980	1110	678	338	931	0							
Knoxville, Tennessee		2614	2984	2466	2366	1965	1908	2042	2402	1333	1338	1543	1405	1098	894	917	909	1125	936	745	618	313	0						
Boston, Massachusetts		2673	3118	3142	3545	2683	2462	2756	2333	1943	1974	2255	1726	1528	1490	1612	1708	1933	1259	1174	1571	938	921	0					
Buffalo, New York		2344	2750	2852	2574	2134	2377	2428	1802	1468	1499	1927	1255	1056	1015	1137	1380	1802	788	846	1254	420	717	328	0				
Baltimore, Maryland		2564	2821	2821	2678	2412	2245	2499	2224	1726	1750	2000	1625	1384	1271	1352	1431	1517	1156	891	1163	560	545	320	325	0			
Savannah, Georgia		2448	2746	2325	2583	2310	2001	1901	2109	1733	1683	1402	1825	1518	1314	1405	1000	918	1356	774	618	714	401	1057	1034	649	0		

Source: Short line rail mileages were obtained from Class Rate Tariffs, Fargo Chamber of Commerce, Fargo, North Dakota.

APPENDIX TABLE 22. SHORT LINE RAIL DISTANCES FOR EXPORT WHEAT SHIPMENTS BETWEEN VARIOUS UNITED STATES POINTS

ORIGIN	West Coast							Great Lakes					Atlantic				Gulf						
	Portland, Oregon	Seattle, Washington	Longview, Washington	Tacoma, Washington	San Francisco, California	Sacramento, California	Stockton City, California	Duluth, Minnesota	Superior, Wisconsin	Chicago, Illinois	Toledo, Ohio	Milwaukee, Wisconsin	Portland, Maine	Albany, New York	Philadelphia, Pennsylvania	Baltimore, Maryland	Norfolk, Virginia	Houston, Texas	Galveston, Texas	Corpus Christi, Texas	Beaumont, Texas	Brownsville, Texas	New Orleans, Louisiana
	miles																						
Spokane, Washington	--	--	--	--	--	--	1438	1797	--	--	--	--	--	--	2564	--	1982	--	--	--	--	--	2408
Portland, Oregon	--	--	--	--	--	--	1808	2145	--	--	--	--	--	--	2821	--	2185	--	--	--	--	--	2690
Winnemucca, Nevada	682	--	--	--	379	328	371	1143	--	--	--	--	--	--	2678	--	1692	--	--	--	--	--	2191
Idaho Falls, Idaho	765	843	808	847	857	807	769	1408	--	--	--	--	--	--	2412	--	1660	--	--	--	--	--	1918
Salt Lake City, Utah	885	963	927	967	777	727	769	--	1479	--	--	--	--	--	2245	--	1294	--	--	--	--	--	1800
Phoenix, Arizona	1397	--	--	--	--	--	580	--	1806	--	--	--	--	--	2499	--	1060	--	--	--	--	--	1570
Billings, Montana	934	887	977	891	1304	1254	1296	961	1466	--	1270	--	--	--	--	1817	1625	--	--	--	--	--	2051
Cheyenne, Wyoming	1210	1288	1252	1292	1168	1118	1160	956	980	1200	990	2015	1759	1782	1726	1845	1138	1138	1280	1209	1416	1397	
Denver, Colorado	1321	1399	1363	1403	1278	1229	1271	993	1006	1230	1027	2046	1790	1811	1750	1865	1033	1033	1174	1092	1310	1291	
Albuquerque, New Mexico	1725	1903	1772	1865	1076	1086	1041	1420	1282	--	--	--	--	--	2000	--	418	--	--	--	--	--	1426
Minot, North Dakota	1324	1263	1360	1267	1780	1730	1772	485	864	1077	794	1798	1542	1661	1625	1341	1534	1534	1691	1545	1828	1672	
Huron, South Dakota	1867	1819	1909	1823	1982	1933	1975	389	617	847	575	1600	1344	1431	1384	1529	1191	1191	1348	1202	1705	1329	
Lincoln, Nebraska	1805	1883	1909	1887	1762	1713	--	538	525	746	551	1562	1306	1327	1271	1390	888	888	1029	907	1166	1041	
Hutchinson, Kansas	1829	--	--	1969	1861	--	1783	787	649	865	712	1684	1428	1425	1352	1466	664	664	805	701	942	888	
Oklahoma City, Oklahoma	2005	--	--	--	1916	--	--	932	788	--	--	--	--	--	1066	--	436	--	--	--	--	--	607
Houston, Texas	2185	2185	--	--	1641	--	--	1338	1380	--	--	--	--	--	929	--	--	--	--	--	--	--	300
Minneapolis, Minnesota	1732	1732	--	--	2088	2079	2121	151	395	608	325	1331	1075	1194	1156	1309	1198	1198	1361	1209	1498	1210	
St. Louis, Missouri	2103	2159	2580	--	2047	--	--	656	439	--	492	--	--	--	1168	--	774	774	996	740	1133	678	

Source: Short line rail mileages were obtained from Class Rate Tariffs, Fargo Chamber of Commerce, Fargo, North Dakota.

APPENDIX TABLE 23. RAIL RATES FOR WHEAT BASED ON FULLY DISTRIBUTED COSTS FOR AN AVERAGE 1,300 HUNDREDWEIGHT LOAD, BOX-GENERAL SERVICE, ONE TRANSIT INCLUDED

ORIGIN	DESTINATION	Spokane, Washington	Portland, Oregon	Los Angeles, California	Winnemucca, Nevada	Idaho Falls, Idaho	Salt Lake City, Utah	Phoenix, Arizona	Billings, Montana	Cheyenne, Wyoming	Denver, Colorado	Albuquerque, New Mexico	Minot, North Dakota	Huron, South Dakota	Lincoln, Nebraska	Hutchinson, Kansas	Oklahoma City, Oklahoma	Houston, Texas	Minneapolis, Minnesota	St. Louis, Missouri	New Orleans, Louisiana	Cincinnati, Ohio	Knoxville, Tennessee	Boston, Massachusetts	Buffalo, New York	Baltimore, Maryland	Savannah, Georgia	
	cents per hundredweight																											
Spokane, Washington		0																										
Portland, Oregon		30.2	0																									
Los Angeles, California		76.4	57.6	0																								
Winnemucca, Nevada		51.9	42.4	45.4	0																							
Idaho Falls, Idaho		37.4	45.3	54.5	34.3	0																						
Salt Lake City, Utah		45.8	50.1	45.6	31.1	24.3	0																					
Phoenix, Arizona		80.5	69.9	32.1	57.6	61.5	53.1	0																				
Billings, Montana		38.8	52.0	71.6	51.7	33.1	41.8	78.7	0																			
Cheyenne, Wyoming		58.4	62.5	63.8	46.2	36.9	33.7	62.3	39.3	0																		
Denver, Colorado		62.8	66.8	67.9	50.7	40.2	38.0	56.2	42.9	19.9	0																	
Albuquerque, New Mexico		84.1	82.6	44.0	71.9	64.0	56.5	35.1	62.3	38.2	34.1	0																
Minot, North Dakota		52.8	66.9	90.3	70.1	51.6	60.0	97.0	34.2	53.2	55.4	73.6	0															
Huron, South Dakota		78.6	88.3	95.0	77.7	77.7	80.4	93.5	66.3	40.8	43.2	61.3	29.3	0														
Lincoln, Nebraska		81.6	85.8	86.9	69.3	59.9	56.6	85.4	62.3	33.4	34.5	50.4	41.6	28.1	0													
Hutchinson, Kansas		86.8	86.7	75.6	71.9	61.0	57.6	64.5	69.1	38.0	33.9	40.4	51.6	38.2	25.9	0												
Oklahoma City, Oklahoma		92.8	93.1	76.0	84.9	66.7	64.1	66.7	71.2	45.7	42.4	42.5	58.0	44.7	32.5	24.6	0											
Houston, Texas		92.8	100.3	79.2	81.3	80.0	79.0	56.7	78.6	59.8	55.6	53.5	74.9	61.9	50.2	41.6	44.9	0										
Minneapolis, Minnesota		70.5	82.6	77.1	81.9	70.1	67.3	85.2	57.2	47.2	48.7	65.2	34.0	27.0	31.2	41.0	46.4	62.2	0									
St. Louis, Missouri		82.3	97.0	97.0	86.5	73.5	70.3	78.4	67.0	52.4	52.2	61.5	56.3	44.2	35.3	36.0	39.5	53.3	38.4	0								
New Orleans, Louisiana		109.2	101.2	98.8	100.5	90.3	85.6	76.4	94.9	70.4	65.6	65.8	80.5	67.1	55.9	40.6	54.7	27.4	62.7	48.1	0							
Cincinnati, Ohio		95.4	108.2	107.5	97.1	83.0	81.9	91.8	82.6	61.8	62.6	75.0	60.2	50.0	44.4	37.5	76.8	59.8	42.2	29.3	49.4	0						
Knoxville, Tennessee		117.4	132.2	111.5	107.5	92.2	89.9	94.6	109.0	67.6	67.5	75.3	70.2	58.2	50.4	51.4	52.7	59.3	52.1	42.1	37.1	24.5	0					
Boston, Massachusetts		119.8	137.6	138.6	154.7	120.2	65.7	123.1	106.2	90.9	92.5	103.1	84.4	76.5	74.9	79.9	83.7	95.3	65.6	62.1	74.6	54.0	51.4	0				
Buffalo, New York		106.6	131.4	130.0	115.8	98.2	108.0	110.0	88.7	72.7	73.6	90.7	65.5	57.4	55.8	60.7	70.5	85.7	46.6	48.9	62.0	31.2	43.1	27.5	0			
Baltimore, Maryland		115.4	125.7	125.7	120.0	109.4	102.7	112.8	101.8	82.6	83.6	92.9	80.4	70.6	66.1	69.4	72.5	74.5	61.4	50.7	58.6	36.8	36.7	28.0	27.0	0		
Savannah, Georgia		110.8	122.7	125.0	116.2	105.3	92.9	89.6	97.2	82.9	80.9	70.1	88.4	76.1	66.5	61.6	46.8	46.8	66.1	46.0	34.2	37.5	26.1	57.0	56.0	40.3	0	

Source: Average load for United States was obtained from Freight Commodity Statistics, Class I Railroads in the United States for Year Ended December 31, 1966, Statement No. 68100, Bureau of Accounts, Interstate Commerce Commission, Washington, D. C.

Fully distributed costs were obtained from Rail Carload Cost Scales by Territories for the Year 1966, Statement No. 2-68, Bureau of Accounts, Interstate Commerce Commission, Washington, D. C.

Data from these sources were applied to short line rail mileages.

APPENDIX TABLE 24. RAIL RATES FOR WHEAT BASED ON FULLY DISTRIBUTED COSTS FOR AN AVERAGE 1,300 HUNDREDWEIGHT LOAD, ONE TRANSIT INCLUDED<sup>a</sup>

ORIGIN	West Coast					Great Lakes	Atlantic			Gulf			
	Seattle, Washington	Portland, Oregon	San Francisco, California	Sacramento, California	Stockton City, California	Duluth, Minnesota Superior, Wisconsin	Albany, New York	Philadelphia, Pennsylvania	Baltimore, Maryland	Norfolk, Virginia	Galveston, Texas	Beaumont, Texas	New Orleans, Louisiana
cents per hundredweight													
Spokane, Washington	--	--	--	--	--	71.5	104.7	--	--	--	102.7	--	--
Portland, Oregon	--	--	--	--	--	85.9	--	--	--	119.5	107.0	--	--
Winnemucca, Nevada	--	--	--	28.5	--	60.0	--	--	120.0	--	--	--	100.5
Idaho Falls, Idaho	--	45.3	--	--	--	70.3	--	--	103.4	--	80.0	--	--
Salt Lake City, Utah	--	--	--	44.2	--	78.7	--	--	102.7	--	--	--	85.6
Phoenix, Arizona	--	--	--	32.1	--	109.0	--	--	112.8	--	--	--	76.4
Billings, Montana	--	50.2	--	--	--	53.1	--	--	--	86.3	83.3	--	--
Cheyenne, Wyoming	--	--	--	59.0	--	52.9	83.9	--	--	--	59.8	--	--
Denver, Colorado	--	--	--	63.4	--	58.0	--	--	83.6	--	55.6	--	--
Albuquerque, New Mexico	--	--	--	--	55.9	76.2	--	--	92.9	--	--	--	60.0
Minot, North Dakota	64.5	--	--	--	--	30.0	--	--	--	68.9	74.9	--	--
Huron, South Dakota	86.3	--	--	--	--	30.9	69.0	--	--	--	61.9	--	--
Lincoln, Nebraska	--	--	--	82.1	--	36.6	--	--	66.1	--	50.2	--	--
Hutchinson, Kansas	--	--	--	79.2	--	67.5	--	--	69.4	--	41.6	--	--
Minneapolis, Minnesota	82.9	--	--	--	--	21.6	58.2	--	--	--	62.2	--	--
St. Louis, Missouri	--	--	94.8	--	--	41.3	--	--	61.9	--	--	44.7	--
New Orleans, Louisiana	--	120.5	--	--	--	66.5	--	139.7	--	--	--	--	--
Knoxville, Tennessee	--	132.2	--	--	--	55.8	--	49.6	--	--	--	--	39.8
Baltimore, Maryland	--	128.5	--	--	--	62.9	--	--	--	--	--	--	58.6

<sup>a</sup>Rates generally represent shortest least-cost distance to the indicated export areas.

Source: Class Rate Tariffs, Fargo Chamber of Commerce, Fargo, North Dakota.

APPENDIX TABLE 25. RAIL RATES FOR FLOUR BASED ON FULLY DISTRIBUTED COSTS FOR AN AVERAGE 800 HUNDREDWEIGHT LOAD, BOX-GENERAL SERVICE, TRANSIT NOT INCLUDED

ORIGIN	DESTINATION	Spokane, Washington	Portland, Oregon	Los Angeles, California	Winnemucca, Nevada	Idaho Falls, Idaho	Salt Lake City, Utah	Phoenix, Arizona	Billings, Montana	Cheyenne, Wyoming	Denver, Colorado	Albuquerque, New Mexico	Minot, North Dakota	Huron, South Dakota	Lincoln, Nebraska	Hutchinson, Kansas	Oklahoma City, Oklahoma	Houston, Texas	Minneapolis, Minnesota	St. Louis, Missouri	New Orleans, Louisiana	Cincinnati, Ohio	Knoxville, Tennessee	Boston, Massachusetts	Buffalo, New York	Baltimore, Maryland	Savannah, Georgia	
		cents per hundredweight																										
Spokane, Washington		0																										
Portland, Oregon		30.8	0																									
Los Angeles, California		86.0	64.0	0																								
Winnemucca, Nevada		59.3	45.7	49.3	0																							
Idaho Falls, Idaho		39.5	49.1	60.6	35.9	0																						
Salt Lake City, Utah		49.7	55.1	49.5	32.0	23.8	0																					
Phoenix, Arizona		90.5	79.0	33.2	64.1	69.0	58.8	0																				
Billings, Montana		41.2	57.5	81.2	57.1	34.4	45.0	89.6	0																			
Cheyenne, Wyoming		65.0	70.4	71.8	50.3	38.9	38.9	69.9	41.9	0																		
Denver, Colorado		70.6	75.2	76.5	55.8	43.0	40.3	62.3	44.6	18.3	0																	
Albuquerque, New Mexico		96.4	94.5	47.8	81.5	72.0	62.7	36.6	70.0	40.5	35.6	0																
Minot, North Dakota		58.5	75.3	104.1	79.2	57.0	67.1	111.7	35.8	59.2	61.4	83.2	0															
Huron, South Dakota		89.5	101.6	109.1	88.4	81.7	91.8	107.3	74.3	43.8	46.8	68.7	29.7	0														
Lincoln, Nebraska		93.6	98.5	99.8	99.8	67.0	62.8	98.0	70.0	34.8	36.2	55.5	44.7	28.3	0													
Hutchinson, Kansas		99.8	99.7	85.7	81.6	68.0	64.1	72.2	78.1	40.3	35.4	43.3	56.9	40.6	25.8	0												
Oklahoma City, Oklahoma		106.4	106.8	83.6	97.4	74.7	71.8	75.0	78.8	50.0	45.8	44.0	64.6	48.3	33.6	24.1	0											
Houston, Texas		105.9	115.8	90.3	92.8	91.2	88.6	62.9	89.5	66.8	61.6	57.6	84.9	69.5	55.2	44.8	33.8	0										
Minneapolis, Minnesota		79.8	94.8	110.9	93.7	78.8	75.8	97.8	63.6	51.5	53.3	73.1	35.5	27.2	32.1	44.0	50.4	69.8	0									
St. Louis, Missouri		101.6	111.7	111.7	99.4	83.5	79.6	89.3	74.6	57.9	57.7	68.9	62.5	48.0	36.9	37.7	38.6	56.9	40.7	0								
New Orleans, Louisiana		126.9	141.0	114.0	116.1	104.1	98.2	86.7	109.1	79.7	74.5	71.3	91.8	75.6	62.0	55.2	42.0	76.8	70.4	45.5	0							
Cincinnati, Ohio		109.7	125.7	124.8	118.0	95.0	93.6	129.3	94.5	69.4	70.4	84.6	67.3	54.8	48.3	51.4	59.8	65.4	45.5	29.1	47.3	0						
Knoxville, Tennessee		137.2	155.7	129.8	124.8	104.8	103.6	108.6	126.6	75.8	76.0	85.4	79.4	64.8	55.5	56.7	51.7	66.2	57.6	39.5	34.3	27.9	0					
Boston, Massachusetts		140.2	162.4	163.6	183.8	140.7	129.6	144.3	123.2	105.4	106.9	119.3	98.9	89.0	87.0	93.2	98.0	104.9	75.5	71.1	91.2	59.2	58.4	0				
Buffalo, New York		123.7	144.0	149.1	135.2	113.2	125.4	127.9	98.3	82.5	83.2	104.6	75.3	65.2	63.2	69.3	81.5	102.7	51.7	54.6	75.2	33.2	48.1	28.6	0			
Baltimore, Maryland		134.7	147.6	147.6	140.4	127.1	118.8	131.5	117.7	94.5	95.7	106.5	93.9	83.9	76.1	80.1	84.1	84.1	70.2	56.9	70.6	40.2	39.5	29.0	28.0	0		
Savannah, Georgia		128.9	143.8	122.8	135.7	122.0	106.5	103.3	112.0	94.9	92.4	79.2	99.5	88.5	74.8	79.4	62.4	59.9	80.3	41.1	43.1	47.9	32.2	65.3	64.1	44.7	0	

Source: Average load for United States was obtained from Freight Commodity Statistics, Class I Railroads in the United States for Year Ended December 31, 1966, Statement No. 68100, Bureau of Accounts, Interstate Commerce Commission, Washington, D. C.

Fully distributed costs were obtained from Rail Carload Cost Scales by Territories for the Year 1966, Statement No. 2-68, Bureau of Accounts, Interstate Commerce Commission, Washington, D. C.

Data from these sources were applied to short line rail mileages.

APPENDIX TABLE 26. DOMESTIC RAIL RATES FOR WHEAT BASED ON FULLY DISTRIBUTED COSTS FOR AN AVERAGE 1,800 HUNDREDWEIGHT LOAD, COVERED HOPPER, ONE TRANSIT INCLUDED

ORIGIN	Washington	Oregon	California	Nevada	Idaho	Utah	Arizona	Montana	Wyoming	Colorado	New Mexico	North Dakota	South Dakota	Nebraska	Kansas	Oklahoma	Texas	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	
	cents per hundredweight																										
Washington	0																										
Oregon	28.9	0																									
California	75.0	57.2	0																								
Nevada	51.2	41.4	44.8	0																							
Idaho	36.4	44.6	53.0	28.2	0																						
Utah	45.1	45.1	45.0	30.1	72.9	0																					
Arizona	69.6	69.8	31.1	57.3	61.1	52.4	0																				
Montana	37.8	51.4	71.5	51.0	26.0	40.8	78.9	0																			
Wyoming	58.0	62.3	63.4	45.7	35.9	32.6	71.9	38.3	0																		
Colorado	62.4	66.9	63.0	50.0	39.2	36.9	55.8	40.3	18.3	0																	
New Mexico	79.3	84.3	43.0	71.8	63.4	56.1	34.1	71.9	37.2	33.0	0																
North Dakota	52.2	66.9	90.5	70.0	50.9	59.6	97.8	33.1	52.7	55.1	73.8	0															
South Dakota	78.8	88.5	95.8	78.0	71.9	80.6	94.3	66.1	39.8	42.3	60.9	28.0	0														
Nebraska	82.1	86.4	87.1	71.3	59.5	56.2	85.6	61.9	32.3	33.5	49.8	40.6	26.9	0													
Kansas	87.0	87.0	75.8	71.9	60.6	57.2	64.4	69.2	37.0	32.8	39.4	50.9	37.3	24.5	0												
Oklahoma	93.7	94.9	73.5	85.2	66.3	64.1	66.6	69.7	44.2	41.5	40.0	57.7	44.0	31.4	23.2	0											
Texas	93.1	101.1	79.4	81.5	80.2	78.2	56.3	78.8	59.4	55.2	51.0	75.2	61.5	49.5	40.7	31.5	0										
Region 1	70.4	83.1	97.2	102.1	69.6	67.2	85.4	56.9	46.6	48.0	65.1	32.9	25.7	29.9	40.0	45.7	61.8	0									
Region 2	88.5	97.8	97.8	86.7	73.4	70.3	78.6	66.3	51.7	51.5	61.1	55.9	43.2	34.3	35.0	35.7	50.8	37.4	0								
Region 3	110.0	121.3	99.7	101.3	90.5	85.8	76.6	95.7	70.3	65.5	63.1	80.7	67.1	55.5	49.5	38.4	26.1	62.3	41.2	0							
Region 4	96.3	96.8	108.3	97.9	83.2	81.1	92.0	72.8	61.4	62.3	74.9	59.8	49.2	43.5	46.4	53.2	58.3	41.2	31.6	51.2	0						
Region 5	118.3	132.6	112.3	108.3	92.4	90.1	95.4	109.8	67.2	67.4	75.5	70.1	57.8	49.8	50.7	50.4	58.9	51.4	44.0	38.8	25.7	0					
Region 6	120.6	138.4	139.4	155.5	121.0	108.2	123.9	107.0	91.5	92.8	103.9	82.8	74.9	73.5	78.3	82.1	91.1	64.3	60.9	76.6	51.2	50.5	0				
Region 7	107.5	113.7	127.8	116.7	99.1	108.8	110.8	86.9	72.2	73.8	90.9	64.1	56.1	54.5	59.4	69.1	85.9	45.5	47.8	64.1	30.1	42.6	26.3	0			
Region 8	116.3	126.5	126.5	120.8	110.2	103.5	113.7	102.7	82.6	83.8	93.7	78.8	69.3	64.7	68.0	71.1	74.5	60.1	49.6	60.4	35.8	35.2	26.0	26.2	0		
Region 9	123.6	123.5	106.7	115.3	106.2	94.7	89.8	98.0	83.1	81.1	70.0	86.8	74.5	66.5	70.1	53.9	50.7	72.1	45.0	38.8	42.0	23.0	56.3	55.4	39.4	0	

Source: Average load for United States was obtained from Freight Commodity Statistics, Class I Railroads in the United States for Year Ended December 31, 1966, Statement No. 68100, Bureau of Accounts, Interstate Commerce Commission, Washington, D. C.

Fully distributed costs were obtained from Rail Carload Cost Scales by Territories for the Year 1966, Statement No. 2-68, Bureau of Accounts, Interstate Commerce Commission, Washington, D. C.

Data from these sources were applied to short line rail mileages.

APPENDIX TABLE 27. LEAST-COST EXPORT FREIGHT RATES FOR WHEAT-GRAIN WITH RAIL RATES BASED ON FULLY DISTRIBUTED COSTS OF COVERED HOPPER CARS

ORIGIN	DESTINATION			
	West Coast	Gulf	Atlantic	Great Lakes
	cents per hundredweight			
Spokane, Washington	--	92.5 RB	104.5 R	71.4 R
Portland, Oregon	--	101.1 R	118.9 R	86.1 R
Winnemucca, Nevada	27.2 R	81.5 R	119.0 R	59.6 R
Idaho Falls, Idaho	44.6 T	80.2 R	102.5 R	70.2 R
Salt Lake City, Utah	43.2 R	65.7 R	101.0 R	73.1 R
Phoenix, Arizona	37.3 R	56.3 R	111.7 R	86.0 R
Billings, Montana	51.4 R	78.8 R	86.5 R	52.4 R
Cheyenne, Wyoming	58.6 R	59.4 R	82.8 R	52.2 R
Denver, Colorado	63.1 R	55.2 R	83.8 R	53.0 R
Albuquerque, New Mexico	55.5 R	30.8 R	93.7 R	70.7 R
Minot, North Dakota	64.4 R	45.0 RB	67.5 R	33.5 R
Huron, South Dakota	86.6 R	47.8 RB	67.7 R	29.7 R
Lincoln, Nebraska	82.3 R	30.0 B	64.7 R	35.6 R
Hutchinson, Kansas	78.8 R	24.2 B	68.0 R	40.1 R
Minneapolis, Minnesota	83.1 R	22.1 B	56.9 R	13.8 T
St. Louis, Missouri	95.6 R	13.8 B	60.6 R	31.7 R
Knoxville, Tennessee	133.1 R	38.8 R	35.2 R	42.5 R

B - Barge  
T - Truck  
R - Rail

APPENDIX TABLE 28. SECTION A. LEAST-COST DOMESTIC FREIGHT RATES BASED ON WHEAT-GRAIN WITH RAIL RATES BASED ON FULLY DISTRIBUTED COSTS OF BOX-GENERAL SERVICE CARS

ORIGIN	DESTINATION																									
	Washington	Oregon	California	Nevada	Idaho	Utah	Arizona	Montana	Wyoming	Colorado	New Mexico	North Dakota	South Dakota	Nebraska	Kansas	Oklahoma	Texas	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9
cents per hundredweight																										
Washington	0	30.2	76.4	51.9	37.4	45.8	80.5	--	58.4	62.8	84.1	--	--	81.6	86.8	92.8	92.8	70.5	82.3	92.6	94.6	117.4	119.8	96.5	115.4	106.5
Oregon	30.2	0	57.6	42.4	44.6	50.1	69.9	--	62.5	66.8	82.6	--	--	85.8	86.7	93.1	100.3	82.6	97.0	101.2	106.8	116.5	137.6	110.9	125.7	118.6
Nevada	51.9	42.4	45.4	0	34.3	31.1	57.6	--	46.2	50.7	71.9	--	--	69.3	71.9	84.9	81.3	81.9	86.5	100.3	97.1	104.9	154.7	85.0	120.0	116.2
Idaho	37.4	44.6	54.5	34.3	0	24.3	61.5	--	36.9	40.2	64.0	--	--	59.9	61.0	66.7	80.0	70.1	73.5	87.3	83.0	90.8	120.2	95.3	109.4	106.1
Utah	45.8	50.1	45.6	31.1	24.3	0	53.1	--	33.7	38.0	56.5	--	--	56.6	57.6	64.1	79.0	67.3	70.3	81.1	81.5	87.4	65.7	103.7	102.7	92.9
Arizona	80.5	69.9	32.1	57.6	61.5	53.1	0	--	62.3	56.2	35.1	--	--	84.5	64.5	66.7	56.7	85.1	78.4	76.4	91.8	94.3	123.1	110.0	112.8	89.6
Montana	38.8	52.0	71.6	51.7	33.1	41.8	78.7	0	39.3	42.9	62.3	--	--	62.3	69.1	71.2	78.6	57.2	67.0	79.3	80.5	85.4	106.2	78.1	101.8	63.2
Wyoming	58.4	62.5	63.8	46.2	36.9	33.7	62.3	--	0	10.1	38.2	--	--	33.4	38.0	45.7	59.8	47.2	52.4	66.2	61.8	67.8	90.9	72.7	82.6	82.9
Colorado	62.8	66.8	67.9	50.7	40.2	38.0	56.2	--	10.1	0	34.1	--	--	34.5	33.9	42.4	55.6	48.7	52.2	60.8	62.6	63.7	92.5	73.6	83.6	80.9
New Mexico	84.1	82.6	44.0	71.9	64.0	56.5	35.1	--	38.2	34.1	0	--	--	50.4	40.4	42.5	53.5	65.2	61.5	65.8	75.0	70.2	103.1	90.7	92.9	70.1
North Dakota	52.8	66.9	90.3	70.1	51.6	60.0	97.0	34.2	53.2	55.4	73.6	0	--	41.6	51.6	58.0	74.9	34.0	46.0	56.1	58.2	64.2	84.4	59.6	80.4	70.0
South Dakota	78.6	88.3	95.0	77.7	77.7	80.4	93.5	66.3	40.8	43.2	61.3	--	0	28.1	38.2	44.7	61.9	27.0	39.0	49.3	50.0	57.2	76.5	55.9	70.6	63.0
Nebraska	81.6	85.8	86.9	69.3	59.9	56.6	84.5	--	33.4	34.5	50.4	--	--	0	25.9	32.5	36.3	31.2	18.6	30.0	26.6	35.6	74.9	55.8	66.1	66.5
Kansas	86.8	86.7	75.6	71.9	61.0	57.6	64.5	--	38.0	33.9	40.4	--	--	25.9	0	16.0	30.5	41.0	12.8	24.2	20.8	29.8	79.9	60.7	69.4	61.6
Oklahoma	92.8	93.1	76.0	84.9	66.7	64.1	66.7	--	45.7	42.4	42.5	--	--	32.5	16.0	0	44.9	46.4	39.5	54.7	53.0	52.7	83.7	70.5	72.5	46.8
Texas	92.8	100.3	79.2	81.3	80.0	79.0	56.7	--	59.8	55.6	53.5	--	--	50.2	41.6	44.9	0	58.0	31.4	21.5	38.6	49.4	95.3	85.7	74.5	46.8
Region 1	70.5	82.6	77.1	81.9	70.1	67.3	85.1	--	47.2	48.7	65.2	--	--	31.2	41.0	46.4	29.8	0	12.0	22.1	24.2	30.2	65.6	38.8	61.4	36.0
Region 2	82.3	97.0	97.0	86.5	73.5	70.3	78.4	67.0	52.4	52.2	61.5	--	--	35.2	36.0	39.5	20.1	23.2	0	13.8	13.5	18.4	62.1	48.9	50.7	46.0
Region 5	117.4	132.2	111.5	107.5	92.2	89.9	94.6	109.5	67.6	67.5	75.3	--	--	50.4	51.4	52.7	59.3	52.1	42.1	37.1	24.5	0	51.4	43.1	36.7	26.1

APPENDIX TABLE 28. SECTION B. LEAST-COST MODE OF SEVERAL ALTERNATIVES BETWEEN DESIGNATED POINTS

ORIGIN	DESTINATION																										
	Washington	Oregon	California	Nevada	Idaho	Utah	Arizona	Montana	Wyoming	Colorado	New Mexico	North Dakota	South Dakota	Nebraska	Kansas	Oklahoma	Texas	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	
Washington	O	R	R	R	R	R	R	-	R	R	R	-	-	R	R	R	R	R	R	R	RB	RB	R	R	RL	R	RB
Oregon	R	O	R	R	T	R	R	-	R	R	R	-	-	R	R	R	R	R	R	R	R	RB	RB	R	RL	R	RB
Nevada	R	R	R	O	R	R	R	-	R	R	R	-	-	R	R	R	R	R	R	R	RB	R	RB	R	RL	R	R
Idaho	R	T	R	R	O	R	R	-	R	R	R	-	-	R	R	R	R	R	R	R	RB	R	RB	R	RL	R	R
Utah	R	R	R	R	R	O	R	-	R	R	R	-	-	R	R	R	R	R	R	R	R	RB	RB	R	RL	R	R
Arizona	R	R	R	R	R	R	O	-	R	R	R	-	-	R	R	R	R	R	R	R	RB	R	RB	R	R	R	RB
Montana	T	R	R	R	R	R	R	O	R	R	R	-	-	R	R	R	R	R	R	R	RB	RB	RB	R	RL	R	R
Wyoming	R	R	R	R	R	R	R	-	O	T	R	-	-	R	R	R	R	R	R	R	RB	R	RB	R	R	R	R
Colorado	R	R	R	R	R	R	R	-	T	O	R	-	-	R	R	R	R	R	R	R	RB	R	RB	R	R	R	R
New Mexico	R	R	R	R	R	R	R	-	R	R	O	-	-	R	R	R	R	R	R	R	R	R	RB	R	R	R	R
North Dakota	R	R	R	R	R	R	R	R	R	R	R	R	O	-	R	R	R	R	R	RB	RB	RB	RB	R	RL	R	RB
South Dakota	R	R	R	R	R	R	R	R	R	R	R	-	O	R	R	R	R	R	RB	RB	R	RB	R	RL	R	RB	
Nebraska	R	R	R	R	R	R	R	-	R	R	R	-	-	O	R	R	B	R	B	B	B	B	B	R	R	R	R
Kansas	R	R	R	R	R	R	R	-	R	R	R	-	-	R	O	T	B	R	B	B	B	B	B	R	R	R	R
Oklahoma	R	R	R	R	R	R	R	-	R	R	R	-	-	R	T	O	R	R	R	R	RB	R	R	R	R	R	R
Texas	R	R	R	R	R	R	R	-	R	R	R	-	-	R	R	R	O	B	B	B	B	B	R	R	R	R	R
Region 1	R	R	R	R	R	R	R	-	R	R	R	-	-	R	R	R	B	O	B	B	B	B	B	R	TL	R	B
Region 2	R	R	R	R	R	R	R	R	R	R	R	-	-	R	R	R	B	B	O	B	B	B	B	R	R	R	R
Region 5	R	R	R	R	R	R	R	R	R	R	R	-	-	R	R	R	R	R	R	R	R	R	R	O	R	R	R

B - Barge  
 T - Truck  
 R - Rail

L - Lake vessel  
 AR - Average revenue rate by rail<sup>a</sup>  
 TB, TR, TL, etc.

<sup>a</sup>Carload Waybill Statistics, State-to-State Distribution, Products of Agriculture, Statement No. SS-2, Bureau of Transport Economics and Statistics, Interstate Commerce Commission, Washington, D. C.

APPENDIX TABLE 28. SECTION C. LEAST-COST EXPORT FREIGHT RATES FOR WHEAT-GRAIN WITH RAIL RATES BASED ON FULLY DISTRIBUTED COSTS OF BOX-GENERAL SERVICE CARS

ORIGIN	DESTINATION			
	West Coast	Gulf	Atlantic	Great Lakes
	cents per hundredweight			
Spokane, Washington	--	92.6 RB	104.7 R	71.5 R
Portland, Oregon	--	104.7 RB	119.5 R	85.9 R
Winnemucca, Nevada	28.5 R	82.0 R	120.0 R	60.0 R
Idaho Falls, Idaho	44.6 T	80.0 R	103.4 R	70.3 R
Salt Lake City, Utah	44.2 R	65.8 R	102.7 R	78.7 R
Phoenix, Arizona	32.1 R	56.7 R	112.8 R	109.0 R
Billings, Montana	50.2 R	80.3 RB	86.3 R	53.1 R
Cheyenne, Wyoming	59.0 R	59.8 R	83.9 R	52.9 R
Denver, Colorado	63.4 R	55.6 R	83.6 R	58.0 R
Albuquerque, New Mexico	55.9 R	31.9 R	92.9 R	76.2 R
Minot, North Dakota	64.5 R	56.1 RB	68.9 R	34.6 R
Huron, South Dakota	86.3 R	49.1 RB	69.0 R	30.9 R
Lincoln, Nebraska	82.1 R	30.0 B	66.1 R	36.6 R
Hutchinson, Kansas	79.2 R	24.2 B	69.4 R	41.1 R
Minneapolis, Minnesota	82.9 R	22.1 B	58.2 R	13.8 R
St. Louis, Missouri	94.8 R	13.8 B	61.9 R	32.8 R
Knoxville, Tennessee	132.2 R	39.8 R	49.6 R	43.1 R
Oklahoma City, Oklahoma	90.2 R	32.6 R	56.9 R	52.0 R
Houston, Texas	79.2 R	21.5 B	51.9 R	67.5 R

B - Barge  
T - Truck  
R - Rail

APPENDIX TABLE 29. SECTION A. LEAST-COST DOMESTIC FREIGHT RATES FOR WHEAT-GRAIN WITH RAIL RATES BASED ON FULLY DISTRIBUTED COSTS OF COVERED HOPPER CARS

ORIGIN	DESTINATION																									
	Washington	Oregon	California	Nevada	Idaho	Utah	Arizona	Montana	Wyoming	Colorado	New Mexico	North Dakota	South Dakota	Nebraska	Kansas	Oklahoma	Texas	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9
cents per hundredweight																										
Washington	0	28.9	75.0	51.2	36.4	45.1	69.6	32.9	58.0	62.4	79.3	52.2	78.8	82.1	87.0	93.7	93.1	70.4	88.5	92.5	94.6	100.6	120.6	96.4	116.3	106.4
Oregon	28.9	0	57.2	41.4	44.6	45.1	69.8	51.4	62.3	66.9	84.3	66.9	88.5	86.4	87.0	94.9	101.1	83.1	97.8	105.2	96.8	113.3	138.4	111.1	126.5	119.1
Nevada	51.2	41.4	44.8	0	28.2	30.1	57.3	51.0	45.7	50.0	71.8	70.0	78.0	71.3	71.9	85.2	81.5	102.1	86.7	100.5	97.9	105.1	155.5	84.0	120.8	115.3
Idaho	36.4	44.6	53.0	28.2	0	37.4	61.1	26.0	35.9	39.2	63.4	50.9	71.9	59.5	60.6	66.3	80.2	69.6	73.4	87.2	86.9	90.4	121.0	95.2	110.2	105.6
Utah	45.1	45.1	45.0	30.1	37.4	0	52.4	40.8	32.6	36.9	56.1	59.6	80.6	56.2	57.2	64.1	78.2	67.2	70.3	84.1	81.1	87.0	108.2	98.1	103.5	94.7
Arizona	69.6	69.8	31.1	57.3	61.1	52.4	0	78.9	71.9	55.8	34.1	97.8	94.3	85.6	64.4	66.6	56.3	85.4	78.6	92.4	92.0	94.2	123.9	110.8	113.7	89.8
Montana	37.8	51.4	71.5	51.0	26.0	40.8	78.9	0	38.3	40.3	71.9	33.1	66.1	61.9	69.2	69.7	78.8	56.9	66.3	79.0	72.8	84.7	107.0	77.4	102.7	92.9
Wyoming	58.0	62.3	63.4	45.7	35.9	32.6	71.9	38.3	0	10.1	37.2	52.7	39.8	32.3	37.0	44.2	59.4	46.6	51.7	65.5	61.4	67.2	91.5	72.2	82.6	82.6
Colorado	62.4	66.9	63.0	50.0	39.2	36.9	55.8	40.3	10.1	0	33.0	55.1	42.3	33.5	32.8	41.5	55.2	48.0	51.5	65.3	62.3	62.6	92.8	73.8	83.8	81.1
New Mexico	79.3	84.3	43.0	71.8	63.4	56.1	34.1	71.9	37.2	33.0	0	73.8	60.9	49.8	39.4	40.0	51.0	65.1	61.0	63.1	74.9	69.2	103.9	90.9	93.7	70.0
North Dakota	52.2	66.9	90.5	70.0	50.9	59.6	97.8	33.1	52.7	55.1	73.8	0	28.0	40.6	50.9	57.7	75.2	32.9	44.9	55.0	57.1	63.1	82.8	58.5	78.8	68.9
South Dakota	78.8	88.5	95.8	78.0	71.9	80.6	94.3	66.1	39.8	42.3	60.9	28.0	0	26.9	37.3	44.0	61.5	25.7	37.7	47.8	49.2	56.9	74.9	54.7	69.3	61.7
Nebraska	82.1	86.4	87.1	71.3	59.5	56.2	85.6	61.9	32.3	33.5	49.8	40.6	26.9	0	24.5	31.4	49.5	29.9	18.6	30.0	26.6	35.6	73.5	54.5	64.7	65.9
Kansas	87.0	87.0	75.8	71.9	60.6	57.2	64.4	69.2	37.0	32.8	39.4	50.9	37.3	24.5	0	16.0	40.7	40.0	12.8	24.2	20.8	29.8	78.3	59.4	68.0	70.1
Oklahoma	93.7	94.9	73.5	85.2	66.3	64.1	66.6	69.7	44.2	41.5	40.0	57.7	44.0	31.4	16.0	0	31.5	45.7	35.7	38.4	53.2	50.4	82.1	69.1	71.1	53.9
Texas	93.1	101.1	79.4	81.5	80.2	78.2	56.3	78.8	59.4	55.2	51.0	75.2	61.5	49.5	40.7	31.5	0	61.8	31.4	21.5	38.6	49.4	91.1	85.9	74.5	50.7
Region 1	70.4	83.1	97.2	102.1	69.6	67.2	85.4	56.9	46.6	48.0	65.1	32.9	25.7	29.9	40.4	45.7	61.8	0	12.0	22.1	24.2	30.2	64.3	38.8	60.1	36.0
Region 2	88.5	97.8	97.8	86.7	73.4	70.3	78.6	66.3	51.7	51.5	61.1	55.9	43.2	34.3	35.0	35.7	50.8	23.2	0	13.8	13.5	18.4	60.9	47.8	49.6	45.0
Region 5	118.3	132.6	112.3	108.3	92.4	90.1	95.4	109.8	67.2	67.4	75.5	70.1	57.8	49.8	50.7	50.4	58.9	51.4	30.9	38.8	51.4	0	44.0	42.5	35.2	23.0

APPENDIX TABLE 29. SECTION B. LEAST-COST MODE OF SEVERAL ALTERNATIVES BETWEEN DESIGNATED POINTS

ORIGIN	DESTINATION	Washington	Oregon	California	Nevada	Idaho	Utah	Arizona	Montana	Wyoming	Colorado	New Mexico	North Dakota	South Dakota	Nebraska	Kansas	Oklahoma	Texas	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	
Washington		O	R	R	R	R	R	R	T	R	R	R	R	R	R	R	R	R	R	R	RB	RB	RB	R	RL	R	RB	
Oregon		R	O	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	RB	R	RB	R	RL	R	RB	
Nevada		R	R	R	O	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	RB	R	RB	R	RL	R	R	
Idaho		R	R	R	R	O	R	R	R	R	R	R	R	R	R	R	R	R	R	R	RB	RB	RB	R	RL	R	RB	
Utah		R	R	R	R	T	O	R	R	R	R	R	R	R	R	R	R	R	R	R	RB	R	RB	R	RL	R	R	
Arizona		R	R	R	R	R	R	O	R	R	R	R	R	R	R	R	R	R	R	R	RB	R	RB	R	R	R	R	
Montana		T	R	R	R	R	R	R	O	R	R	R	R	R	R	R	R	R	R	R	RB	R	RB	R	RL	R	RB	
Wyoming		R	R	R	R	R	R	R	R	O	T	R	R	R	R	R	R	R	R	R	RB	R	R	R	R	R	RB	
Colorado		R	R	R	R	R	R	R	R	T	O	R	R	R	R	R	R	R	R	R	RB	R	R	R	R	R	R	
New Mexico		R	R	R	R	R	R	R	R	R	R	O	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
North Dakota		R	R	R	R	R	R	R	R	R	R	R	O	R	R	R	R	R	R	R	RB	RB	RB	RB	R	RL	R	RB
South Dakota		R	R	R	R	R	R	R	R	R	R	R	R	O	R	R	R	R	R	R	RB	RB	R	RB	R	RL	R	RB
Nebraska		R	R	R	R	R	R	R	R	R	R	R	R	R	O	R	R	R	R	R	B	B	B	B	R	RL	R	RB
Kansas		R	R	R	R	R	R	R	R	R	R	R	R	R	R	O	T	R	R	R	B	B	B	B	R	R	R	R
Oklahoma		R	R	R	R	R	R	R	R	R	R	R	R	R	R	T	O	R	R	R	R	R	R	R	R	R	R	R
Texas		R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	O	R	B	B	B	B	R	R	R	R	
Region 1		R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	O	B	B	B	B	R	TL	R	B	
Region 2		R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	B	O	B	B	B	B	R	R	R	R
Region 5		R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	T	R	R	O	R	R	R	R	

B - Barge  
 T - Truck  
 R - Rail

L - Lake vessel  
 AR - Average revenue rate by rail<sup>a</sup>  
 TB, TR, TL, etc.

<sup>a</sup>Carload Waybill Statistics, State-to-State Distribution, Products of Agriculture, Statement No. SS-2, Bureau of Transport Economics and Statistics, Interstate Commerce Commission, Washington, D. C.

APPENDIX TABLE 30. SECTION A. LEAST-COST DOMESTIC FREIGHT RATES FOR WHEAT-GRAIN

ORIGIN	DESTINATION																									
	Washington	Oregon	California	Nevada	Idaho	Utah	Arizona	Montana	Wyoming	Colorado	New Mexico	North Dakota	South Dakota	Nebraska	Kansas	Oklahoma	Texas	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9
cents per hundredweight																										
Washington	0	21.0	125.4	63.5	40.0	74.8	139.9	--	104.5	113.7	137.3	--	--	115.5	115.5	156.0	115.5	115.5	127.5	141.3	141.0	145.0	187.0	140.5	82.0	151.5
Oregon	36.0	0	90.5	52.4	44.6	82.0	139.6	67.2	115.5	115.5	145.7	--	--	115.5	115.5	156.0	115.5	115.5	127.5	141.3	141.0	145.0	187.0	140.5	82.0	151.5
Nevada	63.5	52.4	60.4	0	47.0	37.0	77.2	--	82.4	88.5	98.5	--	--	115.5	115.5	64.0	115.5	134.0	141.0	133.3	156.4	165.4	205.0	140.5	200.0	173.3
Idaho	40.5	44.6	59.1	47.0	0	37.4	100.0	--	72.0	72.0	83.3	--	--	82.0	109.5	114.5	131.0	76.0	101.5	124.3	124.0	127.9	175.5	121.0	170.5	110.0
Utah	74.8	82.0	53.0	37.0	37.4	0	66.8	--	46.8	51.8	63.9	--	--	58.5	78.0	77.0	104.0	74.0	78.0	91.8	91.5	95.4	143.0	99.0	138.0	100.0
Arizona	134.0	134.0	35.0	77.2	100.0	66.8	0	--	97.0	85.9	46.9	134.0	134.0	115.5	105.5	100.9	115.5	134.0	127.0	140.8	140.5	144.4	205.0	188.0	200.0	149.0
Montana	51.5	65.0	102.5	82.4	50.5	51.1	117.2	0	71.6	81.0	113.6	64.2	71.5	106.5	126.9	139.0	165.5	87.5	128.0	141.8	141.5	117.7	193.0	99.0	188.0	123.5
Wyoming	104.5	126.6	121.4	83.7	77.9	46.8	97.0	71.6	0	10.1	53.2	51.5	45.1	44.0	60.3	74.1	114.0	70.0	69.5	83.3	83.0	86.9	134.5	116.5	129.5	91.5
Colorado	113.7	128.6	115.9	88.5	52.0	30.0	85.9	113.6	10.1	0	43.0	--	--	44.0	51.8	63.7	114.0	70.0	69.5	83.3	83.0	86.9	134.5	116.5	129.5	91.5
New Mexico	137.3	145.7	62.5	98.5	83.3	63.9	46.9	--	53.2	43.0	0	113.0	104.3	91.5	60.9	56.2	84.7	127.5	108.2	118.1	121.5	126.6	205.0	180.6	193.1	130.2
North Dakota	94.5	129.0	145.5	128.7	104.9	98.1	145.5	64.2	59.6	70.0	112.5	0	37.0	59.4	80.9	46.4	74.5	44.5	85.0	66.6	92.0	74.7	127.0	69.5	122.0	80.0
South Dakota	104.4	138.6	145.5	133.9	108.8	87.0	137.1	--	45.1	53.5	104.3	31.8	0	40.0	59.7	75.4	58.4	28.6	69.0	82.8	93.0	58.8	117.0	66.4	112.0	64.6
Nebraska	134.0	134.0	134.0	129.8	128.3	97.6	136.5	95.0	44.0	44.0	91.5	59.4	--	0	31.0	46.4	84.5	37.0	18.6	30.0	26.6	35.6	94.5	76.5	89.0	40.6
Kansas	134.0	134.0	134.0	134.0	123.5	102.7	105.5	126.9	51.5	51.5	60.9	80.9	46.0	31.0	0	16.0	62.6	63.5	12.8	24.2	20.8	29.8	115.5	97.8	110.0	34.8
Oklahoma	158.5	158.5	134.0	64.0	124.3	113.3	100.9	--	72.0	63.7	56.2	98.1	75.4	46.4	16.0	0	46.4	90.5	51.7	69.3	65.2	67.1	119.5	101.5	114.5	86.4
Texas	158.5	158.5	134.0	134.0	183.7	148.3	116.9	--	99.0	99.5	84.7	--	--	91.8	62.6	46.4	0	58.0	31.4	21.5	38.6	49.4	155.5	137.5	150.5	83.2
Region 1	134.0	134.0	145.5	145.5	134.0	126.7	145.5	--	77.0	77.0	112.5	--	--	38.0	65.0	77.5	29.8	0	12.0	22.1	24.2	30.2	85.0	38.8	80.0	36.0
Region 2	151.0	151.0	151.0	151.0	122.5	139.8	151.0	--	89.3	61.5	98.5	--	--	28.5	34.0	51.7	20.1	23.2	0	13.8	13.5	18.4	84.6	51.5	79.0	22.0
Region 5	193.0	193.0	193.0	224.1	200.6	170.7	176.3	193.0	122.7	118.4	131.8	134.3	91.8	77.3	91.5	172.1	83.2	68.8	20.8	50.4	14.4	0	84.0	72.0	62.5	16.4

APPENDIX TABLE 30. SECTION B. LEAST-COST MODE OF SEVERAL ALTERNATIVES BETWEEN DESIGNATED POINTS

ORIGIN	DESTINATION	Washington	Oregon	California	Nevada	Idaho	Utah	Arizona	Montana	Wyoming	Colorado	New Mexico	North Dakota	South Dakota	Nebraska	Kansas	Oklahoma	Texas	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	
Washington		O	R	T	T	T	T	T	-	T	T	T	-	-	R	R	R	R	R	R	RB	RB	R	R	RL	R	RB	
Oregon		R	O	R	T	T	T	T	T	R	R	T	-	-	R	R	R	R	R	R	RB	RB	R	R	RL	R	RB	
California		-	-	O	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Nevada		T	T	T	O	T	T	T	-	T	T	T	-	-	R	R	T	R	R	R	T	TB	TB	R	RL	R	R	
Idaho		T	T	R	T	O	T	T	-	R	R	T	-	-	R	R	R	R	R	R	RB	RB	R	R	RL	R	RB	
Utah		T	T	R	T	T	O	T	-	T	T	T	-	-	T	R	R	R	R	R	RB	RB	R	R	RL	R	R	
Arizona		R	R	R	T	T	T	O	-	T	T	T	R	R	R	T	T	R	R	R	RB	RB	R	R	R	R	R	
Montana		T	T	R	T	T	T	T	O	T	T	T	T	T	R	T	R	R	R	R	RB	RB	RB	R	RL	R	RB	
Wyoming		T	T	T	T	T	T	T	O	T	T	R	T	R	T	T	T	R	R	R	RB	RB	R	R	R	R	RB	
Colorado		T	T	T	T	R	R	T	-	T	O	T	-	-	R	T	T	R	R	R	RB	RB	R	R	R	R	R	
New Mexico		T	T	R	T	T	T	T	T	T	T	O	T	T	T	T	T	T	T	T	TB	TB	TB	R	T	T	R	
North Dakota		T	T	R	T	T	T	R	T	T	T	R	O	T	T	T	T	T	RB	R	R	RB	R	RB	R	RL	R	RB
South Dakota		T	T	R	T	T	T	T	-	T	T	T	T	O	T	T	T	T	T	R	RB	R	TB	R	TL	R	TB	
Nebraska		R	R	R	T	T	T	T	R	R	R	T	T	-	O	T	T	R	R	B	B	B	B	R	R	R	BR	
Kansas		R	R	R	R	R	T	T	T	R	R	T	T	R	T	O	T	T	R	B	B	B	B	R	R	R	BR	
Oklahoma		R	R	R	T	T	T	T	-	R	T	T	T	T	T	O	T	R	T	T	TB	R	R	R	R	R	T	
Texas		R	R	R	R	T	T	T	-	R	R	T	-	-	T	T	T	O	B	B	B	B	B	R	R	R	T	
Region 1		R	R	R	R	R	T	R	-	R	R	R	-	-	R	R	R	B	O	B	B	B	B	R	TL	R	B	
Region 2		R	R	R	R	R	T	R	-	T	R	R	-	-	R	R	T	B	B	O	B	B	B	R	R	R	R	
Region 5		R	R	R	T	T	T	T	R	T	T	T	R	R	T	R	T	R	R	R	T	R	O	R	R	R	R	

B - Barge  
 T - Truck  
 R - Rail

L - Lake vessel  
 AR - Average revenue rate by rail<sup>a</sup>  
 TB, TR, TL, etc.

<sup>a</sup>Carload Waybill Statistics, State-to-State Distribution, Products of Agriculture, Statement No. SS-2, Bureau of Transport Economics and Statistics, Interstate Commerce Commission, Washington, D. C.