

COMPARISON OF ACTUAL AND PROJECTED
(BY RESEARCH AND FINANCE BRANCHES)
SECONDARY AND ELEMENTARY ENROLMENT
FIGURES FOR 1980

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COMPARISON OF ACTUAL AND PROJECTED ENROLMENTS FOR 1980Background

In March, 1980, two separate branches of the Department of Education published projections of elementary-secondary school enrolments for the period of 1980 to 1985. Although both branches were working towards the same end, each employed different means to produce the enrolment figures that are compared on the following pages.

The Finance Branch used a manual method, based upon Manitoba Health Services Commission population statistics, to predict future enrolment. The Research Branch, using a computer model based upon population data derived from the Family Allowances File, developed slightly different projections. The advantages of the computer model are its simplicity and efficiency, however, the accuracy of its projections was undetermined.

Analysis and Discussion

In order to determine the relative accuracy of the manual and computerized methods, the following pages provide a comparison of the enrolment figures projected by both the Finance and the Research Branches to the actual enrolment figures for September 1980.

Division and district enrolment figures are outlined for grades kindergarten through four to determine whether the disparity of the baseline data affects the projections for these initial years. Subtotals for grades kindergarten to four as well as totals for all grades were calculated. Actual enrolment figures and the percentag difference between actual and projected (by Research and Finance Branches) enrolment figures for September 1980 are presented in Table 1.

As indicated in Table 1, the figures projected by the Finance Branch are consistently underestimating the projected enrolments for each of the grades kindergarten to four as well as the total for these grades. The projections prepared by the Research Branch do not reflect a consistent underestimating

bias: their projections are overestimates for grades kindergarten, one and four, and minor underestimates for grades two and three. Within the unitary school divisions, rural and urban enrolment figures are separated for further comparison (See Tables 2 and 3, page 3).

TABLE 1. ACTUAL ENROLMENT FIGURES AND THE PERCENTAGE DIFFERENCE BETWEEN ACTUAL AND PROJECTED (BY RESEARCH AND FINANCE BRANCHES) ENROLMENT FIGURES FOR SEPTEMBER 1980

<u>Grade Levels</u>	<u>Actual N</u>	<u>% Difference Between Actual & Research</u>	<u>% Difference Between Actual & Finance</u>
K	14,781	4.6%	(4.3)%
1	16,651	5.8%	(2.6)%
2	15,678	(0.2)%	(5.7)%
3	15,732	(0.1)%	(4.1)%
4	16,277	1.5%	(3.3)%
Subtotal of K-4	79,119	2.3%	(4.0)%
Total of K-12	199,555	(0.4)%	(0.5)%

Note: Brackets indicate negative figures. That is, these percentages figures represent the magnitude of underestimation.

The reader might note a major difference in the projected enrolments for Camp Shilo and Whiteshell divisions in the Special Revenue district. The data base used in the Research Branch projections was an underestimate of the actual: this error has been corrected and future projections should be more accurate.

In conclusion, the difference in the enrolment projections of the Finance and Research Branches is negligible. Projections vary slightly for individual grade levels and divisions, but seem to balance out in the final tally. One may conclude that the computer model is as accurate as the manual method; thus, the usability of the computer model has been verified. When considerations such as staff time, easy of manipulation and availability of results are included, use of the model would seem a logical choice for the Department.

TABLE 2. ACTUAL ENROLMENT FIGURES AND THE PERCENTAGE DIFFERENCE BETWEEN ACTUAL AND PROJECTED (BY RESEARCH AND FINANCE BRANCHES) ENROLMENT FIGURES FOR THE URBAN SCHOOL DIVISIONS FOR SEPTEMBER 1980

<u>Grade Levels</u>	<u>Actual N</u>	<u>% Difference Between Actual & Research</u>	<u>% Difference Between Actual & Finance</u>
K	7,280	(1.5)%	1.4%
1	7,912	4.1%	1.7%
2	7,448	(1.6)%	(2.1)%
3	7,503	(1.3)%	(0.4)%
4	7,742	2.0%	1.8%
Subtotal of K-4	37,885	0.4%	0.5%
Total of K-12	103,170	(0.6)%	(0.7)%

TABLE 3. ACTUAL ENROLMENT FIGURES AND THE PERCENTAGE DIFFERENCE BETWEEN ACTUAL AND PROJECTED (BY RESEARCH AND FINANCE BRANCHES) ENROLMENT FIGURES FOR THE RURAL SCHOOL DIVISIONS FOR SEPTEMBER 1980

<u>Grade Levels</u>	<u>Actual N</u>	<u>% Difference Between Actual and Research</u>	<u>% Difference Between Actual and Finance</u>
K	6,415	7.6%	(4.9)%
1	7,254	9.0%	2.1%
2	6,869	0.4%	0.6%
3	6,901	0.7%	0.4%
4	7,155	0.0%	0.6%
Subtotal of K-4	34,594	3.5%	(0.6)%
Total of K-12	88,229	0.6%	(0.1)%

Note: Urban includes school divisions 1 through 10 and 12.
Rural includes school divisions 11 and 13 through 48.



SUMMARY OF RESULTS

Category	Sub-category	Value 1	Value 2	Value 3	Value 4	Value 5
A	1	10	20	30	40	50
	2	15	25	35	45	55
	3	20	30	40	50	60
	4	25	35	45	55	65
	5	30	40	50	60	70
	6	35	45	55	65	75
	7	40	50	60	70	80
	8	45	55	65	75	85
	9	50	60	70	80	90
	10	55	65	75	85	95
B	1	10	20	30	40	50
	2	15	25	35	45	55
	3	20	30	40	50	60
	4	25	35	45	55	65
	5	30	40	50	60	70
	6	35	45	55	65	75
	7	40	50	60	70	80
	8	45	55	65	75	85
	9	50	60	70	80	90
	10	55	65	75	85	95

SUMMARY

	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>Subtotal</u> <u>K-4</u>	<u>Total for</u> <u>Grades K-12</u>
<u>Unitary School Divisions</u>							
Actual	13,695	15,166	14,317	14,404	14,897	72,479	191,399
Research Projected	14,073	16,151	14,232	14,357	15,047	73,860	191,350
Finance Projected	13,480	15,450	14,116	14,400	14,991	72,437	190,582
<u>Remote School Districts</u>							
Actual	529	639	582	528	577	2,855	6,351
Research Projected	711	731	649	641	712	3,444	6,198
Finance Projected	514	580	507	531	590	2,722	6,109
<u>btotal</u>							
Actual	14,224	15,805	14,899	14,932	15,474	75,334	197,750
Research Projected	14,784	16,882	14,881	14,998	15,759	77,304	197,548
Finance Projected	13,994	16,030	14,623	14,931	15,581	75,159	196,691
<u>Special Revenue</u>							
Actual	118	140	126	148	137	669	1,600
Research Projected	168	113	115	121	109	626	922
Finance Projected	127	146	140	144	131	688	1,629
<u>Special Schools</u>							
Actual	32	25	27	14	32	130	205
Research Projected	24	38	21	15	28	126	204
Finance Projected	28	32	27	16	32	135	211

Summary Cont'd

	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>Subtotal</u> <u>K-4</u>	<u>Total for</u> <u>Grades K-12</u>
V. <u>Private Schools</u>							
Actual	407	681	626	638	634	2,986	8,845
Research Projected	492	591	624	613	629	2,949	8,782
Finance Projected	-	-	-	-	-	-	-

	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>Subtotal</u> <u>K-4</u>	<u>Total for</u> <u>Grades K-12</u>
<u>Unitary School Divisions</u>							
<u>Winnipeg</u>							
Actual	2,256	2,438	2,243	2,200	2,291	11,428	31,317
Research Projected	2,325	2,725	2,032	2,058	2,301	11,441	30,555
Finance Projected	2,303	2,588	2,118	2,173	2,307	11,489	30,830
<u>St. James-Assiniboia</u>							
Actual	818	895	915	963	1,061	4,652	14,472
Research Projected	831	894	900	939	1,101	4,665	14,362
Finance Projected	916	969	888	928	1,111	4,812	14,538
<u>Assiniboine South</u>							
Actual	457	525	445	466	488	2,381	5,860
Research Projected	488	522	470	480	504	2,464	5,929
Finance Projected	438	470	457	458	506	2,329	5,693
<u>St. Boniface</u>							
Actual	428	472	493	523	584	2,500	7,514
Research Projected	357	488	466	533	546	2,390	7,357
Finance Projected	450	474	465	517	551	2,457	7,447
<u>Fort Garry</u>							
Actual	458	488	465	469	486	2,366	6,332
Research Projected	453	508	470	487	530	2,448	6,457
Finance Projected	446	496	466	487	521	2,416	6,349

Unitary School Divisions (cont'd)

	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>Subtotal</u> <u>K-4</u>	<u>Total for</u> <u>Grades K-12</u>
3. <u>St. Vital</u>							
Actual	632	637	615	605	561	3,050	7,234
Research Projected	625	665	661	603	589	3,143	7,383
Finance Projected	649	696	628	596	569	3,138	7,261
3. <u>Norwood</u>							
Actual	105	92	120	102	91	510	1,606
Research Projected	99	99	106	96	91	491	1,500
Finance Projected	121	119	110	97	92	539	1,570
3. <u>River East</u>							
Actual	953	1,058	926	975	983	4,895	13,198
Research Projected	899	1,065	979	984	1,013	4,940	13,430
Finance Projected	922	988	923	984	1,004	4,821	13,206
4. <u>Seven Oaks</u>							
Actual	566	617	536	556	600	2,875	7,592
Research Projected	487	558	548	575	596	2,764	7,491
Finance Projected	511	549	548	576	597	2,781	7,447
4. <u>Lord Selkirk</u>							
Actual	351	402	369	385	384	1,891	5,190
Research Projected	328	409	384	409	390	1,920	5,188
Finance Projected	343	438	384	416	371	1,952	5,210

						10	
Unitary School Divisions (cont'd)							
	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	Subtotal K-4	Total for Grades K-12
<u>1. Transcona Springfield</u>							
Actual	607	690	690	644	597	3,228	8,045
Research Projected	606	716	700	653	625	3,300	8,121
Finance Projected	623	697	689	653	620	3,282	8,075
<u>2. Agassiz</u>							
Actual	209	260	235	212	228	1,144	3,111
Research Projected	225	257	247	210	231	1,170	3,124
Finance Projected	193	242	239	215	235	1,124	3,111
<u>3. Seine River</u>							
Actual	355	387	378	363	400	1,883	4,084
Research Projected	314	407	399	380	399	1,899	4,154
Finance Projected	361	422	402	378	400	1,963	4,188
<u>4. Hanover</u>							
Actual	392	359	429	371	408	1,959	4,946
Research Projected	307	382	431	363	415	1,898	4,895
Finance Projected	362	381	417	369	417	1,946	4,948
<u>5. Boundary</u>							
Actual	64	71	90	65	81	371	1,078
Research Projected	98	87	82	56	77	400	1,095
Finance Projected	20	108	98	74	98	398	1,176

Unitary School Divisions (cont.'d)						11	
	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	Subtotal K-4	Total for Grades K-12
<u>Red River</u>							
Actual	121	110	111	115	102	559	1,332
Research Projected	98	111	112	117	96	534	1,295
Finance Projected	103	120	108	115	92	538	1,302
<u>Rhineland</u>							
Actual	122	114	114	105	110	565	1,439
Research Projected	92	124	97	98	114	525	1,363
Finance Projected	102	112	93	96	110	513	1,353
<u>Morris-Macdonald</u>							
Actual	113	115	112	121	124	585	1,570
Research Projected	100	130	115	126	123	594	1,598
Finance Projected	106	124	110	128	120	588	1,602
<u>Whitehorse Plain</u>							
Actual	95	110	118	98	97	518	1,282
Research Projected	69	155	111	91	120	546	1,291
Finance Projected	77	126	107	94	117	521	1,290
<u>Interlake</u>							
Actual	235	290	263	265	275	1,328	3,331
Research Projected	242	311	259	277	261	1,350	3,370
Finance Projected	237	265	252	270	254	1,278	3,290

Unitary School Divisions (cont'd)							12
	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>Subtotal K-4</u>	<u>Total for Grades K-12</u>
<u>Evergreen</u>							
Actual	150	158	143	154	167	772	2,161
Research Projected	143	168	147	160	180	798	2,196
Finance Projected	133	164	150	159	177	783	2,186
<u>Lakeshore</u>							
Actual	120	175	156	171	163	785	2,043
Research Projected	187	181	154	180	156	858	2,093
Finance Projected	136	174	163	172	155	800	2,062
<u>Portage la Prairie</u>							
Actual	274	292	271	252	290	1,379	3,651
Research Projected	189	332	295	280	307	1,403	3,717
Finance Projected	270	321	291	287	293	1,462	3,783
<u>Midland</u>							
Actual	145	170	130	154	145	744	1,909
Research Projected	144	200	136	154	130	764	1,921
Finance Projected	139	177	134	151	132	733	1,682
<u>Garden Valley</u>							
Actual	137	198	173	193	206	907	2,175
Research Projected	160	219	177	191	201	948	2,168
Finance Projected	102	192	173	191	198	856	2,103

Unitary School Divisions (cont'd)							13
	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>Subtotal K-4</u>	<u>Total for Grades K-12</u>
<u>Pembina Valley</u>							
Actual	53	70	68	55	81	327	946
Research Projected	55	70	70	58	79	332	933
Finance Projected	60	65	64	59	77	325	940
<u>Mountain</u>							
Actual	83	105	89	104	88	469	1,423
Research Projected	101	131	80	112	89	513	1,450
Finance Projected	78	105	79	111	87	460	1,399
<u>Tiger Hills</u>							
Actual	101	147	119	134	131	632	1,599
Research Projected	123	145	127	132	138	665	1,619
Finance Projected	111	127	122	133	139	632	1,583
<u>Pine Creek</u>							
Actual	121	149	140	152	136	698	1,716
Research Projected	148	168	150	153	127	746	1,767
Finance Projected	95	180	148	139	137	699	1,717
<u>Beautiful Plains</u>							
Actual	136	166	151	161	153	767	2,040
Research Projected	138	176	149	162	149	774	2,040
Finance Projected	136	147	142	161	146	732	1,996

Unitary School Divisions (cont'd)							14
	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>Subtotal K-4</u>	<u>Total for Grades K-12</u>
<u>Turtle River</u>							
Actual	133	148	154	130	162	727	1,910
Research Projected	123	177	161	142	154	757	1,927
Finance Projected	127	141	154	140	151	713	1,872
<u>Dauphin-Ochre Area #1</u>							
Actual	185	196	195	170	188	934	2,852
Research Projected	189	229	186	183	174	961	2,855
Finance Projected	174	209	178	180	177	918	2,823
<u>Duck Mountain</u>							
Actual	78	99	103	104	88	472	1,287
Research Projected	102	105	110	103	98	518	1,311
Finance Projected	83	104	107	104	98	496	1,315
<u>Swan Valley</u>							
Actual	159	207	190	191	202	949	2,451
Research Projected	190	242	191	212	198	1,033	2,545
Finance Projected	172	197	192	204	201	966	2,539
<u>Intermountain</u>							
Actual	156	142	158	150	169	775	2,039
Research Projected	134	169	157	142	165	767	2,024
Finance Projected	142	157	155	145	159	758	2,013

Unitary School Divisions (cont'd)						15	
	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>Subtotal K-4</u>	<u>Total for Grades K-12</u>
<u>7. Pelly Trail</u>							
Actual	113	138	105	99	132	587	1,638
Research Projected	116	133	115	101	126	591	1,622
Finance Projected	109	126	111	99	134	579	1,641
<u>8. Birdtail River</u>							
Actual	137	124	129	142	118	650	1,703
Research Projected	112	123	129	116	123	603	1,628
Finance Projected	129	129	124	114	123	619	1,660
<u>9. Rolling River</u>							
Actual	173	182	173	173	195	896	2,421
Research Projected	183	204	171	188	187	933	2,476
Finance Projected	189	198	191	168	190	936	2,457
<u>10. Brandon</u>							
Actual	586	606	566	602	584	2,944	7,574
Research Projected	515	620	552	568	597	2,852	7,428
Finance Projected	546	634	544	561	593	2,878	7,496
<u>Fort la Bosse</u>							
Actual	161	171	144	172	178	826	2,213
Research Projected	164	203	162	157	178	864	2,291
Finance Projected	171	173	149	163	175	831	2,271

Unitary School Divisions (cont'd)						16	
	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	Subtotal K-4	Total for Grades K-12
<u>Souris Valley</u>							
Actual	83	100	91	102	95	471	1,212
Research Projected	98	121	103	108	102	532	1,312
Finance Projected	81	106	103	107	98	495	1,275
<u>Antler River</u>							
Actual	90	98	114	105	77	484	1,352
Research Projected	85	134	116	110	81	526	1,419
Finance Projected	89	100	115	102	84	490	1,377
<u>Turtle Mountain</u>							
Actual	118	140	138	120	134	650	1,781
Research Projected	114	143	149	128	136	670	1,817
Finance Projected	103	143	133	122	139	640	1,784
<u>Kelsey</u>							
Actual	195	304	241	275	258	1,273	2,836
Research Projected	292	308	243	268	277	1,388	2,930
Finance Projected	192	253	231	279	272	1,227	2,779
<u>Flin Flon</u>							
Actual	153	134	138	127	148	700	1,807
Research Projected	121	138	127	127	151	664	1,769
Finance Projected	134	140	130	134	149	687	1,805

II. Remote School Districts

	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>Subtotal</u> <u>K-4</u>	<u>Total for</u> <u>Grades K-12</u>
<u>12 Gypsumville</u>							
Actual	9	7	4	3	5	28	50
Research Projected	27	10	5	2	5	49	89
Finance Projected	6	7	6	4	4	27	55
<u>64 Churchill</u>							
Actual	29	40	31	29	29	158	325
Research Projected	26	39	35	22	29	151	307
Finance Projected	28	30	31	23	30	142	323
<u>09 Snow Lake</u>							
Actual	45	42	34	42	34	197	483
Research Projected	34	38	32	41	44	189	463
Finance Projected	35	38	30	40	42	185	450
<u>12 Lynn Lake</u>							
Actual	44	52	45	48	47	236	541
Research Projected	35	41	33	35	37	181	423
Finance Projected	35	36	35	41	42	189	460
<u>19 Brooke</u>							
Actual	16	21	17	19	18	91	130
Research Projected	26	25	15	24	16	106	153
Finance Projected	20	25	14	23	12	94	137

Remote School Districts (cont'd)							19	
	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>Subtotal</u> <u>K-4</u>	<u>Total for</u> <u>Grades K-12</u>	
355 <u>Mystery Lake</u>								
Actual	314	384	375	301	362	1,736	3,875	
Research Projected	314	364	339	305	361	1,683	3,735	
Finance Projected	320	360	330	315	360	1,685	3,748	
360 <u>Leaf Rapids</u>								
Actual	61	76	58	69	66	330	673	
Research Projected	64	81	61	69	99	374	750	
Finance Projected	60	70	48	70	86	334	679	
39 <u>Sprague</u>								
Actual	11	17	18	17	16	79	274	
Research Projected	17	20	14	22	12	85	278	
Finance Projected	10	15	15	15	13	68	253	

III. Special Revenue School Districts

	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>Subtotal</u> <u>K-4</u>	<u>Total for</u> <u>Grades K-12</u>
96 <u>Pointe du Bois</u>							
Actual	2	1	2	4	2	11	16
Research Projected	1	6	4	4	4	19	25
Finance Projected	3	1	3	4	4	15	21
55 <u>Pine Falls</u>							
Actual	7	14	17	13	9	60	177
Research Projected	62	17	13	11	6	109	232
Finance Projected	12	17	12	9	6	56	173
08 <u>Whiteshell</u>							
Actual	38	44	41	47	37	207	600
Research Projected	42	12	19	22	12	107	166
Finance Projected	34	46	43	50	36	209	575
16 <u>Camp Shilo</u>							
Actual	40	53	33	52	61	239	591
Research Projected	42	51	34	49	61	237	276
Finance Projected	47	52	41	51	60	251	636
40 <u>Harold Edwards</u>							
Actual	14	19	19	22	18	92	117
Research Projected	15	17	30	22	16	100	132
Finance Projected	16	21	28	18	15	98	123

Special Revenue School Districts (cont'd)						21	
	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>Subtotal K-4</u>	<u>Total for Grades K-12</u>
16 <u>Pineimuta</u>							
Actual	17	9	14	10	10	60	99
Research Projected	6	10	15	13	10	54	91
Finance Projected	15	9	13	12	10	59	101
 <u>IV. Special School Districts</u>							
	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>Subtotal K-4</u>	<u>Total for Grades K-12</u>
<u>Falcon Beach</u>							
Actual	6	3	4	3	5	21	41
Research Projected	5	7	6	2	4	24	45
Finance Projected	7	6	5	2	5	25	43
<u>Hillridge</u>							
Actual	26	22	23	11	27	109	164
Research Projected	19	31	15	13	24	102	159
Finance Projected	21	26	22	14	27	110	168
 <u>V. Other</u>							
	<u>K</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>Subtotal K-4</u>	<u>Total for Grades K-12</u>
<u>Private Schools</u>							
Actual	407	681	626	638	634	2,986	8,845
Research Projected	492	591	624	613	629	2,949	8,782
Finance Projected	-	-	-	-	-	-	-