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COMPARATIVE REGIONAL TYPOLOGY OF URBANIZATION PATTERNS BY SEX AND AGE

(Prepared by the Population Division, Department of Economic and Social Affairs of the United Nations Secretariat)

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COMPARATIVE REGIONAL TYPOLOGY OF URBANIZATION PATTERNS BY SEX AND AGE

INTRODUCTION

1. A previous Working Paper [1] represents a first attempt at studying comparatively the sex and age compositions of urban and rural populations in different countries of the world. The main device used were the "urban residence ratios", defined as the percentage of each national sex-age group residing in urban areas. These percentages, specific for each sex-age group, were tabulated and plotted in graphs, indicating the varying degrees to which persons of different sex and age in each country were urbanized, as compared with the general urbanization level (percentage of total population residing in urban areas). It was found that patterns in this respect could vary greatly from one country to another, and that it had to be concluded that the social process involved in urbanization cannot be the same everywhere.

2. In that first attempt, no device had been found as yet to reduce the variations in percentages to a common measure. Thus, some countries were at high, others at low general levels of urbanization, hence the sex-age specific URR's (urban residence ratios) could fluctuate around high, or low, levels, respectively. It was not possible, on that basis, to make a measurable comparison of those fluctuations for countries of different urbanization levels. Only the pattern of each country, taken separately, could be traced.

3. The present Working Paper goes one step further in adopting a device by which fluctuations around a percentage (whether this happens to be high, intermediate or low) can be measured comparably. Use of this device has made it possible to combine the patterns of individual countries into regional averages and establish, thereby, some regional patterns. These regional patterns, in their turn, were found to constitute a certain sequence, going from one extreme (Argentina and Uruguay) to another extreme (Namibia [2] and South Africa), following through this sequence of regions: Latin America, countries of European overseas settlement, Western Europe, Eastern Europe, East Asia, South Asia, the Middle East, and Tropical Africa. [3] Reasons why there should be such a sequence are difficult to find, and may partly reside in the previous history of each region's urbanization and partly in economic, social and cultural circumstances affecting the movements of men and women into and out of urban areas in such diverse fashion.

1/ ESA/P/WP.36, 15 October 1970, "Sex and Age Patterns of the Urban Population".

2/ Previously known as South West Africa.

3/ As will be shown further on. Actually, differences are slight between Latin America and European settlement countries, between Eastern Europe and East Asia, and between South Asia and the Middle East.

4. While the reasons for this regional sequence are obscure, one may be led to suspect that time sequences for given countries or regions might be similar. In fact, one might conjecture that with the progress of urbanization and other correlated developments more and more females, and more and more older persons become committed to urban places of residence hence, in this type of comparison, urban populations with time may become more aged and more feminine. But the regional sequence does not necessarily suggest to represent a time sequence. While near one extreme in the sequence, Latin America is not the world's most developed or most urbanized region. And urban history is older in Europe and certain parts of Asia than, for instance, in the countries of European overseas settlement. The effect of diverse "cultural" factors, not easy to define, should therefore not be discounted.

5. The present study is limited by the comparative analysis of structures in different countries about the same time (mainly around 1960). No study of time sequences has been attempted. Other studies which might reveal some of the factors at work might also be undertaken, especially a more detailed study concerning marital status (obviously a factor affecting population mobility, though probably of variable effect for either sex in different cultures), or a study distinguishing not merely urban and rural populations, but also populations in localities of different size classes.

The countries selected and their regional grouping

6. The majority of the data employed in this study derive from recent census results published in the United Nations Demographic Yearbook, 4/ as was also the case in the previous Working Paper already referred to 5/. But the selection of countries has not remained the same. Countries of very low urbanization levels (at least in certain age groups), 6/ of very irregular circumstances, 7/ or difficult to place into a regional context 8/ have been omitted. On the other hand, the following countries have also been included: Argentina, the German Federal Republic, and Spain. For these three countries, and for Burma and China (Taiwan), the data were not obtained from the Demographic Yearbook, but rather from national publications. 9/

4/ Issues of 1963, 1964 and 1969.

5/ See note 1/.

6/ Burundi, Congo (Brazzaville), Gabon, Nepal, Southern Rhodesia, Thailand and Zambia.

7/ Congo (Democratic Republic), data for 1955-57

8/ Cyprus, Hong Kong, Israel and Singapore.

9/ Argentina: Censo Nacional de Población 1960, Tomo I, pp. 18-21, also pp. 2-3; Burma: First Stage Census 1953. Population and Housing, Volume I; China (Taiwan): 1964 Demographic Fact Book, Republic of China. Federal Republic of Germany: Statistisches Bundesamt, Bevölkerung und Kultur, Volks-und Berufszählung vom 6 Juni 1961, Heft 4, pp. 268-271; Spain: Censo de Población y de las Viviendas 1960, Tomo III, vol. 1, pp. 0-4 to 0-7.

7. The urban population, in each instance, was taken according to the national census definitions (which vary considerably among countries), except in the following instances: the "urban" and "semi-urban" population in Greece and Norway, and the population of localities with 2,000 or more inhabitants in the Federal Republic of Germany.

8. In devising a regional scheme, it was considered that cultural and other conditions affecting urbanization patterns might differ between Northern and Sub-Saharan Africa while those of Northern Africa might resemble conditions in South-West Asia; hence a Middle Eastern area was singled out, conbining the two regions. Since the La Plata countries (Argentina and Uruguay) can be regarded under two different aspects, namely as countries of Latin America or as countries of overseas European settlement, they were also singled out; they were found, furthermore, to represent rather extreme conditions. Conditions of the other extreme were found in Namibia and South Africa, hence those two countries were also singled out. The division of Europe into an Eastern and Western part was carried out from a strictly geographical viewpoint, hence it has no political connotations; because of similarity of pattern, on the other hand, the Soviet Union was considered conjointly with Eastern Europe. As a result, the several regions are composed by countries as follows:

La Plata countries: Argentina and Uruguay.

Latin America: Brazil, Chile, Colombia, Costa Rica, Cuba, the Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico and Venezuela.

European overseas settlement countries: Australia, Canada, New Zealand and the United States.

Western Europe: Austria, Denmark, France, the Federal Republic of Germany, Ireland, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Eastern Europe: Albania, Bulgaria, Czechoslovakia, Finland, Greece, Hungary, Poland, Romania, the Soviet Union and Yugoslavia.

East Asia: Japan, the Republic of Korea and China (Taiwan).

South Asia: Burma, Cambodia, Ceylon, India, Indonesia, Iran and Pakistan.

The Middle East: Egypt, Iraq, Jordan, Libya, Morocco, Syria and Turkey.

Tropical Africa: Chad, Ghana, Guinea, Mali, Nigeria and Togo.

Southern Africa: Namibia and South Africa.

9. It will be noted that the regions are very unevenly represented by number of countries. Thus, there are two countries only for the La Plata and Southern Africa regions; three countries for East Asia; four countries of European overseas settlement; six countries for Tropical Africa; seven countries for South Asia and the Middle East; ten countries for Eastern Europe; thirteen countries for Western Europe; and nineteen countries for Latin America. While there is much variation in the observations for individual countries within each region,

it is evident that the regional averages calculated for only small groups of countries (especially in the La Plata, Southern African and East Asian regions) cannot have much stability and may be quite accidental.

10. Since the aim of the study was to produce a typology rather than a direct estimating scheme, the regional patterns were obtained as unweighted averages of the patterns of countries composing them.

11. As distinct from the previous study already mentioned, estimates were also made for individual 5-year age groups in those instances where the censuses provided data for broader age groups only, with the aim of representing every five-year group to the age of 70. These estimates were made very roughly by interpolation and extrapolation of the transformed URR's (as explained in the following), having reference also to trends reflected in more detailed data for other countries situated in the same region. 10/

A method to compare percentages

12. A question often occurs in the comparison of differences between percentages: should note be taken of absolute, or of relative, differences between given parcentages? 11/ To be precise neither of the two methods can be just if the range of percentages is wide.

13. To find a tenable basis for a comparison of percentage levels, one has to consider that these levels have greater freedom to vary in an intermediate range than where they are either high or low,

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10/ These interpolations and extrapolations concern the following age groups, in individual countries: ages 0-11 and 12-14 in Argentina; 10-year age groups from 30-39 to 60 and over in Brazil; ages 5-14, 15-59 and 60 and over in Cuba; ages 0-9, and for 10-years age groups from 30-39 to 60 and over in Austria; ages 65 over in Czechoslovakia; ages 0-9, 10-19 and 60-69 in the Soviet Union; ages 65 and over in Yugoslavia; ages 30-39, 40-49, 50-59 and 60 and over in Burma; ages 25-34, 35-44, 45-54, 55-64 and 65 over in Indonesia; ages 65 and over in Iran; ages 60-69 in Pakistan; ages 65 and over in Turkey; ages 60-69 in Chad; and ages 55 and over in Mali.

11/ The question occurs, for instance, in the problem of measuring "progress in literacy". Unequal amounts or rates of rise in the percentage of literates in the population (e.g. in the population aged 10, or 15 years and over) may occur where the levels are low, intermediate or high. Still different results can be obtained when complementary figures, namely the relative diminution in illiteracy, are to be compared.

since percentages can never fall below zero or exceed 100. 12/ In fact, the range of percentages should be related to a curve which is assymptotic both towards zero and towards 100 and has a point of inflection in the middle range, for instance around 50 per cent. 13/ The simplest curve behaving in this fashion is a symmetric logistic whose origin is placed at the 50- per cent level, i.e. the point of inflexion. 14/ For present purposes, and for the sake of simplicity, a logistic curve has been calculated in which the value of the constant k is made equal to 100 and the incremental rate r equal to one per cent. 15/ From this curve, comparable differences in percentages can be read as the intervals in the corresponding abscissa (the given percentage levels being in the ordinate). A given difference in percentages at high or low levels represents a larger segment in the abscissa than it does at intermediate levels. Because of the symmetry of the curve, a given "lead" or "lag" in the level of urbanization (which ordinarily increases with time) represents the same "lead" or "lag" in the level of rural population (which ordinarily diminishes with time). 16/

12/ In terms of literacy, the following may be considered. At a low level of literacy there would be comparatively few teachers, hence the level cannot rise rapidly by large amounts, at least in the early phase; at a high level of literacy, there remains a residue which it is increasingly difficult to teach (population living in geographic dispersal; invalids; feeble-minded); at an intermediate level, on the other hand, there being considerable numbers of potential teachers, and still much population comparatively easy to reach, the percentage may rise more rapidly. Comparable "progress" would be represented by slower rises at low and high levels than the rises observable in an intermediate range of levels.

13/ There may, of course, be special problems in which comparable rises should not be viewed in symmetric fashion, i.e. with a point of inflexion higher or lower than the 50 per cent level. But unless there are clear reasons for doing so, complications are preferably avoided.

14/ Such a curve is expressed by the formula

$$y = \frac{k}{(1 + r)^{-1} + 1}$$

where r is the rate of increment of a quantity, t is the scale (ordinarily time) against which the increments are measured, and k is a constant.

15/ Corresponding to the formula $y = \frac{100}{1.01^{-t} + 1}$

The "leads" or "lags" in urbanization level of particular age groups do not necessarily express time, hence the scale of the curve is an arbitrary matter, and has been so selected simply for its ease of application.

16/ This, incidentally, would also be a solution to the problem of measuring "progress" in literacy comparably. Because of symmetry, at any level a given amount of increase in literacy is then the full equivalent of the corresponding amount of decrease in illiteracy.

A table of values and a graph of this logistic curve are attached. The method of using the table (or graph) for the present purpose is as follows. First, the value of t is found for the general percentage level of urbanization of the population (per cent urban of the total population of both sexes and all ages). Then the values of t are ascertained for each URR (urban residence ratio, i.e. the percentage of each national sex-age group residing in urban areas). Finally, the differences in t, positive or negative, are taken between that for the general urbanization level and that for each of the particular sex-age groups. The results obtained will be referred to as "comparative urbanization levels" (or CUL) specific for each sex-age group.

14. To give an example, we may take the case of Uruguay (1963 census data). Here, the general urbanization level (both sexes, all ages) was 82.2 per cent, a value found in the table where t is between the positive values of 153 and 154. Of males aged 0-4 years in the country, 80.2 per cent were found residing in urban areas, a value for which t is between 140 and 141. Subtracting + 153.5 from + 140.5 we obtain a difference (negative) of -13, and this is the value taken for the specific CUL for males aged 0-4 years. The same method has been used for both sexes and all ages in every one of the examples considered. Incidentally, the interpolations and extrapolations for detailed age groups which had to be carried out for certain countries 17/ were calculated in terms of CUL. The CUL for each sex-age group, finally, were averaged (unweighted) for each group of countries composing a region.

15. The comparative urbanization levels for each country, and the regional averages, are tabulated in the annex (table 1), and the regional averages are also graphed (figure 1).

The absolute levels of urbanization

16. The measures analyzed in the present study, by groups of sex and age, are relative to the general level of urbanization (both sexes and all ages combined) of each country. To save space, the urbanization levels of each sex-age group are not tabulated here; they were tabulated and graphed in the previous study already mentioned.

17. For the interest which the matter of absolute urbanization level may nevertheless have, the percentages of total population urbanized are listed

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17/ See note 10/

Table showing logistic curve representing comparative intervals in percentage level of urbanization (as explained in the text)

t	level	t	level	t	level	t	level
-300	4.8103	-260	6.9974	-220	10.0736	-180	14.2942
-299	4.8561	-259	7.0624	-219	10.1641	-179	14.4166
-298	4.9023	-258	7.1280	-218	10.2553	-178	14.5398
-297	4.9489	-257	7.1941	-217	10.3472	-177	14.6638
-296	4.9959	-256	7.2609	-216	10.4399	-176	14.7888
-295	5.0433	-255	7.3281	-215	10.5333	-175	14.9146
-294	5.0912	-254	7.3960	-214	10.6274	-174	15.0413
-293	5.1395	-253	7.4645	-213	10.7223	-173	15.1689
-292	5.1882	-252	7.5335	-212	10.8179	-172	15.2974
-291	5.2374	-251	7.6031	-211	10.9143	-171	15.4268
-290	5.2870	-250	7.6733	-210	11.0114	-170	15.5571
-289	5.3370	-249	7.7441	-209	11.1093	-169	15.6882
-288	5.3875	-248	7.8155	-208	11.2079	-168	15.8203
-287	5.4385	-247	7.8874	-207	11.3074	-167	15.9532
-286	5.4899	-246	7.9600	-206	11.4075	-166	16.0871
-285	5.5417	-245	8.0333	-205	11.5085	-165	16.2219
-284	5.5940	-244	8.1071	-204	11.6102	-164	16.3576
-283	5.6468	-243	8.1815	-203	11.7127	-163	16.4942
-282	5.7001	-242	8.2566	-202	11.8160	-162	16.6317
-281	5.7538	-241	8.3322	-201	11.9201	-161	16.7701
-280	5.8080	-240	8.4086	-200	12.0249	-160	16.9094
-279	5.8627	-239	8.4855	-199	12.1306	-159	17.0497
-278	5.9178	-238	8.5631	-198	12.2371	-158	17.1909
-277	5.9735	-237	8.6414	-197	12.3443	-157	17.3330
-276	6.0296	-236	8.7202	-196	12.4524	-156	17.4760
-275	6.0862	-235	8.7998	-195	12.5613	-155	17.6200
-274	6.1434	-234	8.8799	-194	12.6710	-154	17.7649
-273	6.2010	-233	8.9608	-193	12.7815	-153	17.9107
-272	6.2591	-232	9.0423	-192	12.8928	-152	18.0575
-271	6.3177	-231	9.1245	-191	13.0050	-151	18.2052
-270	6.3769	-230	9.2073	-190	13.1180	-150	18.3539
-269	6.4366	-229	9.2908	-189	13.2318	-149	18.5034
-268	6.4976	-228	9.3750	-188	13.3464	-148	18.6539
-267	6.5574	-227	9.4599	-187	13.4619	-147	18.8054
-266	6.6187	-226	9.5455	-186	13.5783	-146	18.9578
-265	6.6804	-225	9.6317	-185	13.6955	-145	19.1112
-264	6.7427	-224	9.7187	-184	13.8135	-144	19.2655
-263	6.8056	-223	9.8063	-183	13.9324	-143	19.4207
-262	6.8690	-222	9.8947	-182	14.0521	-142	19.5769
-261	6.9329	-221	9.9838	-181	14.1727	-141	19.7340

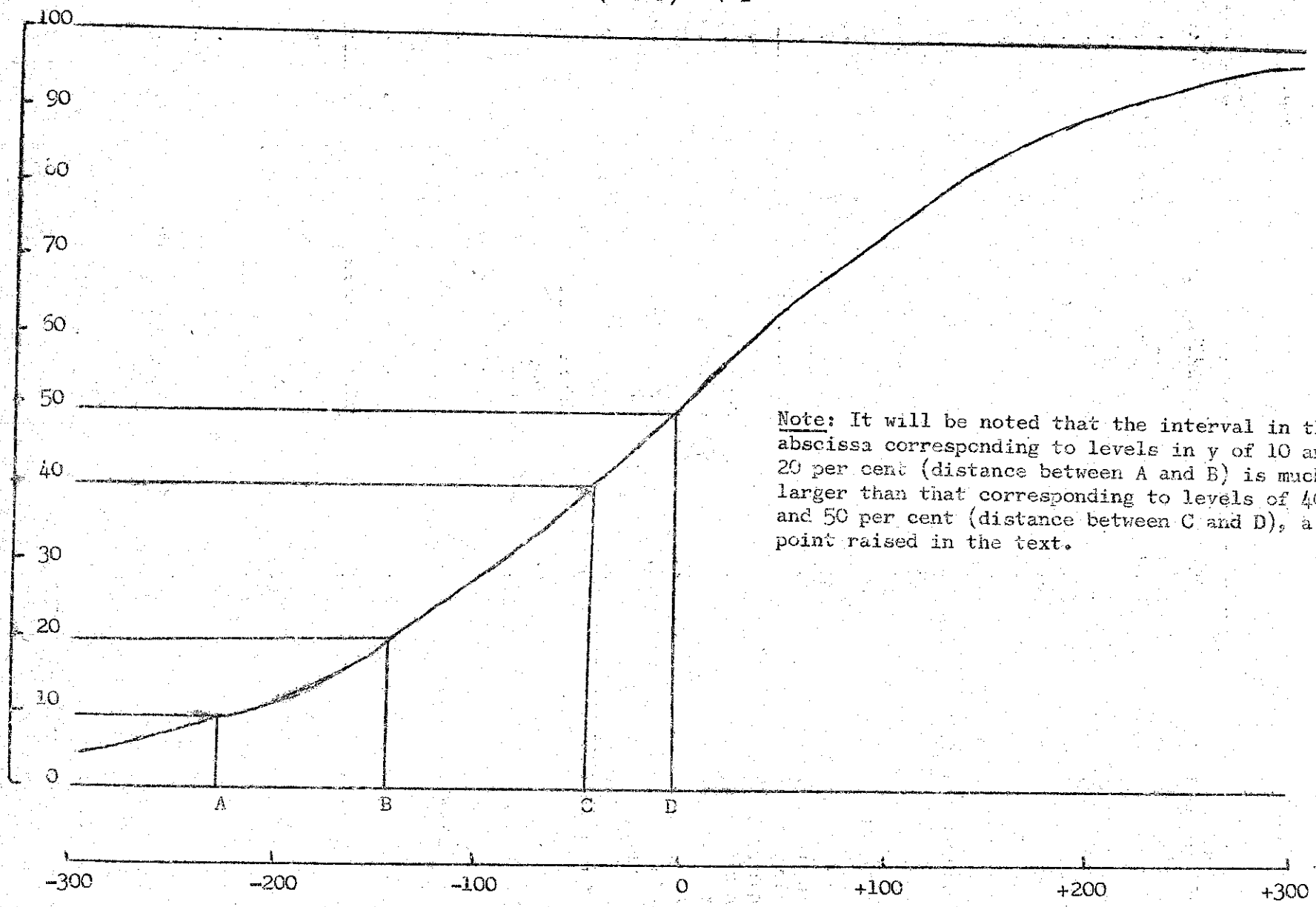
(continued)

t	level	t	level	t	level	t	level
-140	19.8921	-100	26.9918	-60	35.5026	-20	45.0412
-139	20.0511	-99	27.1883	-59	35.7307	-19	45.2876
-138	20.2111	-98	27.3858	-58	35.9596	-18	45.5343
-137	20.3721	-97	27.5841	-57	36.1890	-17	45.7812
-136	20.5339	-96	27.7833	-56	36.4191	-16	46.0282
-135	20.6968	-95	27.9835	-55	36.6498	-15	46.2755
-134	20.8606	-94	28.1844	-54	36.8812	-14	46.5230
-133	21.0253	-93	28.3863	-53	37.1132	-13	46.7707
-132	21.1910	-92	28.5890	-52	37.3456	-12	47.0184
-131	21.3577	-91	28.7926	-51	37.5788	-11	47.2664
-130	21.5253	-90	28.9970	-50	37.8124	-10	47.5145
-129	21.6938	-89	29.2023	-49	38.0467	-9	47.7627
-128	21.8633	-88	29.4083	-48	38.2815	-8	48.0110
-127	22.0338	-87	29.6154	-47	38.5169	-7	48.2594
-126	22.2052	-86	29.8233	-46	38.7528	-6	48.5079
-125	22.3776	-85	30.0319	-45	38.9892	-5	48.7565
-124	22.5509	-84	30.2414	-44	39.2262	-4	49.0051
-123	22.7251	-83	30.4517	-43	39.4636	-3	49.2538
-122	22.9004	-82	30.6629	-42	39.7016	-2	49.5025
-121	23.0765	-81	30.8749	-41	39.9401	-1	49.7512
-120	23.2536	-80	31.0876	-40	40.1790	0	50.0000
-119	23.4317	-79	31.3012	-39	40.4184	1	50.2488
-118	23.6107	-78	31.5155	-38	40.6582	2	50.4975
-117	23.7906	-77	31.7307	-37	40.8985	3	50.7462
-116	23.9715	-76	31.9466	-36	41.1392	4	50.9949
-115	24.1533	-75	32.1634	-35	41.3804	5	51.2435
-114	24.3360	-74	32.3808	-34	41.6220	6	51.4921
-113	24.5197	-73	32.5991	-33	41.8640	7	51.7406
-112	24.7044	-72	32.8181	-32	42.1063	8	51.9890
-111	24.8899	-71	33.0379	-31	42.3491	9	52.2373
-110	25.0764	-70	33.2584	-30	42.5922	10	52.4855
-109	25.2638	-69	33.4796	-29	42.8357	11	52.7336
-108	25.4521	-68	33.7016	-28	43.0795	12	52.9816
-107	25.6414	-67	33.9242	-27	43.3236	13	53.2293
-106	25.8316	-66	34.1476	-26	43.5681	14	53.4770
-105	26.0227	-65	34.3717	-25	43.8129	15	53.7245
-104	26.2147	-64	34.5965	-24	44.0580	16	53.9718
-103	26.4076	-63	34.8220	-23	44.3034	17	54.2188
-102	26.6014	-62	35.0482	-22	44.5491	18	54.4657
-101	26.7962	-61	35.2754	-21	44.7950	19	54.7124

t	level	t	level	t	level	t	level
20	54.9588	60	64.4974	100	73.0082	140	80.1079
21	55.2050	61	64.7246	101	73.2038	141	80.2660
22	55.4509	62	64.9518	102	73.3986	142	80.4231
23	55.6966	63	65.1780	103	73.5924	143	80.5793
24	55.9420	64	65.4035	104	73.7853	144	80.7345
25	56.1871	65	65.6283	105	73.9773	145	80.8888
26	56.4319	66	65.8524	106	74.1684	146	81.0422
27	56.6764	67	66.0758	107	74.3586	147	81.1946
28	56.8205	68	66.2984	108	74.5479	148	81.3461
29	57.1643	69	66.5204	109	74.7362	149	81.4966
30	57.4078	70	66.7416	110	74.9236	150	81.6461
31	57.6509	71	66.9621	111	75.1101	151	81.7948
32	57.8937	72	67.1819	112	75.2956	152	81.9425
33	58.1360	73	67.4009	113	75.4803	153	82.0893
34	58.3780	74	67.6192	114	75.6640	154	82.2351
35	58.6196	75	67.8366	115	75.8467	155	82.3800
36	58.8608	76	68.0534	116	76.0285	156	82.5240
37	59.1015	77	68.2693	117	76.2094	157	82.6670
38	59.3418	78	68.4845	118	76.3893	158	82.8091
39	59.5816	79	68.7988	119	76.5683	159	82.9503
40	59.8210	80	68.9124	120	76.7464	160	83.0906
41	60.0599	81	69.1251	121	76.9235	161	83.2299
42	60.2984	82	69.3371	122	77.0996	162	83.3683
43	60.5364	83	69.5483	123	77.2749	163	83.5058
44	60.7738	84	69.7586	124	77.4491	164	83.6424
45	61.0108	85	69.9681	125	77.6224	165	83.7781
46	61.2472	86	70.1767	126	77.7948	166	83.9129
47	61.4831	87	70.3846	127	77.9662	167	84.0468
48	61.7185	88	70.5917	128	78.1367	168	84.1797
49	61.9533	89	70.7977	129	78.3062	169	84.3118
50	62.1876	90	81.0030	130	78.4747	170	84.4429
51	62.4212	91	71.2074	131	78.6423	171	84.5732
52	62.6544	92	71.4110	132	78.8090	172	84.7026
53	62.8868	93	71.6137	133	78.9747	173	84.8311
54	63.1188	94	71.8156	134	79.1394	174	84.9587
55	63.3502	95	72.0165	135	79.3032	175	85.0854
56	63.5809	96	72.2167	136	79.4661	176	85.2112
57	63.8110	97	72.4159	137	79.6279	177	85.3362
58	64.0404	98	72.6142	138	79.7889	178	85.4602
59	64.2693	99	72.8117	139	79.9489	179	85.5834

t	level	t	level	t	level	t	level
180	85.7058	220	89.9264	260	93.0026	300	95.1897
181	85.8273	221	90.0162	261	93.0671		
182	85.9479	222	90.1053	262	93.1310		
183	86.0676	223	90.1937	263	93.1944		
184	86.1865	224	90.2813	264	93.2573		
185	86.3045	225	90.3683	265	93.3196		
186	86.4217	226	90.4545	266	93.3813		
187	86.5381	227	90.5401	267	93.4426		
188	86.6536	228	90.6250	268	93.5033		
189	86.7682	229	90.7092	269	93.5634		
190	86.8820	230	90.7927	270	93.6231		
191	86.9950	231	90.8755	271	93.6823		
192	87.1072	232	90.9577	272	93.7409		
193	87.2185	233	91.0392	273	93.7990		
194	87.3290	234	91.1201	274	93.8566		
195	87.4387	235	91.2002	275	93.9138		
196	87.5476	236	91.2798	276	93.9704		
197	87.6557	237	91.3586	277	94.0265		
198	87.7629	238	91.4369	278	94.0822		
199	87.8694	239	91.5145	279	94.1373		
200	87.9751	240	91.5914	280	94.1920		
201	88.0799	241	91.6678	281	94.2462		
202	88.1840	242	91.7434	282	94.2999		
203	88.2873	243	91.8185	283	94.3532		
204	88.3898	244	91.8929	284	94.4060		
205	88.4915	245	91.9667	285	94.4583		
206	88.5925	246	92.0400	286	94.5101		
207	88.6926	247	92.1126	287	94.5615		
208	88.7921	248	92.1845	288	94.6125		
209	88.8907	249	92.2559	289	94.6630		
210	88.9886	250	92.3267	290	94.7130		
211	89.0857	251	92.3969	291	94.7626		
212	89.1821	252	92.4665	292	94.8118		
213	89.2777	253	92.5355	293	94.8605		
214	89.3726	254	92.6040	294	94.9088		
215	89.4667	255	92.6719	295	94.9567		
216	89.5601	256	92.7391	296	95.0041		
217	89.6528	257	92.8059	297	95.0511		
218	89.7447	258	82.8720	298	95.0977		
219	89.7359	259	92.9376	299	95.1439		

Logistic curve $y = \frac{100}{(1 + r)^{-t} + 1}$ (as explained in text)



Note: It will be noted that the interval in the abscissa corresponding to levels in y of 10 and 20 per cent (distance between A and B) is much larger than that corresponding to levels of 40 and 50 per cent (distance between C and D), a point raised in the text.

below. The definitions of urban population are, of course, diverse.

Country	Per cent urban		Country	Per cent urban	
La Plata region	79.2	a/	Eastern Europe	42.2	a/
Argentina	76.2		Albania	27.5	
Uruguay	82.2		Bulgaria	47.0	
Latin America	41.8	a/	Czechoslovakia	47.6	
Brazil	46.3		Finland	42.8	
Chile	68.2		Greece	56.2	
Colombia	52.0		Hungary	41.8	
Costa Rica	39.9		Poland	49.4	
Cuba	53.1		Romania	33.7	
Dominican Republic	30.3		Soviet Union	47.9	
Ecuador	35.8		Yugoslavia	28.3	
El Salvador	39.0		East Asia	51.5	a/
Guatemala	34.0		Japan	68.1	
Guyana	15.5		Korea, Republic of	28.0	
Honduras	23.2		China (Taiwan)	58.5	
Jamaica	29.5		South Asia	18.7	a/
Mexico	50.7		Burma	15.2	
Nicaragua	40.9		Cambodia	10.3	
Panama	41.5		Ceylon	18.9	
Paraguay	36.1		India	18.0	
Peru	47.4		Indonesia	14.9	
Puerto Rico	44.2		Iran	39.1	
Venezuela	67.4		Pakistan	13.6	
Eur. settlements	71.8	a/	Middle East	34.3	a/
Australia	81.9		Egypt	38.0	
Canada	69.6		Iraq	39.2	
New Zealand	63.6		Jordan	43.9	
United States	69.9		Libya	24.6	
Western Europe	57.1	a/	Morocco	29.3	
Austria	50.0		Syria	38.7	
Denmark	45.7		Turkey	26.3	
France	63.0		Tropical Africa	12.6	a/
Germany, F.R.	77.8		Chad	6.9	
Ireland	46.1		Ghana	23.5	
Luxembourg	62.2		Guinea	8.3	
Netherlands	78.4		Mali	11.2	
Norway	48.7		Nigeria	16.1	
Portugal	22.7		Togo	9.6	
Spain	41.8		Southern Africa	35.0	a/
Sweden	77.4		Namibia	23.5	
Switzerland	51.3		South Africa	46.4	
United Kingdom	77.5				

a/ Unweighted regional average.

The sequence of regional types (see figure I in the annex)

18. The unweighted means of each specific CUL for countries composing each region have been plotted in graphs (figure I), whose mere inspection shows that they constitute, in their varying shapes, an apparent sequence. At one extreme are the La Plata countries and at the other extreme the Southern African countries.

19. Beginning with the first we observe from earliest childhood on a large and rising predominance of CUL for females over those for males; furthermore, the CUL for females (except at ages 5-9) rise continuously and steeply up to the most advanced ages; those for males reach a peak about the age of 35 years and after a small drop rise gradually with advancing age.

20. Turning to other Latin American countries we find that female CUL after age 5-9 rise steeply to a high level about the age of 20, but much more gradually though also continuously 17/ at subsequent ages with an acceleration toward old age; those for males reach a peak about ages 30-34 but with advancing age they decrease slightly.

21. Proceeding to the countries of European overseas settlement we find a pattern very similar to that of Latin America. Minor differences are a decline in female CUL between ages 20-24 and 30-34, a modest peak in male CUL at ages 35-39 (instead of 30-34 as in Latin America), and a consequent narrowing of the excess of female over male CUL in the ages between 20 and 35. Past that age female CUL rise steeply with advancing age, and so does their excess over male CUL. The similarity with Latin America (excluding La Plata countries) is surprising since social and economic conditions differ considerably and cultural backgrounds are diverse.

22. Moving on to Western and Eastern Europe we witness a marked transformation of type, that for Western Europe being intermediate between that for Eastern Europe, and that for European overseas settlement (or Latin American) countries respectively. Considering Eastern Europe first, we note that, there, on the whole, the urbanization process is fairly balanced between the two sexes, with quite slight relative female deficits between ages 15 and 50, followed by a significant female excess at more advanced ages. We also note that for either sex the curve is almost symmetrical, rising steeply towards a peak at ages 25-29 and falling off thereafter almost as steeply (more steeply for males than for females). The near-peak level reached by males already at the age of 20-24 may in part be related to the

17/ Minor irregularities in the trend are due to different frequencies of misstatement of age in urban and rural areas. For instance, in the less literate segments of the population there is a tendency to report age at rounded figures, e.g. a great frequency of reporting "age 60"; this tendency is probably greater in rural than in urban areas, hence the calculated CUL for age group 60-64 is somewhat too low (and those for ages 55-59 and 65-69 somewhat too high).

location of military establishments. 18/

23. The intermediate position of Western Europe between Eastern Europe and overseas settlement countries will readily be seen upon inspection of the graphs. Peak levels are reached at a relatively early adult age (20-24 for females, and 25-29 for males), the peak for females being notably higher than that for males. Between the ages of 30 and 50 the levels change rather little, but thereafter they fall off with increasing slope as age advanced, more steeply for males than for females.

24. Proceeding from Eastern Europe to East Asia, we note relatively little change of pattern, but the averages calculated for East Asia may be rather unrepresentative, being for three countries only, and conditions in China (Taiwan) being slightly unusual. 19/ In their absence, perhaps a male peak should be expected at ages 25-29, similarly as in Eastern Europe. Agian, the two sexes are fairly balanced, the CUL for either sex virtually coinciding up to ages 20-24, males exceeding the females at ages 35 to 59, and females the males at advanced ages. As compared with Eastern Europe, the relative urban child deficit is less pronounced in East Asia, whereas at advanced ages urban residence declines more steeply in East Asia than in Eastern Europe. Considering the debatable points in the limited observations for East Asia, and the geographic distance and cultural difference involved, it is somewhat surprising that the urbanization patterns in the two regions should resemble each other to the given extent. 20/

18/ In a few countries, CUL for males aged 20-24 reaches a high level, possibly owing to military recruits rendering their service more often in urban than in rural locations.

19/ Perhaps owing to the migration of large numbers of Chinese mainlanders to Taiwan around 1950, many of whom were then young adults and many of whom may have taken up urban residence, rather high male CUL have been calculated at ages 35 to 49 in Taiwan in 1964. For similar reasons perhaps the urban age composition in the Republic of Korea (1960) is also slightly unusual in this respect, male CUL being high at ages 30 to 44. In Japan, on the other hand, unusually rapid urbanization led to a very high peak for males aged 20-24 (quite high also at ages 25-29).

20/ Very little is known about sex and age composition of the population of China (mainland) which, owing to its size, constitutes the largest gap in knowledge. In view of similarity in the intensity of socialistic industrialization with the Societ Union, and cultural affinity with countries of East Asia, one might venture the guess that the pattern of urban residence in China may also resemble the two regional patterns observed. It must be emphasized, however, that the argument can be fallacious and also that concrete evidence is lacking.

25. As we pass to the next three regions, namely South Asia, the Middle East and Tropical Africa, we note some zig-zags in the calculated trends which are due to inaccurate age data. 21/ The observations, accordingly, are rather rough and cannot be compared in every fine detail. Within these limitations of comparison, one is struck with the similarity of the three regional graphs despite differences in culture, history and level of urbanization in the three regions. 22/ Since the samples are small, six or seven countries in each case, one may say that the patterns of urbanization are virtually the same. In all three instances females reach a peak at ages 15-19 and males a much higher peak about the ages of 20-24. After the respective peaks, female CUL decrease gradually, and hardly at all at advanced ages; male CUL, from their much higher level, fall off more steeply with advancing age, passing below the level of females after the age of 55. In all three regions, there is a great predominance of urban males over urban females between the ages of 15 and 55. 22/

26. Coming finally to the two countries of Southern Africa, we observe a highly abnormal structure. Discriminating legislation restricts the urban residence of Africans in those countries mostly to certain categories, especially male workers having a definite urban employment. (The European minority, on the other hand, is free to move and highly urbanized). The graph indicates that in the urban areas children and older people are relatively very few, and that among younger and middle-aged adults there is an enormous preponderance of males and relatively few women. The contrast of conditions in these two countries, with those in the two La Plata countries, is indeed extraordinary.

21/ As pointed out in note 17/, inaccuracy of age data may be greater in rural than in urban areas, hence the proportions of urban population may be somewhat overstated for some age groups, and correspondingly understated for some other age groups, though the general trend may nevertheless be fairly accurate. Observations for age groups 0-4 and 5-9 diverge noticeably for males and females, an inconsistency which may be explained by a tendency to overstate the ages of small boys more often than those of small girls, assuming that this tendency is more pronounced in rural than in urban areas.

22/ When the graphs are smoothed and superimposed upon each other, minor differences appear. The urban child deficit seems less pronounced in the Middle East than in the other two regions, the urban deficit of adult females appears greatest in South Asia, and with advancing age the CUL for either sex fall off most steeply in Tropical Africa, and least steeply in the Middle East. However, for reasons mentioned the detailed comparison may be deceptive.

/

Common features and variable features in the sequence

27. We have reviewed, one after another, the regional types of urbanization patterns in accordance with available information. For the purpose of summary we may now note what these several patterns have in common and in which respects they differ most.

28. One observation common to all types (measured more accurately in some instances than in others) is the slightly lower urbanization level of children aged 5-9 as compared with children aged 0-4 years (and even lower level of children aged 10-14 in Eastern Europe and East Asia). The universality of this observation suggests that in all the world the smallest children are most inseparable from their mothers, whereas somewhat older children may well be raised in many instances by other relatives or foster parents. Mothers migrating to urban places, therefore, may have to take their small children with them while consenting to leave somewhat older children under the care of relatives in their rural places of origin.

29. Another almost universal observation (Eastern Europe and East Asia are exceptions) is the somewhat greater urbanization of female children, as compared with males of the same age, from an early age onward. In some regions the difference between boys and girls at ages 5-9 and 10-14 is only slight while in others it is more considerable. Possible reasons may be the greater attachment of girls to their migrant mothers, the difficulty of confining the more temperamental and adventurous boys in a limited urban living space, the relative usefulness, even at a tender age, of girls in urban work tasks or of boys in rural chores or perhaps the urban and rural residential preferences of the children themselves. Some very general cause must be at work, or else the observation could not be so world-wide.

30. With the exceptions of Eastern Europe and of East Asia, for which the more detailed observations are debatable, a peak level of urban residence occurs for females at earlier ages than for males. 23/ The earlier maturity and readiness for marriage of women, as compared with men, is a world-wide phenomenon. Once married, both women and men may be less mobile than while they are single. Many young persons may also migrate for the purpose of finding a mate, or for the purpose of gaining at least a minimum of capital assets upon which a home can be founded. The chief factors at work may differ with economic, social and cultural features in the various regions, but at least it can be asserted that almost everywhere the age of greatest mobility is earlier for women than for men.

31. Whatever the comparative levels of urbanization of younger men and women, with rising age the urban areas attract, or retain, more women than men. Even in the extreme example of Southern Africa, past the age of 60 years women are more urbanized than men. In regions where urbanization levels rise with age (La Plata, Latin American, and European settlement countries), the levels rise more steeply for women than for men.

23/ In the La Plata countries, Latin American, and European settlement countries the peak levels found in early adulthood, at least in the case of women, are exceeded later in life. Nevertheless, at least a relative peak can be observed among young adults, as compared with the general trend.

In the remaining regions, where urbanization levels fall with advancing age, the male levels decline more precipitously than those of females. Again some universal factor, difficult to identify, makes preference for the urban environment greater for women than for men. Specific reinforcing or attenuating circumstances might be at work in particular regions and countries, but here again there is a basic factor which has a world-wide effect.

32. Despite wide disparities, therefore, the regional patterns have a number of features in common, and these affect the comparative degrees of urbanization of men, women and children from the earliest to the most advanced ages.

33. The differences in patterns are more readily evident upon inspection of the graphs. These are especially of two kinds. The regional types differ by the relative degrees of urbanization of men and women, urban areas being most feminine in the first type considered, and progressively less feminine as we pass from each type to the next. In the La Plata countries, Latin America, European settlements and Western Europe urbanization levels of women exceed those of men; in Eastern Europe and East Asia the general degrees of urbanization of men and women are nearly balanced; in South Asia, the Middle East, Tropical Africa and, finally, Southern Africa urbanization is dominantly male.

34. The other difference, namely comparative degrees of urbanization of the older population, also follows the same sequence, urbanization rising with age in the first few types, though to a diminishing extent, and then falling with age to an ever increasing extent.

35. The differences in the two respects mentioned, namely the femininity of urbanization, and the urbanization trend at rising age, are evidently correlated. In regions where urban populations are more feminine, urbanization levels at old age are comparatively high; where urban populations are predominantly masculine, relatively few old persons will be found in the urban areas.

36. The factors favouring, or disfavouring, the urbanization of women and of older people, apparently, if not the same are at least in some close relationship to each other. Perhaps the urban environments, as compared with rural localities, are relatively forbidding in some regions and more accommodating in others, thus either deterring or inviting at the same time the urban residence of both women and aged individuals. What constitutes the relative "harshness" or "mildness" of urban environments is difficult to define or investigate, but it is probable that there is a syndrome of this nature operating to various degrees in different parts of the world. Particular circumstances will, of course, vary among individual countries, making it difficult to disentangle factors of mostly local significance from those of universal effect.

Urban-rural fertility differences

37. One important aspect not yet discussed is the comparison of urban-rural fertility differences between the various regions. Though only very roughly, 24/ this can be done by relating CUL for ages 0-4 (average for both sexes) to the average CUL for females aged 15-44 (these figures, among other summary measures, have also been tabulated in the annex table), the latter being, by approximation, the potential mothers of such children. When the former CUL is subtracted from the latter, we obtain a rough indicator of the direction and comparative magnitude of the difference between urban and rural fertility. Its absolute significance, of course, remains undetermined. 25/

38. Following are the CUL in question, and the differences obtained, for each of the regional patterns:

Region	CUL at ages 0-4, both sexes (1)	CUL at ages 15-44, females only (2)	Comparative measure of urban-rural fertility difference (3) = (1) - (2)
La Plata	-28	+ 16	-44
Latin America	-16	+ 19	-35
European settlement	-17	+ 14	-31
Western Europe	-11	+ 14	-25
Eastern Europe	-17	+ 14	-31
East Asia	- 4	+ 12	-16
South Asia	-12	0	-12
Middle East	- 8	+ 1	- 9
Tropical Africa	-11	+ 2	-13
Southern Africa	-31	- 4	-27

39. It will be noted (with a minor reversal in Eastern Europe) that as we follow the sequence of regions, the comparative measure of urban-rural fertility difference diminishes progressively from -44 points in the La Plata countries to only -9 points in the Middle East. As we pass into Africa, however, especially Southern Africa, the differnce widens again. The progression, therefore, is not perfect, but it has decided significance over at least the greater part of the range.

24/ The following undetermined factors will affect the accuracy of the comparison: variably inaccurate age statements, varying completeness in the enumeration of small children, differences between urban and rural levels of infant and early childhood mortality, the more detailed age patterns of fertility among women, and the varying extent to which migrant mothers may leave even their small children under the care of rural relatives or foster parents.

25/ Because of the arbitrary scale adopted for the logistic transformation of the data, the absolute magnitudes of fertility differences cannot be assessed by this method.

40. As has been suggested, in this sequence we seem to pass from urban environments of greatest comparative "mildness" to urban environments of increasing "harshness", however difficult it may be at present to give these vague terms a more precise definition. We are tempted to infer that where urban environments are comparatively the "mildest" urban fertility falls below the rural level to a much greater extent than where urban environments are (by whatever standards) comparatively "harsh", unless they are exceedingly harsh as they seem to be in parts of Africa and especially in Southern Africa. While this inference lacks precision, it seems to add significantly to the dimention of relative urban advantages already suggested. If not necessarily valid, the tentative inference may at least perhaps stimulate some discussion. 26/

26/ A partial invalidation of the tentative argument may be the following: if the same urban-rural differences of fertility have prevailed for a very long time, urban populations can be expected to be more aged than the rural ones owing to the long-run effects of fertility levels on age structures; but this does not account for the simultaneously varying degrees of femininity of urbanization. Another approach might be this: as females are urbanized to varying relative degrees, they may also vary in their composition by marital status, hence have different levels of fertility for this reason alone. To throw light on these questions it would be necessary to calculate models of sex-age structures of urban and rural population under varying assumptions; and to explore whether marital-status differences of urban women vary in the corresponding fashion.

UNWEIGHTED REGIONAL MEANS

Sex and age	La Plata Countries	Latin America	European Overseas Settlement	Western Europe	Eastern Europe	East Asia	South Asia
Males							
0-4	-29	-16	-17	-11	-17	-4	-11
5-9	-38	-19	-21	-19	-18	-9	-14
10-14	-36	-15	-14	-17	-18	-11	+ 1
15-19	-35	- 6	-17	- 6	- 4	+12	+20
20-24	-26	+ 1	- 6	+ 4	+23	+17	+33
25-29	-16	+ 4	0	+ 8	+26	+13	+20
30-34	- 2	+ 8	+ 1	+ 5	+25	+14	+15
35-39	0	+ 3	+ 4	+ 4	+18	+15	+10
40-44	- 8	- 1	+ 2	+ 4	+15	+12	+ 8
45-49	- 8	- 2	+ 2	+ 3	+ 9	+ 4	+ 2
50-54	- 6	- 1	+ 2	- 1	- 3	- 4	- 2
55-59	- 6	- 2	+ 1	- 4	-12	-19	-11
60-64	- 3	-12	+ 1	- 8	-18	-29	-15
65-69	- 4	- 1	0	-14	-26	-37	-21
70+	+ 4	- 7	- 2	-26	-36	-51	-27
Females							
0-4	-28	-16	-17	-11	-17	- 5	-14
5-9	-29	-15	-20	-17	-18	-10	-13
10-14	-19	- 3	-11	-14	-18	-10	+ 2
15-19	- 6	+17	+ 4	+ 7	- 5	+12	+ 9
20-24	+ 5	+19	+20	+23	+18	+18	+ 7
25-29	+15	+19	+16	+16	+26	+19	- 1
30-34	+23	+21	+12	+14	+22	+15	- 3
35-39	+28	+19	+16	+13	+16	+ 7	- 5
40-44	+28	+20	+16	+14	+11	- 1	- 8
45-49	+30	+23	+20	+14	+ 5	- 8	-10
50-54	+30	+23	+24	+14	- 2	-16	- 8
55-59	+40	+29	+27	+12	- 8	-21	-17
60-64	+48	+25	+30	+ 9	-10	-22	-12
65-69	+52	+36	+34	+ 8	-12	-26	-10
70 +	+54	+36	+39	+ 4	-16	-34	-11
	Group averages						
Males							
0-14	-34	-17	-18	-16	-18	- 8	- 7
15-44	-21	+ 2	- 3	+ 3	+17	+14	+18
45 +	- 4	- 4	+ 1	- 8	-14	-23	-12

UNWEIGHTED REGIONAL MEANS (continued)

Sex and age	Middle East	Tropical Africa	Southern Africa
Males			
0–4	-7	-11	-33
5–9	-12	-19	-30
10–14	-2	+6	-20
15–19	+18	+23	-2
20–24	+31	+25	+60
25–29	+21	+26	+78
30–34	+21	+19	+66
35–39	+12	+9	+56
40–44	+6	-1	+36
45–49	+9	-6	+31
50–54	-1	-21	+20
55–59	-1	-23	+7
60–64	-15	-36	-20
65–69	-18	-34	-34
70 +	-37	-52	-44
Females			
0–4	-9	-11	-29
5–9	-10	-6	-31
10–14	+3	+14	-10
15–19	+13	+16	-10
20–24	+10	+8	+2
25–29	0	+7	-3
30–34	-3	-3	-3
35–39	-3	-7	-2
40–44	-14	-17	-6
45–49	+1	-20	+10
50–54	-8	-22	-6
55–59	+2	-16	-10
60–64	-17	-19	-12
65–69	-11	-11	-22
70 +	-20	-19	-36
	Group averages		
Males			
0–14	-7	-6	-28
15–44	+17	+17	+49
45 +	-10	-29	-7
Females			
0–14	-5	0	-23
15–44	+1	+2	-4
45 +	-9	-18	-13

LA PLATA COUNTRIES

Sex and age	Argentina 1960	Uruguay 1963	MEAN
Males			
0-4	-45	-13	-29
5-9	-55	-20	-38
10-14	-45	-27	-36
15-19	-45	-25	-35
20-24	-25	-27	-26
25-29	-11	-20	-16
30-34	-2	-3	-2
35-39	+4	-3	0
40-44	-2	-14	-8
45-49	+1	-17	-8
50-54	+1	-14	-6
55-59	+2	-15	-6
60-64	+2	-8	-3
65-69	+1	-8	-4
70 +	+2	+5	+4
Females			
0-4	-45	-11	-28
5-9	-54	-4	-29
10-14	-34	-4	-19
15-19	-18	+7	-6
20-24	-6	+16	+5
25-29	+10	+20	+15
30-34	+19	+27	+23
35-39	+24	+31	+28
40-44	+24	+31	+28
45-49	+30	+29	+30
50-54	+33	+28	+30
55-59	+37	+43	+40
60-64	+42	+53	+48
65-69	+46	+59	+52
70 +	+41	+66	+54
	Group averages		
Males			
0-14	-48	-20	-34
15-44	-27	-15	-21
45 +	+2	-10	-4
Females			
0-4	-44	-6	-25
15-44	+9	+22	+16
45 +	+38	+46	+42
Males plus females			
0-14	-92	-26	-59
15-44	-18	+7	-5
45 +	+40	+36	+38
Males minus females			
0-14	-4	-14	-9
15-44	-36	-37	-37
45 +	-36	-56	-46

LATIN AMERICA

Sex and age	Brazil 1960	Chile 1960	Colombia 1964	Costa Rica 1963	Cuba 1965	Dominican Republic 1960	Ecuador 1962
Males							
0-4	-20	-12	-12	-20	-34	-14	-7
5-9	-22	-21	-15	-14	-29	-19	-10
10-14	-20	-22	-11	-11	-17	-24	-2
15-19	-18	-17	-6	-10	-2	-11	+2
20-24	-3	-13	-3	-18	+18	+8	-10
25-29	+7	+1	-1	-9	+14	+4	-8
30-34	+19	+8	+1	+7	+8	+8	3
35-39	+10	+3	-11	+11	+4	+1	-2
40-44	+6	-1	-12	-8	-4	-9	-7
45-49	+3	-9	-17	-5	-12	-9	-5
50-54	+8	-11	-19	+2	-2	-19	-2
55-59	+10	-15	-13	+9	+8	-15	-12
60-64	+6	-22	-27	-4	+18	-39	-24
65-69	+14	-20	-13	+21	+18	-12	-3
70 +	+31	-27	-24	+18	+18	-47	-28
Females							
0-4	-16	-14	-11	-18	-34	-13	-4
5-9	-17	-12	-9	-13	-29	-12	-6
10-14	-8	+1	+6	-4	-15	-6	+14
15-19	+1	+20	+34	+29	+8	+22	+20
20-24	+14	+23	+26	+18	+16	+29	+9
25-29	+22	+24	+20	+22	+20	+34	+1
30-34	+29	+24	+20	+25	+24	+28	+8
35-39	+25	+16	+12	+23	+28	+30	+9
40-44	+25	+8	+12	+33	+32	+26	+12
45-49	+25	+13	+14	+29	+39	+37	+11
50-54	+29	+10	+17	+30	+43	+8	+3
55-59	+37	+13	+25	+47	+50	+37	+19
60-64	+37	+1	+22	+55	+56	+16	+4
65-69	+45	+27	+28	+42	+62	+38	+28
70 +	+71	+20	+21	+55	+66	+20	+8
Group averages							
Males							
0-14	-21	-18	-13	-15	-27	-19	-6
15-44	+2	-3	-5	-4	+6	0	-5
45 +	+12	-17	-19	+7	+8	-24	-16
Females							
0-14	-14	-8	-5	-12	-26	-10	+1
15-44	+19	+19	+21	+25	+21	+28	+10
45 +	+41	+14	+21	+43	+52	+26	+12
Males plus females							
0-14	-35	-26	-18	-27	-53	-29	-5
15-44	+21	+16	+16	+21	+27	+28	+5
45 +	+53	-3	-2	+50	+60	+2	-4
Males minus females							
0-14	-7	-10	-8	-3	-1	-9	-7
15-44	-17	-22	-26	-29	-15	-28	-15
45 +	-29	-31	-40	-36	-44	-50	-28

LATIN AMERICA (continued)

Sex and age	El Salvador 1961	Guatemala 1964	Guyana 1961	Honduras 1960	Jamaica 1960	Mexico 1960	Nicaragua 1963
Males							
0-4	-15	-13	-31	-14	-13	-5	-13
5-9	-15	-14	-28	-15	-32	-7	-14
10-14	-13	-13	-16	-10	-40	-10	-9
15-19	-6	-5	0	-5	-7	-9	-15
20-24	-6	-7	-1	+7	+31	-1	-22
25-29	0	-2	-2	+8	+39	-4	-16
30-34	-7	-2	0	+5	+28	0	-3
35-39	-6	-6	-3	-4	+15	+4	-15
40-44	-12	-8	+3	-3	0	+4	-13
45-49	-9	+2	+10	-2	-9	+2	-13
50-54	-3	+9	+23	-2	-20	+2	-7
55-59	-3	+18	+19	-5	-26	-2	+2
60-64	-9	-3	+31	-22	-35	-7	-13
65-69	0	+14	+23	-10	-27	-13	+4
70 +	+9	+8	+42	-2	-43	-17	+6
Females							
0-4	-14	-13	-30	-14	-12	-5	-11
5-9	-15	-8	-26	-10	-25	-5	-8
10-14	-4	+5	-13	+3	-25	-1	+8
15-19	+18	+16	+5	+17	+20	+6	+18
20-24	+16	+12	+9	+22	+46	+11	+14
25-29	+19	+7	+15	+17	+49	+8	+9
30-34	+15	+9	+19	+14	+38	+12	+22
35-39	+16	+14	+28	+15	+29	+16	+19
40-44	+17	+20	+40	+13	+16	+16	+19
45-49	+29	+28	+43	+21	+12	+16	+30
50-54	+39	+26	+58	+22	+3	+18	+36
55-59	+40	+35	+55	+24	+3	+20	+51
60-64	+36	+37	+59	+20	-8	+20	+45
65-69	+42	+51	+66	+32	-1	+22	+67
70 +	+66	+50	+94	+42	-20	+24	+77
	Group averages						
Males							
0-14	-14	-13	-25	-13	-28	-7	-12
15-44	-6	-5	0	+1	+18	-1	-14
45 +	-2	+8	+25	-7	-27	-6	-4
Females							
0-14	-6	-5	-23	-7	-21	-4	-4
15-44	+17	+13	+19	+16	+33	+12	+17
45 +	+42	+38	+62	+27	-2	+20	+58
Males plus females							
0-14	-20	-18	-48	-20	-49	-11	-16
15-44	+11	+8	+19	+17	+51	+11	+3
45 +	+40	+46	+87	+20	-29	+14	+47
Males minus females							
0-14	-8	-8	-2	-6	-7	-3	-8
15-44	-23	-18	-19	-15	-15	-13	-31
45 +	-44	-30	-37	-34	-35	-36	-55

LATIN AMERICA (continued)

Sex and age	Panama 1960	Paraguay 1962	Peru 1961	Puerto Rico 1960	Venezuela 1961	MEAN
Males						
0-4	-25	-23	-14	-12	-14	-16
5-9	-27	-19	-14	-24	-16	-19
10-14	-18	-6	0	-23	-16	-15
15-19	-7	+9	+15	-14	-3	-6
20-24	-10	+7	+22	+7	+20	+1
25-29	-9	-4	+13	+25	+23	+4
30-34	+7	+4	+16	+29	+29	+8
35-39	+13	-3	+6	+22	+18	+3
40-44	+17	+4	+5	+16	+1	-1
45-49	+15	+18	-1	+6	-4	-2
50-54	+7	+16	+5	+9	-15	-1
55-59	-5	+11	+4	+1	-27	-2
60-64	0	-14	-13	-3	-41	-12
65-69	+19	+8	-7	-9	-33	-1
70 +	+16	-1	-41	-9	-35	-7
Females						
0-4	-25	-32	-14	-19	-14	-16
5-9	-24	-22	-12	-22	-12	-15
10-14	-3	+1	+6	-19	+1	-3
15-19	+26	+21	+18	+2	+20	+17
20-24	+19	+20	+12	+20	+23	+19
25-29	+18	+8	+6	+29	+24	+19
30-34	+30	+11	+12	+33	+24	+21
35-39	+30	+10	+2	+26	+16	+19
40-44	+39	+10	0	+28	+8	+20
45-49	+43	+11	+1	+20	+13	+23
50-54	+34	+17	0	+31	+10	+23
55-59	+35	+17	+5	+31	+13	+29
60-64	+34	+14	-10	+28	+1	+25
65-69	+52	+25	-3	+26	+27	+36
70 +	+53	+10	-30	+42	+20	+36
Group averages						
Males						
0-14	-23	-16	-9	-20	-15	-17
15-44	+2	+3	+13	+14	+15	+2
45 +	+9	+6	-9	-1	-26	-4
Females						
0-14	-17	-28	-7	-20	-8	-11
15-44	+27	+13	+8	+23	+19	+19
45 +	+42	+16	-6	+30	+14	+29
Males plus females						
0-14	-40	-44	-16	-40	-23	-28
15-44	+29	+22	+21	+37	+34	+21
45 +	+51	+22	-15	+29	-12	+25
Males minus females						
0-14	-6	+12	-2	0	-7	-6
15-44	-25	-10	+5	-9	-4	-17
45 +	-33	-10	-3	-31	-40	-33

EUROPEAN OVERSEAS SETTLEMENT COUNTRIES

Sex and age	Australia 1961	Canada 1961	New Zeland 1961	U.S.A. 1960	MEAN
Males					
0-4	-20	-10	-36	-3	-17
5-9	-20	-19	-31	-13	-21
10-14	-5	-24	-10	-19	-14
15-19	-10	-29	-5	-24	-17
20-24	-15	+2	-9	-4	-6
25-29	-10	+20	-20	+10	0
30-34	-5	+21	-20	+9	+1
35-39	0	+16	-9	+10	+4
40-44	0	+6	-1	+4	+2
45-49	0	+2	+5	+1	+2
50-54	-5	-3	+15	+2	+2
55-59	-10	-10	+20	+5	+1
60-64	-5	-13	+25	-4	+1
65-69	0	-17	+31	-13	0
70 +	0	-20	+40	-27	-2
Females					
0-4	-20	-10	-36	-3	-17
5-9	-20	-18	-29	-11	-20
10-14	0	-23	-4	-16	-11
15-19	+24	-9	+9	-7	+4
20-24	+18	+32	+9	+20	+20
25-29	+6	+31	+15	+13	+16
30-34	+12	+29	-7	+14	+12
35-39	+18	+26	+3	+16	+16
40-44	+18	+19	+15	+13	+16
45-49	+18	+19	+28	+13	+20
50-54	+24	+19	+38	+16	+24
55-59	+24	+15	+46	+23	+27
60-64	+39	+15	+52	+14	+30
65-69	+46	+16	+64	+11	+34
70 +	+54	+21	+76	+4	+39
	Group averages				
Males					
0-14	-15	-18	-26	-12	-18
15-44	-7	+6	-11	+1	-3
45 +	-3	-10	+23	-6	+1
Females					
0-14	-13	-17	-23	-10	-16
15-44	+16	+21	+7	+12	+14
45 +	+34	+18	+51	+14	+29
Males plus females					
0-14	-28	-35	-49	-22	-34
15-44	+9	+27	-4	+13	+11
45 +	+31	+8	+74	+8	+30
Males minus females					
0-14	-2	-1	-3	-2	-2
15-44	-23	-15	-18	-11	-17
45 +	-37	-28	-28	-20	-28

WESTERN EUROPE

Sex and age	Austria	Denmark	France	Germany Fed.Rep.of	Ireland	Luxemburg	Netherlands
	1961	1965	1962	1961	1961	1960	1964
Males							
0-4	-60	-23	-2	-28	+16	+1	-14
5-9	-53	-32	-6	-29	0	-14	-14
10-14	-30	-27	-9	-18	-10	-12	-11
15-19	+4	-11	0	+11	-8	-3	-1
20-24	-5	+14	+4	+4	+18	0	-2
25-29	-19	+1	+14	-2	+16	+15	+1
30-34	-10	-17	+10	-2	+5	+14	+1
35-39	+6	-20	+4	+4	-5	+10	+6
40-44	+18	-11	+8	+27	-23	0	+10
45-49	+17	-2	+8	+25	-30	-3	+8
50-54	+18	+3	-6	+11	-29	-2	+5
55-59	+17	+11	-14	+5	-34	-6	+3
60-64	+19	+9	-20	+1	-39	-10	-2
65-69	+14	+12	-21	-3	-50	-24	-3
70 +	+10	+9	-35	-11	-66	-44	-15
Females							
0-4	-60	-22	-2	-28	+15	-3	-15
5-9	-53	-31	-6	-29	+3	-11	-13
10-14	-20	-26	-6	-17	-5	-11	-10
15-19	0	+7	+7	+19	+24	+9	+3
20-24	+2	+32	+26	+7	+64	+20	+9
25-29	-13	-2	+22	+2	+48	+21	+6
30-34	0	-14	+19	+3	+32	+14	+7
35-39	+14	-18	+17	+6	+19	+15	+12
40-44	+21	+6	+20	+15	+9	+3	+16
45-49	+21	+18	+16	+12	+5	+12	+15
50-54	+28	+25	+7	+14	+9	+11	+15
55-59	+31	+34	+1	+12	+5	0	+15
60-64	+32	+40	-6	+7	-5	-5	+14
65-69	+35	+45	-10	+7	-10	-14	+14
70 +	+41	+47	-19	+6	-17	-21	+9
	Group averages						
Males							
0-14	-48	-26	-5	-25	+2	-8	-13
15-44	-1	-7	+7	-7	0	+6	+5
45 +	+16	+7	-15	+5	-41	-15	-1
Females							
0-14	-44	-26	-5	-25	+4	-8	-13
15-44	+4	+2	+18	+9	+33	+14	+9
45 +	+31	+35	-2	+10	-2	-3	+14
Males plus females							
0-14	-92	-53	-11	-50	+6	-16	-26
15-44	+3	-5	+25	+16	+33	+20	+14
45 +	+47	+42	-17	+15	-43	-18	+13
Males minus females							
0-14	-4	-1	-1	0	-2	0	0
15-44	-5	-9	-11	-2	-33	-8	-4
45 +	-15	-28	-13	-5	-39	-12	-15

WESTERN EUROPE (continued)

Sex and age	Norway	Portugal	Spain	Sweden	Switzerland	United Kingdom	MEAN
	1960	1960	1960	1965	1960	1961	
Males							
0-4	-11	-31	+4	+29	-23	-5	-11
5-9	-18	-36	-5	+5	-33	-9	-19
10-14	-18	-25	-3	-10	-37	-9	-17
15-19	-16	-14	+1	-13	-16	-8	-6
20-24	-4	-4	+15	+10	+12	-5	+4
25-29	+5	+13	+1	+39	+18	-2	+8
30-34	+8	+17	+5	+29	+16	-5	+5
35-39	+8	+16	+4	+15	+9	-3	+4
40-44	+4	+11	+6	+7	+1	-1	+4
45-49	+1	+10	+8	-5	+1	0	+3
50-54	-1	+7	-1	-18	+4	+1	-1
55-59	-3	+4	-7	-30	+2	+2	-4
60-64	-7	0	-9	-45	-3	0	-8
65-69	-13	-5	-16	-55	-9	-5	-14
70 +	-36	-26	-30	-64	-19	-14	-26
Females							
0-4	-11	-30	+4	+31	-23	-4	-11
5-9	-17	-34	-3	+7	-31	-6	-17
10-14	-18	-20	-3	-8	-34	-6	-14
15-19	+7	0	+8	+8	-3	+4	+7
20-24	+32	+11	+15	+58	+20	+9	+23
25-29	+21	+20	+15	+58	+12	0	+16
30-34	+20	+25	+17	+37	+28	-2	+14
35-39	+18	+25	+18	+27	+18	+1	+13
40-44	+16	+22	+19	+18	+13	+4	+14
45-49	+16	+24	+16	+8	+15	+7	+14
50-54	+17	+20	+10	-2	+18	+8	+14
55-59	+23	+18	+7	-9	+15	+10	+12
60-64	+18	+18	+7	-18	+12	+9	+9
65-69	+12	+15	+4	-24	+13	+11	+8
70 +	-4	+11	+3	-24	+9	+10	+4
Group averages							
Males							
0-14	-16	-31	-1	+8	-31	-8	-16
15-44	+1	+6	+5	+14	+7	-4	+3
45 +	-10	-2	-9	-36	-4	-3	-8
Females							
0-14	-15	-28	-1	+10	-29	-5	-14
15-44	+19	+17	+15	+34	+15	+3	+14
45 +	+14	+18	+8	-12	+14	+9	+10
Males plus females							
0-14	-31	-59	-2	+18	-60	-13	-30
15-44	+20	+23	+20	+48	+22	-1	+17
45 +	+4	+16	-1	-48	+10	+6	+2
Males minus females							
0-14	-1	-3	0	-2	-2	-3	-2
15-44	-18	-11	-10	-20	-8	-7	-11
45 +	-24	-20	-17	-24	-18	-12	-18

EASTERN EUROPE

Sex and age	Albania 1955	Bulgaria 1966	Czechoslovakia 1961	Finland 1964	Greece 1961	Hungary 1963	Poland 1964
Males							
0-4	-6	-2	-14	+3	-28	-30	-24
5-9	-16	-4	-3	-20	-32	-21	-11
10-14	-29	-7	-4	-32	-10	-26	-11
15-19	+8	- 6	-7	-19	+13	+23	-8
20-24	+100	0	-23	+18	+50	+53	+19
25-29	+38	+61	-1	+27	+10	+4	+30
30-34	+44	+40	+13	+13	+12	+9	+25
35-39	+9	+39	+19	+1	+15	+1	+24
40-44	+6	+17	+18	-2	+16	+11	+11
45-49	-7	-1	+9	0	+11	+17	-3
50-54	-9	-21	+1	-7	+2	-1	-10
55-59	-18	-36	-7	-13	-2	-6	-19
60-64	-17	-48	-10	-19	-1	-8	-25
65-69	-34	-49	-19	-34	-9	-9	-30
70 +	-46	-41	-31	-54	-30	-18	-30
Females							
0-4	-5	-1	-14	0	-26	-30	-25
5-9	-15	-4	-3	-19	-32	-21	-13
10-14	-31	-6	-4	-31	-9	-29	-11
15-19	-16	-4	-5	-3	-1	+7	-3
20-24	+8	+28	-5	+53	0	+12	+31
25-29	+22	+75	+15	+44	+10	+1	+31
30-34	+19	+36	+20	+27	+19	+7	+24
35-39	-12	+23	+22	+15	+20	+8	+20
40-44	-7	+4	+18	+12	+20	+7	+10
45-49	-16	-11	+11	+13	+7	+14	+1
50-54	-10	-29	+5	+13	+3	+7	-1
55-59	-23	-41	0	+11	-3	+5	-3
60-64	-20	-46	-3	+6	-4	+5	-9
65-69	-15	-43	-9	0	-9	+8	-4
70 +	-30	-44	-11	-3	-18	+9	-3
	Group averages						
Males							
0-14	-17	-4	-7	-17	-22	-27	-16
15-44	+34	+25	+3	+13	+19	+17	+17
45 +	-22	-33	-10	-21	-5	-4	-20
Females							
0-14	-17	-4	-7	-17	-22	-27	-16
15-44	+2	+27	+11	+25	+11	+7	+20
45 +	-19	-36	-1	+6	-4	+8	-3
Males plus females							
0-14	-34	-8	-14	-33	-45	-53	-31
15-44	+36	+52	+14	+38	+30	+24	+37
45 +	-41	-69	-11	-15	-9	+4	-23
Males minus females							
0-14	0	0	0	+1	-1	-1	+1
15-44	+32	-2	-8	-12	+8	+10	-3
45 +	-3	+3	-9	-27	-1	-12	-17

EASTERN EUROPE (continued)

Sex and age	Romania 1965	USSR 1959	Yugoslavia 1961	MEAN
Males				
0-4	-28	-22	-21	-17
5-9	-37	-22	-10	-18
10-14	-34	-12	-13	-18
15-19	-39	+4	-7	-4
20-24	+3	+19	-6	+23
25-29	+50	+19	+25	+26
30-34	+44	+27	+24	+25
35-39	+32	+17	+25	+18
40-44	+18	+31	+23	+15
45-49	+28	+23	+14	+9
50-54	+18	+8	-7	-3
55-59	+6	-4	-19	-12
60-64	-8	-20	-22	-18
65-69	-12	-41	-22	-26
70 +	-22	-63	-28	-36
Females				
0-4	-28	-22	-21	-17
5-9	-38	-22	-11	-18
10-14	-34	-12	-12	-18
15-19	-35	+13	-7	-5
20-24	+15	+26	+9	+18
25-29	+32	+16	+19	+26
30-34	+26	+23	+24	+22
35-39	+26	+17	+25	+16
40-44	+19	+14	+11	+11
45-49	+21	+4	+5	+5
50-54	+5	0	-8	-2
55-59	0	-17	-13	-8
60-64	0	-20	-13	-10
65-69	-4	-28	-12	-12
70 +	-10	-39	-12	-16
Group averages				
Males				
0-14	-33	-19	-15	-18
15-44	+18	+20	+14	+17
45 +	+2	-16	-14	-14
Females				
0-14	-33	-19	-15	-18
15-44	+14	+18	+14	+14
45 +	+2	-17	-9	-7
Males plus females				
0-14	-66	-38	-30	-36
15-44	+32	+38	+28	+31
45 +	+4	-33	-23	-21
Males minus females				
0-14	0	0	0	0
15-44	+4	+2	0	+3
45 +	0	+1	-5	-7

EAST ASIA

Sex and age	Japan 1965	Korea 1960	Taiwan 1964	MEAN
Males				
0-4	+5	-11	-7	-4
5-9	-21	-4	-2	-9
10-14	-33	0	0	-11
15-19	+17	+21	-3	+12
20-24	+58	+1	-9	+17
25-29	+37	+3	-1	+13
30-34	+16	+20	+7	+14
35-39	+2	+22	+20	+15
40-44	-4	+12	+28	+12
45-49	-7	0	+19	+4
50-54	-8	-13	+10	-4
55-59	-15	-39	-2	-19
60-64	-23	-57	-6	-29
65-69	-31	-66	-15	-17
70 +	-46	-79	-27	-51
Females				
0-4	+5	-11	-9	-5
5-9	-22	-3	-4	-10
10-14	-34	+5	-1	-10
15-19	+13	+25	-3	+12
20-24	+38	+12	+5	+18
25-29	+29	+17	+10	+19
30-34	+14	+20	+10	+15
35-39	+1	+10	+10	+7
40-44	-5	-4	+7	-1
45-49	-9	-14	0	-8
50-54	-13	-26	-8	-16
55-59	-17	-34	-11	-21
60-64	-22	-39	-6	-22
65-69	-29	-40	-10	-26
70 +	-41	-44	-17	-34
	Group averages			
Males				
0-14	-16	-5	-3	-8
15-44	+21	+13	+7	+14
45 +	-22	-42	-4	-23
Females				
0-14	-17	-3	-5	-8
15-44	+15	+13	+6	+12
45 +	-22	-33	-9	-21
Males plus females				
0-14	-33	-8	-8	-16
15-44	+36	+26	+15	+26
45 +	-44	-75	-13	-44
Males minus females				
0-14	+1	-2	+2	0
15-44	+6	0	+3	+2
45 +	0	-9	+5	-2

SOUTH ASIA

Sex and Age	Burma 1953	Cambodia 1962	Ceylon 1963	India 1961	Indonesia 1961	Iran 1966	Pakistan 1961	MEAN
Males								
0-4	-22	+8	-16	-10	-6	-18	-12	-11
5-9	-18	+4	-17	-7	-16	-14	-18	-14
10-14	-9	-13	-5	+3	+9	+12	+12	+1
15-19	+10	-2	+19	+19	+30	+32	+30	+20
20-24	+13	+18	+30	+33	+40	+49	+48	+33
25-29	+31	+21	+26	+19	+8	+10	+27	+20
30-34	+27	+19	+24	+19	0	-2	+20	+15
35-39	+23	+7	+11	+17	0	-2	+14	+10
40-44	+20	+7	+18	+15	-8	-10	+15	+8
45-49	+17	-3	+8	+1	-17	+3	+4	+2
50-54	+13	-19	+10	-1	-21	+3	0	-2
55-59	+10	-39	+1	-8	-21	-9	-13	-11
60-64	+2	-47	-5	-15	-21	-6	-10	-15
65-69	-6	-66	-5	-19	-26	-13	-10	-21
70 +	-14	-57	-15	-26	-36	-22	-21	-27
Females								
0-4	-22	+7	-16	-13	-10	-15	-17	-14
5-9	-23	+2	-17	-8	-17	-12	-17	-13
10-14	-28	-4	-9	+2	+20	+15	+17	+2
15-19	+10	0	+4	+3	+24	+16	+6	+9
20-24	+13	+10	-2	+3	+14	+13	-1	+7
25-29	+6	+9	-7	-1	0	-4	-8	-1
30-34	+6	+3	-1	-4	-8	-7	-10	-3
35-39	+2	-8	-7	-8	-8	+6	-14	-5
40-44	+2	-10	+2	-12	-12	-11	-16	-8
45-49	-2	-21	-3	-19	-17	+13	-19	-10
50-54	+2	-17	+3	-16	-17	+11	-23	-8
55-59	+6	-34	-3	-23	-17	+9	-56	-17
60-64	+10	-29	+5	-19	-12	-2	-35	-12
65-69	+10	-36	+14	-25	-8	-9	-15	-10
70 +	+10	-17	-3	-25	-4	-18	-23	-11
	Group averages							
Males								
0-14	-16	0	-13	-5	-4	-7	-6	-7
15-44	+21	+12	+21	+20	+12	+13	+26	+18
45 +	+4	-38	-1	-11	-24	-7	-8	-12
Females								
0-14	-24	0	-14	-6	-2	-4	-6	-8
15-44	+6	+1	-2	-3	+2	+2	-7	0
45 +	+6	-26	+2	-21	-12	+1	-28	-11
Males plus females								
0-14	-40	0	-27	-11	-6	-11	-12	-15
15-44	+27	+13	+19	+17	+14	+15	+19	+18
45 +	+10	-64	+1	-32	-36	-6	-36	-23
Males minus females								
0-14	+8	0	+1	+1	-2	-3	0	+1
15-44	+15	+11	+23	+23	+10	+11	+33	+18
45 +	-2	-12	-3	+10	-12	-8	+20	-1

MIDDLE EAST

Sex and age	Egypt 1960	Iraq 1957	Jordan 1961	Libya 1964	Morocco 1960	Syria 1960	Turkey 1960	MEAN
Males								
0-4	0	-8	+4	+6	-11	-8	-35	-7
5-9	+2	-17	-5	-10	-21	-14	-18	-12
10-14	+2	+19	-4	-14	-2	-1	-14	-2
15-19	+1	+45	+13	+1	+16	+17	+31	+18
20-24	+7	+43	+35	15	+9	+18	+92	+31
25-29	+7	+26	+35	+18	+6	+23	+30	+21
30-34	+20	+5	+36	+22	+18	+15	+28	+21
35-39	+3	-9	+18	+12	+22	+10	+27	+12
40-44	+9	-12	+2	+10	+22	-3	+17	+6
45-49	-4	+17	-9	+2	+27	+12	+18	+9
50-54	0	+12	-18	-4	0	+5	0	-1
55-59	-8	+7	-23	-7	+ 2	+3	0	-1
60-64	-7	+2	-31	-15	-28	-14	-10	-15
65-69	-19	-19	-35	-35	-18	-7	+6	-18
70 +	-25	-41	-42	-54	-69	-39	+18	-37
Females								
0-4	-1	-10	+1	+7	-18	-7	-34	-9
5-9	+6	-17	-8	-5	-11	-7	-27	-10
10-14	+14	+5	-2	-6	+26	+4	-18	+3
15-19	+14	+24	0	+8	+34	+12	+1	+13
20-24	+14	+12	+4	+14	+11	+14	-1	+10
25-29	+2	+5	-1	0	0	0	-6	0
30-34	-4	-16	-6	-3	+6	+2	+2	-3
35-39	-11	-20	-12	-6	+18	-2	+14	-3
40-44	-19	-19	-24	-14	-4	-13	-6	-14
45-49	-22	+13	-18	-8	+20	+11	+14	+1
50-54	-20	+4	-17	-8	-11	+2	-9	-8
55-59	-28	-16	-13	-7	+36	+27	+17	+2
60-64	-30	-6	-22	-9	-28	-11	-13	-17
65-69	-42	-22	-21	-18	+18	+4	+6	-11
70 +	-36	-19	-31	-25	-22	-28	+18	-20
	Group averages							
Males								
0-14	+1	-2	-2	-6	-11	-8	-22	-7
15-44	+8	+16	+23	+15	+16	+13	+38	+17
45 +	-10	-4	-26	-19	-11	-7	+5	-10
Females								
0-14	+6	-7	-3	-1	-1	-3	-26	-5
15-44	-1	-2	-6	0	+11	+2	+1	+1
45 +	-30	-8	-20	-12	+2	+1	+6	-9
Males plus females								
0-14	+7	-9	-5	-7	-12	-11	-46	-12
15-44	+7	+14	+17	+15	+27	+15	+39	+18
45 +	-40	-12	-46	-31	-9	-6	+11	-19
Males minus females								
0-14	-6	+5	+1	-5	-10	-5	+4	-2
15-44	+9	+18	+29	+15	+5	+11	+37	+16
45 +	+20	+4	-6	-7	-13	-8	-1	-1

TROPICAL AFRICA

Sex and age	Chad 1963-64	Ghana 1960	Guinea 1955	Mali 1960-61	Nigeria 1963	Togo 1958-60	MEAN
Males							
0-4	-10	-12	-10	+5	-21	-19	-11
5-9	-19	-27	-20	-4	-25	-19	-19
10-14	+25	-15	+10	-10	-5	+34	+6
15-19	+43	+23	+15	-28	+21	+64	+23
20-24	+6	+47	+33	-16	+43	+36	+25
25-29	+19	+39	+41	0	+41	+15	+26
30-34	+13	+6	+14	+9	+25	-11	+9
40-44	+13	-6	+6	-5	+5	-17	-1
45-49	+3	-13	-10	+3	+10	-27	-6
50-54	-26	-23	-26	-17	-9	-23	-21
55-59	-42	-25	-23	-18	-4	-26	-23
60-64	-50	-47	-28	-24	-26	-44	-36
65-69	-41	-45	-28	-30	-20	-38	-34
70 +	-26	-53	-59	-44	-47	-80	-52
Females							
0-4	-12	-13	-10	+8	-23	-16	-11
5-9	-10	-9	-3	+4	-17	+2	-6
10-14	+23	+12	+14	-8	-3	+46	+14
15-19	+9	+18	+14	+22	-10	+40	+16
20-24	-2	+12	+6	+23	0	+9	+8
25-29	+9	-8	+5	+29	+7	+1	+7
30-34	+6	-10	-4	-10	-4	+6	-3
35-39	-5	-18	-10	+1	+5	-17	-7
40-44	-8	-25	-18	-24	-6	-19	-17
45-49	-30	-16	-26	-25	+5	-28	-20
50-54	-45	-18	-25	-22	-5	-17	-22
55-59	-19	-23	-31	-18	+4	-11	-16
60-64	-30	-23	-23	-7	-13	-20	-19
65-69	-24	-21	-7	+3	+1	-19	-11
70 +	-8	-15	-54	+8	-34	-12	-19
Group averages							
Males							
0-14	-1	-18	-7	-3	-8	-1	-6
15-44	+20	+21	+ 24	-7	+26	+18	+17
45 +	-30	-34	-29	-22	-16	-40	-29
Females							
0-14	0	-3	0	+1	-7	+11	0
15-44	+9	-5	- 1	+7	-1	+3	+2
45 +	-26	-19	-28	-10	-7	-18	-18
Males plus females							
0-14	-1	-21	-7	-2	-15	+10	-6
15-44	+29	+16	+23	0	+25	+21	+19
45 +	-56	-53	-57	-32	-23	-58	-47
Males minus females							
0-14	-1	-15	-7	-4	-1	-12	-6
15-44	+11	+26	+25	-14	+27	+15	+15
45 +	-4	-15	-1	-12	-9	-22	-11

SOUTHERN AFRICA

Sex and age	Namibia 1960	South Africa 1960	MEAN
Males			
0-4	-35	-31	-33
5-9	-23	-36	-30
10-14	-8	-33	-20
15-19	-13	+8	-2
20-24	+52	+68	+60
25-29	+86	+71	+78
30-34	+68	+65	+66
35-39	+55	+57	+56
40-44	+25	+46	+36
45-49	+24	+38	+31
50-54	+19	+22	+20
55-59	-5	+19	+7
60-64	-31	-10	-20
65-69	-58	-11	-34
70 +	-72	-16	-44
Females			
0-4	-28	-30	-29
5-9	-29	-33	-31
10-14	+4	-24	-10
15-19	-9	-12	-10
20-24	+2	+3	+2
25-29	-13	+7	-3
30-34	-11	+5	-3
35-39	-10	+7	-2
40-44	-8	-5	-6
45-49	+9	+11	+10
50-54	-7	-4	-6
55-59	-24	+4	-10
60-64	-39	+16	-12
65-69	-45	+1	-22
70 +	-67	-5	-36
	Group averages		
Males			
0-14	-22	-33	-28
15-44	+46	+52	+49
45 +	-20	+7	-7
Females			
0-14	-18	-29	-23
15-44	-8	+1	-4
45 +	-29	+4	-13
Males plus females			
0-14	-40	-62	-51
15-44	+38	+53	+45
45 +	-49	+11	-20
Males minus females			
0-14	-4	-4	-5
15-44	+54	+51	+53
45 +	+9	+3	+6

Figure I. Comparative regional patterns of urbanization by sex and age (continued)