

Table 19. Communications, information, and science and technology

Economy	Per 1,000 people						Internet hosts ^b Per 10,000 people January 2000	Scientists and engineers in R&D Per million people 1987-97 ^d	High-technology exports % of mfg. exports 1998	Patent applications filed ^c 1997	
	Daily newspapers	Radios	Television sets ^a	Telephone mainlines ^a	Mobile telephones ^a	Personal computers ^a				Residents	Nonresidents
	1996	1997	1998	1998	1998	1998					
Albania	36	217	109	31	1	..	0.24	..	1	..	26,005
Algeria	38	241	105	53	1	4.2	0.01	..	1	34	206
Angola	11	54	14	6	1	0.8	0.00	..	..	..	..
Argentina	123	681	289	203	78	44.3	38.48	660	5	824	5,035
Armenia	23	224	218	157	2	4.2	2.11	1,485	5	63	25,059
Australia	293	1,376	639	512	286	411.6	567.30	3,357	11	8,937	39,274
Austria	296	753	516	491	282	233.4	338.73	1,627	12	2,681	108,543
Azerbaijan	27	23	254	89	8	..	0.16	2,791	..	..	24,308
Bangladesh	9	50	6	3	1	..	0.00	52	0	70	156
Belarus	174	296	314	241	1	..	0.89	2,248	4	755	25,280
Belgium	160	793	510	500	173	286.0	313.44	2,272	8	1,687	84,958
Benin	2	108	10	7	1	0.9	0.04	176	..	..	..
Bolivia	55	675	116	69	27	7.5	1.14	172	8	17	106
Botswana	27	156	20	65	15	25.5	13.90	..	..	1	92
Brazil	40	444	316	121	47	30.1	26.22	168	9	36	31,947
Bulgaria	257	543	398	329	15	..	14.50	1,747	4	400	27,600
Burkina Faso	1	33	9	4	0	0.7	0.19	17	..	..	..
Burundi	3	71	4	3	0	..	0.00	33	..	1	4
Cambodia	2	127	123	2	6	0.9	0.13	..	..	..	..
Cameroon	7	163	32	5	0	..	0.00	..	2	..	..
Canada	159	1,077	715	634	176	330.0	540.17	2,719	15	4,192	50,254
Central African Republic	2	83	5	3	0	..	0.02	56	0	..	..
Chad	0	242	1	1	0	..	0.01	..	..	..	..
Chile	98	354	232	205	65	48.2	26.42	445	4	189	1,771
China	..	333	272	70	19	8.9	0.57	454	15	12,786	48,596
Hong Kong, China	792	684	431	558	475	254.2	162.82	..	21	26	2,359
Colombia	46	581	217	173	49	27.9	9.59	..	9	87	1,172
Congo, Dem. Rep.	3	375	135	0	0	..	0.00	..	..	2	27
Congo, Rep.	8	124	12	8	1	..	0.01	..	..	..	..
Costa Rica	94	271	387	172	28	39.1	20.47	532	13	..	..
Côte d'Ivoire	17	164	70	12	6	3.6	0.42	..	..	..	..
Croatia	115	336	272	348	41	111.6	31.65	1,916	8	273	439
Czech Republic	254	803	447	364	94	97.3	109.78	1,222	8	601	29,976
Denmark	309	1,141	585	660	364	377.4	631.80	3,259	18	2,658	106,403
Dominican Republic	52	178	95	93	31	..	7.89	..	1	..	..
Ecuador	70	419	293	78	25	18.5	1.52	146	4	8	302
Egypt, Arab Rep.	40	324	122	60	1	9.1	0.73	459	0	504	706
El Salvador	48	464	675	80	18	..	1.54	20	8	3	64
Eritrea	..	91	14	7	0	..	0.01	..	..	..	..
Estonia	174	693	480	343	170	34.4	206.81	2,017	9	18	26,626
Ethiopia	1	195	5	3	0	..	0.01	..	..	4 ^e	..
Finland	455	1,496	640	554	572	349.2	1,218.42	2,799	22	4,061	105,376
France	218	937	601	570	188	207.8	131.47	2,659	23	18,669	93,962
Georgia	..	555	473	115	11	..	1.71	..	..	285	26,561
Germany	311	948	580	567	170	304.7	207.62	2,831	14	62,052	113,543
Ghana	14	238	99	8	1	1.6	0.06	..	..	..	34,103
Greece	153	477	466	522	194	51.9	73.84	773	7	53	82,390
Guatemala	33	79	126	41	10	8.3	1.56	104	7	4	131
Guinea	..	47	41	5	3	2.6	0.00	..	..	..	..
Haiti	3	55	5	8	0	..	0.00	..	4	3	6
Honduras	55	386	90	38	5	7.6	0.18	..	1	10	126
Hungary	186	689	437	336	105	58.9	113.38	1,099	21	774	29,331
India	..	121	69	22	1	2.7	0.23	149	5	10,155 ^e	..
Indonesia	24	156	136	27	5	8.2	1.00	182	10	..	4,517
Iran, Islamic Rep.	28	265	157	112	6	31.9	0.09	560	..	418 ^e	..
Ireland	150	699	403	435	257	271.7	159.17	2,319	45	946	82,484
Israel	290	520	318	471	359	217.2	225.10	..	20	1,796	28,548
Italy	104	878	486	451	355	173.4	114.42	1,318	8	2,574	88,836
Jamaica	62	480	182	166	22	39.4	1.40	..	0	..	..
Japan	578	955	707	503	374	237.2	208.06	4,909	26	351,487	66,487
Jordan	58	287	52	86	12	8.7	1.27	94	..	..	..
Kazakhstan	..	384	231	104	2	..	2.45	..	9	1,171	24,998
Kenya	9	104	21	9	0	2.5	0.20	..	4	25	49,935
Korea, Rep.	393	1,033	346	433	302	156.8	60.03	2,193	27	92,798	37,184
Kuwait	374	660	491	236	138	104.9	20.50	230	0	..	..
Kyrgyz Republic	15	112	45	76	0	..	5.02	584	16	152	24,951
Lao PDR	4	143	4	6	1	1.1	0.00	..	..	..	..
Latvia	247	710	492	302	68	..	57.33	1,049	4	163	26,860
Lebanon	107	906	352	194	157	39.2	10.93	..	..	..	..
Lesotho	8	49	25	10	5	..	0.23	..	..	..	49,483
Lithuania	93	513	459	300	72	54.0	34.40	2,028	3	125	26,673
Macedonia, FYR	21	200	250	199	15	..	7.20	1,335	1	66	26,087
Madagascar	5	192	21	3	1	1.3	0.22	12	1	..	26,174
Malawi	3	249	2	3	1	..	0.00	..	..	2	49,932
Malaysia	158	420	166	198	99	58.6	25.43	93	54	179	6,272

STATES AND MARKETS

Economy	Per 1,000 people						Internet hosts ^b Per 10,000 people January 2000	Scientists and engineers in R&D Per million people 1987-97 ^d	High-technology exports % of mfg. exports 1998	Patent applications filed ^c 1997	
	Daily newspapers	Radios	Television sets ^a	Telephone mainlines ^a	Mobile telephones ^a	Personal computers ^a				Residents	Nonresidents
	1996	1997	1998	1998	1998	1998					
Mali	1	54	12	3	0	0.7	0.01	..	..	..	..
Mauritania	0	151	91	6	0	5.5	0.22	..	..	..	..
Mexico	97	325	261	104	35	47.0	40.88	214	19	429	35,503
Moldova	60	740	297	150	2	6.4	2.97	330	7	295	25,030
Mongolia	27	151	63	37	1	5.4	0.19	910	1	186	26,197
Morocco	26	241	160	54	4	2.5	0.33	..	0	90	237
Mozambique	3	40	5	4	0	1.6	0.09	..	6	..	..
Myanmar	10	95	7	5	0	..	0.00	..	..	..	..
Namibia	19	144	37	69	12	18.6	11.74	..	..	..	..
Nepal	11	38	6	8	0	..	0.12	..	..	..	..
Netherlands	306	978	543	593	213	317.6	517.03	2,219	30	5,227	85,402
New Zealand	216	990	508	479	203	282.1	703.33	1,663	..	1,735	33,402
Nicaragua	30	285	190	31	4	7.8	2.04	..	4	..	..
Niger	0	69	27	2	0	0.2	0.03	..	..	..	..
Nigeria	24	223	66	4	0	5.7	0.01	15	..	..	..
Norway	588	915	579	660	474	373.4	899.48	3,664	16	1,518	30,489
Pakistan	23	98	88	19	1	3.9	0.34	72	0	16	782
Panama	62	299	187	151	29	27.1	4.33	..	0	31	142
Papua New Guinea	15	97	24	11	1	..	0.70	..	..	..	..
Paraguay	43	182	101	55	41	9.6	3.02	..	2	..	..
Peru	0	273	144	67	30	18.1	3.60	233	3	48	756
Philippines	79	159	108	37	22	15.1	1.58	157	71	125	3,440
Poland	113	523	413	228	50	43.9	47.26	1,358	3	2,401	30,137
Portugal	75	304	542	413	309	81.3	90.67	1,182	4	92	106,595
Romania	300	319	233	162	29	10.2	11.02	1,387	2	1,709	27,346
Russian Federation	105	418	420	197	5	40.6	14.69	3,587	12	15,277	32,943
Rwanda	0	102	0	2	1	..	0.30	35	..	..	..
Saudi Arabia	57	321	262	143	31	49.6	1.28	..	1	57	1,001
Senegal	5	142	41	16	2	11.4	0.32	3	..	..	..
Sierra Leone	4	253	13	4	0	..	0.15	..	..	..	9,506
Singapore	360	822	348	562	346	458.4	452.25	2,318	59	8,188	29,467
Slovak Republic	185	580	402	286	87	65.1	47.96	1,866	3	234	27,973
Slovenia	199	406	356	375	84	250.9	103.71	2,251	4	285	27,162
South Africa	32	317	125	115	56	47.4	39.17	1,031	9	..	..
Spain	100	333	506	414	179	144.8	105.36	1,305	7	2,856	110,911
Sri Lanka	29	209	92	28	9	4.1	0.63	191	..	81	26,322
Sweden	445	932	531	674	464	361.4	670.83	3,826	20	7,893	107,107
Switzerland	337	1,000	535	675	235	421.8	429.01	3,006	16	5,814	107,038
Syrian Arab Republic	20	278	70	95	0	1.7	0.00	30	..	..	..
Tajikistan	20	142	285	37	0	..	0.35	666	..	23	24,742
Tanzania	4	279	21	4	1	1.6	0.06	..	0	..	..
Thailand	63	232	236	84	32	21.6	6.46	103	31	238	5,205
Togo	4	218	18	7	2	6.8	0.26	98	..	..	..
Tunisia	31	223	198	81	4	14.7	0.10	125	2	46	128
Turkey	111	180	286	254	53	23.2	13.92	291	2	233	27,985
Turkmenistan	..	276	201	82	1	..	0.92	..	..	52	24,584
Uganda	2	128	27	3	1	1.5	0.06	21	..	..	49,760
Ukraine	54	884	490	191	2	13.8	5.39	2,171	..	4,692	28,036
United Kingdom	329	1,436	645	557	252	263.0	321.39	2,448	28	26,591	121,618
United States	215	2,146	847	661	256	458.6	1,939.97	3,676	33	125,808	110,884
Uruguay	293	607	241	250	60	91.2	76.09	..	2	32	370
Uzbekistan	3	465	275	65	1	..	0.08	1,763	..	817	26,490
Venezuela, RB	206	468	185	117	87	43.0	5.91	209	3	201	2,323
Vietnam	4	107	47	26	2	6.4	0.02	..	..	30	27,410
Yemen, Rep.	15	64	29	13	1	1.2	0.02	..	..	..	..
Zambia	12	121	137	9	1	..	0.53	..	..	..	96
Zimbabwe	19	93	30	17	4	9.0	1.71	..	2	3	21,966
World	.. w	418 w	247 w	146 w	55 w	70.6 w	120.02 w	.. w	22 w	798,007 s	3,602,785 s
Low income	..	157	76	23	2	3.2	0.37	..	..	16,764	680,497
Middle income	..	359	257	109	31	22.9	9.96	668	18	133,150	784,961
Lower middle income	..	322	250	90	18	13.6	2.83	763	15	34,272	445,265
Upper middle income	89	493	285	176	76	53.1	35.88	660	20	98,878	339,696
Low and middle income	..	263	172	69	17	15.6	5.40	..	17	149,914	1,465,458
East Asia & Pacific	..	302	228	70	25	14.1	2.69	492	28	106,342	184,288
Europe & Central Asia	102	442	353	200	23	34.6	18.87	2,534	8	31,081	685,716
Latin America & Caribbean	71	420	255	123	45	33.9	22.33	..	12	1,708	175,004
Middle East & North Africa	33	274	135	81	8	9.9	0.55	..	1	509	1,207
South Asia	..	112	61	19	1	2.9	0.22	137	4	10,236	26,322
Sub-Saharan Africa	12	198	52	14	5	7.5	2.73	..	..	38	392,921
High income	286	1,286	661	567	265	311.2	777.22	3,166	33	648,093	2,137,327

Note: For data comparability and coverage, see the Technical Notes. Figures in italics are for years other than those specified.

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