

UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER YEAR 2007

**COURSE TITLE: COLLECTION AND
ASSESSMENT OF
DEMOGRAPHIC DATA**

COURSE NUMBER: DEM 203

TIME ALLOWED: 2 (TWO) HOURS

**INSTRUCTIONS: ANSWER ANY 3 (THREE)
QUESTIONS**

SPECIAL REQUIREMENTS: CALCULATOR

Question 1

- a) List any four limitations of a census compared to a sample survey [8]
- b) Surveys and censuses may be conducted to compliment each other. Explain in what circumstances this could be done. [8]
- c) Describe content and coverage errors in data collection [4]

Question 2

- a) Using the attached data sheet calculate the Whipples Index for digits 0 and 5 for both sexes and comment on the figure obtained [12]
- b) What are Post Enumeration Surveys and how are they employed to help detect errors in data. [8]

Question 3

- a) Using the attached data sheet calculate the Digit Preference Index for the digits for both sexes and comment on the value obtained [16]
- b) How is the DPI an improvement over the Whipples Index [4]

Question 4

- a) Using the attached data sheet calculate the Myers Blended Index for both sexes [18]
- b) Explain how the MBI differs from the DPI [2]

Question 5

- a) Calculate the UN Joint Score Index using the attached data sheet. [16]
- b) State the United Nations Five Point Smoothing formula [4]

TABLE 3: POPULATION BY CITIZENSHIP, SEX AND SINGLE YEARS OF AGE: 1997

AGE GROUP	TOTAL			SWAZI			NON-SWAZI		
	MALES	FEMALES	BOTH SEXES	MALES	FEMALES	BOTH SEXES	MALES	FEMALES	BOTH SEXES
0	12 049	12 356	24 405	11 912	12 217	24 129	137	139	276
1	12 876	13 179	26 055	12 731	13 028	25 759	145	151	296
2	13 756	13 784	27 540	13 616	13 611	27 227	140	173	313
3	14 207	14 302	28 509	14 060	14 163	28 223	147	139	286
4	15 641	15 247	29 888	14 523	15 107	29 630	118	140	258
0-4	67 529	68 868	136 397	66 842	68 126	134 968	687	742	1 429
5	14 300	14 255	28 555	14 153	14 103	28 256	147	152	299
6	14 111	14 543	28 654	13 967	14 423	28 390	144	120	264
7	14 180	13 933	28 113	14 038	13 798	27 836	142	135	277
8	13 317	13 760	27 077	13 195	13 638	26 833	122	122	244
9	13 068	13 788	26 846	12 960	13 663	26 623	108	115	223
5-9	68 975	70 269	139 245	68 313	69 625	137 938	663	644	1 307
10	14 499	14 652	29 151	14 382	14 518	28 900	117	134	251
11	13 311	13 653	26 964	13 181	13 548	26 729	130	105	235
12	14 285	14 323	28 608	14 159	14 203	28 362	126	120	246
13	13 477	13 767	27 244	13 348	13 640	26 988	129	127	256
14	12 628	12 892	25 520	12 481	12 756	25 237	147	136	283
10-14	68 200	69 287	137 487	67 551	68 665	136 216	649	622	1 271
15	12 578	12 672	25 250	12 366	12 507	24 873	212	165	377
16	11 592	12 176	23 768	11 374	12 004	23 378	218	172	390
17	10 601	11 486	22 067	10 314	11 276	21 590	287	190	477
18	10 995	11 411	22 406	10 662	11 220	21 882	333	191	524
19	9 009	9 856	18 865	8 684	9 660	18 344	325	196	521
15-19	54 775	57 581	112 356	53 400	56 667	110 067	1 375	914	2 289
20	9 451	10 548	19 999	9 037	10 328	19 365	414	220	634
21	7 975	9 245	17 400	7 675	9 216	16 891	300	209	509
22	7 660	9 273	16 933	7 305	9 061	16 366	355	212	567
23	7 059	8 653	15 712	6 783	8 470	15 253	276	183	459
24	6 662	8 388	15 050	6 401	8 208	14 609	261	180	441
20-24	38 287	46 287	85 094	37 201	45 283	82 484	1 606	1 004	2 610
25	6 724	8 463	15 187	6 440	8 271	14 711	284	192	476
26	5 543	7 153	12 696	5 285	6 971	12 256	258	182	440
27	5 779	6 915	12 694	5 479	6 736	12 215	300	179	479
28	5 534	7 384	12 918	5 284	7 184	12 468	250	200	450
29	6 567	7 981	14 548	6 278	7 811	14 089	289	170	459
25-29	30 147	37 896	68 043	28 766	36 973	65 739	1 381	923	2 304
30	5 704	7 952	13 656	5 392	7 747	13 139	312	205	517
31	3 867	4 957	8 824	3 668	4 821	8 489	199	136	335
32	5 088	7 151	12 239	4 808	6 967	11 775	280	184	464
33	3 453	4 778	8 231	3 269	4 626	7 895	184	152	336
34	3 876	5 330	9 206	3 656	5 180	8 836	220	150	370
30-34	21 988	30 168	52 156	20 793	29 341	50 134	1 195	827	2 022

TABLE 3: POPULATION BY CITIZENSHIP, SEX AND SINGLE YEARS OF AGE: 1997

AGE GROUP	TOTAL			SWAZI			NON-SWAZI		
	MALES	FEMALES	BOTH SEXES	MALES	FEMALES	BOTH SEXES	MALES	FEMALES	BOTH SEXES
35	4 783	6 372	11 155	4 499	6 210	10 709	284	162	446
36	3 996	5 372	9 368	3 764	5 238	9 002	232	134	366
37	3 724	4 490	8 214	3 519	4 365	7 884	205	125	330
38	3 700	5 470	9 170	3 505	5 323	8 828	195	147	342
39	3 442	4 453	7 895	3 259	4 319	7 578	183	134	317
35-39	19 645	26 157	45 802	18 546	25 455	44 001	1 099	702	1 801
40	4 789	5 751	10 540	4 503	5 585	10 088	286	166	452
41	2 630	3 097	5 727	2 509	3 021	5 530	121	76	197
42	3 641	4 353	7 994	3 438	4 226	7 664	203	127	330
43	2 698	3 216	5 914	2 557	3 136	5 693	141	80	221
44	2 407	2 923	5 330	2 294	2 850	5 144	113	73	186
40-44	16 165	19 340	35 505	15 301	18 818	34 119	864	522	1 386
45	4 371	4 534	8 905	4 180	4 412	8 592	191	122	313
46	2 399	2 547	4 946	2 267	2 478	4 745	132	69	201
47	2 672	2 708	5 380	2 524	2 628	5 152	148	80	228
48	2 561	3 084	5 645	2 436	3 012	5 448	125	72	197
49	2 458	3 037	5 495	2 351	2 973	5 324	107	64	171
45-49	14 461	15 910	30 371	13 758	15 583	29 341	703	407	1 110
50	3 355	3 725	7 080	3 201	3 631	6 832	154	94	248
51	1 830	2 149	3 979	1 746	2 116	3 862	84	33	117
52	2 558	2 975	5 533	2 457	2 923	5 380	101	52	153
53	1 536	1 739	3 275	1 450	1 687	3 137	86	52	138
54	1 520	1 929	3 449	1 437	1 883	3 320	83	46	129
50-54	10 799	12 517	23 316	10 291	12 240	22 531	508	277	785
55	2 151	2 250	4 401	2 061	2 213	4 274	90	37	127
56	1 936	1 910	3 846	1 861	1 870	3 731	75	40	115
57	1 827	1 817	3 644	1 753	1 761	3 514	74	56	130
58	1 582	1 678	3 260	1 523	1 650	3 173	59	28	87
59	1 262	1 507	2 769	1 203	1 475	2 678	59	32	91
55-59	8 758	9 162	17 920	8 401	8 969	17 370	357	193	550
60	2 201	2 495	4 696	2 113	2 432	4 545	88	63	151
61	1 135	1 284	2 419	1 091	1 258	2 349	44	26	70
62	1 169	1 484	2 653	1 122	1 464	2 586	47	20	67
63	912	1 189	2 101	879	1 164	2 043	33	25	58
64	908	1 089	1 997	876	1 065	1 941	32	24	56
60-64	6 325	7 541	13 866	6 081	7 383	13 464	244	158	402
65	1 432	1 567	2 999	1 385	1 547	2 932	47	20	67
66	703	770	1 473	673	760	1 433	30	10	40
67	962	1 102	2 064	935	1 079	2 014	27	23	50
68	801	1 077	1 878	780	1 060	1 840	21	17	38
69	747	991	1 738	726	975	1 701	21	16	37
65-69	4 645	5 507	10 152	4 499	5 421	9 920	146	86	232

TABLE 3: POPULATION BY CITIZENSHIP, SEX AND SINGLE YEARS OF AGE: 1997

AGE GROUP	TOTAL			SWAZI			NON SWAZI		
	MALES	FEMALES	BOTH SEXES	MALES	FEMALES	BOTH SEXES	MALES	FEMALES	BOTH SEXES
70	988	1 418	2 406	957	1 398	2 355	31	20	51
71	430	663	1 093	421	656	1 077	9	7	16
72	773	1 170	1 943	759	1 151	1 910	14	19	33
73	374	581	955	368	568	936	6	13	19
74	259	545	904	350	540	890	9	5	14
70-74	2 924	4 377	7 301	2 855	4 313	7 168	69	64	133
75	574	749	1 323	554	738	1 292	20	11	31
76	424	564	988	412	559	971	12	5	17
77	373	505	878	370	498	868	3	7	10
78	375	622	997	366	610	976	9	12	21
79	429	654	1 083	417	646	1 063	12	8	20
75-79	2 175	3 094	5 269	2 119	3 051	5 170	56	43	99
80	370	648	1 018	363	635	998	7	13	20
81	156	331	487	149	326	475	7	5	12
82	237	400	637	231	394	625	6	6	12
83	253	316	569	249	309	558	4	7	11
84	145	229	374	139	225	364	6	4	10
80-84	1 161	1 924	3 085	1 131	1 889	3 020	30	35	65
85	177	289	466	173	281	454	4	8	12
86	125	189	314	122	187	309	3	2	5
87	159	232	391	156	226	382	3	6	9
88	84	128	212	83	127	210	1	1	2
89	162	220	382	157	214	371	5	6	11
85-89	707	1 058	1 765	691	1 035	1 726	16	23	39
90	110	209	319	109	209	318	1	0	1
91	29	71	100	29	70	99	0	1	1
92	55	91	146	55	90	145	0	1	1
93	41	52	93	41	52	93	0	0	0
94	29	44	73	29	43	72	0	1	1
90-94	264	467	731	263	464	727	1	3	4
95	65	81	146	62	80	142	3	1	4
96	53	67	120	53	67	120	0	0	0
97	57	77	134	57	75	132	0	2	2
98	196	363	559	190	356	546	6	7	13
95-98	371	588	959	362	578	940	9	10	19
ANS	1 332	1 566	2 898	1 245	1 524	2 769	87	42	129
TOTAL	440 154	489 564	929 718	428 409	481 323	909 732	11 745	8 241	19 986