

**Estimates of Infant Mortality
in Eight East Asian and Latin American Societies, 1900-2000**

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Web Appendix A2 to:

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Table 1: Mortality Underregistration in Latin America, 1986-2005

Country (ranked in order of overall mortality underregistration in 1996)	Overall mortality underreg. (percent)	Overall mortality underreg. (percent)	Overall mortality underreg. (percent)	Overall mortality underreg. (percent)	Overall mortality underreg. (percent)	Infant (0-1) mortality data complete-ness	Child (1-4) mortality data complete-ness	Birth data complete-ness
	1986	1990	1993	1996	2000-05	1985-90	1985-90	1985-90
USA	1.0	1.1	2.8	2.8	0.0	C	C	C
Uruguay	25.3	3.9	2.6	2.1	0.0	C	C	C
Argentina	9.3	8.1	8.2	4.4	0.0	C	IC	C
Mexico	15.5	14.3	7.5	7.2	0.8	VIC	IC	C
Cuba	1.5	0.0	0.0	0.1	1.7	C	C	C
Chile	12.5	9.4	0.0	0.1	3.6	C	IC	C
Costa Rica	5.0	5.0	0.0	0.1	7.1	C	C	C
Venezuela	18.5	18.5	3.7	3.7	13.0	IC	VIC	C
Ecuador	31.6	34.7	24.8	24.3	13.4	VIC	VIC	IC
Guatemala	18.1	7.2	2.5	5.8	14.3	IC	IC	C
Brazil	25.3	27.8	22.4	19.0	16.0	VIC	IC	C
Colombia	36.4	21.7	14.5	16.4	17.5	VIC	VIC	C
Panama	23.1	23.1	26.4	20.0	18.0	VIC	VIC	C
El Salvador	45.0	28.9	22.5	22.5	23.1	VVIC	VVIC	VIC
Paraguay	15.2	50.3	43.7	44.5	30.9	VVIC	VVIC	VVIC
Nicaragua	nd	53.4	44.8	56.0	40.4	VVIC	VVIC	IC
Peru	53.3	52.9	46.2	47.0	42.7	VVIC	VVIC	nd
Dominican Rep.	40.3	0.0	43.9	48.0	49.5	VVIC	VIC	nd
Bolivia	nd	nd	nd	nd	72.6	nd	nd	nd
Haiti	nd	nd	nd	nd	91.9	nd	nd	nd
Honduras	47.8	46.6	52.7	42.0	nd	VVIC	VIC	C

nd: no data.

Definitions: Overall mortality underregistration: percentage by which the estimated crude death rate per 1000 (calculated by the UN Population Division mostly from census and survey data) exceeded the official crude death rate per 1000 (according to national vital registration statistics reported to the Pan American Health Organization, PAHO) at a year close to the indicated year. Infant mortality, child mortality, and birth data completeness: codes are C (complete; underregistration 10 percent or less), IC (incomplete; underregistration between 10 and 20 percent), VIC (very incomplete; underregistration between 20 and 50 percent), and VVIC (very, very incomplete; underregistration more than 50 percent). The calculations compare estimates prepared by the Centro Latinoamericano y Caribeño de Demografía (CELADE), the Pan American Health Organization, and the Population Division of the United Nations to the average annual numbers of registered deaths of children under 1 year old and 1-4 years old, and of registered births, as reported to PAHO in 1985-1990.

Sources: Overall mortality underregistration: 1986: PAHO 1990: 37 (Brazil and Paraguay figures are for "information areas" within each country); 1990: PAHO 1994: 433; 1993: PAHO 1998b: 455; 1996: PAHO 1999; 2000-05: PAHO 2005 (figures for Dominican Republic, Guatemala, and Peru from 1995-2000). Completeness of infant mortality, child mortality, and birth registration: PAHO 1998b: 40.

Table 2: Costa Rica: Infant Mortality Estimates, 1960-2001

Source Note	Hill et al. 1999 multp 1	CIHI 1996 multp 2	CCP- UCR 2009 multp? 3	UN 1992 vit reg 4	Cens. 1973, indir. census 5	NFS 1976, indir. survey 6	CPS 1978, indir. survey 7	CPS 1981, direct survey 8	CPS 1981, indir. survey 9	Cens. 1984, indir. census 10	FHS 1986, indir. survey 11
1960	87	85	77.9	74							
1961			70.9	69							
1962			75.3	74							
1963			79.0	78							
1964			84.1	87	80						
1965	75	75	75.5	76							
1966			71.0	65							
1967			67.2	62	73	67					
1968			62.1	60			55				
1969			69.4	67	68						
1970	62	60	68.4	62		58					
1971			63.7	56	68		46		54		
1972			60.8	54		60					
1973			45.5	45			34				
1974			40.4	38		47			49		
1975	41	41	40.1	38			27			46	
1976			34.7	33				26	34		
1977			30.7	28				26		37	45
1978			23.6	22				18	36		
1979			23.7	22				18			30
1980	22	25	19.9	19						28	
1981			18.8	18							26
1982			19.4	19						23	
1983			18.8	19							20
1984			19.3	19							
1985	18	18	18.5	18							
1986			17.7	18							
1987			17.7	17							
1988			14.6	15							
1989			13.8	14							
1990	15	15	15.0								
1991			14.0								
1992			13.4								
1993			13.7								
1994			12.9								
1995	12	13	13.3								
1996			11.5								
1997			14.1								
1998			12.3								
1999			11.7								
2000			10.3								
2001			10.9								

2002	10.5
2003	10.1
2004	9.3
2005	9.8
2006	9.6

Notes to Table 2

1. Hill et al. 1999: 66. Estimated on the basis of the 1973 and 1984 censuses, the 1976 World Fertility Survey, the 1978 and 1981 Contraceptive Prevalence Surveys, the 1986 fertility and health surveys, and (since 1970) vital registration statistics. Pre-1970 vital registration statistics are too unreliable to use as a basis for estimation, according to Hill et al. The Hill et al. figure of 87 per 1000 for 1960 is strongly influenced by the 1973 census, which put the infant mortality rate at 91 per 1000 in 1959. This estimate, however, was based on responses to survivorship questions aged 40 and older, as was the estimate of 85 for 1962. Responses from women in these age groups are considered to be less reliable than estimates based on responses from younger women.
2. Centre for International Health Information 1996b. Original Source: United Nations, Department of International Economic and Social Affairs, World Population Prospects 1994 (Tape). New York, NY: United Nations, 1994.
3. CCP-UCR 2009. Original data: Instituto Nacional de Estadística y Censos and Centro Centroamericano de Población -- Universidad de Costa Rica (2008). "Estimaciones (1950-2007) y proyecciones (2008-2100) de la población de Costa Rica por sexo y edad. Actualización a 2008." San José, Costa Rica.
4. United Nations 1992: 94. Vital registration figures from various sources.
5. United Nations 1992: 95. Data are indirect estimates (West model) from 14-19 May 1973 census. Estimates based on 15-19 and 40+ year-olds omitted.
6. Hill et al. 1999b. Data are indirect estimates (West model) from July-December 1976 National Fertility Survey. Estimates based on 15-19 and 40+ year-olds omitted.
7. United Nations 1992: 95. Data are indirect estimates (West model) from March-May 1978 Contraceptive Prevalence Survey. Estimates based on 15-19 and 40+ year-olds omitted.
8. United Nations 1992: 96. Data are direct estimates from January-April 1981 Contraceptive Prevalence Survey. Estimates based on 15-19 and 40+ year-olds omitted.
9. United Nations 1992: 95. Data are indirect estimates (West model) from January-April 1981 Contraceptive Prevalence Survey. Estimates based on 15-19 and 40+ year-olds omitted.
10. United Nations 1992: 96. Data are indirect estimates (West model) from 11 June 1984 census. Estimates based on 15-19 and 40+ year-olds omitted.
11. United Nations 1992: 96. Data are indirect estimates (West model) from January-May 1986 Fertility and Health Survey. Estimates based on 15-19 and 40+ year-olds omitted.

Table 3: Chile: Mortality and Life Expectancy Estimates, 1960-2000

	IMR Hill et al. 1999	IMR BCC and INE	IMR Life Tables UN'92	IMR Cens 1970, UN'92	IMR Cens 1982, UN'92	IMR Cens 1992, Hill	Neonatal mortality rate	Post- neonatal mortality rate	Life expect- ancy at birth	Life expect- ancy at age 1	Maternal mortality rate
Source	multipl 1	vit reg	cens?	census	census	census	vit reg	vit reg	cens?	cens?	vit reg
Note	1	2	3	4	5	6	7	8	9	10	11
1960	118	119.5					34.5	85.0	58.1	64.9	275
1961		106.4	117				33.9	72.4	58.6	64.5	294
1962		109.2	117				33.5	75.7	59.1	65.3	260
1963		100.3					34.3	65.9	59.6	65.2	239
1964		103.7					34.3	69.4	60.1	66.0	238
1965	94	97.3		88			34.3	63.0	60.6	66.2	260
1966		98.5		83			35.2	63.3	61.2	66.9	230
1967		94.7					34.5	60.2	61.8	67.3	230
1968		87.0		87			32.5	54.5	62.4	67.3	210
1969		83.1					32.1	51.0	63.0	67.7	180
1970	78	82.2	82				31.7	50.5	63.6	68.2	180
1971		73.9	82				28.9	45.0	64.3	68.4	128
1972		72.7					29.4	43.3	65.0	69.1	114
1973		65.8			57		27.4	38.3	65.7	69.3	123
1974		65.2					26.1	39.1	66.5	70.1	119
1975	56	57.6			49		25.4	32.2	67.2	70.3	122
1976		56.6					24.1	32.5	68.0	71.0	105
1977		50.1					21.4	28.8	68.7	71.3	94
1978		40.1			46		18.7	21.4	69.5	71.4	74
1979		37.9			49		18.7	19.2	70.2	72.0	66
1980	34	33.0					16.7	16.3	71.0	72.4	55
1981		27.0	24				13.1	13.9	71.1	72.1	44
1982		23.6	24				11.8	11.8	71.2	71.9	52
1983		21.9	24			29	10.7	11.1	71.3	71.9	41
1984		19.6	24				9.2	10.3	71.4	71.8	35
1985	22	19.5	24			24	9.9	9.6	71.5	71.9	50
1986		19.1	24				9.7	9.4	71.6	72.0	47
1987		18.5					9.6	8.9	71.7	72.0	48
1988		18.9				21	9.5	9.4	71.8	72.2	41
1989		17.1					9.1	8.0	71.9		
1990	17	16.0				23	8.5	7.5	72.0		
1991		14.6					7.9	6.7	72.1		
1992		14.3					7.7	6.6			
1993		13.1					6.9	6.2			
1994		12.0					6.1	5.9			
1995	11	11.1					6.1	5.0			
1996		11.1					6.3	4.8			
1997		10.0					5.7	4.3			
1998		10.3					6.0	4.3			
1999		10.1					5.9	4.2			
2000		8.9					5.6	3.3			

2001	8.3
2002	7.8
2003	7.8
2004	8.4
2005	7.9

Notes to Table 3

1. Hill et al. 1999: 56. Estimated on the basis of vital registration statistics, national life tables, and the censuses of 1970, 1982, and 1992.
2. 1960-1988: Chile. Banco Central de Chile 1989: 428. 1989: Mesa-Lago (2000), 161. 1990-2005: Chile. Ministerio de Salud 2008.
3. Based on national life tables. United Nations 1992: 76. Some of the original sources pertain to 1960-61 and 1969-70; hence the first two figures at least are probably based on census data.
4. United Nations 1992: 77. Data are indirect estimates (Chilean model) from the 22 April 1970 census. Estimates based on 15-19 year-olds omitted; no estimates for women 35 or above.
5. United Nations 1992: 77. Data are indirect estimates (Chilean model) from the 21 April 1982 census. Estimates based on 15-19 year-olds omitted; no estimates for women 35 or above.
6. Hill et al. 1999. Data are indirect estimates (North model) from 1992 census. Estimates based on 15-19 and 40+ year-olds omitted.
7. Neonatal mortality rate (deaths in the first 28 days of life per 1000 live births). Based on vital registration statistics. 1960-1979: Chile. Banco Central de Chile 1989: 428. 1980-2000: Chile. INE 2002: 57. The two series overlap from 1970 to 1988 and are identical.
8. Postneonatal mortality rate (deaths between 29 and 365 days of life per 1000 live births). Based on vital registration statistics. 1960-1979: Chile. Banco Central de Chile 1989: 428. 1980-2000: annual figure in Column 2 minus annual figure in Column 7.
9. Life expectancy at birth. Based on vital registration statistics. 1960-1988: Chile. Banco Central de Chile 1989: 405. 1989-1991: Mesa-Lago 2000: 161-162.
10. Life expectancy at age 1. Based on vital registration statistics. Chile. Banco Central de Chile 1989: 405. Data for 1988 are provisional.
11. Maternal mortality ratio (maternal deaths per 100,000 live births). Based on vital registration statistics. Chile. Banco Central de Chile 1989: 421. Data for 1988 are provisional.

Table 4: Argentina: Infant Mortality Estimates, 1960-1999

	Hill et al. 1999	US Census	ECLA	Nqn 2001	MdeS 2007	Prov. vit. reg.	Life tables	Census 1970	Census 1980
Source	various	various	various	vital reg	vital reg	vital reg	census?	census	census
Note	1	2	3	4	5	6	7	8	9
1960	60			62.4			58		
1961				59.1			58		
1962				58.8					
1963				61.8					
1964				58.3				54	
1965	56			56.9					38
1966				55.3				51	
1967				55.2					
1968				59.9				59	38
1969				52.5			60		
1970	57			61.2			60		
1971				62.2			60		35
1972				57.2					
1973				55.4					35
1974				49.3					
1975	46			43.2					
1976			40.5	44.4		46.9			36
1977			40.5	44.6		44.8			
1978			40.5	40.8		38.8			42
1979			40.5	35.4		35.3	36		
1980	33	32.9	40.5	33.2	33.2	33.5	36		
1981		33.4	36.0	33.6	33.6	31.4	36		
1982		31.1	36.0	30.5	30.5				
1983		30.5	36.0	29.7	29.7				
1984		30.4	36.0	30.4	30.4				
1985	25	27.0	36.0	26.2	26.2				
1986		27.7	32.2	26.9	26.9				
1987		26.6	32.2	26.6	26.6				
1988		26.2	32.2	25.8	25.8				
1989		25.6	32.2	25.7	25.7				
1990	24	26.0	32.2	25.6	25.6				
1991		24.8	28.8	24.7	24.7				
1992		23.8	28.8	23.9	23.9				
1993		23.1	28.8	22.9	22.9				
1994		22.2	28.8	22.0	22.0				
1995	23	22.1	28.8	22.2	22.2				
1996				20.9	20.9				
1997				18.8	18.8				
1998				19.1	19.1				
1999				17.6	17.6				
2000					16.6				

2001	16.3
2002	16.8
2003	16.5
2004	14.4
2005	13.3
2006	12.9

Notes to Table 4

1. Hill et al. 1999: 32. Based on knotted regression line fitted to estimates from vital registries, national life tables, the 1970 census, and the 1991 census.
2. United States. Bureau of the Census 2000. "Combines data from country sources (especially censuses and surveys) with the Census Bureau's International Programs Center's estimates and projections."
3. Lloyd-Sherlock 1997a: 30. Original data: UN Economic Commission on Latin America. Estimates for 1975-1980, 1980-1985, 1985-1990, 1990-1995.
4. Neuquén. SS/MDS 2000a. Based on vital registration statistics. Series identical in all but a few years to vital registration series for shorter periods in Argentina. MSPyMA 1983: 67-93; United Nations 1992: 34; and United Nations 2000.
5. Argentina. Ministerio de Salud (2007).
6. Mychaszula and Acosta 1990: 7. Data from monographs on vital statistics in each province.
7. United Nations 1992: 35. Based on national life tables. Estimates for 1959-1961; 1969-1971; 1979-1981.
8. United Nations 1992: 35. Data are indirect estimates (East model) from the 30 September 1970 census. All estimates from women aged 20-35. Original data from Schkolnik 1975: 23.
9. United Nations 1992: 35. Data are indirect estimates (East model) from the 22 October 1980 census that "appear to be flawed, possibly because of high levels of non-response combined with computerized imputation" (United Nations 1992: 34). Estimates based on 15-19 and 40+ year-olds omitted.

Table 5: Brazil: Infant Mortality Estimates, 1960-2000

	Hill et al. 1999	Becker and Lechtig 1986	CELADE 1998	United Nations 1992	US Census Bureau 2000	IBGE 1998	Simões et al. 1989	United Nations 1992	Mini- stério da Saúde 2001	Mini- stério da Saúde 2001
Source	Census Survey	Census	Census Survey Vital reg.	Survey	Census Survey Other	Census Survey	Survey, Vital reg.	Vital reg.	Survey?	Survey, Vital reg.
Note	1	2	3	4	5	6	7	8	9	10
1960	115	121	109		116					
1961			109							
1962			109	114						
1963			109	109						
1964			109	107						
1965	107		100	109						
1966			100	104						
1967			100	104						
1968			100	103						
1969			100	94						
1970	95	114	91	99	98					
1971			91	96	96					
1972			91	89	94					
1973			91	84	92					
1974			91	92	90					
1975	82		79	81	88					
1976			79	89	85					
1977			79		83					
1978			79	70	80					
1979			70		78					
1980	67	81	64	64	75	80				
1981			64		73	77	75			
1982			64	63	71	74	68			
1983			64		68	70	65	57		
1984			64	59	66	67	67	61		
1985	61		55		64	64	66	49		
1986			55		61	61	58	47		
1987			55		59	57	53	45		
1988			55		56	54	51	41		
1989			55		53	51		40	52	
1990	50		47		51	47		39	49	48
1991			47		48	44			47	45
1992			47		47	43			45	43
1993			47		46	43			43	41
1994			47		45	42			41	38
1995	41				44	41			39	37
1996	39								38	35
1997									37	33
1998									36	32
1999										31
2000										30

Notes to Table 5

1. Hill et al. 1999: 34. Based on knotted regression line fitted to estimates from PNAD surveys from 1972 to 1986, DHS surveys from 1986 and 1996, and censuses of 1970 and 1980.
2. Becker and Lechtig 1986: 21. Indirect estimates from census data.
3. CELADE 1998: 19. Figures for 1962 and 1967 from PAHO 1998b: 29, which draws on CELADE, Demographic Bulletin 58, 1996. Estimates are for five-year periods (1960-65, 1965-70,...1990-95) and are based on census, survey, and vital registration data.
4. United Nations 1992: 57-60. Based on PNAD surveys of 1972, 1973, 1976, 1977, 1978, 1984, and 1986. When surveys produced differing estimates for the same reference year, the mean of the estimates is recorded. Estimates based on interviews with mothers aged 15 to 19 are excluded from the data set.
5. United States. Bureau of the Census 2000. "Combines data from country sources (especially censuses and surveys) with the Census Bureau's International Programs Center's estimates and projections."
6. Brasil. IBGE 1998: 2.27. Based on census, population enumeration, and PNAD survey data.
7. Simões et al. 1989: 32. Based on vital registration statistics corrected for underreporting of both births and deaths using region-specific correction factors derived from PNAD survey estimates.
8. United Nations 1994: Table 19. Excludes "Indian jungle population" (?!). Based on vital registration statistics from IBGE, which are known to suffer from underreporting of infant deaths.
9. Brasil. Ministério da Saúde 2001. Source reports only that "data were estimated on the basis of indirect demographic methods."
10. Brasil. IBGE (2003). Censo Demográfico 2000 - Fecundidade Mortalidade. Tabela 3 - Taxas de mortalidade infantil, segundo as Grandes Regiões - 1990-2000.

Table 6a: Taiwan: Infant Mortality Estimates, 1940-1960

	IMR UNDY, uncorr. vital reg.	IMR DGBAS uncorr. vital reg.	IMR Barclay corr. vital reg.	IMR Mirzae e census, corr. vit. reg.	IMR Mirzae e life tab. West model	IMR Mirzae e life tab. North model	IMR Chow & Hsu "field studies"
Note	1	2	3	4	5	6	7
1940	136			128			
1941	123						
1942	126						
1943	125						
1944							
1945							
1946							
1947	77		179				
1948	57		115				
1949	48		123				
1950	35	40	110	60	105	91	
1951	35	40	100				
1952	35	37					
1953	34	36					
1954	30	32					
1955	34	37		58	71	66	
1956	33	36					
1957	36	37					
1958	35	38					51
1959	33	36					
1960	31	32		54	56	53	

Sources

1. 1940-50: United Nations 1952: 322-323; figures exclude "tribal aborigines." 1951: United Nations 1953. 1952-1960: United Nations 1962. These figures, by all accounts, suffer from underregistration.
2. Taiwan. DGBAS 1975: 36. These figures, by all accounts, suffer from underregistration.
3. Barclay 1954b: 27. Based on registered births, the registered number of children aged less than one at the end of the calendar year, and the share of infants born in the calendar year who are expected to die in the next calendar year before reaching age 1. Barclay regards these estimates as "lower limits."
4. Mirzaee 1979: 230-33. 1940 figure estimated from census data, 1950, 1955, 1960 figures from vital registration data, corrected for presumed underreporting of neonatal mortality with a method devised by Sullivan (1972).
- 5, 6. Mirzaee 1979: 35. Derived using specified life table from life expectancy at birth in the specified year. Simple mean of male and female rates. Source of life expectancy estimate not provided.
7. Chow and Hsu 1960: 23. Based on "recent field studies" (recent in 1960) by JCRR and Department of Civil Affairs. Mean of "field studies" in three townships.

Table 6b: Taiwan: Infant Mortality Estimates, 1960-2006

Source	DGBAS Vital reg.	Mirzaee Correcte d vital reg.	Sullivan Correcte d vital reg.	Wen Survey	US Cens Various
Note	1	2	3	4	5
1960	32.4	54			
1961	32.7		55.2		
1962	31.3		51.7		
1963	28.4		48.7		
1964	25.5		45.6		
1965	23.7	44	43.5		
1966	22.1		39.3		
1967	21.1		41.0		
1968	21.3		38.7		
1969	19.5				
1970	17.4	35			
1971	16.0				
1972	16.4				
1973	16.2				
1974	14.1				
1975	13.9	29			
1976	12.9				
1977	12.4				
1978	11.3				
1979	11.0				
1980	11.0				
1981	10.1				
1982	9.0				
1983	8.3				
1984	7.6				
1985	7.4				
1986	6.6				
1987	5.6				
1988	6.2				
1989	6.1			10.2	
1990	5.9				18.5
1991	5.4				14.9
1992	5.6				11.9
1993	5.3				9.5
1994	5.7				8.7
1995	7.4				8.3
1996	7.5			8.0	7.9
1997	7.1				7.5
1998	7.1				7.3
1999	7.2				7.2
2000	7.0				7.0

2001	6.3
2002	5.9
2003	5.3
2004	5.9
2005	5.5
2006	5.5

Notes to Table 6b

1. Data for 1960 to 1970 from Taiwan. DGBAS 1975: 36; data for 1971-1976 from Taiwan. DGBAS 2001: 28; Data for 1977-2006 from Taiwan. DGBAS 2007: 28. Vital registration data in Taiwan are widely regarded as suffering from severe underregistration (Sullivan 1972, Mirzaee 1979: 29-35), estimated in the 1980s to be 70 percent one study (Chen et al. 1998: 291) and 46-96 percent in another (Wen, Tsai, and Tsai 1992: 223). Two other studies reported in Knöbel, Yang, and Ho (1994: 818-19) found that "the real infant mortality is twice the figure reported officially." The Taiwanese government recognized that infant deaths were underreported prior to 1994, and attributes the apparent rise in the infant mortality rate from 1994 to 1995 to "the implementation of a more efficient and accurate birth [sic?] registration system," with the result that "the discrepancy has now been corrected" (Taiwan. GIO 2000).
2. Mirzaee 1979: 233-240. Based on vital registration statistics corrected for presumed underreporting of neonatal deaths and misclassification of infant deaths as deaths of children 1 year of age, according to a method developed by Sullivan (1972) that is described in Web Appendix A1, p. 22.
3. Sullivan 1972: 35. Based on vital registration statistics corrected for underreporting of neonatal deaths and misclassification of infant deaths as deaths of children 1 year of age. Correction method described in Web Appendix A1, p. 22.
4. Wen et al. 2002: 149. 1989 figure based on 15-17 May 1989 survey of 1637 women and 1646 live births throughout Taiwan, equal to about 93 percent of all live births during the survey period (Chen et al. 1998: 291). 1996 figure based on 12-16 February 1996 survey of 3,623 women throughout Taiwan (Wen et al. 2002: 149).
5. United States. Bureau of the Census (2002). "Combines data from country sources (especially censuses and surveys) with IPC's [Census Bureau, International Programs Center] estimates and projections."

Table 7: South Korea: Infant Mortality Estimates, 1960-2000

Source	Hill et al. 1999 Census Survey	UNDP 1998 Un- known	OECD 2002 Un- known	Koo 1998 Un- known	US Census Various	WB 2001 Various	UNDY 2000 Various	Census '70-'85 Census	KNFS Survey	MoHW Survey
Note	1	2	3	4	5	6	7	8	9	10
1960	90	69		71		82			58	
1961				71					54	
1962				71		70			55	
1963				71			70		53	
1964				71				68	54	
1965	64	62		59		63			51	
1966				59				54	50	
1967				59		58			49	
1968				59			58	44	49	
1969				59				40	48	
1970	43	53	45	40		46			45	
1971				40				34	38	
1972				40		38			33	
1973				40			38	25		
1974				40				25		
1975	24	41		32		33				
1976				32				21		
1977				32		30				
1978				32			30	15		
1979				32				16		
1980	16	17	17	24		26		15		
1981				24				11		
1982				24		23				
1983				24			23	8		
1984				24				8		
1985	11	13		15		18				
1986				15						
1987				15		14				
1988				15			14			
1989				15						
1990	8	13	12	11	10	12				
1991				11	10					
1992				11	10	11				
1993				11	9		11			10
1994				11	9					
1995	6	10		9	9	10				
1996			8	9	8					
1997				9	8	9				
1998				9	8					
1999				9	8	8				
2000					8					

Notes to Table 7

1. Hill et al. 1999: 34. Based on knotted regression line fitted to estimates from 1978-79 life tables; indirect estimates (West model) from censuses of 1970, 1975, 1980, and 1985; 1971 Fertility-Abortion Survey; 1974 Korean National Fertility Survey; and 1988 "Special Survey." The indirect estimates from surveys and censuses on which Hill et al.'s figures are based are derived in part from interviews with women aged 15-19 and 40+. The Hill et al. estimate for 1960 reflects interviews with women aged 40+ from the 1970 census and the 1974 Korean National Fertility Survey, which are excluded from subsequent columns.
2. UNDP-Korea 1998: Chapter 6, Table 6.10.
3. OECD 2002. Original Source: OECD. OECD Health Data. Paris: OECD, 2001.
4. Koo 1998: 244. Primary source reported to be the South Korean Health Ministry.
5. United States. Bureau of the Census (2002). "Combines data from country sources (especially censuses and surveys) with IPC's [Census Bureau, International Programs Center] estimates and projections."
6. World Bank (2001). World Development Indicators on CD-ROM. Washington, DC: World Bank.
7. United Nations (2000). Estimates prepared by the Population Division of the United Nations. Basis unknown.
8. United Nations 1992: 286-287. Estimates from censuses of 1970, 1975, 1980, and 1985. Indirect estimates, West model. Figures based on survey responses of 15-19 and 40+ year-olds excluded (thus all based on interviews with women aged 20-39). Figures for 1969 and 1974 represent the mean of two estimates, one from each of two consecutive censuses.
9. Korean National Fertility Survey. Direct estimates as reported in Kwon 1986: 13.
10. KIHSWA 2002. Based on a survey reported in Korea, Republic of, Ministry of Health and Welfare and Korea Institute for Health and Social Affairs (1996). Infant Mortality Rate and Causes of Death of 1993 Birth Cohort in Korea.

Table 8a: Thailand: Infant Mortality, 1960-2000: Various Sources

Sour.	Hill et al. 1999 Var.	UN WPP 1994 Var.	WHO SEA 2001 Var.	WB HNP Var.	WB WTab 1991 Var.	US Cens. Var.	Thai Cens. 1970 Cens.	Thai Cens. 1980 Cens.	Kan- chan. 1987 Vit Rg	UN SYAP 1996 Vit Rg	Thai SY 2001 Vit Rg
Type											
Note	1	2	3	4	5	6	7	8	9	10	11
1960	103	103							48.9		
1961									51.0		
1962							98		44.7		
1963									37.9		
1964							87		37.8		
1965	86	90							31.2		
1966							78	69	33.5	34	
1967							67		27.9	28	
1968			84						26.5	27	
1969					76.4		71	63	26.2	26	
1970	74	75		73	72.6				25.5	26	
1971					68.8			57	22.5	23	
1972				65	65.0				27.0	27	
1973			65		61.7				25.7	22	
1974					58.3			52	26.1		
1975	62	61		60	55.0				26.0		
1976					54.0			47	25.5	26	
1977				56	53.0				16.2	16	
1978			56		50.0			44	16.6	17	
1979					47.0				14.2	14	
1980	45	50		49	44.0				13.3	13	
1981					41.0				12.5	13	
1982				44	38.0				12.4	12	
1983			44		36.6				12.4	12	
1984					35.1					11	
1985	36	42		42	33.7						
1986					32.2					10	
1987				41	30.8					11	
1988			39		29.8					9	
1989				39	28.8					9	
1990	34	38		37		43				8	
1991				35		42				8	
1992				34		41				8	
1993			32			38				7	
1994						37					
1995	32	35		31		36				7	
1996	31					35					6
1997				29							4
1998			30								5
1999				28							7
2000											6

Table 8b: Thailand: Infant Mortality, 1960-2000: Survey Data

	Surv. Pop Chg	Surv. Pop Chg '65, '74	Surv. Pop Chg '74-6	Surv. Fertil '75 indir.	Surv. Fertil '75 direct	Contr Prev. Surv. 1981	Contr Prev. Surv. 1984	Surv. Pop Chg '85-6	DHS 1987	DHS 1987 direct	DHS 1987 indir.	Surv. Pop Chg '89 indir.
Note	12	13	14	15	16	17	18	19	20	21	22	23
1960												
1961				98								
1962			102									
1963					91							
1964	84.3	84	92	108								
1965												
1966												
1967			80	82								
1968					83							
1969			76	83		95						
1970												
1971			64	72				73				
1972						90	86					
1973			64	70	65						72	
1974						70		63	55	55		
1975	51.8	56					66					61
1976						68					65	
1977						60	63	56				57
1978											52	
1979						51	49	47	41	41		
1980							50					43
1981							41				47	
1982								40		35		
1983								34			33	42
1984												
1985									35		41	31
1986	40.7											
1987												29
1988												
1989	38.8											
1990												
1991	34.5											
1992												
1993												
1994												
1995	26.1											
1996												
1997												
1998												
1999												
2000												

Notes to Tables 8a and 8b

1. Hill et al. 1999: 192.
2. Centre for International Health Information 1996a. Original Source: United Nations, Department of International Economic and Social Affairs, World Population Prospects 1994 (Tape). New York, NY: United Nations, 1994.
3. WHOSEA 2001. "1968"=1965-1970, "1972"=1970-1975, and so on. Original source: United Nations, Department of International Economic and Social Affairs, World Population Prospects, 1996 Revision. New York, NY: United Nations, 1996.
4. World Bank 2001/02.
5. Kiranandana and Tontisirin 1992: 20. Original source either World Bank, World Tables, 1990-1991 (Washington, DC: World Bank) or Kiranandana, T., et al. (1989), "Mortality and Morbidity Profiles of the Thai Population." Bangkok: Chulalongkorn University [in Thai].
6. United States. Bureau of the Census 2002.
7. United Nations 1992: 318. Indirect estimates based on "West" model. Estimates from 15-19 year olds and from 40+ year olds omitted.
8. United Nations 1992: 320. Indirect estimates based on "West" model. Estimates from 15-19 year olds omitted.
9. Kanchanaraksa 1987: 15 (Table 2.15).
10. United Nations (1976, 1986-87, 1996). 1985 figure given as "10.8/9.5." Figure for 1995 from UNDP-Thailand (1999), Statistical Annex Table 3. The "Introduction to Statistical Annex" pages of UNDP-Thailand (1999) notes that the IMR given in Table 4, Col. 3 for Whole Kingdom and Bangkok is for 1995, even though the IMRs for the individual changwats are for 1997.
11. Thailand. NSO 2001. Population and Labor Statistics, Table 1.40.
12. Thailand. NSO 2002a: Table 4. "1965"=1964-65; "1975"=1974-76. The 1964-65 survey excluded the Bangkok-Thonburi metropolis.
13. Knodel and Chamratrithirong 1978. Original data from Surveys of Population Change. "1965"=1964-65; "1975"=1974-76. The 1964-65 survey excluded the Bangkok-Thonburi metropolis.
- 14-19. United Nations 1992: 319-321. Indirect estimates based on "West" model. Estimates from 15-19 year olds omitted.
20. Tsuya et al 1993: 317. Original data from Thailand Demographic and Health Survey of 1987. "1974"=1972-76; "1979"=1977-81; "1985"=1982-87.
21. United Nations 1992: 321. Direct estimates. "1974"=1972-76; "1979"=1977-81; "1985"=1982-87.
- 22-23. United Nations 1992: 321. Indirect estimates based on "West" model. Estimates from 15-19 year olds omitted.

Table 9: Indonesia: Infant Mortality, 1960-2000

	Hill et al. 1999	UN WPP 1994	WB CD 2001	WB Nehru	Fertility survey 1976	DHS surveys	UN '92, 1971 census	UN '92, 1980 census	UN '92, 1990 census
Source Note	Various 1	Various 2	Various 3	Various 4	Survey 5	Survey 6	Census 7	Census 7	Census 8
1960	128		138		117				
1961					108				
1962		133	133		150				
1963					119		126		
1964					112				
1965	121		128		115		126		
1966					112				
1967		124	124		103		128		
1968					96				
1969					106		159		
1970	104		118		81				
1971					84				
1972		114	114		92			98	
1973					105				
1974					96			96	
1975	94		109						
1976								95	
1977		105	105						
1978								101	
1979									
1980	79		90						
1981									
1982		90	80						74
1983									
1984									66
1985	70		75			70			
1986									67
1987		75	72						
1988									74
1989									
1990	62		60	64					
1991									
1992			55			57			
1993				58					
1994									
1995	50		46			46			
1996	48			56					
1997			44						
1998									
1999			42	46					
2000				44					

Notes to Table 9

1. Hill et al. (1999). Derived from the under-5 mortality rate using the Coale-Demeny "north" family of models. Based on United Nations 1992: 158. Estimates in this publication draw on indirect estimates from the September 1971 census (40-44 yr-old women, reference date March 1960, north model, IMR was 129, u5MR 219), and on direct estimates from the Indonesia Fertility Survey of April-May 1976, which gave a figure of 121 for IMR and 208 for u5mr for 1961-66.
2. Macro International (1999). Original data from United Nations, World Population Prospects. "1962"=1960-65, "1967"=1965-70, "1987"=1985-90, and so on.
3. World Bank 2001.
4. Nehru (2001). Statistical Annex, Table 1. Original data from Central Bureau of Statistics.
5. Direct estimates. NRC 1987: 33. Figures are for Java and Bali only, but the source asserts that the figures for these islands are about same as those for Indonesia as a whole. The data are taken from pregnancy histories. Original source: B. Suprptilah (1982), Evaluation of the Indonesian Fertility Survey 1976. World Fertility Survey Scientific Report No. 38. London: World Fertility Survey. Rates for 1955-59 are 118, 153, 118, 120, and 112 per 1000 respectively.
6. Direct (?) estimates. "1985" (=1982-87): Macro International 1989: 292; "1992" (=1990-94): Macro International 1996: 122; "1995" (=1992-97): Macro International 1999: 257.
7. Indirect estimates based on "North" model. Estimates derived from 15-19 year olds and from 40+ year olds omitted. United Nations (1992): 158-59.
8. Indirect estimates. Hill et al. 1999b.

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