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ABSTRACTS

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International Migration 1965-96: An Overview

HANIA ZLOTNIK

The task of providing an overview of levels of and trends in international migration is complicated by two well-known facts: (1) many countries either lack a system for the continuous registration of international migration or, if they have such a system, do not process and publish the data emanating from it; and (2) among those countries that do produce statistics on international migration, the meaning and scope of those statistics vary considerably. The problems of international migration statistics have been discussed in depth elsewhere (see, for instance, International Migration Review 1987 or Bilsborrow et al. 1997) and are not the main topic of this article. Nevertheless, these problems are largely responsible for the fact that some relatively straightforward questions, such as: “How many people migrate internationally every year?” or “How many international migrants are there?” can at best be answered tentatively.

Furthermore, because the statistical information available is often partial and context-dependent, it provides a poor basis for answering other more insightful questions about the nature of international migration. It is not surprising, therefore, that several of the claims being made about the evolution of migration and its changing characteristics depend on weak statistical evidence or do not rely on statistics at all. This article presents and discusses the available statistical evidence to answer a few key questions about the evolution of international migration during the last third of the twentieth century. It also includes an overview of the main changes that have taken place since 1990.

International migration at the global level

It is common wisdom among those who study international migration that the late twentieth century is “the age of migration” (see, for instance, Castles and Miller 1996). It is also recognized, however, that international migration remains an “exceptional” phenomenon within a world that is orga-
nized into mutually exclusive and legally sovereign states that impose bar-
rriers to international mobility in general and to international migration in particular (Zolberg 1981). Those focusing on the process of globalization note that although there has been a tendency to free the flows of goods and capital, there has been no parallel trend at the global level to free the flows of people. Yet, since 1960, several key countries have liberalized their immigration policies and have thus permitted the legal admission of mi-
grants who had not been welcome before. Furthermore, within the Euro-
pean Union, one of the major trading blocs in the world, freedom of move-
ment, a key aspiration from the moment the European Community was
created, became a reality in 1992. Parallel to these changes, the commer-
cial airplane has made the transportation of people from one corner of the
world to the other faster and cheaper than ever before. If only because of
these changes, one would expect international migration to have increased
significantly. Has it done so? How can we measure the changes that have
taken place? How can the significance of any change be assessed?

To answer these questions, one should ideally be able to count the
number of persons who qualify as international migrants and migrate dur-
ing a given year. That group would include both people who depart from
their country of origin (or citizenship) to reside in another country and
those who return to their country of origin after residing abroad. That is,
from the perspective of any single country, inflows of both foreigners al-
lowed to reside in the country and citizens returning from a period of resi-
dence abroad should be counted. In practice, only a handful of countries
regularly gather such data and, consequently, the estimation of interna-
tional migration at the global level is not possible. However, one can ob-
tain an indication of the residual effect of inflows and outflows by consid-
ering the stock of international migrants present in all countries at a given
time. If all persons worldwide could be canvassed approximately at the
same time and each one could be asked to report whether he or she had
resided in a different country one year before, the resulting number of those
who had lived abroad would be a good approximation to the number of
international migrants in a year. Censuses sometimes gather information
of that type but they are more consistent in obtaining information on the
place of birth of each person enumerated, thus allowing the identification
of the foreign-born. Using such information as a starting point, the United
Nations has estimated the stock of international migrants in each country
of the world at particular points in time (see Table 1).

The migrant stock was estimated for the 218 countries or territories
constituting the world in 1985. For 143 of them (two-thirds) the data used
as the basis for estimation were the number of foreign-born persons enu-
merated by censuses; for a further 40 countries or areas the data obtained
by censuses referred to the number of foreigners (non-nationals); and for
27 countries or areas no relevant data could be found and the estimates
**TABLE 1  Migrant stock by region and as a percentage of region’s total population; growth rate of migrant stock by region; and migrant stock by region as a percentage of migrant stock world total, 1965, 1975, 1985, and 1990**

<table>
<thead>
<tr>
<th>Region</th>
<th>Estimated foreign-born population</th>
<th>As a percentage of total population of region</th>
<th>Annual rate of change (percent)</th>
<th>As a percentage of migrant stock world total</th>
</tr>
</thead>
<tbody>
<tr>
<td>World total</td>
<td>75,214</td>
<td>84,494</td>
<td>105,194</td>
<td>119,761</td>
</tr>
<tr>
<td>Developed countries</td>
<td>30,401</td>
<td>38,317</td>
<td>47,991</td>
<td>54,231</td>
</tr>
<tr>
<td>Developing countries</td>
<td>44,813</td>
<td>46,177</td>
<td>57,203</td>
<td>65,530</td>
</tr>
<tr>
<td>Africa</td>
<td>7,952</td>
<td>11,178</td>
<td>12,527</td>
<td>15,631</td>
</tr>
<tr>
<td>Northern Africa</td>
<td>1,016</td>
<td>1,080</td>
<td>2,219</td>
<td>1,982</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>6,936</td>
<td>10,099</td>
<td>13,649</td>
<td>2.9</td>
</tr>
<tr>
<td>Asia</td>
<td>31,429</td>
<td>29,662</td>
<td>38,731</td>
<td>43,018</td>
</tr>
<tr>
<td>Eastern and South-eastern Asia</td>
<td>8,136</td>
<td>7,723</td>
<td>7,678</td>
<td>7,931</td>
</tr>
<tr>
<td>China</td>
<td>266</td>
<td>305</td>
<td>331</td>
<td>346</td>
</tr>
<tr>
<td>Other Eastern and South-eastern Asia</td>
<td>7,870</td>
<td>7,419</td>
<td>7,347</td>
<td>7,586</td>
</tr>
<tr>
<td>South-central Asia(^a)</td>
<td>18,610</td>
<td>15,565</td>
<td>19,243</td>
<td>20,782</td>
</tr>
<tr>
<td>Western Asia</td>
<td>4,683</td>
<td>6,374</td>
<td>11,810</td>
<td>14,304</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>5,907</td>
<td>5,788</td>
<td>6,410</td>
<td>7,475</td>
</tr>
<tr>
<td>Caribbean</td>
<td>532</td>
<td>665</td>
<td>832</td>
<td>959</td>
</tr>
<tr>
<td>Central America(^b)</td>
<td>445</td>
<td>427</td>
<td>948</td>
<td>2,047</td>
</tr>
<tr>
<td>South America</td>
<td>4,930</td>
<td>4,695</td>
<td>4,629</td>
<td>4,469</td>
</tr>
<tr>
<td>Northern America</td>
<td>12,695</td>
<td>15,042</td>
<td>20,460</td>
<td>23,895</td>
</tr>
<tr>
<td>Europe and former Soviet Union</td>
<td>14,728</td>
<td>19,504</td>
<td>22,959</td>
<td>25,068</td>
</tr>
<tr>
<td>Western Europe</td>
<td>11,753</td>
<td>16,961</td>
<td>20,590</td>
<td>22,853</td>
</tr>
<tr>
<td>Eastern Europe(^c)</td>
<td>2,835</td>
<td>2,394</td>
<td>2,213</td>
<td>2,055</td>
</tr>
<tr>
<td>Former Soviet Union</td>
<td>140</td>
<td>148</td>
<td>156</td>
<td>159</td>
</tr>
<tr>
<td>Oceania</td>
<td>2,502</td>
<td>3,319</td>
<td>4,106</td>
<td>4,675</td>
</tr>
</tbody>
</table>

\(^a\) Excluding Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan.  
\(^b\) Including Mexico.  
\(^c\) Albania, Bulgaria, the former Czechoslovakia, the former German Democratic Republic, Hungary, Poland, Romania, and the former Yugoslavia.  

produced had to be imputed. In addition, for the 78 developing countries hosting refugees during the relevant period, the number of refugees was added to the estimate of the foreign or foreign-born population obtained from censuses. These 78 countries include eight for which no census information was available and where only the refugee data were used to estimate the migrant stock.

The estimates obtained indicate that the migrant stock increased from 75 million persons in 1965 to 120 million in 1990, implying a growth rate of 1.9 percent per year, slightly above the rate of 1.8 percent per annum at which the total population of the world was growing during the same period (United Nations 1996a and 1996b). Another point of comparison is provided by the increase in the overall number of annual international arrivals of tourists, as estimated by the World Tourism Organization (1994), which rose from 69 million in 1960 to 454 million in 1990, implying a growth rate of 6.3 percent per year. Although the nature of the estimates involved is quite different, as an indicator of the increasing dynamism of international mobility the rapid growth in the number of tourist arrivals sets a useful reference for the growth of the migrant stock and suggests that the growth of the latter has been on the low side. Yet, whereas the growth rate of the number of tourist arrivals has been decelerating (declining from 8.3 percent per annum in 1960–70 to 4.6 percent per year in 1980–90), the growth of the migrant stock has been accelerating, reaching a rate of 2.6 percent per year in 1985–90; this acceleration is likely to have continued into the 1990s, especially because of the effects that the disintegration of the former Soviet Union has had on the stock of international migrants at the world level. Indeed, because migrants are identified in terms of their place of birth, the division of any state into smaller independent entities converts many internal migrants into international ones, and the volume of internal migration, even within states in which internal migration has been restricted, is considerably higher than that of international migration. Thus, in 1981 India alone had a stock of internal migrants (that is, persons living in an administrative unit other than the one in which they were born) amounting to 200 million persons, whereas the world’s stock of international migrants at the time was in the neighborhood of 95 million.

These comparisons suggest that neither the level nor the trends experienced by international migration have been striking. If there are reasons to call the end of the twentieth century “the age of migration,” it is necessary to look for them elsewhere. An analysis of the distribution of countries and territories according to different indicators of international migration can be enlightening. For each distribution considered, Table 2 presents five statistical parameters that are indicative of its shape. Focusing first on the two distributions of countries and territories by the number
of international migrants in each, it is clear that there has been an upward
shift of the distribution between 1965 and 1990 so that, whereas in 1965
three-quarters of all countries had at least 6,300 migrants, by 1990 the
lower quartile had risen to 10,200. More importantly, the median had more
than doubled, and the interquartile range had increased markedly (by 87
percent), implying that the variation among countries in terms of the num-
ber of international migrants they were hosting had risen. Similar changes
are noticeable regarding the distribution of countries or areas according to
migrants as a percentage of the total population: the median percentage
increased by 24 percent between 1965 and 1990 and the interquartile range
expanded by 58 percent. Finally, a comparison of the distributions accord-
ing to the percentage of women among the international migrant stock
reveals that, with the exception of the upper bound of the distribution,
there has been a modest increase in all other parameters. The moderate
size of the increase recorded implies that, although the participation of
women in international migration has been rising, already by 1965 they
accounted for high proportions of the number of international migrants in
most countries of the world. Thus, in three-quarters of all countries the
proportion of female migrants was at least 42.8 percent. By 1990, the lower
quartile of the distribution had risen to 44.9 percent and although women
still accounted for less than half of the migrant stock in more than half of
the countries and territories of the world, in more than a quarter of them
females outnumbered males among international migrants. At the global
level, the proportion of females in the world’s migrant stock increased from
46.6 percent in 1965 to 47.7 percent in 1990.

In other words, in terms of both the number of international migrants
and their share of the total population, countries have become more di-
verse since 1965 and the number hosting either sizable migrant popula-

---

### TABLE 2 Parameters indicating the shape of the distribution of countries and
areas of the world according to different indicators of the prevalence of
international migration, 1965 and 1990

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Number of migrants (thousands)</th>
<th>Percentage of migrants in the population</th>
<th>Growth rate of the migrant stock (percentage)</th>
<th>Percentage female among migrants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1965</td>
<td>1990</td>
<td>1965–90</td>
<td>1965</td>
</tr>
<tr>
<td></td>
<td>1990</td>
<td></td>
<td></td>
<td>1990</td>
</tr>
<tr>
<td>Upper bound</td>
<td>9,681.5</td>
<td>19,602.7</td>
<td>84.7</td>
<td>81.2</td>
</tr>
<tr>
<td>Upper quartile</td>
<td>191.9</td>
<td>357.8</td>
<td>8.9</td>
<td>49.7</td>
</tr>
<tr>
<td>Median</td>
<td>30.8</td>
<td>64.7</td>
<td>3.3</td>
<td>46.2</td>
</tr>
<tr>
<td>Lower quartile</td>
<td>6.3</td>
<td>10.2</td>
<td>1.1</td>
<td>42.8</td>
</tr>
<tr>
<td>Lower bound</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>10.3</td>
</tr>
</tbody>
</table>

tions (of over 300,000) or migrant populations representing a significant proportion of the total (above 15 percent) has increased. In 1965 there were 41 countries with a migrant population greater than 309,000 and they all qualified as statistical outliers. By 1990 that number had risen to 63, but only 42 qualified as statistical outliers by hosting more than 586,000 migrants each. Similarly, 34 countries were identified as outliers in 1965 because international migrants accounted for over 15 percent of their population but by 1990 the equivalent number had risen to 52, only 39 of which were the new outliers with over 22.5 percent of their population as foreign-born. Another noteworthy change is that, whereas in 1965 the 44 countries with the largest numbers of international migrants accounted for 90 percent of the migrant stock worldwide, by 1990 the same percentage was concentrated in 55 countries. More countries had thus become important destinations of international migrants and have been attracting significant numbers of migrants, whether in absolute or in relative terms.

This finding is not equivalent, however, to the claim that more countries have become “receivers” of international migrants. In fact, all countries or areas of the world have been the destination of some migration during this century. The era of rapid and universal transportation has left no country untouched and international migrants can be found everywhere. Nevertheless, the number of countries participating actively in the exchange of people has indeed been growing. In that exchange, the participation of women has increased, although not as markedly as is sometimes suggested since, in most countries, female migrants already constituted a fairly high proportion of the migrant stock in 1965. At the global level, therefore, the changes taking place appear either as an intensification of tendencies that were already noticeable in the 1960s or as a move toward greater diversification. The latter is suggestive of the growing variety of countries in terms of level of development, stage in the nation-building process, and degree of integration into the global economy and is likely to be related to such diversification.

Skeldon (1997), for instance, has characterized migration in terms of countries belonging to different tiers, where the tiers are defined by level of development and role in the global economy. He defines the core tier as comprising the market-economy countries that, as a group, occupy a dominant position in world production and trade and that have been or have become key destinations of international migrants, particularly during the late twentieth century. As Table 1 indicates, both Northern America and Western Europe experienced high rates of growth of the migrant stock during 1965–90 (of at least 2.5 percent per year). In addition, taken as whole, the market-economy industrialized countries of the West have absorbed a disproportionate share of the migrant stock of the world, and the rising trend in their migrant share has contrasted with the declining trend in their
share of the global population. Thus, whereas in 1965 the West (defined as Western Europe, Northern America, Australia, and New Zealand) accounted for 16.5 percent of the world's population and hosted 35.7 percent of the migrant stock, by 1990 it hosted 42.7 percent of the migrant stock while its share of the world's population had fallen to 12.8 percent. These opposing trends implied that the foreign-born population in the West as a proportion of the total population in the region increased from 4.9 percent in 1965 to 7.6 percent in 1990. Thus, as the twentieth century draws to a close, one in every 13 persons living in the West is an international migrant. As a consequence of these facts, the international migration experience of countries of the West not only exerts considerable weight on global trends but is also instrumental in influencing general perceptions about migration.

The experience of the West

Countries of the West have better sources of international migration statistics than other regions of the world. In particular, several of them have flow statistics allowing the estimation of migration trends over relatively lengthy periods. The available data are not fully comparable between countries, however. Among the traditional countries of immigration, Canada and the United States produce information only on “immigrants,” that is, foreigners granted permission to reside permanently in the country. Australia publishes data on both the inflow and the outflow of “settlers” and thus permits the calculation of net migration. European countries, lacking the practice of admitting persons for permanent settlement, tend to produce statistics on the inflows of persons admitted for lengthy periods, many of whom are likely to leave within a few years and be counted as outflows. Therefore, to make those data more comparable with the information on permanent settlers gathered by the traditional countries of immigration, figures on net migration should be used.

Table 3 presents time series estimates of the average annual number of immigrants or of net migration, as the case may be, for eight countries: the United States, Canada, Australia, Belgium, Germany, the Netherlands, Sweden, and the United Kingdom. The overall average number of migrants by five-year period is presented in conjunction with three of its components: migrants originating in developing countries, migrants originating in other developed countries, and, among the latter, those from Eastern European countries (including the former Soviet Union). For countries having information on the inflows and outflows of their own citizens (that is, for Belgium, Germany, the Netherlands, and Sweden), the net migration of citizens is presented separately. It should also be noted that countries vary according to the criterion used to define origin. For Australia, Canada, the United Kingdom, and the United States origin is the country of birth;
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Immigrants to the United States</td>
<td>283,803</td>
<td>358,947</td>
<td>384,683</td>
<td>459,541</td>
<td>565,007</td>
<td>605,674</td>
<td>769,832</td>
<td>813,730</td>
</tr>
<tr>
<td>From developing countries</td>
<td>118,851</td>
<td>200,539</td>
<td>271,684</td>
<td>371,612</td>
<td>481,115</td>
<td>523,047</td>
<td>608,142</td>
<td>653,518</td>
</tr>
<tr>
<td>From developed countries</td>
<td>164,951</td>
<td>158,409</td>
<td>112,999</td>
<td>87,929</td>
<td>83,892</td>
<td>82,626</td>
<td>161,690</td>
<td>160,212</td>
</tr>
<tr>
<td>Of which, from Eastern Europe</td>
<td>20,880</td>
<td>21,197</td>
<td>17,991</td>
<td>16,143</td>
<td>22,204</td>
<td>22,625</td>
<td>84,692</td>
<td>97,648</td>
</tr>
<tr>
<td>Immigrants to Canada</td>
<td>88,008</td>
<td>181,976</td>
<td>158,857</td>
<td>130,127</td>
<td>114,056</td>
<td>137,910</td>
<td>235,509</td>
<td>..</td>
</tr>
<tr>
<td>From developing countries</td>
<td>10,857</td>
<td>38,027</td>
<td>67,439</td>
<td>72,299</td>
<td>70,868</td>
<td>97,683</td>
<td>184,547</td>
<td>..</td>
</tr>
<tr>
<td>From developed countries</td>
<td>77,151</td>
<td>143,950</td>
<td>91,418</td>
<td>57,828</td>
<td>43,187</td>
<td>50,962</td>
<td>50,962</td>
<td>..</td>
</tr>
<tr>
<td>Of which, from Eastern Europe</td>
<td>7,157</td>
<td>13,314</td>
<td>8,344</td>
<td>6,123</td>
<td>9,664</td>
<td>13,885</td>
<td>97,648</td>
<td>..</td>
</tr>
<tr>
<td>Net migration to Australia</td>
<td>103,132</td>
<td>134,214</td>
<td>94,521</td>
<td>54,473</td>
<td>79,385</td>
<td>114,056</td>
<td>235,509</td>
<td>..</td>
</tr>
<tr>
<td>From developing countries</td>
<td>7,298</td>
<td>17,008</td>
<td>26,113</td>
<td>29,239</td>
<td>37,725</td>
<td>63,585</td>
<td>101,550</td>
<td>..</td>
</tr>
<tr>
<td>From developed countries</td>
<td>95,834</td>
<td>117,207</td>
<td>68,408</td>
<td>25,234</td>
<td>41,660</td>
<td>50,962</td>
<td>50,962</td>
<td>..</td>
</tr>
<tr>
<td>Of which, from Eastern Europe</td>
<td>7,154</td>
<td>14,671</td>
<td>10,914</td>
<td>3,062</td>
<td>6,015</td>
<td>7,695</td>
<td>6,950</td>
<td>..</td>
</tr>
<tr>
<td>Net migration to Belgium</td>
<td>33,785</td>
<td>24,080</td>
<td>17,073</td>
<td>5,281</td>
<td>–10,801</td>
<td>–1,700</td>
<td>26,992</td>
<td>25,877</td>
</tr>
<tr>
<td>From developing countries</td>
<td>12,108</td>
<td>7,793</td>
<td>8,884</td>
<td>9,500</td>
<td>–130</td>
<td>7,594</td>
<td>29,269</td>
<td>30,707</td>
</tr>
<tr>
<td>From developed countries</td>
<td>21,809</td>
<td>19,807</td>
<td>11,857</td>
<td>519</td>
<td>–4,519</td>
<td>3,199</td>
<td>15,755</td>
<td>18,464</td>
</tr>
<tr>
<td>Of which, from Eastern Europe</td>
<td>1,972</td>
<td>2,126</td>
<td>1,603</td>
<td>523</td>
<td>300</td>
<td>776</td>
<td>3,129</td>
<td>3,952</td>
</tr>
<tr>
<td>Net migration to Germany</td>
<td>197,449</td>
<td>306,211</td>
<td>54,473</td>
<td>79,385</td>
<td>101,550</td>
<td>64,044</td>
<td>102,030</td>
<td>..</td>
</tr>
<tr>
<td>From developing countries</td>
<td>200,191</td>
<td>297,040</td>
<td>32,370</td>
<td>29,194</td>
<td>184,476</td>
<td>364,266</td>
<td>225,260</td>
<td>..</td>
</tr>
<tr>
<td>From developed countries</td>
<td>49,783</td>
<td>135,239</td>
<td>33,901</td>
<td>–10,437</td>
<td>68,425</td>
<td>100,419</td>
<td>70,099</td>
<td>..</td>
</tr>
<tr>
<td>Of which, from Eastern Europe</td>
<td>69,470</td>
<td>63,298</td>
<td>13,785</td>
<td>13,237</td>
<td>94,913</td>
<td>231,871</td>
<td>117,982</td>
<td>..</td>
</tr>
<tr>
<td>German citizens</td>
<td>–2,742</td>
<td>9,171</td>
<td>38,722</td>
<td>32,234</td>
<td>189,134</td>
<td>281,806</td>
<td>172,675</td>
<td>..</td>
</tr>
<tr>
<td>Net migration to the Netherlands</td>
<td>6,528</td>
<td>27,961</td>
<td>32,166</td>
<td>17,457</td>
<td>35,079</td>
<td>55,621</td>
<td>38,101</td>
<td>..</td>
</tr>
<tr>
<td>From developing countries</td>
<td>11,777</td>
<td>16,828</td>
<td>24,011</td>
<td>127</td>
<td>22,638</td>
<td>34,390</td>
<td>50,036</td>
<td>..</td>
</tr>
<tr>
<td>From developed countries</td>
<td>5,360</td>
<td>10,665</td>
<td>13,543</td>
<td>11,043</td>
<td>18,751</td>
<td>26,037</td>
<td>40,219</td>
<td>39,264</td>
</tr>
<tr>
<td>Of which, from Eastern Europe</td>
<td>0</td>
<td>657</td>
<td>2,036</td>
<td>274</td>
<td>487</td>
<td>2,112</td>
<td>9,703</td>
<td>6,196</td>
</tr>
<tr>
<td>Dutch citizens</td>
<td>–5,249</td>
<td>–6,149</td>
<td>3,950</td>
<td>32,039</td>
<td>–10,671</td>
<td>688</td>
<td>–3,381</td>
<td>–11,935</td>
</tr>
<tr>
<td>Net migration to Sweden</td>
<td>14,000</td>
<td>25,562</td>
<td>7,644</td>
<td>17,472</td>
<td>4,816</td>
<td>24,418</td>
<td>32,479</td>
<td>8,957</td>
</tr>
<tr>
<td>From developing countries</td>
<td>269</td>
<td>865</td>
<td>1,572</td>
<td>6,896</td>
<td>7,129</td>
<td>17,996</td>
<td>17,331</td>
<td>6,813</td>
</tr>
<tr>
<td>From developed countries</td>
<td>13,731</td>
<td>24,698</td>
<td>6,072</td>
<td>10,575</td>
<td>–2,313</td>
<td>6,422</td>
<td>15,148</td>
<td>2,144</td>
</tr>
<tr>
<td>Of which, from Eastern Europe</td>
<td>398</td>
<td>4,623</td>
<td>3,606</td>
<td>1,663</td>
<td>2,217</td>
<td>2,911</td>
<td>15,866</td>
<td>5,379</td>
</tr>
<tr>
<td>Swedish citizens</td>
<td>–1,321</td>
<td>–2,258</td>
<td>–4,229</td>
<td>–1,457</td>
<td>–3,310</td>
<td>–2,873</td>
<td>–5,796</td>
<td>–8,807</td>
</tr>
<tr>
<td>Net migration to the United Kingdom</td>
<td>–77,520</td>
<td>–50,400</td>
<td>–21,100</td>
<td>–27,580</td>
<td>24,160</td>
<td>22,380</td>
<td>53,900</td>
<td>..</td>
</tr>
<tr>
<td>From developing countries</td>
<td>–28,860</td>
<td>15,040</td>
<td>21,920</td>
<td>11,600</td>
<td>37,820</td>
<td>28,120</td>
<td>37,100</td>
<td>..</td>
</tr>
<tr>
<td>From developed countries</td>
<td>–106,460</td>
<td>–65,460</td>
<td>–13,200</td>
<td>–13,700</td>
<td>15,148</td>
<td>2,144</td>
<td>16,500</td>
<td>..</td>
</tr>
<tr>
<td>Of which, from Europe</td>
<td>–8,680</td>
<td>–5,140</td>
<td>–10,880</td>
<td>1,600</td>
<td>6,900</td>
<td>10,120</td>
<td>21,400</td>
<td>..</td>
</tr>
</tbody>
</table>

NOTE: For Canada the data refer to 1961–94; for Belgium to 1960 and 1963–96; and for the United Kingdom to 1965–95. For Sweden, the data by major region of origin include both Swedish and foreign citizens.

for Belgium and the Netherlands it is the country of citizenship, whereas for Germany and Sweden it is the country of last permanent residence (or of next permanent residence in the case of outflows).

A major difference between the traditional countries of immigration and the receiving countries in Europe shown in Table 3 is that, although the former lack data on migrant outflows, it is very unlikely that they experienced negative net migration during 1965–95 because they have consistently maintained policies favoring immigration. In contrast, the European countries have been reluctant hosts, and, especially after the official recruitment of foreign workers ceased in 1973–74, several of them adopted measures to foster the return of migrants. The relative success of those measures, coupled with the effects of the economic difficulties some of those countries faced during the late 1970s and the early 1980s, tended to reduce net migration during that period. Nevertheless, as Figure 1 shows, net migration trends varied considerably from one country to another. The United Kingdom, for instance, was a “traditional country of emigration” until 1985–89 when, for the first time in a long period, the intake of migrants from developing countries more than counterbalanced the outflow of migrants from developed countries, a large proportion of whom were British citizens. In fact, as Table 3 shows, until the early 1990s the United Kingdom registered a net migration outflow with respect to the developed world.

**FIGURE 1** Net migration recorded by selected European countries, 1960–96

![Net migration recorded by selected European countries, 1960–96](image)

SOURCE: Table 3.
Among the other European countries, only Belgium experienced negative net migration over a lengthy period (1980–89), mostly as a result of the high levels of emigration registered among Belgian citizens, coupled with relatively small intakes from other countries (see Figure 1 and Table 3). However, even as overall net migration to Belgium became negative, net migration with respect to both the developing countries and the Eastern European countries remained positive, albeit at fairly low levels. In Germany, whose net migration levels are represented by bars in Figure 1, very low levels of net migration were registered in 1975–84, largely because of the net outflow of foreigners from developed countries (especially in 1975–79) but also of those from developing countries (in 1980–84). Furthermore, the admission of ethnic Germans from Eastern European countries who have the right to claim German citizenship soon after arrival was responsible for maintaining a positive net inflow of German citizens and for counterbalancing the outflow of foreigners (see Table 3). Figure 1 also shows that in both the Netherlands and Sweden, 1980–84 marked a low point in net migrant intakes; but, as Table 3 indicates, the net loss of citizens was more consistently a trait of Sweden because, in the Netherlands, the admission of substantial numbers of Dutch citizens from Suriname after its independence in November 1975 swelled the immigrant ranks.

Figure 2 shows that, among the traditional countries of immigration, net migration to Australia during 1975–84 was on the low side, as was the immigrant intake in Canada. Only the United States continued admitting consistently increasing numbers of immigrants. In other words, with the exception of the United States, the early 1980s witnessed a migration downturn in most countries of the West. Partly as a result, the rise in migration since 1985 has been striking. For the five European countries presented in Table 3 taken together, annual net migration rose from a low of -13,000 in 1980–84 to 456,000 in 1985–89 and reached 784,000 in 1990–94. The component of migration originating in developing countries increased from 31,000 in 1980–84 to 155,000 in 1985–89 and to nearly 200,000 in 1990–94. More remarkably, net migration with other developed countries rose from 45,000 to 301,000 and then reached 584,000 in the early 1990s. These last figures include the contribution from Eastern European countries, whose net outflow to countries of the West, particularly to Germany, increased markedly. Other sources of data indicate that during 1968–96, Germany received 3.1 million ethnic Germans (Aussiedler), 2.3 million of whom arrived between 1988 and 1996. Among the total number of Aussiedler admitted during 1968–96, 49.6 percent originated in the former Soviet Union, 33.6 percent in Poland, and 13.1 percent in Romania (Federal Republic of Germany 1991 and 1997). In addition to the Aussiedler, Western Germany admitted 935,000 citizens of the former German Democratic Republic (Übersiedler) during 1970–90, 622,000 of whom arrived during 1988–90 before the reunification of the two states in October 1990 converted those
movements into internal rather than international migration (Federal Republic of Germany 1991).

Another factor contributing to the rise in the number of migrants from Eastern Europe was the disintegration of the former Yugoslavia and the conflicts that ensued. The war in Croatia in 1991 and the confrontation in Bosnia and Herzegovina that began in 1992 were key developments leading to rising numbers of refugees, asylum-seekers, and persons in need of protection in other European countries, although most of the persons affected by those conflicts remained within the territory of the former Yugoslavia. At the peak of the upheavals in 1993, the number in the former Yugoslavia soared to more than 2 million, including 810,000 internally displaced persons in Bosnia and Herzegovina. In December 1995, the peace accords between Bosnia and Herzegovina, Croatia, and the Federal Republic of Yugoslavia brought the four years of war to an end, but tensions persist between different ethnic groups in the area. As of April 1996, an estimated 525,000 refugees, 1.2 million displaced persons, and 1.4 million war-affected persons were in need of assistance in the successor states of the former Yugoslavia (United Nations High Commissioner for Refugees (UNHCR) 1996a). By late 1997, the number of refugees in those states had risen to 668,000 and there were still 895,000 persons, mostly internally displaced, in need of assistance (UNHCR 1998). It was also reported that,

<table>
<thead>
<tr>
<th>Period</th>
<th>Average annual number of migrants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960-64</td>
<td>50,000</td>
</tr>
<tr>
<td>1965-69</td>
<td>100,000</td>
</tr>
<tr>
<td>1970-74</td>
<td>150,000</td>
</tr>
<tr>
<td>1975-79</td>
<td>200,000</td>
</tr>
<tr>
<td>1980-84</td>
<td>250,000</td>
</tr>
<tr>
<td>1985-89</td>
<td>300,000</td>
</tr>
<tr>
<td>1990-94</td>
<td>350,000</td>
</tr>
<tr>
<td>1995-96</td>
<td>400,000</td>
</tr>
<tr>
<td>US</td>
<td>800,000</td>
</tr>
<tr>
<td>Canada</td>
<td>900,000</td>
</tr>
<tr>
<td>Australia</td>
<td>800,000</td>
</tr>
</tbody>
</table>

**FIGURE 2** Migration to the traditional countries of immigration, 1960-96

SOURCE: Table 3.
by the end of 1997, some 431,000 refugees and displaced persons had returned to Bosnia and Herzegovina (ibid.).

Although migration from Eastern Europe has been the dominant component in the net flow to Germany, among the other European countries included in Table 3 net migration gains have comprised a substantial number of migrants from the developing world (see Table 4). However, as Figure 3 illustrates, the share of migration originating in developing countries has not shown the same consistent tendency to rise over time among European countries as among the traditional countries of immigration. In fact, the percentage of foreign migrants originating in developing countries generally declined in Belgium and Germany between 1985–89 and 1995–96, and in the Netherlands between 1980–84 and 1990–94. Furthermore, only in the Netherlands have migrants from developing countries constituted more than half of the net number of foreign migrants since 1965–69. In the United States, migrants from developing countries first outnumbered those from developed countries in 1965–69 and account today for about 80 percent of all immigrants. Similarly, in Australia and Canada, the share of migration from developing countries first passed the 50 percent mark in 1975–79 and since 1990 has been fluctuating between 70 and 80 percent. In short, the South-to-North migration that has become typical of the traditional countries of immigration over the past 30 years is still far from being the norm in Europe.

### Table 4

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Percentage of migrants from Eastern Europe</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>7.4</td>
<td>5.9</td>
<td>4.7</td>
<td>3.5</td>
<td>3.9</td>
<td>3.7</td>
<td>11.0</td>
<td>12.0</td>
</tr>
<tr>
<td>Canada</td>
<td>8.1</td>
<td>7.3</td>
<td>5.3</td>
<td>4.7</td>
<td>8.5</td>
<td>10.1</td>
<td>11.0</td>
<td>..</td>
</tr>
<tr>
<td>Australia</td>
<td>6.9</td>
<td>10.9</td>
<td>11.5</td>
<td>5.6</td>
<td>7.7</td>
<td>5.9</td>
<td>12.0</td>
<td>6.8</td>
</tr>
<tr>
<td>Belgium</td>
<td>5.8</td>
<td>7.7</td>
<td>7.7</td>
<td>5.5</td>
<td>+</td>
<td>10.2</td>
<td>10.7</td>
<td>12.9</td>
</tr>
<tr>
<td>Germany</td>
<td>..</td>
<td>34.7</td>
<td>21.3</td>
<td>-</td>
<td>+</td>
<td>51.4</td>
<td>63.7</td>
<td>52.4</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0.0</td>
<td>3.9</td>
<td>8.5</td>
<td>+</td>
<td>2.2</td>
<td>6.1</td>
<td>16.4</td>
<td>12.4</td>
</tr>
</tbody>
</table>

| **Percentage of migrants from developing countries** |         |         |         |         |         |         |         |         |
| United States     | 41.9    | 55.9    | 70.6    | 80.9    | 85.2    | 86.4    | 79.0    | 80.3    |
| Canada            | 12.3    | 20.9    | 42.5    | 55.6    | 62.1    | 70.8    | 78.4    | ..      |
| Australia         | 7.1     | 12.7    | 27.6    | 53.7    | 47.5    | 62.6    | 81.4    | 72.7    |
| Belgium           | 35.7    | 28.2    | 42.8    | 94.5    | +       | 57.9    | 46.2    | 39.9    |
| Germany           | ..      | 24.9    | 45.5    | +       | -       | 37.1    | 27.6    | 31.1    |
| Netherlands       | 45.5    | 63.4    | 56.4    | +       | 82.8    | 75.7    | 68.2    | 78.5    |

**NOTE:** When it is not possible to calculate meaningful percentages because of negative or very low net migration, a plus sign is used to indicate that the relevant component of net migration was positive and a minus sign is used to indicate that it was negative.

**SOURCE:** Calculated from Table 3.
Another way of assessing the importance of South-to-North migration to European countries is to consider the number of foreigners residing in them classified by country of origin. Data relating to Belgium, France, Germany, Italy, the Netherlands, and Switzerland (not shown) reveal that in 1990 the major countries of origin of migrants in those six countries taken together were, in order of importance, Turkey (2.2 million), Italy (1.4 million), Morocco (1 million), the former Yugoslavia (900,000), Portugal (846,000), Algérie (632,000), and Spain (551,000), all of which had been significant sources of migrant workers before 1973. Among them, Algeria, Italy, Portugal, and Spain had seen the number of their citizens in the six European countries considered decline between the early 1980s and 1990. In contrast, the number of Moroccans had risen by 51 percent, that of Turks by 23 percent, and the number of citizens of the former Yugoslavia by 17 percent. In addition, by 1990 the numbers of migrants originating in countries such as Senegal, China, Iran, Lebanon, the Philippines, the former Czechoslovakia, Hungary, Poland, and Romania had become significant. This evidence not only corroborates that a few developing countries, such as Morocco and Turkey, have been and continue to be major sources of migrants to Western Europe, but it also indicates that a diversi-
fication of migration flows has taken hold in the major receiving countries of the region. Diversification of migrants' origins has involved both developing countries and Eastern European countries, but the relative importance of each group varies considerably from one country of destination to another.

A major factor contributing to the diversification of migration flows to Western Europe during the 1980s was the increase in the number of persons seeking asylum. The number of applications for asylum filed in European countries rose from 66,900 in 1983 to 694,000 in 1992 when it reached a peak (United Nations 1996c). Among the applications for asylum filed during 1983–89, 30 percent were submitted by persons originating in developed countries (mostly countries of Eastern Europe and the former Soviet Union) and the rest by persons from developing countries (Zlotnik 1991). Citizens of Iran, Sri Lanka, and Turkey accounted for a high proportion of the latter. By the late 1980s, applications by citizens of Poland and Romania comprised about 20 percent of all applications filed (United Nations 1996c). During 1990–92, political instability in Romania and the eruption of conflict in the former Yugoslavia resulted in a rapid increase in asylum applications filed by their citizens in European countries; but, as a result of measures taken by the main receiving countries to reduce the number of asylum claims filed, the total number of applications for asylum in Europe declined to 330,600 in 1994 and has remained at about that level through 1997 (UNHCR 1998).

During 1983–97, Western Germany (unified Germany after 1990) consistently received the highest number of asylum requests in Europe. Of the 4.8 million applications filed during that period, 48 percent or 2.3 million were filed in that country. The fact that the German Basic Law guaranteed the right to seek asylum was largely responsible for the attraction Germany exerted on persons needing protection. Efforts to amend the Basic Law resulted in the adoption of new legislation that allows the rejection of the asylum claims filed by persons entering Germany through neighboring countries considered safe under German asylum provisions. The amended legislation, which took effect on 1 July 1993, has contributed to reducing the number of asylum claims filed in Germany. Thus, their number fell from 322,800 in 1993 to 127,200 in 1994 and has risen only moderately since then (to 167,000 in 1995 and about 150,000 in both 1996 and 1997).

A rise has also occurred in the number of asylum applications filed in the traditional countries of immigration, but its impact on the diversification of the countries of origin of the migrant intake has not been as marked as the impact of changes in the immigration laws of those destination countries that began in 1965 when the United States replaced the national quota system used to select immigrants for a preference system that is not based on origin. Australia and Canada made similar modifications to their immi-
migration laws in the 1970s. These changes facilitated the admission of immigrants from developing countries, and, as Figure 3 shows, a rising proportion of immigrants from the developing world was the result. During the 1970s, the decision by the traditional countries of immigration to resettle large numbers of Indochinese refugees contributed to increasing the migration intake from Asia. More recently, the regularization program instituted by the Immigration Reform and Control Act (IRCA) adopted by the United States in 1986 led to a major increase in the number of persons counted ex-post facto as admissions from developing countries (particularly from Mexico) and contributed to maintaining their proportion in the overall immigration figures of the US at more than 80 percent (see Table 5).

One way of gauging the extent to which migrant flows have diversified is to consider the minimum number of countries of origin cumulatively accounting for at least 75 percent of the net migrant intake in each receiving country. Figure 4 shows that number for the traditional countries of immigration and for Belgium, Germany, the Netherlands, and Sweden relating to two periods: 1965–69 and 1990–94. During 1965–69, Belgium, Canada, and the United States already showed a degree of diversification, needing at least 14 countries of origin in each case to account for three-quarters of the net migrant intake. In contrast, in Australia, Germany, the Netherlands, and Sweden only a handful of countries of origin accounted for the major share of the net migration intake. The difference with 1990–94 is striking, particularly for the Netherlands, where the number of countries required to account for 75 percent of net migration more than tripled, and for Germany where that number nearly quadrupled. The change is less marked

### Table 5

<table>
<thead>
<tr>
<th>Region of origin</th>
<th>Average annual number of persons legalized under IRCA</th>
<th>Average annual number of immigrant admissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number</td>
<td>95,763</td>
<td>439,435</td>
</tr>
<tr>
<td>Developing countries</td>
<td>93,500</td>
<td>433,051</td>
</tr>
<tr>
<td>Developed countries</td>
<td>2,262</td>
<td>6,384</td>
</tr>
<tr>
<td>Of which, Eastern Europe</td>
<td>1,253</td>
<td>2,594</td>
</tr>
</tbody>
</table>

As a percentage of total

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing countries</td>
<td>97.6</td>
<td>98.5</td>
<td>98.0</td>
</tr>
<tr>
<td>Developed countries</td>
<td>2.4</td>
<td>1.5</td>
<td>2.0</td>
</tr>
<tr>
<td>Of which, Eastern Europe</td>
<td>1.3</td>
<td>0.6</td>
<td>0.7</td>
</tr>
</tbody>
</table>

NOTE: Although the processing of IRCA regularizations began in 1987, average numbers for the period 1985–89 are presented here to maintain consistency with Table 3.

for Belgium, Canada, and the United States, but further diversification is also evident in those countries. Examination of the main countries of origin (not shown) reveals substantial differences among receiving countries in terms of their major sources of migrants. In Australia, Canada, and the United States, developing countries clearly predominate as major sources of immigrants, constituting nine of the 12 main countries of origin for Australia, 17 of the 24 for Canada, and 20 of the 26 for the United States. Among European countries, developing countries account for about half of the main sources of migrants to Belgium (nine out of 22), the Netherlands (11 out of 20), and Sweden (five out of 12). Germany is exceptional in that only two developing countries, Turkey and Kazakhstan, appear among the 19 accounting for three-quarters of the net migrant intake in 1990–94.

There are also some countries that appear among the main sources of migrants for most of the seven receiving countries considered over the 1990–94 period. The United Kingdom, for instance, appears as a major source of migrants for each of those seven countries. The United States is a major source for all receiving countries except itself and Australia. China, Poland, and the former Yugoslavia are major sources for six countries each, with China not being an important source for Germany, Poland for Australia, and the former Yugoslavia for the United States. India and the former

FIGURE 4 Number of countries of origin accounting for 75 percent of migrants to selected developed countries

Soviet Union appear in the lists of major source countries for five receiving countries each, with India being absent from the lists of Germany and Sweden, and the Soviet Union from those of Canada and the Netherlands. Certain countries, such as the Philippines and Vietnam, are major sources only for the traditional countries of immigration, and Turkey only for European countries, while Iran appears in the lists of Canada, the United States, the Netherlands, and Sweden. Such overlap in terms of major countries of origin implies that, even after the marked diversification that has taken place, the number of countries that are major sources of emigrants to the West is still low. Furthermore, this analysis suggests that some countries can best be characterized as “countries of emigration” because substantial numbers of their emigrants can be found in a variety of destinations. However, the fact that the United Kingdom and the United States, which are also major receiving countries, fit that description well should alert us to the dangers of interpreting such terms as “country of emigration” or “country of immigration” too literally. As these cases remind us, international migration generally involves two-way flows, and the position of a country may vary according to the perspective used to analyze the migration process.

Furthermore, the balance of inflows and outflows may change substantially over time. Indeed, as the available data reveal, the five European countries having flow statistics for a sufficiently lengthy period have experienced wide fluctuations in trends, with a period of low net migration being followed by a period of high intakes. In most of those countries, a sharp rise in the migrant intake occurred around 1985, accompanied by a diversification of the migrants’ countries of origin. However, even among those five countries there are significant differences in trends and degree of diversification, to say nothing of the size of the migration flows involved. Germany is clearly dominant in terms of numbers, and the trends observed there have been largely a result of the laws shaping its migrant intake, which, in contrast with the traditional countries of immigration, are not laws addressing migration itself but rather dealing with asylum and citizenship rights. Unfortunately, an equally detailed assessment of trends cannot be made for the other major receiving countries in Western Europe, especially France or the more recent poles of migrant attraction, namely Italy and Spain. The latter have both carried out several regularization drives whose results shed some light on the magnitude and characteristics of their migrant populations. In Spain, 44,000 applications for regularization were lodged in 1985–86; 133,000 were lodged in 1991, of which 110,000 were regularized (OECD 1997). Nationals from Argentina, the Dominican Republic, Morocco, and Peru constituted the major groups applying for regularization. In Italy, 105,000 migrants regularized their status under a drive carried out in 1987–88, and 216,000 obtained temporary residence permits through a regularization program implemented in 1990. The largest groups regularized were citizens of Morocco, Tunisia, Senegal, the Philip-
pines, and the former Yugoslavia, in order of importance (United Nations 1996d). The flows directed to countries in Southern Europe also suggest a diversification of sources in that region and an increasing presence of migrants from developing countries. Nevertheless, the experience of those countries contrasts with that of other Western European countries in that the presence of migrants from Eastern Europe is not as conspicuous (a notable exception being the Albanians, who have sought safe haven in Italy).

Migration in Eastern Europe and the former Soviet Union

Although the massive East-to-West flows that some had predicted after the end of the Cold War have not materialized, there is no doubt that international migration within Europe and at the world level has increased in the aftermath. For example, Poland, whose citizens have been heading West in significant numbers at least since the early 1980s, has been experiencing both significant outflows and increasing inflows from its neighbors to the East. The official statistics of Poland are indicative of such trends, although they reflect only the controlled part of the movements taking place (see Table 6).

### TABLE 6  Average annual number of immigrants and emigrants to and from Poland and their percentage distribution, 1983–94

<table>
<thead>
<tr>
<th></th>
<th>Annual average number</th>
<th>As a percentage of total migration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total immigration</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Of which from</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>United States</td>
<td>263</td>
<td>440</td>
</tr>
<tr>
<td>Soviet Union (former)</td>
<td>237</td>
<td>252</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>199</td>
<td>247</td>
</tr>
<tr>
<td>Other countries</td>
<td>654</td>
<td>990</td>
</tr>
<tr>
<td><strong>Total emigration</strong></td>
<td>21,891</td>
<td>29,792</td>
</tr>
<tr>
<td>Of which to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>United States</td>
<td>2,624</td>
<td>2,926</td>
</tr>
<tr>
<td>Soviet Union (former)</td>
<td>110</td>
<td>11,212</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>531</td>
<td>614</td>
</tr>
<tr>
<td>Other countries</td>
<td>18,627</td>
<td>15,039</td>
</tr>
</tbody>
</table>

.. = data not available.

Another important outcome of the collapse of communist regimes and the disintegration of the Soviet Union has been the growing mobility of persons between the successor states of that country. Data on the inflows and outflows experienced by the Russian Federation indicate that net migration rose from an annual average of about 147,000 during the 1980s to 341,000 during 1990–94 and to nearly 400,000 during 1995–97. Total net migration to the Russian Federation has been the result of two distinct patterns: net gains from other successor states of the former Soviet Union and net losses to other countries (see Table 7). With respect to migration within the former Soviet Union, until 1990 gross immigration to the Russian Federation had largely been matched by gross emigration to the other republics, yielding net gains of about 157,000 persons per year. The disintegration of the Soviet Union initially produced a moderate increase in gross immigration to the Russian Federation from other successor states, but gross emigration from the Russian Federation declined sharply, leading to substantial increases in net migration (it nearly tripled between 1980–89 and 1990–94, as shown in Table 7). By 1995–97, both gross immigration to the Russian Federation from other successor states and gross emigration from

| TABLE 7 | Average annual number of immigrants and emigrants to and from the Russian Federation, 1980–97 |
|---------|----------------------------------|---|---|---|---|
| Average annual number of immigrants | 886,317 | 891,483 | 920,299 | 685,634 |
| Of which from | | | | |
| Other members of the CIS* and the Baltic States | 886,065 | 891,136 | 920,006 | 685,169 |
| Other Eastern European countries | 140 | 134 | 50 | 47 |
| Other countries | 112 | 213 | 243 | 418 |
| Average annual number of emigrants | 737,479 | 746,402 | 579,651 | 287,311 |
| Of which to | | | | |
| Other members of the CIS* and the Baltic States | 732,789 | 729,568 | 476,763 | 190,044 |
| Other Eastern European countries | 589 | 540 | 651 | 387 |
| Other countries | 4,101 | 16,294 | 102,237 | 96,880 |
| Average annual net migration | 148,838 | 145,081 | 340,648 | 398,323 |
| With | | | | |
| Other members of the CIS* and the Baltic States | 153,276 | 161,568 | 443,243 | 495,125 |
| Other Eastern European countries | -449 | -406 | -601 | -340 |
| Other countries | -3,989 | -16,081 | -101,994 | -96,462 |

*Commonwealth of Independent States: see Table 8.
SOURCES: Russian Federation, State Committee on Statistics, Statistical Yearbook (Moscow, various years); Russian Federation, State Committee on Statistics, Demographic Yearbook (Moscow, various years); Russian Federation, State Committee on Statistics, Migration and Population Figures (Moscow, 1998); United Nations Statistics Division, unpublished tabulations.
it declined considerably, although the difference between the two continued to increase. These trends have largely been the result of the “separation of nationalities,” a process whereby ethnic Russians living outside the Russian Federation have returned to it and minorities living in the Russian Federation and having homelands in other successor states have migrated to the latter. Table 7 also mirrors the fact that the change of regime that took place in 1991 led to sharp increases in the level of emigration to countries outside the former Soviet Union. Most emigrants from the Russian Federation have been members of ethnic minorities with homelands abroad.

The migration data presented in Table 7 reflect the movements that can be accounted for by the registration system operating in the Russian Federation. It is not known how well the data cover the “forced” movements of groups whose right to Russian citizenship is not clear or those of foreigners in need of protection. Data reported to the United Nations High Commissioner for Refugees distinguish between foreigners granted refugee status and persons in need of assistance, many of whom are not international migrants but persons displaced internally by armed conflict. According to the UNHCR Regional Bureau for Europe (1996), 700,000 refugees and 2.3 million internally displaced persons resided within the 12 mem-

### TABLE 8 Number of refugees and other persons of concern to UNHCR in the members of the Commonwealth of Independent States, 1995 and 1997

<table>
<thead>
<tr>
<th>Region and country</th>
<th>Number of refugees</th>
<th>Others of concern&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transcaucasian republics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Armenia</td>
<td>218,000</td>
<td>219,000</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>233,700</td>
<td>233,700</td>
</tr>
<tr>
<td>Georgia</td>
<td>100</td>
<td>200</td>
</tr>
<tr>
<td>Central Asian republics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>.</td>
<td>15,600</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>13,200</td>
<td>15,300</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>400</td>
<td>2,200</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>3,000</td>
<td>15,800</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>900</td>
<td>3,200</td>
</tr>
<tr>
<td>Other European republics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belarus</td>
<td>.</td>
<td>100</td>
</tr>
<tr>
<td>Moldova</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>42,300</td>
<td>237,700</td>
</tr>
<tr>
<td>Ukraine</td>
<td>5,200</td>
<td>4,600</td>
</tr>
<tr>
<td>Total</td>
<td>516,800</td>
<td>747,400</td>
</tr>
</tbody>
</table>

<sup>a</sup>For discussion see text.

bers of the Commonwealth of Independent States in 1991–92. By the end of 1995, the number of refugees reported had declined to 516,800 but it increased again to 747,400 by the end of 1997 (see Table 8). The number of internally displaced persons reported at the end of 1995 stood at 1.3 million, constituting 54 percent of the 2.4 million persons who where not refugees but were nevertheless of concern to UNHCR at that time (Table 8). By late 1997, 2.4 million persons were still reported as being of concern to UNHCR, with the largest groups found in the Russian Federation and Azerbaijan. Clearly, the movements these figures reflect are an indication of the major changes taking place in that part of the world and contribute to validating the view that growing international migration involving Eastern European countries is possible. For that reason, countries in the West are unlikely to reduce the barriers they have been erecting to prevent migration from the East.

Migration in Asia

Asia is the developing region experiencing the most varied types of international migration flows. It encompasses the labor migration system revolving around the oil-producing countries of Western Asia; the system generated more recently by the newly industrialized or industrializing countries of the western Pacific rim; the settler system characteristic of Israel; and a variety of forced migration movements, some of which have been in progress for several years and have involved substantial numbers of people. Asians have also figured prominently among those participating in intercontinental migration, comprising a large share of settler migration to Northern America and Oceania and a rapidly growing segment of migration to Western Europe.

In Western Asia, the foreign population hosted by the six member states of the Gulf Co-operation Council (GCC)—Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates—experienced one of the highest growth rates among migrant populations during 1975–90, rising from 1.9 million persons in 1975 to an estimated 8 million in 1990. That increase was accompanied by the diversification of sources of migrants, as the recruiting area expanded from Arab countries, India, and Pakistan to several countries in Eastern and South-eastern Asia. Table 9 shows the trends of labor migration directed to Western Asia from the various countries of origin. The data displayed refer to migrant workers who have undergone the official clearance process to work abroad.

Iraq’s invasion of Kuwait in August 1990 and the war that ensued had profound effects on the composition by region of origin of the foreign population in the GCC countries. It is estimated that during the first four months after the invasion, more than 2 million foreigners left Iraq, Kuwait, and Saudi Arabia (Russell 1992). Although soon after the end of the
TABLE 9  Average annual number of migrant workers originating in the major labor-exporting countries of Asia and percentage distribution by region of destination, 1975-94

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eastern Asia</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of clearances</td>
<td>..</td>
<td>37,600&lt;sup&gt;b&lt;/sup&gt;</td>
<td>61,100</td>
<td>135,000&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Western Asia</td>
<td>..</td>
<td>80.1&lt;sup&gt;b&lt;/sup&gt;</td>
<td>48.2</td>
<td>3.7&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Other Asia</td>
<td>..</td>
<td>6.0&lt;sup&gt;b&lt;/sup&gt;</td>
<td>18.6</td>
<td>37.6&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Outside Asia</td>
<td>..</td>
<td>14.0&lt;sup&gt;b&lt;/sup&gt;</td>
<td>33.3</td>
<td>58.6&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Korea, Republic of</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of clearances (land based)</td>
<td>79,900&lt;sup&gt;e&lt;/sup&gt;</td>
<td>142,600</td>
<td>52,100&lt;sup&gt;f&lt;/sup&gt;</td>
<td>20,218&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Western Asia</td>
<td>97.3&lt;sup&gt;e&lt;/sup&gt;</td>
<td>90.0</td>
<td>81.7&lt;sup&gt;f&lt;/sup&gt;</td>
<td>50.4&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Other Asia</td>
<td>1.7&lt;sup&gt;e&lt;/sup&gt;</td>
<td>8.5</td>
<td>12.2&lt;sup&gt;f&lt;/sup&gt;</td>
<td>37.7&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Outside Asia</td>
<td>1.0&lt;sup&gt;e&lt;/sup&gt;</td>
<td>1.5</td>
<td>6.0&lt;sup&gt;f&lt;/sup&gt;</td>
<td>11.9&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>South-central Asia</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bangladesh</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of clearances (land based)</td>
<td>17,300&lt;sup&gt;g&lt;/sup&gt;</td>
<td>53,000</td>
<td>78,000</td>
<td>174,100</td>
</tr>
<tr>
<td>Western Asia</td>
<td>88.3&lt;sup&gt;g&lt;/sup&gt;</td>
<td>92.0</td>
<td>95.9</td>
<td>83.5</td>
</tr>
<tr>
<td>Other Asia</td>
<td>0.2&lt;sup&gt;g&lt;/sup&gt;</td>
<td>1.0</td>
<td>0.5</td>
<td>15.6</td>
</tr>
<tr>
<td>Outside Asia</td>
<td>11.5&lt;sup&gt;g&lt;/sup&gt;</td>
<td>7.0</td>
<td>3.6</td>
<td>0.9</td>
</tr>
<tr>
<td>India</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of clearances</td>
<td>67,000&lt;sup&gt;g&lt;/sup&gt;</td>
<td>223,500&lt;sup&gt;b&lt;/sup&gt;</td>
<td>139,800</td>
<td>297,225&lt;sup&gt;h&lt;/sup&gt;</td>
</tr>
<tr>
<td>Western Asia</td>
<td>..</td>
<td>92.4&lt;sup&gt;b&lt;/sup&gt;</td>
<td>95.8</td>
<td>96.0&lt;sup&gt;h&lt;/sup&gt;</td>
</tr>
<tr>
<td>Other countries</td>
<td>..</td>
<td>7.6&lt;sup&gt;b&lt;/sup&gt;</td>
<td>4.2</td>
<td>4.0&lt;sup&gt;h&lt;/sup&gt;</td>
</tr>
<tr>
<td>Pakistan</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of clearances</td>
<td>90,600</td>
<td>124,500</td>
<td>76,800</td>
<td>143,000</td>
</tr>
<tr>
<td>Western Asia</td>
<td>87.3</td>
<td>97.2</td>
<td>99.9</td>
<td>99.6</td>
</tr>
<tr>
<td>Other Asia</td>
<td>2.7</td>
<td>0.0</td>
<td>0.0</td>
<td>0.2</td>
</tr>
<tr>
<td>Outside Asia</td>
<td>10.0</td>
<td>2.7</td>
<td>0.1</td>
<td>0.2</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of clearances</td>
<td>..</td>
<td>31,300</td>
<td>18,900&lt;sup&gt;j&lt;/sup&gt;</td>
<td>52,300</td>
</tr>
<tr>
<td>Western Asia</td>
<td>..</td>
<td>..</td>
<td>94.5&lt;sup&gt;j&lt;/sup&gt;</td>
<td>95.4</td>
</tr>
<tr>
<td>Other Asia</td>
<td>..</td>
<td>..</td>
<td>4.3&lt;sup&gt;j&lt;/sup&gt;</td>
<td>3.3</td>
</tr>
<tr>
<td>Outside Asia</td>
<td>..</td>
<td>..</td>
<td>1.2&lt;sup&gt;j&lt;/sup&gt;</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Gulf War in 1991 foreign workers began returning to Kuwait and Saudi Arabia, changes in political alignments during the crisis led to the repatriation of Jordanians, Palestinians, and Yemenis once the war ended and to the hiring of Egyptians to fill the public-service jobs left vacant by the departure of those migrants. In addition, data gathered by the major countries of origin in Eastern and South-eastern Asia suggest that demand for their workers in Western Asia remained high (Table 9). Thus, during the early 1990s, the placement of workers in Western Asia registered an all-time high for Bangladesh, India, Pakistan, Sri Lanka, and the Philippines.
Another indication of the effects of the Gulf War can be obtained from the difference between arrivals and departures of foreigners recorded by Saudi Arabia. As Table 10 shows, between 1985–89 and 1990–94 there was a substantial increase in the number of persons from Bangladesh, India, and Pakistan remaining in Saudi Arabia and a change in trend with respect to the net balance of Egyptians (the negative numbers recorded before 1990 became high and positive). There was also a large outflow of persons of Yemeni origin during 1990–94. Only the sharp rise in the number of Kuwaitis is puzzling, but it may be due to deficiencies in the registration of departures during the aftermath of the war.

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Israel, another pole of attraction in Western Asia, experienced a sharp rise in net migration fueled by the relaxation of emigration restrictions in the former Soviet Union that began in 1989 and continued under the Commonwealth of Independent States. Between 1989 and 1991, 346,000 Jews from that region arrived in Israel, increasing the population of the country by 7 percent. The pace of arrivals of Soviet Jews slowed somewhat thereafter, averaging 65,000 persons per year during 1992–96. Such inflows have meant that during 1989–96 Israel admitted 669,000 persons from the former Soviet Union (Della Pergola 1997). Among the 597,000 who arrived during 1990–95, 29.9 percent originated in the Russian Federation, 29.3 percent in the Ukraine, and 22.3 percent in the Asian members of the Com-

### TABLE 10 Net balance of arrivals and departures of foreigners, annual average, Saudi Arabia, 1975–94

<table>
<thead>
<tr>
<th>Region and country of citizenship</th>
<th>1975-79</th>
<th>1980-84</th>
<th>1985-89</th>
<th>1990-94</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arab countries</td>
<td>60,716</td>
<td>-19,694</td>
<td>-5,389</td>
<td>283,699</td>
</tr>
<tr>
<td>Bahrain</td>
<td>2,208</td>
<td>329</td>
<td>19,829</td>
<td>58,933</td>
</tr>
<tr>
<td>Egypt</td>
<td>37,285</td>
<td>-35,756</td>
<td>-45,132</td>
<td>125,593</td>
</tr>
<tr>
<td>Jordan/Palestine</td>
<td>4,160</td>
<td>5,522</td>
<td>-7,903</td>
<td>8,935</td>
</tr>
<tr>
<td>Kuwait</td>
<td>3,575</td>
<td>-154</td>
<td>3,036</td>
<td>150,880</td>
</tr>
<tr>
<td>Lebanon</td>
<td>5,400</td>
<td>-9,082</td>
<td>8,262</td>
<td>-315</td>
</tr>
<tr>
<td>Sudan</td>
<td>4,080</td>
<td>-7,808</td>
<td>-20,810</td>
<td>8,724</td>
</tr>
<tr>
<td>Syria</td>
<td>7,550</td>
<td>6,981</td>
<td>-32,459</td>
<td>28,808</td>
</tr>
<tr>
<td>Yemen</td>
<td>-7,116</td>
<td>21,873</td>
<td>30,134</td>
<td>-78,599</td>
</tr>
<tr>
<td>Others</td>
<td>3,574</td>
<td>-1,599</td>
<td>39,653</td>
<td>-19,260</td>
</tr>
<tr>
<td>Asia</td>
<td>98,707</td>
<td>141,393</td>
<td>100,910</td>
<td>207,734</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>1,992</td>
<td>12,133</td>
<td>20,207</td>
<td>39,195</td>
</tr>
<tr>
<td>India</td>
<td>16,680</td>
<td>56,814</td>
<td>38,236</td>
<td>98,396</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2,711</td>
<td>4,023</td>
<td>19,249</td>
<td>20,212</td>
</tr>
<tr>
<td>Korea, Republic of</td>
<td>17,032</td>
<td>-13,947</td>
<td>-17,690</td>
<td>-1,425</td>
</tr>
<tr>
<td>Pakistan</td>
<td>37,635</td>
<td>21,920</td>
<td>3,756</td>
<td>39,977</td>
</tr>
<tr>
<td>Philippines</td>
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<td>27,849</td>
<td>24,311</td>
<td>16,397</td>
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<tr>
<td>Sri Lanka</td>
<td>1,659</td>
<td>13,080</td>
<td>7,781</td>
<td>8,412</td>
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<tr>
<td>Thailand</td>
<td>7,922</td>
<td>20,969</td>
<td>-2,722</td>
<td>-17,662</td>
</tr>
<tr>
<td>Turkey</td>
<td>1,066</td>
<td>34,725</td>
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<tr>
<td>Others</td>
<td>2,528</td>
<td>-36,173</td>
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<td>-1,474</td>
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<tr>
<td>Africa</td>
<td>5,891</td>
<td>4,154</td>
<td>18,724</td>
<td>2,050</td>
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<tr>
<td>Americas and Oceania</td>
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<td>-1,262</td>
<td>-3,118</td>
</tr>
<tr>
<td>Europe</td>
<td>7,947</td>
<td>-49,790</td>
<td>9,778</td>
<td>-5,642</td>
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<tr>
<td>Total</td>
<td>177,430</td>
<td>53,298</td>
<td>122,760</td>
<td>484,723</td>
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</table>

monwealth of Independent States, particularly Uzbekistan (10 percent). Soviet Jews constituted 87 percent of the 685,700 immigrants admitted by Israel during 1990–95 (Della Pergola 1997 and Israel 1996). In addition, in a move to compensate for the lack of workers caused by the closure of the West Bank and Gaza in March 1993, Israel increased the number of admissions of temporary migrant workers from abroad. Statistics on the number of work permits granted to foreigners show that they remained below 5,000 between 1987 and 1990, increased to about 10,000 by 1993, and then rose sharply to 30,000 in 1994, 69,000 in 1995, and 103,000 in 1996 (Bartram 1998). Most foreign migrant workers in Israel originated in the Philippines, Romania, and Thailand.

In Eastern and South-eastern Asia, the rising affluence of Japan and the newly industrialized economies during the 1980s contributed to making them attractive destinations for migrant workers from the less prosperous countries of the region. Not only Hong Kong and Singapore, which had long been importers of labor, but Japan, Malaysia, Korea, and Taiwan began to absorb foreign labor destined for particular sectors of their economies. Although many of these migrants remained in an irregular situation, the Asian Tigers and Japan began to provide an alternative destination for workers from such countries as Thailand and the Philippines. As Table 9 shows, until 1985–89 nearly three-quarters of all Thai workers had gone to Western Asia but in 1990–94, 72 percent of them found employment in other Asian countries. For Indonesia, the Philippines, Korea, and China the change in the distribution of migrant workers by destination was less pronounced, but an increasing proportion of their migrant workers found employment in Asian countries outside Western Asia. The emergence of new sources of migrant workers, such as China, Myanmar, and Vietnam, has further increased the dynamism of labor migration in Eastern and South-eastern Asia. However, the recent economic problems affecting the region have already led to the expulsion of migrant workers from some countries, and the measures being taken might dampen further migration despite the fact that foreign workers may still be needed to perform the tasks that nationals are not prepared to undertake (Bohning 1998).

Japan merits special attention because, until the 1980s, the country had achieved high economic growth without resorting to foreign workers. In 1975, the number of foreigners residing legally in Japan amounted to 752,000, 86 percent of whom were Koreans who had been brought as forced labor to Japan during World War II and their descendants, who do not have the right to Japanese citizenship by virtue of being born to foreign parents. In the 1980s and especially after 1985, labor shortages in low-paid service occupations and in construction began to be met by recourse to foreign workers, most of whom were undocumented since Japanese law did not allow the admission of unskilled foreigners. Even when the immi-
Migration law was amended in 1990, no provision was made for the recruitment of unskilled foreign workers. Instead, the number of categories under which foreigners can be admitted to reside and work in Japan was expanded, and provisions for granting long-term residence to the descendants of former Japanese emigrants were strengthened. Thus, the labor shortage was increasingly met by the admission of persons of Japanese descent born in Latin America, of foreign trainees from Asian countries who obtain “on the job training,” or of foreign students working part-time.

The growth of the legally resident foreign population in Japan has been rapid. Between 1985 and 1995, it rose by 60 percent, rising from 851,000 to 1,362,000. Much of that growth (44 percent) stemmed from increases in the number of foreigners originating in other Asian countries—China, the Philippines, Thailand, Vietnam, and Iran. Increases in the number of foreigners of Japanese descent originating in Brazil and Peru accounted for an additional 41 percent of that growth. Further, the stock of undocumented migrants working in Japan continued rising: as of 1995, an estimated 280,000 foreign citizens were staying in the country beyond the time limit stipulated by their visas. Thus, by 1995 Japan could no longer be characterized as a “closed” society. It is not clear, however, what effect the economic difficulties that the country is experiencing and the rise in unemployment may have on future migration flows.

Migration in Asia has also been the result of severe conflict. During most of the 1980s the region hosted the largest concentration of refugees in the world (see Table 11). In early 1996, there were 4.5 million refugees under the mandate of UNHCR in Asia and 3.3 million Palestinian refugees under the mandate of the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA). Aside from Palestinian refugees, the major refugee populations in Asia during 1980–90 originated in Afghanistan and in the countries of Indochina. The exodus of Afghans in the early 1980s was responsible for the doubling of the refugee population in the continent between 1981 and 1985, during which time the number of refugees under the mandate of UNHCR increased from 2.3 million to 5.1 million, a number that continued to grow until it reached 8.6 million in 1992 before a declining trend set in. The reduction of the refugee population in Asia since 1993 has been due primarily to declines in the size of the major refugee groups in the region, namely Afghans and Iraqis.

Afghan refugees in Iran and Pakistan constituted the largest refugee group in the world during most of the 1980s and early 1990s. Their numbers rose from 400,000 in early 1980 to 4.3 million in early 1985. After 1987, continued fighting in Afghanistan led to further refugee outflows, so that by early 1992 there were 6.3 million Afghans in neighboring countries. Starting in 1993, about 1.8 million refugees were repatriated. However, the continuation of hostilities between rival Afghan factions stalled...
the repatriation process. By early 1996, 2.3 million Afghan citizens were still living abroad (UNHCR 1996b).

Another major refugee exodus in Asia was that of Iraqis during the aftermath of the Gulf War in 1991, when about 1.3 million Iraqis moved to Iran and another 500,000 Iraqi Kurds congregated at the Iraq-Turkey border. To protect the Iraqi Kurds, a demilitarized zone was established along the border areas under the aegis of the United Nations (United Nations 1996c), making possible the repatriation of those who had fled to Iran, so that the number of Iraqi refugees decreased rapidly. Even so, as of early 1996 nearly 700,000 Iraqi refugees remained in Asia, about 600,000 of them in Iran (UNHCR 1996b).

The third most substantial group of refugees in Asia represented persons originating in the countries of Indochina (Cambodia, Laos, and Vietnam). The outflow of Vietnamese began soon after the Vietnam War ended in 1975. Resettlement in third countries was the chief strategy used to provide protection to Indochinese refugees, especially the Vietnamese. Between 1975 and 1993, about 1.2 million Indochinese refugees were resettled abroad, mainly in the United States (812,000), Canada (136,000), Australia (134,000), and France (96,000) (UNHCR 1994). After having subsided during the early 1980s, the outflows of Vietnamese asylum-seekers fleeing by boat to neighboring countries surged again during the late 1980s, and arrivals of “boat people” rose in Hong Kong, Indonesia, Malaysia, and Thailand. International concern about the continuation of such outflows prompted the elaboration of a Comprehensive Plan of Action in 1989, which promoted the adoption of individual screening procedures to determine whether Indochinese asylum-seekers qualified for refugee status and called for an expansion of the Orderly Departure Program that allowed Vietnamese citizens qualifying for resettlement abroad to leave directly from Vietnam. The implementation of the Comprehensive Plan of Action was suc-

<table>
<thead>
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</tr>
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<td>Africa</td>
<td>44.6</td>
<td>28.0</td>
<td>30.9</td>
<td>46.6</td>
<td>43.0</td>
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<td>Asia</td>
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<td>47.7</td>
<td>45.6</td>
<td>34.6</td>
<td>33.8</td>
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<td>Europe</td>
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<td>6.5</td>
<td>5.4</td>
<td>13.0</td>
<td>15.9</td>
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<tr>
<td>Latin America and the Caribbean</td>
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<td>3.7</td>
<td>8.1</td>
<td>0.7</td>
<td>1.0</td>
</tr>
<tr>
<td>Northern America</td>
<td>14.5</td>
<td>13.1</td>
<td>9.4</td>
<td>4.7</td>
<td>6.0</td>
</tr>
<tr>
<td>Oceania</td>
<td>3.6</td>
<td>0.9</td>
<td>0.7</td>
<td>0.4</td>
<td>0.3</td>
</tr>
<tr>
<td>Total (millions)</td>
<td>8.2</td>
<td>10.5</td>
<td>14.9</td>
<td>14.5</td>
<td>13.2</td>
</tr>
</tbody>
</table>

cessful in curtailing the outflow of boat people from Vietnam and in lead-
ing to the closure of first-asylum camps in the region by the mid-1990s. In
Cambodia, the establishment of a newly elected government in 1993 al-
lowed the repatriation of nearly 370,000 Cambodians who had lived in
camps on the border between Thailand and Cambodia under the mandate
of the United Nations Border Relief Operation (UNBRO).

Migration in Africa

Migration from Northern Africa has mostly been oriented toward Western
Europe and the oil-rich countries of Western Asia. Thus, the movement of
Algerians, Moroccans, and Tunisians to Europe has been well established
at least since the 1960s and, especially in the case of Moroccans, expanded
considerably during the 1980s through a diversification of destinations
within Europe. Only in the case of Algerians has the migrant population
remained concentrated in a single country, France, which has been taking
measures to prevent large uncontrolled inflows of Algerians that might be
caused by the internal conflicts raging in Algeria during the 1990s. In the
eastern part of Northern Africa, Egyptians have engaged in labor migra-
tion to a variety of destinations both within Africa (to Libya) and to coun-
tries of Western Asia. As noted above, the Gulf War produced large return
flows to Egypt, particularly from Iraq, but the war’s aftermath opened fur-
ther opportunities for Egyptians to work in the countries of the Gulf Co-
operation Council.

In sub-Saharan Africa, there have been major intraregional refugee
flows whose magnitude is reflected by data compiled by UNHCR, but flows
of economically motivated migrants remain poorly documented. Because
of the destabilizing conflicts that several countries in the region have expe-
rienced and the poor economic situation that has prevailed in most of the
region since 1980, the possibilities for economically motivated migration
within sub-Saharan Africa have likely diminished, especially with regard
to the main attraction poles in Western Africa. The lack of data on interna-
tional migration in the region precludes reliable quantification of flows,
however.

In Western Africa, migration has been largely shaped by flows of ag-
icultural workers, including seasonal workers. Ivory Coast, the major host
country of migrant workers in the region, has traditionally attracted mi-
grants from surrounding inland countries, including Burkina Faso, Guinea,
and Mali. According to the 1975 census of Ivory Coast the foreign popula-
tion stood at nearly 1.5 million persons, and by the census of 1988 it had
doubled to about 3 million. About half of the foreigners in that country
were citizens of Burkina Faso and nearly a quarter were citizens of Mali.
Surveys of the population aged 15 years and older carried out in 1993 in
seven countries of Western Africa—Burkina Faso, Guinea, Ivory Coast, Mali, Mauritania, Niger, and Senegal—have shown that the number of foreigners in Ivory Coast accounted for 92 percent of all foreigners aged 15 and older in the countries covered by the surveys (CERPOD 1995). With respect to the number of international migration movements during the five years preceding the survey and recorded among the canvassed population, those between Ivory Coast and Burkina Faso amounted to 921,000 migrations or about half of all flows recorded. However, the number of migration movements from Ivory Coast to Burkina Faso (538,000) surpassed by 155,000 those recorded in the opposite direction (383,000), suggesting that Ivory Coast experienced negative net migration with Burkina Faso during the early 1990s.

Compared with Ivory Coast, the number of foreigners or foreign-born persons in other countries of Western Africa is small. Data from the 1993 CERPOD surveys indicate that the proportion of foreigners in most countries of Western Africa was very low, amounting to about 2 percent in Senegal; one percent each in Burkina Faso, Mali, Mauritania, and Niger; and 0.3 percent in Guinea (CERPOD 1995). With respect to migration movements between the countries surveyed, four countries experienced net emigration during 1988–93, with Guinea recording a negative balance of 9,000 movements, Mali of 30,000, Niger of 46,000, and Senegal of 87,000. For Guinea and Mali the main country of destination in the region was Ivory Coast, for Niger it was Nigeria, and for Senegal it was Mauritania. Information about migration outside the region suggested that the net sending countries were: Mali with a negative balance of 67,000 movements over 1988–93; Mauritania with 72,000; Niger with 26,000; and Senegal with 77,000. Among them, Mali recorded a negative balance amounting to 43,000 movements with countries outside Africa; for Mauritania the negative balance recorded was 64,000; and for Senegal 50,000. In the case of Mali and Mauritania, a high proportion of the negative balance with the rest of the world was directed to countries outside Europe, but for Senegal the main destination outside Africa was Europe.

In Southern Africa, the relative economic prosperity of South Africa has long been a magnet attracting migrant workers from neighboring countries. The mining industry has been a major importer of foreign labor. According to statistics published by the Chamber of Mines, the number of foreign workers formally recruited to work in the gold and coal mines of South Africa dropped from an annual average of 308,000 during 1971–74 to 214,000 in 1975–79 and since 1980 has fluctuated around 200,000 foreign workers employed each year. More importantly, although the overall number of workers employed by members of the Chamber of Mines increased between 1971–74 and 1980–84, the proportion of foreign workers among the total declined markedly between those two periods, falling from
77 percent in 1971–74 to about 40 percent in 1980–84 (see Table 12). The reduction in the number and share of foreign workers was due both to a decision by South Africa to reduce its dependency on migrant workers from neighboring countries and to restrictions on the emigration of workers imposed by some countries of origin (United Nations 1985). South Africa has also been the destination of a modest number of foreigners seeking permanent settlement. As Table 13 shows, the country has recorded a net migration gain for every period beginning in 1976–79. Its net migrant intake from other African countries has been positive since 1976, and particularly large gains have been recorded with respect to migration from neighboring countries. In contrast, South Africa’s migration balances with developed countries have mostly been negative, although in 1980–84 a robust

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>South African workers</td>
<td>92,269</td>
<td>206,799</td>
<td>301,458</td>
<td>344,736</td>
<td>253,592</td>
</tr>
<tr>
<td>Of which originating in homelands</td>
<td>..</td>
<td>71,135</td>
<td>169,919</td>
<td>199,724</td>
<td>139,186</td>
</tr>
<tr>
<td>Total foreign workers</td>
<td>308,394</td>
<td>214,114</td>
<td>198,845</td>
<td>216,679</td>
<td>178,881</td>
</tr>
<tr>
<td>Of which from Botswana</td>
<td>19,455</td>
<td>18,579</td>
<td>17,879</td>
<td>19,402</td>
<td>14,609</td>
</tr>
<tr>
<td>Malawi</td>
<td>100,959</td>
<td>12,144</td>
<td>14,912</td>
<td>15,900</td>
<td>28</td>
</tr>
<tr>
<td>Mozambique</td>
<td>99,740</td>
<td>59,008</td>
<td>43,992</td>
<td>51,955</td>
<td>49,928</td>
</tr>
<tr>
<td>Swaziland</td>
<td>5,127</td>
<td>9,073</td>
<td>10,272</td>
<td>16,375</td>
<td>16,787</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>8</td>
<td>11,336</td>
<td>1,782</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Other countries</td>
<td>3,836</td>
<td>2,897</td>
<td>1,092</td>
<td>2</td>
<td>287</td>
</tr>
<tr>
<td>Total</td>
<td>400,663</td>
<td>420,913</td>
<td>500,303</td>
<td>561,415</td>
<td>432,472</td>
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<th></th>
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</thead>
<tbody>
<tr>
<td>South African workers</td>
<td>23.0</td>
<td>49.1</td>
<td>60.3</td>
<td>61.4</td>
<td>58.6</td>
</tr>
<tr>
<td>Of which originating in homelands</td>
<td>..</td>
<td>16.9</td>
<td>34.0</td>
<td>35.6</td>
<td>32.2</td>
</tr>
<tr>
<td>Total foreign workers</td>
<td>77.0</td>
<td>50.9</td>
<td>39.7</td>
<td>38.6</td>
<td>41.4</td>
</tr>
<tr>
<td>Of which from Botswana</td>
<td>4.9</td>
<td>4.4</td>
<td>3.6</td>
<td>3.5</td>
<td>3.4</td>
</tr>
<tr>
<td>Lesotho</td>
<td>19.8</td>
<td>24.0</td>
<td>21.8</td>
<td>20.1</td>
<td>22.5</td>
</tr>
<tr>
<td>Malawi</td>
<td>25.2</td>
<td>2.9</td>
<td>3.0</td>
<td>2.8</td>
<td>0</td>
</tr>
<tr>
<td>Mozambique</td>
<td>24.9</td>
<td>14.0</td>
<td>8.8</td>
<td>9.3</td>
<td>11.5</td>
</tr>
<tr>
<td>Swaziland</td>
<td>1.3</td>
<td>2.2</td>
<td>2.1</td>
<td>2.9</td>
<td>3.9</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>0.0</td>
<td>2.7</td>
<td>0.4</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Other countries</td>
<td>1.0</td>
<td>0.7</td>
<td>0.2</td>
<td>0.0</td>
<td>0.1</td>
</tr>
</tbody>
</table>

net gain of over 12,000 persons was recorded. With the recent abolition of apartheid and the change of government in South Africa, an influx of undocumented migrant workers from other African countries appears to have taken place, but no statistical evidence on those movements is available.

In other parts of Africa, migration flows between neighboring countries are likely to have occurred, but in the absence of statistical systems to monitor those movements their volume remains largely unknown. In Central Africa, for instance, the mineral deposits in Gabon and the Congo (formerly Zaire), the timber industries in Gabon and Equatorial Guinea, and the palm plantations in Cameroon have attracted foreign migrant workers (Russell, Jacobsen, and Stanley 1990). Thus, the 1993 population census of Gabon recorded more than 100,000 foreign citizens (Republic of Gabon n.d.), but the law of 1994 requiring foreigners to pay a residence fee or leave the country resulted in the outflow of more than 55,000 foreigners by early 1995 (Migration News 1995).

Many African countries have experienced outflows or inflows of refugees. As shown in Table 11, in 1981 Africa ranked first in terms of the proportion of global refugees it hosted (44.6 percent). Although the region ranked second after Asia during most of the 1980s and early 1990s, the recent emergence of new areas of internal conflict and civil unrest in Africa has led to further refugee outflows, putting Africa once more in the lead as the major host of refugees. The number of refugees in Africa rose from 3 million in 1985 to 4.4 million in 1990 and it reached a high of 6.8 million in 1995 when it surpassed the total for Asia. By early 1996, the number of refugees in Africa had declined to 5.7 million, a 16 percent drop from the previous year. The voluntary repatriation of Rwandan refugees accounted for a large part of that decline.

### TABLE 13 Average annual net migration to South Africa, by area of origin or destination, 1976-94

<table>
<thead>
<tr>
<th>Region or country of origin/destination</th>
<th>1976-79</th>
<th>1980-84</th>
<th>1985-89</th>
<th>1990-94a</th>
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</thead>
<tbody>
<tr>
<td>Developed countries</td>
<td>-2,227</td>
<td>12,141</td>
<td>-2,475</td>
<td>-1,199</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1,100</td>
<td>10,718</td>
<td>-715</td>
<td>-203</td>
</tr>
<tr>
<td>Others</td>
<td>-3,327</td>
<td>1,423</td>
<td>-1,760</td>
<td>-995</td>
</tr>
<tr>
<td>Africa</td>
<td>11,100</td>
<td>13,467</td>
<td>3,131</td>
<td>1,776</td>
</tr>
<tr>
<td>Neighboring countriesb</td>
<td>9,607</td>
<td>12,713</td>
<td>2,655</td>
<td>1,088</td>
</tr>
<tr>
<td>Others</td>
<td>1,493</td>
<td>754</td>
<td>476</td>
<td>688</td>
</tr>
<tr>
<td>Asiac</td>
<td>-299</td>
<td>462</td>
<td>429</td>
<td>2,859</td>
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<tr>
<td>Latin America and the Caribbean</td>
<td>22</td>
<td>135</td>
<td>126</td>
<td>244</td>
</tr>
<tr>
<td>Total</td>
<td>8,596</td>
<td>26,206</td>
<td>1,211</td>
<td>3,680</td>
</tr>
</tbody>
</table>

aExcluding 1993. bBotswana, Lesotho, Mozambique, Namibia, Swaziland, and Zimbabwe.
cExcluding Japan.
SOURCE: Data provided by Department of Home Affairs, Republic of South Africa.

Click to return to Table of Contents
<table>
<thead>
<tr>
<th>Period</th>
<th>Country of asylum</th>
<th>Number of refugees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early 1980</td>
<td>1. Somalia</td>
<td>1,275,000</td>
</tr>
<tr>
<td></td>
<td>2. Sudan</td>
<td>441,000</td>
</tr>
<tr>
<td></td>
<td>3. Congo&lt;sup&gt;a&lt;/sup&gt;</td>
<td>299,000</td>
</tr>
<tr>
<td></td>
<td>4. Tanzania</td>
<td>160,000</td>
</tr>
<tr>
<td></td>
<td>5. Mozambique</td>
<td>150,000</td>
</tr>
<tr>
<td></td>
<td>6. Uganda</td>
<td>112,400</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>2,437,400</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Africa, total</strong></td>
<td><strong>2,727,847</strong></td>
</tr>
<tr>
<td></td>
<td>6 countries as a percentage of total</td>
<td>89.4</td>
</tr>
<tr>
<td>Early 1990</td>
<td>1. Malawi</td>
<td>822,000</td>
</tr>
<tr>
<td></td>
<td>2. Ethiopia</td>
<td>720,166</td>
</tr>
<tr>
<td></td>
<td>3. Somalia</td>
<td>600,000</td>
</tr>
<tr>
<td></td>
<td>4. Sudan</td>
<td>385,000</td>
</tr>
<tr>
<td></td>
<td>5. Congo&lt;sup&gt;a&lt;/sup&gt;</td>
<td>340,689</td>
</tr>
<tr>
<td></td>
<td>6. Burundi</td>
<td>267,455</td>
</tr>
<tr>
<td></td>
<td>7. Tanzania</td>
<td>266,500</td>
</tr>
<tr>
<td></td>
<td>8. Zimbabwe</td>
<td>175,350</td>
</tr>
<tr>
<td></td>
<td>9. Algeria</td>
<td>170,000</td>
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<tr>
<td></td>
<td>10. Zambia</td>
<td>137,100</td>
</tr>
<tr>
<td></td>
<td>11. Uganda</td>
<td>129,990</td>
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<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>4,014,250</strong></td>
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<td><strong>Africa, total</strong></td>
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<tr>
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<td>11 countries as a percentage of total</td>
<td>90.4</td>
</tr>
<tr>
<td>Early 1995</td>
<td>1. Congo&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1,724,400</td>
</tr>
<tr>
<td></td>
<td>2. Tanzania</td>
<td>883,300</td>
</tr>
<tr>
<td></td>
<td>3. Sudan</td>
<td>727,200</td>
</tr>
<tr>
<td></td>
<td>4. Guinea</td>
<td>553,200</td>
</tr>
<tr>
<td></td>
<td>5. Ivory Coast</td>
<td>360,100</td>
</tr>
<tr>
<td></td>
<td>6. Ethiopia</td>
<td>348,100</td>
</tr>
<tr>
<td></td>
<td>7. Burundi</td>
<td>300,300</td>
</tr>
<tr>
<td></td>
<td>8. Uganda</td>
<td>286,500</td>
</tr>
<tr>
<td></td>
<td>9. Kenya</td>
<td>252,400</td>
</tr>
<tr>
<td></td>
<td>10. Algeria</td>
<td>219,100</td>
</tr>
<tr>
<td></td>
<td>11. Zambia</td>
<td>141,100</td>
</tr>
<tr>
<td></td>
<td>12. Liberia</td>
<td>120,200</td>
</tr>
<tr>
<td></td>
<td>13. Ghana</td>
<td>113,700</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>6,029,600</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Africa, total</strong></td>
<td><strong>6,752,200</strong></td>
</tr>
<tr>
<td></td>
<td>13 countries as a percentage of total</td>
<td>89.3</td>
</tr>
<tr>
<td>Early 1996</td>
<td>1. Congo&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1,326,500</td>
</tr>
<tr>
<td></td>
<td>2. Tanzania</td>
<td>829,700</td>
</tr>
<tr>
<td></td>
<td>3. Guinea</td>
<td>633,000</td>
</tr>
<tr>
<td></td>
<td>4. Ethiopia</td>
<td>393,500</td>
</tr>
<tr>
<td></td>
<td>5. Ivory Coast</td>
<td>297,900</td>
</tr>
<tr>
<td></td>
<td>6. Kenya</td>
<td>239,500</td>
</tr>
<tr>
<td></td>
<td>7. Uganda</td>
<td>229,300</td>
</tr>
<tr>
<td></td>
<td>8. Algeria</td>
<td>206,800</td>
</tr>
<tr>
<td></td>
<td>9. Burundi</td>
<td>142,700</td>
</tr>
<tr>
<td></td>
<td>10. Zambia</td>
<td>130,600</td>
</tr>
<tr>
<td></td>
<td>11. Liberia</td>
<td>120,000</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>4,549,500</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Africa, total</strong></td>
<td><strong>5,692,100</strong></td>
</tr>
<tr>
<td></td>
<td>11 countries as a percentage of total</td>
<td>79.9</td>
</tr>
</tbody>
</table>

<sup>a</sup>Formerly Zaire.

Some of the refugee populations in Africa had been or have been uprooted for many years. Thus, most of the estimated 1.3 million Ethiopian refugees who were residing in Somalia in 1980 and the 390,000 reported by Sudan in the same year had moved to those countries as a result of the Eritrean and Ogaden conflicts that started in 1962 when Eritrea came under Ethiopian rule. Similarly, most of the Rwandan refugees in Burundi, Uganda, and Tanzania and those from Burundi in Tanzania had been uprooted since 1972–73 when ethnic conflict between the Tutsi and the Hutu populations in Rwanda and Burundi forced them to flee. In addition, at least half of the Angolan refugees in the Congo also had left their country in the early 1970s when movements for independence from Portuguese colonial rule started.

Until 1995, refugee movements within Africa tended to involve an increasing number of countries. Table 14 lists in order of importance the countries accounting for at least 75 percent of all refugees in Africa at different times. Whereas in 1980 six countries accounted for nearly 90 percent of all refugees, by 1990 that number had nearly doubled (11 countries) and it rose further to 13 in 1995. The regions affected by refugee flows have also changed considerably since 1980. Whereas during the early 1980s the major refugee populations were concentrated in Eastern and Central Africa, by 1995 there were fairly large concentrations of refugees also in Western Africa. In addition, throughout the period several major repatriation drives occurred, including the repatriation of 176,000 Ugandan refugees between 1985 and 1989; of 43,500 Namibians from Angola and Zambia in 1989; and of 1.6 million Mozambicans from Malawi, South Africa, Tanzania, Zambia, and Zimbabwe after the signature of a peace agreement between the government of Mozambique and the Mozambique National Resistance (RENAMO) in October 1992 (United Nations 1996d). Although repatriated refugees, like other returned migrants, tend to be omitted from the counts of migrant stocks, they nevertheless represent an important part of overall international mobility. Because of the major new outflows of refugees in Africa and the return of large numbers of uprooted people, the number of countries in the region that experienced significant migration inflows has risen since 1980, a development consistent with the expanding impact of international migration worldwide.

Migration in Latin America and the Caribbean

With only 7.5 million international migrants in 1990, Latin America and the Caribbean have one of the smallest shares of the world’s migrant stock (6.2 percent; see Table 1). Few countries in the region host sizable numbers of international migrants. Among those that do, Argentina, Brazil, and Venezuela have all had policies, sometimes dating from the past century, favoring the settlement of European migrants in their territories. At least
since 1970, however, Brazil has not been a major destination of international migrants, and Argentina and Venezuela have mostly attracted migrants from countries in the region. In fact, during the 1980s, as all three countries experienced economic difficulties, many migrants of European origin and their descendants returned to Europe. Census data suggest that Venezuela experienced very low net migration gains during the 1980s, that Brazil experienced sizable net population losses through international migration, and that Argentina experienced a net outflow of former settlers.

In Venezuela, many migrants, particularly those from neighboring Colombia, were attracted to the country during the oil boom of the 1970s. The foreign-born population in Venezuela grew significantly, from 0.6 million in 1971 to 1.1 million in 1981, but declined slightly, to 1.0 million by 1991 after migrants of European origin and their descendants returned to Europe during the economic downturn of the 1980s. According to the national censuses, the proportion of migrants of European origin has been declining; it comprised only 25 percent of the total foreign-born population in 1991, whereas migrants born in Latin American countries have been increasing as a proportion of the total and accounted for 67 percent of the foreign-born population in 1991. Among the latter, those born in Colombia amounted to 77 percent or nearly 530,000 persons.

In Argentina, net outflows of foreign-born persons during the 1980s were even more pronounced; the 1.6 million foreign-born persons enumerated in 1991 were 0.3 million less than the number enumerated in 1980, and Argentina had granted permanent residence to 0.4 million foreign citizens during 1980–90 (Republic of Argentina 1993). Recent migrants originated mainly in neighboring countries, especially Bolivia, Chile, Paraguay, and Uruguay. Unskilled male migrants of Latin American origin tended to work in construction trades, whereas their female counterparts were likely to be employed as domestic workers.

In the Caribbean, international migration is characterized mainly by outflows of migrants to the United States or, on a smaller scale, to Canada, but there are some distinct intraregional flows between various Caribbean countries. Plantation owners in the Dominican Republic have traditionally recruited Haitians to assist in harvesting, and some Haitians have settled in that country. In recent years Haitians have also been attracted to the Bahamas where tourist industries have been growing (Stalker 1994). Migration of skilled personnel has also occurred from Caribbean countries with more advanced educational systems to the less advanced but prospering tourist economies of other Caribbean countries. Because some of these migration movements are only temporary (such as those of Haitian agricultural workers) and because most Latin American countries lack statistical systems with the express purpose of quantifying international migration, most flows remain statistically invisible. Census data, which provide only a snapshot of a fluid situation, cannot reveal the full complexity of interna-
tional migration flows. They do confirm, however, that most of the international migration originating in Latin American and Caribbean countries is directed to the United States (United Nations 1990). Intraregional migration has been small in comparison.

Until 1980 the number of refugees in Latin America and the Caribbean was small. In the early 1980s, outflows of people fleeing political violence and conflict in El Salvador, Guatemala, and Nicaragua intensified. Between 1981 and 1984, over 40,000 Guatemalans sought protection in Mexico (Lamb 1987); Nicaraguans sought refuge in Costa Rica and Honduras; and Salvadoreans fled to Belize, Costa Rica, Mexico, and the United States. By 1985 the number of refugees in Central America stood at 332,200. In 1987, when the governments of Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua agreed upon a “Procedure for the establishment of a firm and lasting peace in Central America” at the second intergovernmental conference held in Esquipulas, Guatemala, estimates of the number of people in need of protection in the region were revised to include persons in refugee-like situations, such as internally displaced persons; thus, by 1990 an estimated 1.2 million persons were reported to be in need of protection, although only 126,000 of them were receiving assistance from UNHCR. Two years later, the groundwork was laid for the repatriation of most refugees in the region by the International Conference on Central American Refugees (CIREFCA) held in May 1989, by the creation on 6 September of the International Support and Verification Commission (CIAV) to assist in the demobilization and resettlement of the warring factions in Nicaragua, and by the negotiations to end civil conflicts in various countries of Central America. Between 1987 and 1992, most Salvadoreans were repatriated from Honduras. In 1990, 35,500 Nicaraguans returned to their country after the change of government that took place in February. As a result of such return movements, by early 1995 the refugee population in Central America had declined to 87,000. The major refugee groups remaining were 47,000 Guatemalans in Mexico and 25,000 persons in Costa Rica, mainly of Nicaraguan origin.

In the Caribbean, the 1991 overthrow of the elected government of Haiti led to the departure of many Haitians. Most of them left by boat with the intention of seeking asylum in the United States. Between 1991 and October 1994, when President Jean-Bertrand Aristide returned to power in Haiti, the United States used a series of measures to ensure that only Haitians having valid asylum claims entered US territory. As a result, the number of Haitian asylum-seekers admitted to the United States remained low (US Committee for Refugees 1995). In contrast, since 1990 the US Coast Guard had been interdicting at sea moderate numbers of Cubans who were brought into the United States to request asylum. The numbers interdicted had been increasing steadily, rising from 467 in 1990, to 2,203 in 1991, 2,557 in 1992, and 3,656 in 1993. In 1994 the numbers increased...
tenfold, especially during the second half of July and August, leading the United States to reverse its long-standing policy of admitting Cubans as refugees or asylum-seekers. As of 19 August 1994, the US Coast Guard was ordered to take Cubans interdicted at sea to the US naval base at Guantánamo Bay, Cuba. About 32,000 Cubans out of the 37,000 interdicted at sea in 1994 ended up in Guantánamo. To stem the flow of Cuban asylum-seekers, on 9 September 1994 Cuba and the United States signed an accord under which the United States agreed to increase the number of Cubans it would admit directly from Cuba to at least 20,000 per year, and Cuba agreed to take effective measures to prevent unsafe departures (US Committee for Refugees 1995). That agreement was updated in May 1995, and between that date and November 1997 the US Coast Guard has interdicted 996 Cubans, returning 579 to Cuba (US Committee for Refugees 1998).

Latin America has been the source of one of the most numerically important migration flows in the world over the period 1970–90: the movement of Mexicans to the United States. According to the censuses of the United States, the Mexican-born population increased from 760,000 in 1970 to 4.3 million in 1990, implying that it grew at a rate of nearly 8.7 percent per year. Estimates derived from the Current Population Survey of the United States suggest that by 1996 the Mexican-born population had risen further to 6.7 million, implying an annual rate of growth of 7.4 percent during 1990–96. In contrast with the experience of other countries that have been major sources of labor migration, the outflows from Mexico have not been diversified in terms of destination: virtually all the migration originating in Mexico is directed to its northern neighbor. Although the United States is also the major destination of migrants from throughout Latin America and the Caribbean, migrants from such countries as Brazil, the Dominican Republic, and Peru have been finding new destinations. Brazilians and Peruvians of Japanese descent have been moving to Japan in substantial numbers and they are also numerous in certain European countries, and Dominicans have been migrating to Venezuela and Spain. However, the presence of Latin Americans in other regions remains limited.

Conclusion

International migration is a complex and varied phenomenon that has involved the movement of millions of people throughout this century. Despite the lack of comprehensive data at the global level, it is possible to affirm that the total number of international migrants has been growing at an increasing rate since 1965. However, given the concomitant increase in the number of distinct units (countries and territories) constituting the world and the persistence of sharp economic and demographic disparities among countries and regions, coupled with the widespread prevalence of political instability and conflict, the percentage of people who have left and remained
outside their countries of origin is remarkably small and has been relatively stable for a long period, oscillating between 2.1 and 2.3 percent of the world’s population during 1965–90.

An analysis of international migration flows over the period 1965–96, albeit hampered by the sparsity and lack of comparability of the available data, indicates that both the character and the direction of international migration have changed significantly in the various world regions over time. Nevertheless, the changes taking place are often not as straightforward or distinct as is sometimes suggested. For instance, although it is commonly stated that more countries are becoming “receivers” and “senders” of migrants, the truth is that, at least during the second half of this century, all countries have received or been the origin of some international migrants. When an assessment is made in terms of numerical thresholds that indicate the significance of international migration, the changes observed are not particularly striking. Thus, the number of countries and territories qualifying as statistical outliers according to the size of their foreign-born population or the proportion it represents of the total population has not changed markedly. From another perspective, although countries such as Canada and the United States have been admitting immigrants from almost all countries of the world since at least 1975, even as recently as 1990–94 only 24 and 26 countries respectively accounted for three-quarters of the immigrant intake of each. In addition, although there has undeniably been a diversification of origins and destinations of international migrants in all regions of the world since 1965, the number of countries for which immigration, emigration, or both are significant components of population change remains modest.

Yet the importance of international migration often transcends its purely numerical aspects because of its close ties with other processes of intrinsic geopolitical significance. The end of communist rule in Eastern Europe and the disintegration of the Soviet Union are a case in point. Although they have not given rise to “uncontrolled mass migration” as some had feared, they have nevertheless changed radically the context in which international movements of people take place in that part of the world and have facilitated or triggered international migration flows that would not have happened otherwise. As this overview has shown, such developments have had a significant effect on migration flows to the West, particularly to Germany, and have changed the dynamics of migration within the former Soviet sphere. In addition, the end of the bipolar era has permitted the resolution of some long-standing conflicts in other parts of the world and has thus allowed the repatriation of large numbers of refugees. But the end of superpower confrontation has not put an end to internal conflicts and wars of aggression, which, especially in the former communist countries and in the developing world, have resulted in the displacement of substantial numbers of people in need of protection. Although only a sub-
set of those people have moved internationally and not all have been rec-
ognized as refugees, their existence is a clear symptom of serious problems
in the countries of origin that the international community cannot ignore.
Hence the relevance of this type of international mobility.

The visibility of international migration is also enhanced by the role it
has played in the context of major economic transformations. Both the
modernization of the oil-producing countries of the Arabian peninsula and
the large-scale exploitation of oil in the region would not have been possi-
bale without the use of foreign labor. Nevertheless, although economi-
cally determined, the shape of migration flows in the region has also de-
pended on socio-political considerations. Ethnic and national origin, political
alignments between the governments of different countries, and religion
have all been factors determining the selection of migrant workers admit-
ted to the oil-producing countries of Western Asia and, perhaps more im-
portantly, in prompting the major return flows occurring as a result of the
Gulf War. In the Pacific Rim, labor migration has been indispensable for
the economic development of Hong Kong and Singapore since the 1960s,
and the importation of unskilled labor became necessary for the already
industrialized economies of Japan, Korea, and Taiwan after 1985 as well
as for the industrializing economies of Malaysia and Thailand. The emer-
gence of these new sources of demand for foreign workers, which had been
largely unexpected, was a noteworthy development. However, the long-
term vitality of these flows is being called into question by the severe eco-
nomic difficulties currently faced by countries of the region.

Indeed, it is important to bear in mind that international migration
trends can change quickly. Although migration flows may acquire a cer-
tain inertia under stable conditions in countries of origin and destination,
they are also prone to adapt rapidly to changed circumstances. The very
low net migration gains experienced by Western European countries dur-
ing the late 1970s and early 1980s illustrate one such adaptation. The sharp
rises registered since then are another. Because high levels of international
migration are more likely to attract attention than low or negative ones,
particularly in developed countries, much emphasis has been put on in-
creasing levels. Downturns tend to be disregarded. Human history has in
all likelihood been punctuated by alternations of the two. The twentieth
century is no exception. This overview has shown that international mi-
gration in different regions is subject to the same ebb and flow. Change is
the constant trait, and a long-term perspective is necessary to make an
adequate assessment of its significance.
Notes

The views expressed in this article are those of the author and do not necessarily reflect those of the United Nations Secretariat.

1 For one, the number of tourist arrivals has the potential of counting the same person several times over a year whereas the measure of migrant stock does not, in theory, include double-counting.

2 The five parameters indicative of the shape of the distribution include: the upper and lower bounds of the observed values, the upper and lower quartiles, and the median. The upper and lower bounds are the highest and lowest values observed. They bound the range of variation of the distribution. The median is the central value; it separates the distribution into two parts, each containing the same number of observations. The quartiles are akin to the median in that they divide the two halves of the distribution determined by the median into two intervals with an equal number of observations. Thus, the ordered values of the parameters—the upper bound, upper quartile, median, lower quartile, and lower bound—divide the range of the distribution into four intervals, each containing the same number of observations. The interval between the two quartiles, the interquartile range, contains the central half of the observations.

3 The data for Germany are those published by the Federal Republic of Germany's Statistical Office at Wiesbaden. They refer to the Western part of the country until 1990 and to reunified Germany since then. Although until reunification the migration between the former German Democratic Republic (GDR) and the Federal Republic of Germany (FRG) should have been considered international, it does not seem to have been included in the statistics published by the FRG for the period 1965–90 (the number of Übersiedler, or migrants from the GDR, are published separately). Consequently, there appears to be no need to adjust the statistics for the inclusion of that type of migration. A second adjustment that would be needed to maintain comparability over time involves the inclusion of the international migration flows experienced by the GDR before 1990. However, data on such flows are not available.

References


Infant Abandonment and Adoption in China

KAY JOHNSON
HUANG BANGHAN
WANG LIYAO

That infant abandonment in China has revived in recent years is widely recognized, although the dimensions of the problem remain unclear. In the late 1980s and early 1990s a number of orphanages, especially in the south and central regions of the country, experienced significant increases in their populations (Johnson 1993). These increases coincided with government efforts to implement birth planning policies more strictly.¹

Not only did many orphanages receive increasing numbers of female infants after the mid-to-late 1980s, but they also experienced very high death rates among their inmates. Local officials and Chinese government statistics published in the early 1990s suggested that up to half of the children brought into the orphanages died, usually within the first few months after arrival. In poorer orphanages, the percentages were even higher.² Institutionalized care for infants in many countries and time periods has been linked with high death rates along with a “failure to thrive” syndrome (see, e.g., Rose 1986). Orphanages are disadvantageous places for young children, even under the best of circumstances. While many Chinese orphanages have greatly improved since the early 1990s because of increased support from the state, from charitable organizations inside and outside China, and from international adoptions, they are still far from adequate places to raise young children.³

Some orphanages arrange a significant number of domestic adoption placements for the predominantly female children in their care. Published records from one large orphanage in central China indicated that in the 1960s and 1970s, when the orphanage population was relatively small and contained a high percentage of children with disabilities, they were always able to find homes for healthy infants and even for moderately disabled children, using a recruitment network that reached into several other provinces (Wuhan shi zhi 1990). In the early 1990s, however, as the number of
children involved grew, timely adoption placements became increasingly
difficult, even with the advent of foreign adoptions. Moreover, many or-
phanages were never as effective in bringing about domestic adoptions,
and for them the increase in abandonment led quickly to severely over-
crowded conditions with insufficient staff and funds.

Several scholars who have written about orphanages and adoption have
assumed that domestic adoption of foundlings is uncommon in China today
due to cultural and social attitudes (Riley 1997: 90; Thurston 1996; Human
Rights Watch/Asia 1996: 100). Furthermore, the State Council in late 1991
passed an adoption law, which took effect in April 1992, that restricted the
adoption of healthy foundlings to those who were both childless and over 35
years old. This law reiterated, augmented, and codified previously existing lo-
cal regulations used in the 1980s to bolster birth planning efforts and the one-
child norm. Even before the law was officially passed, when many of its re-
strictive provisions existed more flexibly as guidelines or regulations, some
welfare officials complained that the bureaucratic obstacles to adoption dis-
couraged potential adoptive parents. Legal domestic adoptions were made even
more difficult by this law. At the same time, the new law permitted interna-
tional adoptions by childless singles and couples over 35, thus enlarging the
potential pool of adoptive couples to include those outside of China.

Because the issue of adoption is crucial to the fate of tens of thou-
sands of foundlings in China today, we wanted to know whether there
was a “culture” present that allowed for adoption of foundling girls. We
were also interested in learning about the effect on domestic adoption prac-
tices of the 1991 adoption law and previous regulations upon which it was
based. Were prospective adoptive parents deterred by this law? Were people
willing to adopt children unrelated by blood and of unknown parentage?
Were childless couples the primary people interested in adopting abandoned
girls? Or were foundlings being unnecessarily deprived of adoptive homes
in China by this law?

Although pre-1949 practices have been the subject of anthropologi-
cal and historical study, there has been little systematic study of adoption
practices in China since 1949. In the early 1990s, the topic of adoption
reemerged in the work of a few demographers seeking clues to the fate of
the so-called missing girls, that is, the shortfall in recorded female births
compared to biologically normal ratios of female-to-male births (Johansson,
to grow in the 1980s, creating an increasingly skewed reported sex ratio
among young children. What was happening to infant girls? Were they
being aborted, killed, or simply hidden from the record? It appeared from
analysis of sample surveys that “informal” and unregistered adoption ac-
counted for many of these missing girls.

But were these “informal adoptions” merely means of “hiding” girls
from the authorities, involving friends and relatives? Were they tempo-
rary? How was abandonment related to the missing girls and to adoption? Chinese demographers have asserted that abandonment is not an important contributor to the missing girls because abandoned girls end up in the hands of the government-run welfare centers that care for them and presumably record them (Zeng et al. 1993). Yet such assertions seem based on little knowledge, either of the difficult conditions and high mortality rates of the orphanages or of the extent of abandonment and government recovery of abandoned children. No one, including the Chinese government, truly knows how many children are abandoned each year. Various government officials and civil affairs publications have offered estimates of between 100,000 and 160,000, which would include abandoned children. Such figures are likely very conservative. Furthermore, at least one article in a Chinese publication claimed that only about 20 percent of these abandoned/homeless children end up in state care (Lu 1994). If this is true, what happens to the others?

What was clear at the outset of this study is that three phenomena affecting young girls increased from the mid-1980s on: skewed reported sex ratios, some sort of informal adoption involving girls, and female child abandonment. I hoped to learn more about each of these three developments and the interrelationship between them. My underlying concern was to learn more about the implications of these developments for the well-being of young girls today and to understand what needs to be changed to improve their situation.

Methodology

During late 1995 and 1996, information was gathered from 629 families through questionnaires administered to families who had adopted children (392) and to families who had abandoned children (237). In-depth interviews were conducted with 40 of the adoptive families. Approximately 85 percent of the abandoning families and 75 percent of the adoptive families came from one central province in China, located in over 20 counties throughout the province. The rest of the sample came from scattered locations in north, central, and south China. More than 95 percent of the abandoning families and about 85 percent of the adoptive families lived in rural villages or towns. The families were located using informal networks and through word of mouth. The adoptions spanned the period from the 1950s to the present, but over 90 percent occurred in the 1980s and 1990s. All but ten of the 237 cases of abandonment occurred in the 1980s and 1990s.

Information on adoption and abandonment was also gathered from welfare centers and interviews with local officials, including police, hospital staff, and county and township governments and civil affairs departments. In addition, materials were collected from government publications, newspapers, magazines, and journals.
Infant abandonment

Abandonment in China, past and present

The abandonment of female children, especially infants, has a long history in China. While abandonment and infanticide are not necessarily the same, in the past abandonment was often seen as a form of infanticide. Reference to the social practice of infanticide in China can be found as early as the Han dynasty (Lee 1981). As William Langer’s (1974) classic cross-cultural study of infanticide shows, the phenomenon is widespread over many cultures and time periods, including Europe until well into the twentieth century. But while abandonment may not have been more widespread in China than in many other areas, it was notable for a strong gender bias: all evidence indicates that infanticide and abandonment disproportionately affected females in China.

The practice varied regionally and over time. It is known to have waxed and waned according to economic conditions, worsening in times of famine and hardship. There is evidence that the practice was particularly widespread in areas along the Yangzi River and in the south and southeast, although not solely confined to these areas (Lee 1981: 165–167; Baker 1979: 6). In many of these areas, foundling homes sprang up in the seventeenth, eighteenth, and nineteenth centuries. In Hunan, for example, a large foundling home was established in the provincial capital in the late seventeenth century, and a network of over 60 foundling homes spread throughout the province by the nineteenth century (Hunan shengzhi 1988).

After 1949, evidence suggests that the incidence of infanticide declined with the return of political stability, social order, and the gradual improvement in economic conditions. Efforts to raise the status of women and socioeconomic changes relating to women’s economic roles also may have had some salutary effect. Similarly, abandonment seems to have declined, except for the famine years of 1959–61, when it increased markedly in many places (Johnson 1993: 69–70).

Yet, despite widespread improvements in rural living standards, birth planning efforts in the 1980s appeared to revive the twin problems of infanticide and abandonment, particularly the latter. In the early 1980s the government launched its first major campaigns to implement a one-child policy to reduce population growth, taking these campaigns into rural areas where they met stiff resistance. In response, government implementation efforts eased somewhat for a brief time. As a small concession to peasant resistance, many provincial governments in the late 1980s codified a one-son-or-two-child policy for rural areas. Under this policy a couple is allowed a second child if the first is a girl but not if the first is a boy. In a few areas, policies allowed two children, spaced apart by several years, regardless of gender. But at the same time this policy concession was made,
these governments reinvigorated efforts to implement birth planning policy, an approach known as “opening a small hole to close a large hole.” In the countryside enforcement can involve monitoring households’ reproductive behavior, “persuasion,” at times spilling over into direct coercion, stiff, escalating fines, and sterilization for “over-quota births.” The vigor with which the policy is enforced has varied over time and from locale to locale, but in general enforcement has been more vigorous and persistent since the late 1980s.10

In the middle and lower Yangzi area the problem of abandonment became acute in the late 1980s and early 1990s as birth planning efforts went into high gear and became more thoroughly organized (Johnson 1993 and 1996). Hunan provides clear evidence for this correlation. Investigative reports by Hunan civil affairs officials claimed that abandonment in the province increased sharply in the late 1980s along with a tightening of the implementation of birth planning. Those in charge of welfare centers said that their work provided a kind of barometer for birth planning efforts: when efforts were intensified in a particular area, the number of abandoned children entering the welfare centers increased in direct proportion (Hunan Province Civil Affairs Bureau 1992: 34–35). Evidence from Hubei indicates the same pattern: the numbers of children, particularly healthy girls, taken into orphanages there increased steadily from the late 1980s (Johnson 1993). Welfare workers attributed this to tightened implementation of birth planning regulations in the Hubei countryside.11 In Anhui, the Hefei Child Welfare Center also saw an increase in its population of abandoned female infants during this time. A big increase occurred in 1990, somewhat later than in Hunan and Hubei. This coincided with regional flooding that year; more importantly 1990 also marked the beginning of a major crackdown in birth planning efforts in many rural areas in Anhui, a crackdown that peasants and local birth planning cadres still recalled in interviews in 1995–96.

Families who abandon children

While the circumstantial evidence linking abandonment today with birth planning is strong, until now direct evidence concerning who abandons children and why they do so has been lacking. For obvious reasons, birthparents who abandon children have not been easy to find. Even court cases that seek to uncover culprits and their motives have been exceedingly few.12

In our fieldwork we were able to gather information directly from 237 abandoning families whose experiences spanned the 1980s and 1990s. All of the birthparents of abandoned children were married except for three cases involving children born to unwed mothers. We used a short standardized questionnaire that elicited general information about the compo-
sition of the family and the circumstances of the abandonment. We also conducted open-ended in-depth interviews with a small number of abandoning parents. While this sample was not random, it provides some clues as to who abandons children, what kinds of children they abandon, why they do so, how they do so, and with what consequences for themselves.

Orphanage and civil affairs officials believe that the vast majority of abandoned children, even those abandoned in cities, are from rural areas or from the “floating population” comprised of rural residents working outside their home villages. The vast majority (88 percent) of our cases of abandoning families were from rural villages and designated “agriculture” as their hukou, or occupational category and type of household registration. Only 3 percent of the abandoning families came from cities and 8 percent from county towns; about one-third of the latter also had “agricultural” hukou. While our measures of economic conditions were imprecise, most families seemed average for their area; in our sample, abandonment in the 1980s and 1990s is not related to relative impoverishment. Abandoning parents also had an average level of education for their age and region that consisted of primary school or junior middle school. Some parents, mostly older women, specified that they were illiterate, as is true of a significant proportion of older rural women in these areas. At the time of abandoning a child, parents were in their middle to late childbearing years, ranging from mid-to-late 20s to late 30s.

There has been much speculation about who within families makes the decision to abandon a child. Parents-in-law are often thought to place pressure on younger couples to produce a male heir, and in a patriarchal social structure one might assume that the husband and birthfather often has more say than the wife and birthmother. This was often the case. In about half of the cases in our sample it was reported that the decision to abandon a child was made by the birthfather; in 40 percent of the cases the birthfather and birthmother made the decision together. In most cases where the father was the primary decisionmaker, the birthmother knew about and at least reluctantly concurred with the father’s decision, although birthmothers frequently expressed emotional pain and remorse for the act. In a few cases the mother did not know about or opposed the act. In 5 percent of cases, the birthmother alone was said to have made the decision; in an equally small percentage of cases, parents-in-law were said to have been primary decisionmakers; they also appeared as important actors in several in-depth discussions.

Gender and abandonment: Who is abandoned and why?

The evidence from orphanages suggests that the very large majority of abandoned children are girls. Many orphanages also report receiving a high percentage of disabled children. The preference for boys has long been rooted...
in Chinese society. Sons are necessary to continue the patrilineal family line and all that this stands for in the family-centered culture and religious life of rural China. Most importantly, sons are permanent members of their father’s family and are still the major source of support for elderly parents in old age since rural China, outside of a few wealthy suburban areas, lacks a social security system. Daughters “marry away” and join their husband’s family, where they are obligated to support his parents. The main problem with daughters is that they “belong to other people.”

Because China ostensibly has a one-child policy, it is sometimes assumed that parents abandon their first child if it is a girl because they want their only child to be a boy. In fact, only a minority of rural areas have a simple one-child policy (White 1991). Most rural areas from which we gathered information had the more common one-son-or-two-child policy. Those who live in cities, major towns, or county seats and have an urban household registration, including all employees of the state (such as employees of government offices, state-owned factories, and state-run schools), fall under a one-child policy. Wealthy suburban areas of major cities also often have a one-child rule. This policy and the way it has been implemented shape the patterns of abandonment that we found.

In our sample of abandoning families, the most important determinants of who was abandoned were gender, birth order, and the gender composition of siblings. Not surprisingly, almost 90 percent (212) of the children who were abandoned were girls. But unlike the population reported in many orphanages, 86 percent of the abandoned children were reported to be healthy and without any known disability at the time of abandonment.

Yet it appears that not all girls are at increased risk. Birth order and the presence or absence of a brother were crucial in determining which girls were abandoned. Of 196 abandoned girls for whom we have information on birth order and sibling composition, 171 (87 percent) had no brothers.

<table>
<thead>
<tr>
<th>Only child (first-born daughter, no brothers)</th>
<th>Brothers only</th>
<th>Brother(s) and sister(s)</th>
<th>Sisters only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of abandoned girls</td>
<td>11</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td>Percent</td>
<td>5.5</td>
<td>2</td>
<td>11</td>
</tr>
</tbody>
</table>

Of these, 69 were second daughters, 62 were third daughters, 26 were fourth daughters, and three were fifth daughters. Only 11 were first daughters without brothers (only children) and in six of these cases there were extenuating circumstances that led to the abandonment: three of the first
daughters were disabled; two were abandoned because their father died and their mother remarried; and one was abandoned because her birthparents were not married. Of the remaining five, two were born to some of the few parents in our sample who fell under the one-child rule, one to a state-employed teacher with an urban household registration and the other to a resident of a wealthy suburban area of a major city.

In all cases of abandonment where there were no sons in the family (aside from the one case of a birth to an unmarried mother), the primary reason given for abandoning a daughter was the desire to have a son by preserving the chance for another pregnancy in the context of current birth planning restrictions. Sometimes people also mentioned the fear of being fined for an over-quota birth, either the one in question or the hoped-for next attempt to have a son. The avoidance of a steep economic penalty was given as the sole reason for abandoning a child only when sons were already present and the abandoned child was a second or third over-quota child.

Of the 25 abandoned girls who had brothers, all but four also had older sisters, making a total of only 15 abandoned girls in the entire sample who had no sisters. Thus, it was quite rare for the only girl born into a family to be abandoned, regardless of birth order and sibling composition. In one of the four cases where an only daughter with a brother was abandoned, the girl was disabled. In two other cases, the families said they were avoiding high fines from birth planning cadres; one of these birthparents, already with two sons, said he had also been threatened with losing his job in a local factory unless this second over-quota child “disappeared.” In the fourth case, the family already had two boys and said simply that they “didn’t like girls.” Such extreme sentiments were rare. In most cases where a girl with a brother was abandoned, the abandoned child was a second or third daughter with one or two older brothers. These cases of large, two-gender sibling groups were more likely to have occurred in the 1970s or early 1980s; only two involving healthy girls occurred in the 1990s. “Economic hardship” and “too many children” were the most common reasons cited for these earlier cases of abandonment; such reasons were never cited in other cases.

There were only 25 abandoned boys in our sample of 237 abandoning families. The most striking feature of this group is that fully 60 percent (15) were disabled or severely ill, in contrast to only 8 percent of the abandoned girls. Two of these boys were known to have subsequently died. Of the ten healthy boys in the sample, two were born to unwed mothers, and two were abandoned after the father died and the mother could not bring the child into a second marriage. Interestingly, two cases of abandonment of healthy boys mirrored the typical case of female abandonment. In these two cases the abandoned boy was identified as a third son with no sisters, and the birthparents said they abandoned the boy because they “had too
many sons” and were hoping for a daughter. Had the child been a girl, they would have paid the fine and kept her. Although these cases are few, they indicate that strict birth planning policies may make gender a liability even for healthy infant boys under certain circumstances.

The vast majority of children were abandoned within the first six months after birth, one-third (79) within the first two months. A few were abandoned between six and 12 months after birth. Only two children in our sample were significantly older at the time of abandonment. One girl, the third of three daughters, was five and a half. She was severely disabled from a childhood illness and at the time she was abandoned her mother was pregnant with a fourth child (who turned out to be a boy). Another three-year-old, the older of two daughters, was abandoned when her birthmother became pregnant with her third child. While one might think that the latter scenario would be common—keeping a child until the next was on the way—it was fairly rare in this sample. In addition to these two, there were a few cases where the abandonment of older infant girls was prompted by the discovery of another pregnancy. For the most part, birthparents decided very early to abandon a child, and few abandoned a child they had raised for over eight months. It was also extremely rare for an older sibling, rather than the youngest, to be abandoned; we found only the one case mentioned above. Evidently it is far more difficult to part with a child after caring for her for many months than it is in the immediate aftermath of a birth that is marked by intense disappointment due to the failure to produce the longed-for son. Also if the pregnancy was known to local officials, as is sometimes the case, it is easier to explain the disappearance of a newborn as a stillbirth or miscarriage than to explain the disappearance of an older child.

Thus the typical profile of an abandoned child is a healthy newborn girl who has one or more older sisters and no brothers. She is abandoned because her birthparents already have daughters and want a son. These birthparents routinely say they did not want to abandon the child but that given their desire for a son, birth planning policies left them “no choice.” In many cases, the birthparents are avoiding future fines by abandoning a second daughter in order to try again for a son; the birth of the second daughter herself would not result in her parents being fined. Perhaps more importantly, they are avoiding pressures to abort the next pregnancy if they get caught, for in many areas over-quota pregnancies, if discovered, will be targeted for abortion. When birthparents abandon a third or higher-parity daughter, they usually expect to be fined for a future birth but feel they cannot afford the escalating costs for each over-quota child; fines, which may equal a year’s income even for the first over-quota child, rise sharply with each birth. Most importantly in some areas in the 1990s, people who are caught giving birth over-quota several times are required to ac-
cept sterilization. Thus while families who “go over-quota” may expect to pay fines for one over-quota child, hopefully a son, they often cannot afford to do so for two or three, especially since the fines escalate for higher-parity births. Once marked as an over-quota family, they may experience such heavy pressure and scrutiny that it becomes impossible to go forward with another pregnancy, depending on the birth planning atmosphere in the local area at that particular time. Hence they see no choice but to get rid of the over-quota girl.

Although many people abandon female infants in their quest to have a son, most do so only after they have reached or exceeded the limits imposed on them by birth planning. Girls are not readily abandoned. It is notable how many of the abandoned girls in our sample are higher-parity and over-quota. Even in the 1990s when birth planning has been relatively strictly enforced, people often manage to have one or more over-quota children—either by “hiding” them or by paying fines—before turning to abandonment. In addition, few married couples abandon first-born daughters even when sons are present and these daughters are “over-quota.” While doing this research we met several people whose first children were boys who then proceeded with over-quota births in order to have a daughter. In the 1990s, most people paid fines for these girls. This is consistent with another finding of our research that will be discussed later—that most people want to have a daughter in addition to a son. While few will abandon a son in order to have a daughter, some will proceed with over-quota pregnancies and accept fines in their quest for a daughter, while others will adopt a girl after giving birth to one or more sons, an act that may also result in a hefty fine, as we will see below. In the 1990s, those who abandon daughters are generally parents who have had multiple births without producing a son.

This profile suggests two seemingly contradictory patterns of behavior: that birth planning restrictions eventually lead some people to abandon “excess” daughters in their quest for a son but that most people want to have and keep at least one daughter.

How and where children are abandoned

The manner in which children are abandoned suggests that a continuum of care and planning is involved, ranging from those who simply leave a child in a convenient place where the abandoning party will not get caught to those who surreptitiously attempt to orchestrate a specific “adoption plan.”

It is believed that parents sometimes travel long distances to abandon a child, riding on trains or buses to take the child to a crowded public place. Orphanages in major municipal areas report that children are often found in railway or bus stations. Officials believe that children abandoned in the
city usually have been transported from rural areas. Some documentary evidence also suggests this kind of “traveling abandonment” (Hunan Province Civil Affairs Bureau 1992). Distant crowded places offer anonymity and the assurance that the child will be found quickly. This method of abandonment also removes the “problem” from local cadres’ jurisdiction and thus reduces or eliminates their motivation to investigate and punish a case of abandonment.

But in the sample we gathered, many children were abandoned in areas not far from the birthparents’ home. On rare occasions birthparents specified that they abandoned the child in their own village, but more often they went to another area in the same or nearby township or county. Children are left on frequently trodden paths leading to fields, on roads connecting villages, on bridges, at the entrance to government or hospital buildings, and not infrequently at people’s doorsteps. About 20 percent of abandoning parents said they placed their child at someone’s doorstep. These abandoning parents stated that the targeted families were chosen because they seemed likely candidates for adoptive parents. As we will see when we look at adoptive parents, the doorsteps of childless couples and of families with sons but no daughters are favored places for abandonment. Whether a child was left on a doorstep or on a public road, about half of the birthparents claim to know what happened to the child. Some watched to be sure the child was picked up. When children are abandoned locally, word of mouth also provides a means of discovering what happened. Many birthparents expected that the child would be adopted directly by a local family. Yet other birthparents report they have no knowledge of what happened to the child, and do not even know whether the child is alive.

Evidence that some cases of abandonment are carefully planned with an eye to finding a new home for the child, thus blurring the distinction between abandonment and arranging an adoption, will be discussed further when we review our research on adoption, for this is where we learned most about this behavior.

Consequences of abandonment for birthparents

Abandonment is clearly specified as a crime in the Marriage Law of 1950 and 1980 and in the omnibus Law Protecting the Rights and Interests of Women and Children passed in 1992. But as legal scholar Li Xiaorong points out, there are few special provisions for the prosecution of crimes specified in these laws (Li 1996). Most commentators agree that there have been few prosecutions for the escalating crime of abandonment (Hunan Province Civil Affairs Bureau 1992; Human Rights in China 1995).

In our sample, most people who abandoned children were not punished, even though most were unable to keep the act a secret. Out of 237
abandoning families, only 58 (about 25 percent) reported being discovered by the authorities and punished. Punishments consisted of fines that in 17 cases were coupled with sterilization for the birthmother. In some places the risks of being caught and punished seemed to be much higher than in others. As with birth planning in general, some counties and townships exerted far stricter control than others. But despite the existence of pockets of strict enforcement and punishment by birth planning authorities, it is clear that in the areas where we gathered information, abandonment was often a successful method of concealing live births and avoiding punishment for over-quota births so as to preserve the opportunity for another pregnancy.

When birthparents were caught and punished, fines ranged from several hundred yuan to several thousand yuan. In the 1990s, the fines ranged from 2,000 to 5,000 yuan, similar to the fines levied for having an over-quota child. These punishments were in fact considered birth planning punishments, meted out for attempting to get away with over-quota births; in no case was abandonment treated as either a criminal or civil offense by virtue of endangering or violating the rights of the child, or as a violation of the Marriage Law, which also prohibits abandonment. In only two cases were the courts involved at all. In one case the punishment was not specified. In the other case the courts punished the family with “education” and sent a local television crew to the house to videotape the guilty parties so that they could be publicly exposed and criticized. We also heard of another case, not in our sample, where a woman who had abandoned children three times was tried by the courts and imprisoned briefly. In all other instances the punishment was administered by birth planning authorities, not the courts. What has been at stake in the government’s concern over abandonment is not protecting the interests or legal rights of the children involved but maintaining a firm grip on birth planning and population control.

Although most birthparents escape legal consequences and birth planning punishments for abandonment, some nonetheless suffer less tangible emotional consequences. Some birthmothers said they felt the loss of the child for many years, although most claimed to have gotten over it in time. In one in-depth interview, a birthmother claimed at the outset, in a matter-of-fact manner, that after almost ten years “time had healed” her wounds. Yet despite her words and initial demeanor, this interview ended when she became overwhelmed by tears and had to walk away, saying she never again wanted to think about this matter. In another interview, a birthmother wept silently before we even began to speak; several years after abandoning her second daughter she remained undecided as to whether she would ever proceed with another pregnancy despite the fact that she held a certificate of permission to give birth again and was under great pressure from her husband and in-laws. She vowed that if she did decide to become pregnant, she would never again abandon one of her
babies regardless of the gender. The questionnaires alone, however, elicited little of the underlying pain and emotion that certainly existed in many of the cases.

Public opinion concerning abandonment seems mixed. Most people do not condone abandonment and many strongly disapprove and consider those who commit this act to be immoral or cold-hearted at best. But many also express “understanding” for the motivation of those who feel compelled to abandon a child, and many do not wish to meddle or judge those who commit this act. Thus public opinion in villages appears to provide some leeway for this behavior, although this varies from place to place, just as the likelihood of punishment varies. In areas where birth planning officials seemed particularly likely to seek out and severely punish abandoning parents, public opinion also seemed less tolerant of abandonment, and birthparents sometimes reported that their neighbors had turned them in to the authorities. In most areas, however, people were not turned in even though fellow villagers knew what they had done. Even people who disapproved would not necessarily report the act to higher-level officials. We also heard of cases in which lower-level officials knew of the abandonment but did not pursue the matter; cadres are more likely to look the other way when the abandoned over-quota child does not end up in their jurisdiction. As shown in the next section on adoption, many abandoned children quickly and safely find new homes. Knowledge of this sort of outcome for the child may help soften harsh attitudes toward abandoning parents.

Infant adoption

As stated earlier, our interest in adoption arose in part out of a concern for the fate of abandoned children who needed new adoptive homes. As social scientists, we also had a larger theoretical interest in how adoption customs had changed in the context of decades of political change, rapid economic development, and now severe legal restrictions imposed by the state on fertility and family size. Is there a contemporary popular culture, in a society with strong patriarchal, patrilineal traditions and long-standing son preference, that can accommodate the adoption of foundlings as daughters? Or does contemporary Chinese society resemble Korean society, unable to provide sufficient numbers of adoptive homes for homeless children because of negative attitudes toward adoption outside of close bloodlines? If traditional practices relating to the adoption of girls (such as for servants or “little daughters-in-law”) are no longer prevalent, are there new reasons to adopt girls? Even if there is a cultural capacity for adoption, are people willing or able to adopt children given the regulatory and legal restrictions on adoption that have developed to bolster birth planning? Are these legal restrictions widely enforced?
By the mid-1980s, the issue of adoption had become a matter of population control and as such it came under increasing governmental regulation. In December 1991 the first adoption law of the People's Republic was passed, codifying regulations that had been in place for many years. As stated earlier, this law, which took effect in 1992, mirrors and reinforces the one-child policy. It stipulates that healthy children, whether foundlings or children put up for adoption by their birthparents, can be adopted only by parents who are childless and over 35 years old. Disabled children and true orphans—defined as children whose parents have died—are exempt from these restrictions.

In fact, similar provisions sometimes existed as orphanage guidelines for adoption in earlier decades as well (Johnson 1993). But the purpose of these guidelines in earlier years was to prevent people from adopting girls to become servants or wives for other children in the adopting family; reformers insisted that the girls be adopted to become daughters. By the 1980s when such regulations were being enforced by birth planning cadres as well as by civil affairs units handling adoptions, the traditional practice that gave rise to such guidelines—the adoption of girls as “little daughters-in-law”—no longer existed to any significant extent. In the 1980s and 1990s such provisions are enforced to buttress population control efforts, not to protect the interests of the adopted children.

At least partly as a result of legal restrictions, the number of officially recorded adoptions today is fairly low. In recent years, civil affairs officials claim that only about 8,000 to 10,000 legal domestic adoptions are registered each year (interviews, June 1996). Other official sources have claimed somewhat higher figures, up to 20,000 per year, perhaps including an estimate of adoptions arranged through private contract (Liang 1996). For a population the size of China's, especially one with various traditions of adoption, even the higher figure represents a relatively low rate. In the United States, with one-quarter the population and much weaker traditions of adoption prior to the twentieth century, there are about 100,000 legally processed adoptions each year, although statistics on US adoptions are also scattered, local, and incomplete. Chinese officials readily admit that many adoptions are not registered. Among other things, families arrange adoptions through private contracts, as has been the long-standing custom. As long as these do not violate the provisions of the adoption law, it appears that they are not technically considered “illegal.” Yet there is no specific apparatus to supervise these adoptions. In practice, the matter is generally left to birth planning cadres to police these as an extension of their birth planning work. As stated earlier, some demographers estimate that several hundred thousand “informal” unregistered adoptions occur every year, far more than the number that are officially registered. This has been one of the places where missing girls are thought to go (Johansson and Nygren 1991; Tu 1993).
The 1991 adoption law was intended to plug up this means of escaping from birth planning, that is, to prevent birthparents from arranging adoptions for “excess” daughters so as to be able to try again for a son. Thus, in the midst of increasing abandonment and overcrowding in sorely under-funded orphanages plagued by high mortality rates, China’s first adoption law was brought directly into the service of birth planning and population control. This use of adoption policy for the purpose of population control seems without precedent anywhere else in the world, even in other poor countries struggling to reduce population growth through government programs.19

With both theoretical and practical policy issues in mind, we gathered information from 392 adoptive families. This sample is both too small and too biased to provide clear longitudinal information or to provide more than hints about the extent of adoption today. But the patterns and attitudes we uncovered do provide some basis for building an understanding of contemporary adoption practices. By comparing these with what is known about adoption in the past, we can gain some ideas about the direction of change that has occurred in recent decades.

A brief history of adoption

A rudimentary knowledge of Confucianism and Chinese society might lead one to assume that adoption, especially adoption outside of close bloodlines, is likely to be unusual and closely proscribed by custom owing to the Confucian emphasis on blood ties. Traditional Chinese law prohibited adoption across surname lines, and normative texts argue against adoption. But in fact, various practices of adoption have a long and varied tradition in China and have been quite common, although some scholars have suggested that adoption declined in the mid-twentieth century.20 A number of strains in Confucianism and in popular culture support adoptive ties outside as well as inside bloodlines and support the use of adoption of both boys and girls to build family and kinship.

Ann Waltner concludes her study of adoption and kinship in Ming and Qing China by arguing that

[l]aw and other normative texts, viewing the family as a patrilineal and patriarchal institution with a primary obligation to continue ancestral sacrifices, prohibited adoption across surname lines. . . . But adoption across surname lines was nonetheless relatively prevalent. And furthermore, the practice was accompanied by an ideological structure that described and justified adoption across surname lines. This competing ideology, encapsulated in the term ming-ling tzu, suggests that the lines dividing outsider from insider, stranger from kinsman could in fact be crossed. (1990: 144)
The term ming-ling tzu (pinyin: mingling zi) literally means “mulberry insect children.” The use of the term to refer to adopted children, in particular children adopted outside a close circle of patrilineal relatives, derived from the belief that the wasp took the young of the mulberry insect and transformed them into young wasps, making them its “own children.” According to folk belief, the wasp raps and taps outside its nest, in which it has put the mulberry insect’s young, and prays, “Be like me, be like me.” After a period of time, young wasps emerge. Thus, one who becomes the child of someone other than his or her birthparents is known as a mingling zi. The metaphor is remarkable in its near total denial of the significance of heredity in shaping the child, emphasizing the wholesale transformation of the biological offspring of one set of parents into the likeness of adoptive parents by virtue of being raised by them. Almost no semblance of biological origins remains. Confucian emphasis on upbringing and cultivation as the key to character provides further support for ties built on nurture and social relationships rather than biology and heredity.

Not only can one find sanction in popular ideology for adopting and for adopting outside one’s bloodlines; in practice, anthropologists, observing customs in the nineteenth and twentieth centuries, have often found a preference for adopting strangers rather than relatives. Adopting the children of strangers, perhaps through intermediaries, helped protect adoptive ties from future interference from birthparents or other relatives and made it less likely the child would ever try to return to his or her birth family (Watson 1975: 298–299; Wolf and Huang 1980: 209–211).

Similarly, while most formal adoptions gleaned from historical documents and court records involve the adoption of males for the purpose of providing an heir—the only purpose for adoption that was sanctioned by law—popular adoption practices often involved females (Wolf and Huang 1980). As Waltner observes, female adoptions were not likely to be part of the historical record, either in genealogies or court records, because, within the prevailing patrilineal kinship system, their adoption did not bear on lineage matters or involve issues of property and inheritance (Waltner 1990: 122). At the same time, girls were more likely than boys to be available for adoption because they were more expendable from the point of view of birth families. Furthermore, the ambiguous position of females, especially children, in the formal kinship structure and bloodlines made girls more readily exchangeable and hence more “adoptable” as daughters regardless of whether they came from sources inside or outside bloodlines. Our research suggests this may continue to make the adoption of daughters of unknown parentage a relatively easy and acceptable matter for adoptive parents in contemporary China.

Anthropologists studying adoption in prerevolutionary China found that the most common form of female adoption was taking in an infant.
girl to be raised as a future daughter-in-law and wife for a son, a tongyangxi (Wolf and Huang 1980). This practice avoided the often ruinously high ceremonial expenses involved in the normal form of marriage and had the advantage of providing parents-in-law, especially mothers-in-law, with greater control over their daughters-in-law and lessened the chance that the younger woman could disrupt the crucial relationship between parents and son (Wolf 1972). Childless couples also adopted girls in the hope that doing so would “lead in” a son. If the hoped-for son did not materialize, the couple at least had a daughter who might serve as a caretaker and as a possible means to obtain a son-in-law uxorilocally, that is, to find a man who would marry into his wife’s family and allow his son to become his father-in-law’s heir. Although this was considered a lowly arrangement for a man, poor men might be willing to marry in this way for economic reasons.

In some communities in the nineteenth and early twentieth centuries, these various practices were so widespread that the majority of girls were adopted and few people raised their own birthdaughters (Wolf and Huang 1980). In other areas, these practices affected only a small minority. But their existence showed the flexibility of traditional practices and the way in which adoption could be used and manipulated by families as a means to compensate for inadequate outcomes of biological reproduction. They also provided a traditional precedent for the adoption of girls. Another tradition that resembled adoption involved buying girls as household servants. These girls were not “daughters” but were often treated as household members and, like daughters, had marriages arranged for them by the household head.

One of the first questions raised by an examination of these traditions is whether adoption of girls today follows any of these traditional patterns. In the twentieth century, the practice of taking in a tongyangxi was made illegal, as was buying children as servants. Reports of the revival of various traditions, ranging from traditional arranged marriages to trafficking in women and girls as wives, servants, and prostitutes, raise questions as to whether adoption traditions have also been revived or have survived the years of being legally banned. Fieldwork of various kinds in recent years has not come across these practices. If these traditions have in fact faded in most areas of the mainland, as they have in Taiwan, what purpose does adoption of girls serve today?

Given that we have little knowledge of contemporary adoptive practices and little prior fieldwork to draw on, even more fundamental questions arise. What proportion of adoptions involve girls versus boys? Susan Greenhalgh found in her study of three Shaanxi villages that adoptions, involving about 4–5 percent of children, changed from being a custom involving both genders in equal numbers prior to the 1970s to involving only
girls after the implementation of strict birth planning (Greenhalgh and Li 1995). Sten Johansson and his colleagues using survey data for the late 1980s also found that a disproportionate and growing number of informal adoptions in China involved girls (Johansson and Nygren 1991). But it was unclear whether Johansson’s informal adoptions were true adoptions or simply a means of temporarily hiding girls from authorities. Would we find a similar gender imbalance in adoptions? What kinds of people adopt? Are most adoptions arranged between relatives, or do many adoptions involve strangers? How many involve abandoned children? What reasons do people give for adopting children? Do these differ according to the gender of the child adopted? How have adoptive parents been affected by birth planning regulations and, in the 1990s, by the restrictive adoption law?

There are also many questions about the status of adoptees in contemporary society. Regarding the past, much evidence exists that adopted children, whether boys or girls, occupied a lower social status in their families and communities than other children. Adopted sons might be pushed out or discriminated against in inheritance if a birth son came along after the adoption (Wolf 1972: chapter 2). Tongyangxi were said to occupy the lowest status in the family, far below that of a birthdaughter or a daughter-in-law who married in as an adult. The studies of Arthur Wolf and Chieh-shan Huang found that adopted daughters had significantly higher mortality rates as infants and children than daughters raised by their birthparents, who generally fared about as well as sons (Wolf and Huang 1980: 238). What status do adoptive children today have in the family? How are they viewed compared to birthchildren? Do they suffer discrimination within their adoptive families or from the community? Do they suffer from political or legal discrimination?

Who was adopted?

The 392 adoptions in our sample spanned the period from the late 1940s to the present. About 80 percent took place after 1985, and about half in the 1990s, up to August 1996. The vast majority of the adoptions were of children unrelated to the adoptive parents by any kinship ties; fewer than 10 percent involved relatives.

Like Greenhalgh and Johansson, we found that the majority (307) of adoptions involved girls, although our pre-1980 data are not sufficient to show any statistically significant change in this proportion over time.

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<td>119</td>
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<td>71</td>
<td>81</td>
<td>77</td>
<td>78</td>
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</tr>
<tr>
<td>Percent abandoned</td>
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<td>30</td>
<td>58</td>
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</tbody>
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We also found a relatively high proportion of abandoned children among those adopted. Sixty percent of all adopted children had been abandoned, with the proportion of abandoned children increasing over time. Two-thirds of the 307 adopted girls had been abandoned. Only one of these girls was disabled, although several adopted abandoned girls were reported to be quite sick upon adoption, and in our interviews we heard about several adopted abandoned babies who died shortly after being found by adoptive parents. The vast majority in our sample of adopted abandoned girls were infants under six months old at the time of adoption; all but eight of the 203 adopted abandoned girls were under one year old. There was also a small number of abandoned boys (34) in the sample. While only one out of 307 adopted girls was disabled, six of the 34 boys had disabilities and two others were very sick when adopted. In most cases, these abandoned children were found by the adoptive parents themselves or by their friends or relatives. In only 13 cases were welfare centers involved in placing children.

Many of the remaining adoptions involved orphans. This was especially true in the case of boys. Thirty (59 percent) of the 51 non-abandoned boys who were adopted became available for adoption because one (5) or both (25) birthparents had died. The parents of another boy were too mentally disabled to care for him, and the parents of a disabled boy were unable to care for him for economic reasons. Thirty (29 percent) of the 104 non-abandoned girls were available for adoption because one (10) or both (20) birthparents had died. Orphans were often adopted by relatives.

According to the adoptive parents, many of the other adoptions of girls were arranged by birthparents for reasons quite similar to those given by birthparents who abandoned girls: these girls had one or more sisters and no brothers in their birth families and their birthparents wanted a boy. Sometimes such adoptions were arranged between relatives. About 20 percent of the girls and 15 percent of the boys in arranged adoptions (i.e., adoptions of non-abandoned children) were adopted by relatives. In several cases, a maternal aunt became the adoptive mother, while the birthmother became the maternal aunt. But in the majority of cases an unrelated adoptive family was found through friends or relatives. The fine line that might exist between arranging an adoption of an “excess” daughter and an act of abandonment was illustrated in one case of adoption where “friends of friends” came to an infertile couple with their third birthdaughter and pleaded that if the couple did not adopt the child, they would have to abandon her.

Adopted girls were on average younger than adopted boys at the time of adoption. Most girls, whether abandoned or not, were adopted within their first year except in the case of orphans. Boys tended to be adopted at an older age partly because more of them were orphans. Only a few boys were available for adoption as infants, and most of these were abandoned.
Like abandoned girls, most adopted abandoned boys were under six months old (29 out of 34), but five of these adopted abandoned boys were between three and seven years old.

These patterns of difference of course reflect the higher value that families place on sons than daughters. Over-quota or “excess” sons are kept in the family even though many families with one son would prefer to have a daughter rather than a second or third son; boys available for adoption are more likely to be orphans because usually only catastrophic conditions lead families to part with boys. Boys are still seen as necessary for old-age security and for continuing the family line. More families abandon or, when feasible, seek adoptions for “excess” daughters because of the greater strength of the desire to have a son.

Who adopts and why?

All of the adoptive parents were married couples, except for seven single men and two single women. Unlike the residential distribution of abandoning families, which was more rural than the general population, the distribution of our adoptive family sample roughly fit the distribution of the area we studied. About 65 percent lived in villages, 20 percent in county-level towns, and 15 percent in cities. Around 75 percent of the sample stated that they had agricultural hukou. For the most part, incomes of adoptive parents were average or slightly above average for the areas from which they came, with a few well above average and a few significantly poorer than average. Adoptive parents tended to be better educated than abandoning parents, primarily because more of them came from towns and cities, where residents generally enjoy better educational opportunities and higher incomes.

About half (195) of the adoptive parents in our sample were childless at the time of adoption. Only 35 of these cases (including the nine single-parent adoptions) involved parents over 35 years old as required by law for the adoption of healthy non-orphaned children. Childlessness is widely seen as an unacceptable and unhappy state; adoption is the logical way to overcome this. And for most people, age 35 is considered too old to wait to become a parent, especially in rural areas.

<table>
<thead>
<tr>
<th>Family composition at time of adoption</th>
<th>Adopting girls</th>
<th>Adopting boys</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Childless</td>
<td>148</td>
<td>47</td>
<td>195</td>
</tr>
<tr>
<td>Sons only</td>
<td>130</td>
<td>4</td>
<td>134</td>
</tr>
<tr>
<td>Daughters only</td>
<td>7</td>
<td>22</td>
<td>29</td>
</tr>
<tr>
<td>Sons and daughters</td>
<td>20</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>Unknown</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>307</td>
<td>85</td>
<td>392</td>
</tr>
</tbody>
</table>
Most of the childless families adopted girls because that was what was available to them. However, many claimed that the gender of the child did not matter and only a few pointed out that boys were not available. The specific reasons childless couples gave for adopting tended to differ somewhat depending on whether a boy or girl had been adopted. When a boy was adopted, functional and economic reasons were often given: “raising a son for care in old age” was most common, followed by “strengthening the family economy” and “continuing the family line.” With girls, less tangible, emotional reasons were more common, such as to “increase the joy of life,” although care in old age was also mentioned. Many childless couples mentioned that girls had special characteristics to be appreciated—they were more filial, closer to their parents, and more obedient than boys. While boys may be preferred, a daughter, much more easily obtainable through adoption, also can bring happiness and “make a family” for a childless couple.

Officials and scholars have claimed that “only parents unable to bear a biological child will seek to adopt” in China today because of small-family norms, birth planning policy, and attitudes toward adoption (Riley 1997: 90; interviews with civil affairs officials, Beijing, June 1996). But half of our cases involved adoptive families who had children at the time of adoption. Our data suggest that when families with children adopt, it is often to acquire a child of the “missing gender.” The desire to have a son is well known, and adoption might fulfill this if a sonless family is lucky enough to find a healthy boy available for adoption. But the desire for a daughter also shapes the way many people imagine and build their families, including through the use of adoption. For most people today the ideal family includes a daughter as well as a son.23

Thus, parents who only have sons often seek to make their family “complete” by adopting a daughter. As shown in the table above, about one-third (134) of our sample of adoptive parents already had one or more sons but no daughters at the time of adoption; fully 130 of these adopted girls. Almost all of these people adopting girls said that they adopted, in large part, because they specifically wanted a daughter. “A son and a daughter make a complete family” was a common expression among these adoptive parents. Daughters were also said to be “close” to their parents and to be particularly caring and loyal. In cases where the girl was abandoned, “sympathy for the child” was frequently given as an additional reason for adopting. Only four of the 134 families with sons but no daughters adopted a boy; in one of these cases the birthson was mentally disabled and the family wanted a healthy son. Conversely, only seven families who had daughters but no sons adopted another daughter and only 20 families with both sexes in their family adopted girls.

Similarly, most people who adopted boys had no sons. Adoptive parents who had only daughters said they wanted a boy for care in old age, to
strengthen the family economy, and to continue the family line. Most cases involving an adoption when the same-sex child was already present in the family (41 cases) were explained by special circumstances, such as the death of relatives or the inability of the adopting family to find other adoptive parents for a child they “sympathized” with. Few people claimed they adopted simply because they wanted a larger family. No one who adopted wanted a family of more than two children except for reasons of gender balance. Thus by far the most common reason for people with birthchildren to adopt was to bring a child of the “missing” gender into their family.

The adoption of abandoned children

One of the most notable patterns found in our interviews and survey data on adoptive parents involves the adoption of abandoned children. The percentage of abandoned children among adoptees was very high and it increased over time. Sixty percent of all of adopted children in our sample were foundlings. Although the vast majority of these children were girls, people expressed no reluctance to adopt because of this. As we pointed out, many of those who adopted foundlings specifically wanted to adopt a girl and would not have been interested in adopting a boy because they already had a son.

Furthermore, people expressed few qualms about adopting children of unknown parentage as long as they were basically healthy, that is, without congenital disabilities. It was assumed that if such children were raised as “their own” children they would become like their own children. One adoptive mother smiled as she spoke of how her neighbors thought that her secretly adopted foundling daughter looked just like her and the younger of her two sons. She said they all share the same personality and manners. According to her, children become like the people who raise them, even in their physical appearance. One is reminded of the mingling zi metaphor: the female wasp rapping and tapping on her nest of mulberry insect babies, praying, “Be like me, be like me,” then after a period of time looking into the nest and finding wasps like herself.

In some cases it seemed clear that abandoning parents were aware of the likelihood that the adoptive family would be interested in adopting a child. In 52 of the 203 cases of adoptions of abandoned girls, or about 25 percent of the cases, the child was found outside the family door by the family that adopted her. In all but one of these cases, the family was either childless or daughterless. The pattern was less pronounced with boys, but still present. In four of the 34 cases of abandoned adopted boys, the boys were found on the doorstep of childless or sonless couples. Although adoptive families rarely knew who the child’s birthparents were, some birthparents clearly knew something about the adoptive parents.
This pattern suggests that many abandoning families are in effect trying surreptitiously to arrange an adoption for their “excess” daughters. Given the predictable patterns of gender preference that exist, it is fairly easy for abandoning parents to guess who might be interested in adopting a girl. The delivery of a foundling to the door of a receptive family was particularly common in one county, almost as if it had developed as a sort of custom in response to tight birth planning restrictions, restrictions that would also make it difficult to openly arrange adoptions. In this particular county, 19 out of 30 adopted abandoned children (all girls) had been found by the adoptive family on their doorstep. This county also levied high fines for adoptions by people who were not childless, around 3,000 yuan, and administered among the most severe punishments for abandonment we found in the areas we studied (fines of 2,000–3,000 yuan plus sterilization). One family named their adopted child San Qian, meaning “three thousand,” because that was the fine they paid for adopting this foundling.

Clearly, many birthparents expected that their child would be adopted directly by a local family, and some learned precisely which family had the child. In one case remorseful birthparents who knew where their birth-daughter was living attempted to recover her a year after the abandonment. The adoptive parents were extremely displeased at the intrusion and successfully rebuffed repeated attempts by the birthparents. Although we heard of only three such cases from our sample of adoptive parents, the patterns of abandonment we observed make it possible for birthparents and adoptive parents to become embroiled in battles over children not unlike those that have emerged occasionally in the United States. In rural China, however, it appears that the cards are stacked firmly against the birthparents. Courts cannot be called upon to intervene on their behalf. Not only was their act illegal and a blatant attempt to circumvent birth planning, but it seems that most people in the community would sympathize with the adoptive parents and support their “right” to keep the child. As several people told us, “raising a child carries more weight than giving birth to a child.”

Consequences of adopting abandoned children

The thin line that sometimes exists between abandoning and “adopting out” a child in order to have an opportunity to give birth again helps explain why birth planning officials sometimes crack down on adoption regardless of how irrational it seems for the government to take away an adopted child only to place it, at government expense, in an under-funded welfare center; many local areas do not even have facilities to care for homeless children. Levying stiff fines for “over-quota” adoptions is expected to curtail the use of adoption as a means of circulating “excess daughters”
from those who have too many to those who have none. Thus adoption of healthy, non-orphaned children has long been considered the purview of birth planning cadres, even before the adoption law was passed in late 1991.

About half of the healthy, non-orphaned children were adopted by childless couples, but most of these were below the required age. None of these under-age couples was fined. Violating the age restriction did not in itself bring fines even in the 1990s after the adoption law had been passed, although many under-age parents said they could not register their adoption and obtain a proper household registration for this reason. But one-third of the adoptive families with birthchildren were fined, and five of the adoptive mothers with birthchildren were also sterilized as part of the “cost” imposed on them by birth planning authorities for adopting in violation of adoption and population control policies. In effect, non-orphaned adoptive children, even (indeed especially) those who are abandoned and homeless, are treated as “over-quota births” if the adoptive parents have another child. Adoptive parents are fined and punished as if they themselves had violated birth planning by having an over-quota birthchild.

In our sample, fines ranged from several hundred to several thousand yuan. In the 1980s, when incomes were lower, fines were often in the lower range. But as early as the mid-1980s, fines of 2,000–3,000 yuan were sometimes levied for an over-quota adoption. In the mid-1980s such a fine would have been daunting indeed. Even today, when incomes are much higher, this fine might be equivalent to a year’s earnings of a middle-income rural family in the areas we investigated. In the 1990s, fines in a few cases in our sample were as high as 10,000 yuan. In recent years newspaper articles have reported fines in urban areas as high as 30,000 yuan for “over-quota adoptions,” a truly unmanageable fine for most urban residents ("Harbin woman challenges adoption law" 1996). In several cases in our sample, people successfully avoided fines that were obviously beyond their means by arguing with cadres and steadfastly refusing to give up the child. However, we know from discussions with welfare officials and adoptive parents not in our sample that some children are abandoned twice because of these adoption fines, first by their birthparents and then by adoptive parents who get caught and find themselves pressured to give up the child when confronted with fines and with the displeasure of birth planning cadres in their area. Some adoptive parents reluctantly bring children they had hoped to raise to welfare centers for these reasons. Once in a welfare center, the child may wait for years for a new family or perhaps never be adopted.

But fortunately for the children and their adoptive parents, in about two-thirds of the cases that violated the adoption restrictions concerning childlessness, local cadres either did not know of the adoptions or looked the other way. Many adoptive parents for their part understandably avoided
registering their adoptions or seeking residential registration for the children in order to avoid the penalties or risk losing the child. Thus, many of the adopted children, whether or not they were abandoned, became part of the missing girls as a matter of course. The disadvantages imposed by government policy on these missing children will be discussed later.

Status of adoptees in the family

Adoption in contemporary Chinese society is a practice that is intended to bring children, both boys and girls, into the family as if they were birthchildren. We found no cases of the traditional practice of “adopting a daughter-in-law” or of adopting for the purpose of obtaining a family servant, nor did we hear of any such cases. Only in a few instances in which people adopted the orphans or hardship cases of their relatives out of a sense of obligation did people demur or assign the child the status of “niece” or “nephew” rather than being “just like a son or daughter.” Like the minglingzi, adopted children today are supposed to be transformed into the likeness of birthchildren of the adoptive parents by virtue of being raised by them.

But not all adoptive parents seemed secure about the transformative power of adopting and raising a child. In some cases parents attempt to use secrecy to reinforce the similarity between adoptive and biological ties with their children. The reasons for maintaining secrecy varied. In some cases the parents worried that knowledge of the adoption would lessen the child’s loyalty and love for the adoptive parents; in other cases parents worried that the child would feel confused and insecure, especially if “too young to understand.” In the case of abandoned children, some worried that the children’s self-esteem would suffer from the knowledge that they had been “thrown away” by the birthparents or that others in the community would look down on the child. For others secrecy was important not because of the child’s feelings, but to hide the “shameful” fact of their own infertility from others.

Slightly more than half (55 percent) of the adoptions in our sample, including all of those involving relatives, were “open” from the start—that is, not kept secret from the child or others (though perhaps kept secret from the government). But when abandoned children are adopted or when adoptions are arranged between unrelated persons, the adoption might be kept secret from the child, although usually at least some, and often many, people in the community and extended family know the truth. Many people in our sample (around 20 percent) prefer not to tell the children when they are young, but plan to tell them when they reach a certain age (e.g., “when they are old enough to understand” or when they finish school). Many expect that their child will eventually find out “naturally,” by which they mean the child will piece the story together gradually. Then, when
the child asks, the parents will explain the truth. In close-knit village communities where everyone knows everyone else’s business, children sometimes learn from others at a young age that they were adopted; therefore the majority of parents assume they will eventually talk to the child about the adoption. While some adoptive parents fear this moment of truth, many expressed confidence that their adopted children will always consider those who raised them to be their “real” parents, especially in cases of abandonment. Of course our word-of-mouth sampling method would be particularly biased in regard to this issue, since by definition we would only learn of adoptions that had not been entirely kept secret.

A minority of parents (around 25 percent) planned to keep the truth secret from the child forever, even when others already knew that the child had been adopted. Urban parents were more likely to attempt to maintain secrecy than rural parents (40 percent in cities, 31 percent in towns, and 22 percent in villages). We were told that urban adoptive parents sometimes went so far as to seek job assignments in another city so they could live in an area where no one knew about their adoption. While hiding pregnancies and children from officials is generally much easier in the countryside, hiding such personal matters from friends, coworkers, and neighbors seems easier in urban communities than rural ones. Nonetheless, even though it seemed virtually impossible to keep the truth entirely secret in villages, one woman nearly accomplished this by bringing home an abandoned baby and telling both neighbors and birth planning cadres that she had hidden an over-quota pregnancy and given birth at a relative’s home. She thereby accepted a hefty 2,000 yuan birth planning fine (which probably would have been levied for an adoption anyway) but got the child registered as a birthchild.

Since part of the reason for wanting secrecy was to keep the adoptive parents’ infertility secret, the desire to keep an adoption secret was greater when the couple was childless and wanted to avoid the “shame” of infertility. This desire for secrecy was also more likely to be expressed when the child was a boy, reflecting the greater importance of a boy’s permanent connection to the parents’ family and his role in perpetuating a patrilineal bloodline. In several ways, girls seemed better suited to adoptive ties. As the aunt of an adopted child explained, “girls leave the family and belong to others when they get married anyway, so it doesn’t matter” if she is adopted or not, or if people know that she is adopted. The woman’s comment was not intended to reflect negatively on the child; on the contrary, her point was that her adopted niece was just as much a part of the family as her birthdaughter and her other nieces. What mattered here was gender and the more ambiguous connection that females have to patrilineal families in the dominant traditional culture. For some, this greater ambiguity appears to facilitate adopting a daughter and treating her exactly like
a birthdaughter; the important ties in both cases are interpersonal ones based on emotions and feelings, not formal blood ties which bring formal obligations.

Nearly all parents insisted that their feelings for the adopted child were as strong as those for a birthchild and that their sense of obligation was at least as great. Whether or not this was true in every case, the prevalence of this assertion demonstrated that this was very much a part of what adoption is supposed to entail in popular contemporary culture. Raising a child is said to create the same love, closeness, and sense of obligation on the part of parents as biological ties confer when birthparents raise children. In extended interviews, parents gave the impression of deep sincerity in these feelings, and the limited interactions we witnessed between children and parents confirmed this sense. Many parents even claimed that they loved their adopted child more than their birthchildren. The reasons for this may have had to do with gender—girls being seen as providing an emotionally closer and more caring interpersonal relationship than boys. Also many adoptive parents said that the abandoned child evoked special sympathy and caring because she had suffered at the hands of her birthparents. Some adoptive parents wanted to “compensate” for this early misfortune suffered by a helpless infant.

The low status and fragility of adoptive ties that seemed to have characterized adoption practices in the past were clearly reflected in a small number of cases we learned about. We heard second hand of a few cases in which couples returned an adopted daughter to her birthparents after giving birth to another child. Villagers told us in one such case that this was an instance of an infertile couple adopting a girl to “lead in” a birthchild, hopefully a boy; once this was accomplished, the adoptive parents had no further use for the girl. Such cases indicate that sometimes the adoptive tie is fragile and held to be greatly inferior to biological ties. Whether this occurs with any frequency today is hard to say; we might well miss learning of adoptions that were actually terminated. But we did not hear of many of these cases, and no one in our sample reported such behavior. In our sample, in cases where childless adoptive parents later gave birth, the adopted child was said to be as important as the birthchild. One adoptive mother who later gave birth to a son thought her situation was perfect: by first adopting a girl and then, after many years of infertility, giving birth to a son, she ended up with a “complete” family, without even incurring birth planning fines.

Yet some adoptive relationships in our sample seemed less secure and less honored than others. In one case where a family with two boys adopted a girl, we heard that when the adoptive mother became angry at her nine-year-old daughter, she threatened to send her back to her birthmother. The mother complained that her life was difficult with three young school-
age children, none of whom did anything to help her. Furthermore, she blamed the relative poverty of their family on the fact they had three young children. But upon closer questioning, she said in fact she would never send her daughter back; the adoptive father adored his daughter and said he would sooner part with his sons. He had been the one who actively sought to adopt a daughter. Indeed, the oldest son, age 15, lived down the road with the father's older brother who had only a married adopted daughter and no son. The mother's threat was not real, even though it must have strained her relationship with the defiant child, who always responded, "You can't send me back. This is my home!"

In our sample there were three cases in which adopted children were returned to their birth families, but these were cases where the "adoption" had been intended only as a means of hiding a child from birth planning authorities and were not intended to be permanent adoptions. These arrangements usually involved relatives living in other villages. We had wondered whether we would find many contemporary adoptions to be of this nature, whether the "informal" adoptions cited by demographers were this fluid type of temporary foster care. While there may have been many arrangements of this sort in the areas we investigated, people did not generally consider these sorts of informal, "foster" relations to be "adoptions." Most adoptions were "informal" only in the sense that they took place outside the regular government channels for adoption. Adoptive parents expected that their rights and duties as parents were complete and permanent, even when children were told about the adoption and knew the birthparents. Some ambiguity seemed to arise when adoptive parents were close relatives of birthparents, but even here the lines were kept clear and permanent. These were "open adoptions" but real adoptions nonetheless.

Negative consequences of state laws and policies on abandoned adopted children

While it is difficult to gauge the true extent of discriminatory social attitudes toward adopted children in their families and communities, state adoption policies and the patterns of adoption they create result in clear disadvantages for many adopted foundlings. As we have discussed, the 1991 adoption law overtly discriminates against healthy, non-orphaned foundlings, as compared to orphans and disabled foundlings, by insisting that adoptive parents of children in the former category be childless and over 35, an age requirement intended to insure that the couple is truly and most likely permanently infertile. In this way the law severely restricts the pool of adoptive parents legally available to raise healthy foundlings, making it more difficult for the latter to find homes. While many foundlings nonetheless find homes, these adoptions often violate the law, creating a class of adoptees who lack full legal status, that is, "illegal" or "black" children.
It is not surprising, given the patterns of adoption we found, that there is a notable absence of processing domestic adoption through government channels. Only a minority of the adoptions in our sample were properly registered with the government at the time of adoption, although some registered or attained proper household registration through various means later, sometimes much later.\textsuperscript{26} Many adoptive parents simply refused to register adoptions. Traditional customs in this area made adoption a “private” matter that rarely involved the government or courts. But today the most obvious reason for avoiding government procedures, including child welfare centers, is that most cases of adoption do not fulfill the requirements set by policy and law.

Only 11 cases in our sample of 392 adoptive families adopted from an orphanage or welfare center. Of these, two involved children who had not been registered or “signed in” at the welfare center, so the babies could be removed by a third party, a local official in this case, and the normal procedures by-passed. In these two cases, the couples were childless but below the legal age limit. One of the other 11 cases involved the adoption of a boy by a couple who had a girl by birth; this was in 1990 before the adoption law was promulgated, when the regulations were often more flexibly applied. In this case the family was entitled under local birth planning regulations (although not under adoption regulations) to have a second child because the first was a girl. In the other cases, the adopters met the age requirement and were childless.

On the other hand, information we obtained from records of welfare centers for over 100 adoptions indicated that all of these involved parents who, on paper at least, fulfilled the legal requirements for adoption: childless and over age 35. A few were single men; most were couples between 35 and 40. The children adopted were all recorded as healthy foundlings. Thus it appears that welfare centers do require that adoptive parents meet the legal restrictions, although this might sometimes be accomplished by allowing parents to falsify the records. As a result, parents who do not meet the legal restrictions, such as the majority of those in our sample, would be unable to adopt from these centers.

Birth planning policies and practices exacerbate the situation for foundlings adopted outside the law and government channels by treating them like over-quota children. Birth planning practices often discriminate against over-quota children by depriving them of full legal status, a proper household registration in their place of residence, and various benefits given to other children. Furthermore, because of the fines and penalties associated with illegally adopted and over-quota children, many parents are led to “hide” these children. Finally, the restrictive adoption law, like birth planning itself, actually increases the risk of abandonment because the resulting inability of birthparents to openly arrange an adoption leads some birthparents to abandon the child instead.
The inability to obtain a proper household registration can have serious consequences for the child. It often makes school enrollment difficult or more costly, and it means the child will not be eligible for land allotments or other benefits that accrue to those with proper household registration in their place of residence, especially in towns or cities. It also may mean that these children will be passed over by the government’s program for childhood inoculations, so that basic health care suffers.

In fact, whether or not a child can get a household registration, and with what consequences, depends on local practice and varies greatly. In major urban areas, having a household registration is particularly important in all of these respects; without it, obtaining a formal education may be virtually impossible. It is also particularly difficult for urban adoptive parents to obtain this legal status for their adopted children even when they acknowledge the adoption to the authorities and try to register the child. Even adoptive parents who registered adoptions, sometimes paying fines to do so, reported that authorities made it difficult for them to obtain a household registration for the adopted child. Yet in some of our cases, children whose adoptions did not fit the legal requirements nonetheless got properly registered. In most cases outside of urban areas, after paying a fine, parents were allowed to register the child, although sometimes the household registration cost an additional large sum and parents might still be required to pay additional fees to send the child to school. Some parents eventually found it possible to simply buy a household registration in another place or in their own place, without paying a birth planning fine or even notifying local cadres of the adoption. “Purchasing a hukou” has become relatively easy in many places, if one can afford the price. The going price for an urban/county town (chengzhen) household registration in the areas we investigated was between 3,000 and 5,000 yuan. Also in some cases, children without household registration can still attend school without additional fees and get inoculations at local clinics. Nonetheless, the difficulties entailed in being a “hidden child” are serious and widespread enough to constitute a new social problem, creating a class of mostly female children who lack the full protection of the law and equal access to various basic social entitlements.

Even adoptions that fit all the legal requirements might meet with stiff discrimination from officials. Several adoptive parents in this category complained that they had been unable for several years to obtain official registration for their children. Government publications provide documentary evidence of this sort of discrimination against adopted and abandoned children. Hunan welfare officials, for example, complained of the difficulty they had in obtaining registration for the abandoned children living in their own orphanage, thus denying the children, and indirectly the orphanage, access to certain benefits to which they should have been entitled (Johnson
While “truly abandoned children” are supposed to be entitled to proper registration and benefits, the fact that the state’s adoption law explicitly discriminates against foundlings in the higher service of population control policy certainly contradicts this and encourages such local behavior. Thus children are penalized for the reproductive behavior of their birthparents as a matter of policy.

It has been pointed out that this pattern of discrimination suffered by hidden, over-quota, or “informally” adopted children is counter to China’s own Law Protecting Maternal and Child Health, passed in 1993 (Human Rights in China 1995; Li 1996). It also flies in the face of other government goals, such as improving rural education and improving the “quality of the population.” Further, it is a serious form of gender discrimination, because the vast majority of children in this category are girls.

Several adoptive parents expressed anger at these discriminatory policies and practices, especially the adoption restrictions, and pointed out that it was both cruel and irrational for the government to punish those who find and care for foundlings, especially since the alternative was that the government spend money caring for the child in local facilities that are frequently extremely poor, if they exist at all. The result might be death for a weak and needy child, as one adoptive parent pointed out. This relatively poor parent had already spent hundreds of yuan and made several visits to the hospital to save an adopted child. A poor welfare center could scarcely have afforded the individual attention and expenditure this child required in her first few months of life.

Most parents who got caught and were fined managed to pay the fine and, as with over-quota births, sometimes even accepted sterilization. The most extreme case of punishment for adopting a foundling that we heard of was that of a retired couple with two grown children. They found an infant girl, nursed her back to health, and then decided to raise her after failing to find another home for her. Not only did they become deeply attached to the child but they feared the child would suffer if they turned her over to welfare officials who were ill-equipped to care for infants. When local officials discovered what the couple had done, they fined them 10,000 yuan and insisted that the husband, nearing age 60, be sterilized.

In our sample, as mentioned earlier, no one had an adopted child taken from them, even in the few cases where very poor parents refused to pay the fine demanded by local officials. In these cases, local officials retreated after heated argument, apparently recognizing that their demands were unreasonable. But articles in newspapers, reports from welfare officials, and other documentary evidence suggest that some people who have adopted foundlings have been forced to give up the child when they refused or were unable to pay the fines (Xiandai Jiating Bao 1995; “Harbin woman challenges China’s adoption law” 1996). Also, as mentioned above,
we learned indirectly of several cases in which children were abandoned or reluctantly relinquished a second time by adoptive parents when they were threatened with penalties for violating the adoption law. For all too many abandoned children, adoption regulations create a double jeopardy.

In one area of adoption policy the government has tried to compensate for the narrow pool of potential parents in China that its laws create for the tens, probably hundreds, of thousands of children abandoned each year. This is in the area of international adoption, which the government opened up in the early 1990s. By allowing foreigners to qualify to adopt Chinese foundlings under the provisions of the 1991 adoption law, the pool of potential childless, over-35 adoptive parents has been expanded. By mid-1998, over 15,000 foundlings had entered adoptive homes abroad, mostly in the United States and Canada. This program has proceeded despite the potential it creates for embarrassment and criticism by making the foundling problem obvious to the outside world and exposing the government to criticism from super-nationalists within China and Western human rights activists outside China for “selling” Chinese babies. In fact the program has been relatively free from corruption, and the money paid has been used to supply orphanages with increased funds to improve the conditions of the foundlings who remain in state care. Still this program can provide a solution for only a small fraction of the children abandoned in China. Many more homeless children could be accommodated if adoption policies were revised to allow more Chinese families to adopt legally and openly without penalty.

Abandonment and disabled children

In our sample only ten of the 237 adopted abandoned children and 32 of the 237 children reported abandoned by birthparents had disabilities. Yet orphanages report that a large percentage of the abandoned children they have in their care are disabled. Indeed the Chinese government, defensive after attacks by Western human rights groups, often refers only to “abandoned disabled children and orphans” when discussing its orphanage population, implying that healthy children are not abandoned in China today. This is clearly untrue. We know that in many places the vast majority of abandoned children are healthy and are abandoned because of the pressures of birth planning, not because they are disabled.

But it does appear that a large proportion of the children taken in by orphanages are disabled. The explanation for this probably lies partly with the patterns of adoption we have seen. It appears that many healthy abandoned children are found and quickly adopted without ever coming to the attention of the authorities. Meanwhile, disabled and sick children are unlikely to find a new home in this way and, when found abandoned, are
more likely to be brought to authorities to be placed in welfare institutions. We also saw evidence that disabled children may be abandoned in a different way than healthy children. People abandoning sick and disabled children were likely to target hospitals and welfare centers as places to abandon their child. They were also likely to travel longer distances in order to do this. One of the few cases we learned of in which a family traveled a long distance (several hundred miles) to abandon a child in a major metropolitan area involved a severely disabled child. This child would have been easily identified had she been left near her home village; abandoning her in a crowded city offered greater anonymity. Furthermore, the birth-parents knew she could not find an adoptive home in the surrounding villages. They knew her best chance was to be found and taken to a welfare institution that housed disabled children, which was more likely to happen if she was left in a large city.29

We learned of other disabled abandoned children directly from hospital workers and from people who had heard of cases second hand. We also met a man who had gained a local reputation for taking in abandoned children and who had received several abandoned disabled children in recent years from people who found them. When we spoke to him he had just been given two such children, a one-year-old boy with a crippled leg and an infant girl with a cleft palate. Sometimes he cared for the children himself for a while, sometimes he arranged adoptions for the healthier children, and sometimes he took children to the hospital. Out of a dozen children he had taken in over the last five or six years, he remembered “two or three” who had died and whom he buried himself.30

In short, it seems likely that healthy abandoned children are “skimmed off the top” by the local population, leaving less fortunate children to be dealt with by the authorities.

Conclusion: Population control, abandonment, and adoption

The connection between population policies and abandonment is clear. It can be seen in the reports of government officials who find welfare centers more heavily taxed by abandoned babies when crackdowns occur in birth planning (Hunan Province Civil Affairs Bureau 1992). And in our research it can be seen in the reasons given by nearly all parents who abandoned children after the early 1980s.

One unanswered question raised by the problem of abandonment in recent years has been what happens to these children. Many have reasonably believed that the number of children reported by the government to be in child welfare centers (around 20,000 at any one time) (Lu 1994; Human Rights Watch/Asia 1996) can only account for a small fraction of aban-
dandoned children. At least one Chinese writer estimated that only about 20 percent of the abandoned children make it into the welfare system (Lu 1994). Even this seems to underestimate the size of the abandonment problem and the percentage that miss government attention. Critics, such as Human Rights Watch, have asserted that most of the missing abandoned children die, either at the hands of the welfare centers or in the roads and fields where they are left unrecovered. According to these critics, there are few domestic adoptions of foundlings and “it is clearly impossible that children placed through adoption represent more than a small fraction of the country’s ‘missing’ orphans” (Human Rights Watch/Asia 1996: 110).

In the past, I also assumed that those children who did not make it into the welfare system fared even more poorly than those who ended up at orphanages, probably suffering even higher mortality rates. However, the research reported here raises serious questions about such assumptions. Our research strongly suggests that to a significant though unknown extent, adoptive parents have emerged spontaneously to handle the crisis of abandonment created by population control policies, many of them defying government adoption law and policy to do so. This is true in part because these same policies create an unfulfilled demand for girls among families who have filled or exceeded their quota of births with sons. Couples who are infertile also want to adopt abandoned girls.

Thus it appears that those children abandoned in rural areas who never enter the welfare system may be better off than those who spend months in an orphanage where mortality rates may be high and where severe restrictions are placed on who may adopt them. Many children abandoned in rural areas are adopted within days, sometimes hours, and thus are simply reabsorbed within the local population, where they live normal lives as daughters in families that want them, not unlike the girls who are raised by birthparents.31

Surely some children die as a result of being abandoned. We heard stories of how fragile some of these otherwise healthy abandoned infants were upon recovery by adoptive parents. Some required repeated hospitalizations and others died in the first months after recovery. But the vast majority we learned about did extremely well in their new homes where, for the most part, they appear to have been treated like birthchildren.

We are not alone in noticing an increasing desire for daughters in adoption practices in central Chinese villages in the 1990s. An article in the journal of the Shanghai Civil Affairs Bureau finds that the adoption of girls has increased in recent years in the Central China Plain, despite stringent birth planning (Wang 1995). The author does not explain where or how information was gathered, but it appears to be based on an investigation by local civil affairs units. According to the article, most of the families adopting girls have one or two sons but no daughters. The reasons given
for adopting a girl are similar to our findings: parents feel their family is “incomplete” without a daughter and they desire the emotional closeness and attentive care that daughters are thought to provide. Mothers especially are said to desire the closeness of a daughter and miss the experience of raising a girl if they only have sons. Finally, the article notes what we have surmised indirectly from interviews, that because sons are seen as singularly responsible for continuing a family name and lineage, the adoption of boys is more problematic in the minds of peasants.

This positive outcome, from the point of view of those children who find adoptive homes, testifies to the presence of a popular culture that supports the adoption of unrelated children and of girls. Even significant punishments and fines have failed to deter a considerable amount of adoption in violation of birth planning regulations and the adoption law. This makes China very different from a number of other societies, such as Korea and India, where even concerted government efforts have been unable to secure enough adoptive families for all homeless children without turning to international adoption.

Simply stated, the biggest obstacle to finding homes for abandoned children in China has been government policy. It seems likely that easing the restrictions on the adoption of foundlings, coupled with an effort to publicize the availability of healthy children in orphanages, would make it possible to place many, perhaps all, healthy homeless children who are now in government hands. The government could then more effectively focus on the needs of the more difficult to place or “unadoptable” disabled children in its care. Many orphanages end up raising many more foundlings than necessary, and some babies who would thrive if placed quickly in the hands of new families suffer illness and may even die because of the risks that accompany institutionalized care.

Abandonment of healthy infants itself could be reduced significantly if the birth planning policies were relaxed to allow couples with daughters to continue to try for a son. Our interviews and opinion survey indicate that while some will do practically anything for a son, not everyone would proceed to higher-parity births just for the sake of a son. The desire for a son and a daughter is tempered by the well-established ideal of a small family of two children. In a number of our interviews, those who had gotten away with having higher-parity births in order to have a son (or in some cases a daughter) felt that it was nevertheless a burden to have more than two children. Institutional and economic changes that lessen the need for sons for social security would likely make the perceived burden of more than two children loom even larger in the minds of peasants with daughters but no sons (Johnson 1994). And of course, pursuing a high-pressure birth planning policy that creates a large population of missing girls does not lower population growth as much as it appears to, since most of these
girls have been added to the actual population whether the government counts them or not. Although beyond the scope of our discussion, there is much evidence that China’s population is not a runaway train that might morally justify any means to stop it. Thus we must ask whether the resultant suffering, discrimination, and distortion of normal sex ratios can be reasonably justified.

Our study has not focused on disabled abandoned children, and in fact we did not learn about many of these cases from our sample. We found that families rarely adopt disabled children. But it does appear that here too policy changes might reduce the rate of abandonment even though it would be difficult to increase the rate of adoption of children with significant disabilities. People who abandon disabled children usually say they have no means to treat or raise the child, that the burden is too great. Furthermore the parents usually cannot place disabled children in state institutions without having to bear the financial burden, a burden too onerous for most families. If the state attempted to assume this financial burden for those who cannot afford the cost without undue hardship, these parents could place their children in state institutions but maintain ties with them. In some cases, providing financial support directly to families of disabled children might allow them to remain at home. The development of this sort of welfare policy is expensive, but housing abandoned disabled children is too. It is also destructive to the moral fabric of a society to have ordinary people pushed into abandoning their children.

It is encouraging that some parts of the Chinese government and the Ministry of Civil Affairs have sought in recent years to provide greater funding for orphanages, especially for the provisions for disabled children living in such institutions (Johnson 1996). This funding has come not only from the fees paid for foreign adoptions but from active solicitation of donations from the Chinese population and from various charitable foundations within China and abroad. Many of the largest orphanages have improved their conditions considerably in the last five or six years. It is also encouraging to find that there may be some cracks in the rigid birth planning consensus that has led to coercive, high-pressure practices in recent years. Currently six experimental counties have been designated as test sites for truly “voluntary” birth planning policies, that is, birth planning without quotas and punishments (interviews, May 1998; see Sly 1998). Such policies, if they become widespread, could significantly lessen the range of problems discussed above.

The most encouraging recent development is that the 1991 adoption law is in the process of being revised. Although these revisions have not been finalized, nor have details been publicized in China, proposed changes will lower the age limit to 30 and eliminate the requirement that adoptive parents be childless. If these changes are passed into law and effectively
implemented, they will address the central obstacles confronting foundlings and aid over-burdened child welfare centers in finding larger numbers of adoptive families inside China. This would indeed be a significant reorientation of the law to serve the interests of the children rather than the demands of birth planning. This new direction for adoption policy should be applauded.

One can hope that in the future nationwide legal and policy changes such as these will deplete Chinese orphanages of their healthy foundling population and allow orphans to focus on the care and rehabilitation of disabled children who cannot live with their birth families and cannot readily be placed in new adoptive families. In the meantime, and in the breach created by recent state policies, we can find some comfort in the knowledge that Chinese adoptive families have spontaneously emerged to provide many of the tens of thousands of healthy abandoned girls with new families and a new life as adopted daughters.

Notes

The second and third authors led a research team that collected the data on abandoning and adoptive families in China on which this article is based. The first author participated in the work of the research team, including the in-depth interviews, and drafted this article. Most of the data used here were collected from January to September 1996. Precise information on how these data were collected is not provided here. For the most part, people’s names and place names are not used.

1 Most rural areas moved from a simple one-child policy to a more lenient one-son-or-two-child policy around this time, as a small concession to peasant desires for sons and for more than one child. Under this policy, if the first child is a boy, no other births are permitted; if the first child is a girl, a second birth is permitted. But at the same time, the government launched efforts to more strictly enforce this policy in rural areas. See Greenhalgh, Zhu, and Li (1994). As Greenhalgh and Li (1995) point out, this one-son-or-two-child policy, while formally more lenient than the one-child policy, institutionalized patriarchal attitudes toward girls as state policy.

2 Zhongguo Minzheng Tongji Nianjian, 1990 (1990); 100–103; Johnson (1993). These high death rates were publicized in a sensationalized report issued by Human Rights Watch/Asia (1996). The report, based primarily on an account of institutionalized abuse in one large orphanage, alleged that a national policy of intentional neglect and starvation of inmates, aimed at keeping the orphanage population stable at a time of escalating admissions, was the primary explanation for high death rates in state orphanages. The purpose of the report was to bring international condemnation of human rights abuses in China. While abuse within an institution is certainly possible, there is no convincing evidence for the existence of such a state policy. There are many more plausible explanations for the high death rates that exist throughout the system.

3 Unfortunately, any objective effort to study this situation and to assess what weight to give to various factors, along with an effort to gain a better understanding of how to remedy problems of care within the orphanage system, was not possible because Chinese political authorities would not allow outsiders any access for this purpose. The relative openness of the system in the early 1990s was brought to an end in the wake of negative publicity by human rights groups in 1995–96, around the time of this study.
The Chinese government began to allow increasing numbers of international adoptions beginning in the early 1990s. Most of these have been to adoptive parents in the United States and Canada. The annual numbers of adoptions to the US have grown from around 30 in 1990 to over 3,500 in 1997. Adoptions to other countries have also been increasing; US consular officials estimate that in 1997 there were nearly 7,000 foreign adoptions from China worldwide. See Chu (1998): 5.

See, for example, Liu (1993). A Renmin Ribao (People's Daily) editorial stated that the number of “orphans” in China was 100,000 (Renmin Ribao 1995).

Human Rights Watch/Asia (1996: 107–110) also argues that there are many more abandoned children than those accounted for in state institutions.

See also Rose (1986) and Kertzer (1993).


For demographic evidence of the decline in infanticide in these years, see Coale and Banister (1994).

For an excellent discussion of some of the specific ways policy implementation was tightened, see Greenhalgh, Zhu, and Li (1994).

Although Greenhalgh and Li (1995) do not find direct evidence of abandonment in their research in Shaanxi, they find a clear correlation between severely tightened birth planning after 1988 and increasingly skewed sex ratios and escalating numbers of missing girls. They find no satisfactory explanation for the rapid and drastic skewing.

For an example of one such case and a discussion of why such cases are rarely prosecuted, see Jiang (1993).

Everyone in China has an official hukou—household registration—specifying one's place of residence and occupational category, whether it is primarily agricultural or nonagricultural. Until recently it was very difficult to live outside the location of one's hukou, and, if caught without permission, people would be sent back to the place specified as their hukou. Although this system is breaking down in places, it still has important consequences. Household registrations are divided into two main types—“urban” and “rural.” Generally, urban, which includes cities and towns, corresponds to nonagricultural employment status and rural to agricultural employment, but those who reside in towns may also have “agricultural” hukou. State employees have nonagricultural, urban-type hukou regardless of where they live. An urban registration is considered more desirable. It gives one access to various subsidies that people with rural/agricultural registration do not have, including, in the past, rationed subsidized grain. As we discuss later, under current birth planning policies an urban registration places one under the more rigid one-child policy, while a rural registration in most instances allows for a second child if the first is a girl.

There are significant regional variations in the population of orphanages. Some orphanages in the north, such as those in Liaoning and Tianjin, reportedly have a very high percentage of disabled children and more boys than orphanages elsewhere. In southern areas and in central areas along the Yangzi River, the orphanage populations are predominantly female, with a larger proportion of healthy infants and young children. These areas appear to have been hardest hit by increasing abandonment in recent years, although other areas have not been spared either.

Many people who live in towns in rural Anhui and many other provinces nonetheless have “agricultural” hukou and therefore also fall under the one-son-or-two-child policy.

Clear documentation of this pattern of escalating pressure and the risks entailed for women comes from Greenhalgh's study of three Shaanxi villages. See Greenhalgh (1994: 28).
17 The age limit is an effort to insure that the adopter is unlikely to have a birthchild at a later date. This assumes that by age 35 a couple has experienced a period of infertility. In the case of single parents it assumes that in the event of a future marriage, it will likely be too late to produce children.

18 Foundlings are presumed to have living parents who are legally responsible for raising them but have chosen to abandon them.

19 The government of India, with a high-priority (and, some would argue, moderately coercive) population control program, has fostered various regulations and laws encouraging the domestic adoption of foundlings, most of whom are girls as in China. The government of South Korea, long a major source of international adoptions, has tried to promote domestic adoptions so as to reduce international adoptions. China stands alone in turning to international adoptions instead of, or indeed as a means of avoiding, promoting broader domestic adoptions.


21 This term is also discussed by Wolf and Huang (1980: 110), who found it used in Taiwan. The folk story of the wasp is recounted in an essay by the well-known writer Lu Xun (Lu Hsun). See Lu (1957).

22 Since we looked for adoptive parents with living adopted children, we would not necessarily have located adoptions that ended in early death of the child. Nor did our questionnaire ask questions that would have elicited information about earlier unsuccessful adoptions. Thus our methods were biased against finding children who had died. In-depth interviews, however, did elicit such information in a few cases.

23 Many studies and opinion surveys since the 1980s have shown that the contemporary family ideal is a small one that includes one boy and one girl. See, for example, Whyte and Gu (1987). Greenhalgh (1994) found a growing desire for daughters in the villages she studied in the 1980s and 1990s, even as problems such as abandonment increased as a result of birth planning policies. In our own survey on family ideals and attitudes toward adoption, over 70 percent of the 399 respondents said a family with two children—one boy and one girl—was ideal.

24 A traditional saying we heard in interviews (Yangmu da ru tian, or “the adoptive mother is greater than heaven”) also stressed the greater importance, indeed the value, of the adoptive parents who raise the child.

25 Childless couples who waited until age 35 to adopt tended to be better educated and were usually professionals. Two of the 35 cases of adoptions that met the legal requirements involved single women, one a university teacher, the other a rural cadre. Seven were bachelors who were quite poor, fitting a traditional pattern whereby very poor men are sometimes unable to marry. The adoption law allows these men, as well as single women, to adopt children.

26 Various circumstances might lead to registration at a later time, including getting caught after several years and deciding to pay the fine. We talked to a number of parents who registered previously hidden over-quota birthchildren and adopted children in 1994, in response to a major land redistribution at that time. Some people calculated that it was worth paying the fine and obtaining legal registration so that the child could get a land allotment, while others decided against this or were excluded from doing so by local practice.

27 For a more extended discussion of the legal and political discrimination against children that is fostered by population control policies see Human Rights in China (1995) and Li (1996).

28 This may be partly an artifact of the bias of our research methods. We looked for adoptive families, not for failed efforts to adopt.

29 In most places in China, if parents bring a disabled child to a welfare institution that accepts disabled children because
the parents cannot reasonably care for the child, they will be expected to pay, perhaps several hundred yuan per month, for the state care. This could place a very heavy burden on a rural family. But if the parents abandon the child, she will become a ward of the state and her care will be paid for by the state.

30 Although this man seemed genuinely motivated by concern for the children, he admitted somewhat defensively that he sometimes received compensation from those who adopted healthy children from him. He seemed to function as a child-broker of sorts. This role has traditional precedent but now seems to arise out of the restrictive adoption regulations that make adoption from welfare centers difficult for many.

31 Indeed, in our interviews some adopted daughters, living in families with sons that wanted a daughter, seemed even more welcome than over-quota daughters raised by disappointed birthparents who had hoped for a son but were now denied the opportunity to try again.

32 For discussions of this debate, see Sen (1994); Prosterman, Hanstad, and Li (1996); and Johnson (1994).

33 News of these changes was released by Xinhua, the official Chinese news service, on 24 August 1998 and reported in Kwan (1998).

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Population Statistics, the Holocaust, and the Nuremberg Trials

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This article presents the findings of my recent research on the role of population statistics and related data systems, methods, and personnel in planning and carrying out the Holocaust. Specific attention is given to events in Germany, Poland, France, the Netherlands, and Norway. In addition, the article examines how population data were used in the Nuremberg War Crimes Trials following the conclusion of World War II. This research was based on an extensive review of contemporaneous and secondary sources that deal with the Holocaust and the Nuremberg trials, the relevant national data systems, and the activities of a number of the statisticians and demographers involved. No attempt was made, however, to develop new estimates of Holocaust mortality, nor was any evidence found to call into question the mortality approximations made over 50 years ago.

In many respects, examining the use of statistics and statistical systems in the service of genocide is a more productive undertaking than trying to fine-tune the estimates of Holocaust victims or, indeed, the mortality caused by any genocide. Such figures are often clouded in both secrecy and uncertainty, so that beyond a certain point, efforts at refining estimates of genocide mortality have little purpose or prospect of success. This is a conclusion on which many Holocaust scholars, prosecutors, and statisticians seem to agree (Fein 1981; Hilberg 1985: 1202; Spirer and Spirer 1993: 3). On the other hand, the largely unrecognized role that statistics and statistical systems played in the Holocaust has implications for the investigation and criminal prosecution of genocide more generally as well as for fostering standards of ethical behavior among those working as statisticians and demographers. I also hope that knowledge of this historical experience may contribute to the development of more prudent national statistical policies now and in the future.

This article thus addresses an understudied borderland between demography, statistical policy, human rights defense, and Holocaust scholar-
Ship. As such, some of its findings and conclusions may challenge long-held and largely implicit assumptions in diverse fields. To facilitate understanding by a multidisciplinary audience, rough working definitions are provided of both the Holocaust and a national statistical system. As used here, I define the Holocaust as the deliberate annihilation of approximately 6 million European Jews by the Nazis before and during World War II. In a broader sense, the Holocaust can be defined as the entire Nazi effort to exterminate European Jewry, involving an extended “destruction process” that consisted of several steps: “definition, expropriation, concentration, and annihilation” (Hilberg 1985: 53–54). In either case, it was a program of genocide. (This article does not address the closely related efforts of the Nazis to eliminate other “undesirable” population groups such as Gypsies, homosexuals, and various categories of the disabled.)

Although “scholars differ as to whether Hitler’s decision to exterminate the Jews was latent from the beginning of his career or developed incrementally in response to the failure of previous plans to eliminate them [through] emigration . . . ”(Fein 1984: 23), most seem to agree that the administrative arrangements needed to accomplish the systematic, massive killings that characterized the end of the process evolved over time (Browning 1992: 86–121). The entire effort was cloaked, moreover, in a range of deceptive practices, one of which was the use of ambiguous language. A prime example of this was the phrase, die Endlösung der Judenfrage, the final solution of the Jewish question, frequently used by Nazi authorities to describe the policy of killing Jews rather than arranging for their emigration from Europe (Hilberg 1985: 273).

A country’s national statistical system consists of those units of central and local government that collect, compile, and disseminate statistics as a principal activity or as a byproduct of one or more administrative activities for which they are responsible. For example, in the population field the population census is primarily a statistical activity, usually carried out by the central statistical agency of a country, while birth and death registration systems are administrative activities serving a variety of administrative purposes in addition to generating vital statistics. More broadly, the term “national statistical system” is often used to refer to the statistical activities of all those units producing statistics, the methods, definitions, and classifications they use, and the personnel engaged in this work.

Traditionally the outputs of essentially statistical operations, such as the population census, are made available to the public or those in government concerned with administration, regulation, or law enforcement only in the form of aggregated data (that is, statistics); all unprotected microdata or other information that permits the identification of individual persons is considered to be confidential. This tradition of wide dissemination of aggregated data and the protection of individual responses is reflected in the laws and practices of most countries and in a number of national and in-

Responding to analytic needs of the research community, a number of national census offices now also make available special census files that permit users to carry out their own tabulations and analyses. These files, which are sometimes referred to as microdata, have been treated to protect the identity of individual respondents. (To avoid confusion, the term “unprotected microdata” is used in this article to refer to census and similar data files that have not been so treated and that may be used to identify and locate specific individuals.)

Most of the countries of Europe in which the Holocaust took place had well-developed national statistical systems, and many also had a substantial number of experienced statisticians. Administrators and policymakers, in addition, frequently made use of data in management and policy development. The basic sources of population and related statistics in Europe at that time were population censuses, birth and death registration systems, administrative reporting systems under the jurisdiction of the education, labor, health, and similar ministries, and, in a few of the countries, population registers. The last of these is an administrative reporting system that maintains a continuous record for each person in the population, recording all changes of address, along with other information about each individual. Such a register, if accurately maintained, can be a powerful administrative tool and a valuable source of population statistics. On the other hand, population registers, as shown below, can also be readily adapted for use as an operational tool of genocide.

Planning for the “Final Solution”

The systematic killing of several million Jews living throughout Eastern and Western Europe was a massive undertaking. In addition to the horror of death and brutality, there was extensive planning, organization, and coordination. As Hilberg states in his study of the Holocaust, “the destruction of the Jews was an administrative process, and the annihilation of Jewry required the implementation of systematic administrative measures in successive steps” (1985: 9). The same ideas are implicit in Arendt’s “banality of evil” (1976) and Horowitz’s view that genocide involved “destruction... by a state bureaucratic apparatus” (1997: 21).

At every stage of this administrative process, statistics and statistical systems were used to advance the Holocaust. For example, the minutes of the inter-ministerial Wannsee Conference (Arad, Gutman, and Margaliot 1981: 249–261), held in Berlin on 20 January 1942 to assist in “planning
the organizational, practical and economic aspects of the Final Solution of the European Jewish question,” contained estimates of Jewish emigration from Germany and Austria from 30 January 1933 to 31 October 1941 and of the total Jewish population remaining in Europe (“over 11 million”). The Wannsee Protocol, as these minutes are frequently termed, supplemented this overall estimate with a table showing the estimates of the Jewish population for each of 35 countries or areas of Europe. Following the presentation of data are a paragraph commenting on the ways in which the estimates in the table are affected by differences among countries in how the concept “Jew” was defined and another paragraph presenting data on the occupational distribution of the Jewish population in the European part of the Soviet Union. Arendt (1976: 113–114) attributed the statistical materials provided to Conference participants solely to Adolf Eichmann, apparently based on his statement, “I had to supply Heydrich with the data for his speech, all the emigration figures” (Lang 1983: 88). It seems likely that more-expert statistical advice aided in the preparation of these materials. As shown later, such expertise was readily available to Eichmann and to Heinrich Himmler. Perhaps because Eichmann often used numbers in an apparently imprecise and casual manner, Arendt simply characterized these materials as “full of incredible errors.”

Those listed as present at the Wannsee Conference included six officials from the Schutzstaffel (SS) and the police and nine representatives from other ministries and organizations. In all, 30 copies of the protocol were issued. Many of those present and many of the others who were known to have received copies of the protocol were subsequently among those indicted as war criminals (Arad, Gutman, and Margaliot 1981: 252–255; Reitlinger 1968: 98–104 and Annex II; Robinson and Sachs 1976: NG-2586-G; Hilberg 1985: 404–406).²

Implementing genocide

In addition to providing the summary data used at the Wannsee Conference, statistical systems and methods contributed to the implementation of the Final Solution in three ways: (1) special censuses or population registers of Jews in particular jurisdictions or localities were used to obtain information about their number and demographic and labor force characteristics; (2) the completed forms from these censuses or registration systems were used to provide the names and addresses of Jews to be included in transports to concentration and extermination camps; and (3) expert statistical services and personnel were used to guide this work as well as to compile and disseminate statistics and estimates of the remaining Jewish population at various stages and of the number of persons transported.

While regular population censuses conducted prior to World War II in a number of European countries generated some data on the Jewish
population, there appears to be only one instance, namely the 1939 German census, where information permitting the identification of specific individuals may have been used operationally in the Holocaust. (The descriptive and analytical use of aggregated census data to justify racist conclusions, including anti-Semitic policies, is not covered in this article.) However, census-based aggregates for small geographical areas can also be used operationally to assist in the identification of population concentrations to facilitate persecution and apprehension. This approach appears to have been used in the Netherlands, where small-area tabulations of population data by religion from the 1930 Dutch census were one of several data sources used in the development of the so-called dot-maps of Amsterdam that indicated where the density of the Jewish population was the highest (Nobel 1998). (Another example of this approach was the successful use of special tabulations of persons of Japanese ancestry enumerated in the 1940 US population census to assist in internment of Japanese-Americans at the outbreak of World War II (Choldin 1994: 239–240).) While such uses of population census outputs may not be a technical violation of traditional census confidentiality provisions, they represent a highly questionable use of census data (Begeer and de Vries 1987).

On the other hand, special censuses and registrations of Jews were widely used in Holocaust-related operations in areas under Nazi control or influence. With minor variations, a common pattern was observed in the five countries I examined in this research: Germany, Poland, France (both the occupied and Vichy zones), the Netherlands, and Norway. In all these countries there was an initial classification and count early in the process, a continuing interest in data to describe the size, structure, and conditions of the Jewish population, and the use of unprotected microdata (that is, microdata that permit the identification of individual persons) to aid in rounding people up for internment and deportation. Given the important role that both data and lists played in the countries examined, it seems likely that a review of the experience in other countries would reveal a similar pattern. For example, a similar approach seems to have been envisioned, but not necessarily implemented, to assist the Einsatzgruppen—special military units—which carried out mass killings in Soviet-occupied Poland, the Baltic countries, and the Soviet Union after the June 1941 German invasion of the USSR (Hilberg 1985: 273–334). Even in the case of the Einsatzgruppen, progress was routinely reported and summarized in statistical terms (Headland 1992).

Germany

The population census carried out in June 1933, about five months after Hitler assumed power, obtained information on the religion of each member of the population. Inclusion of an item on religion had a long tradition
in German censuses (as well as those in some other European countries). Prior to the 1925 census the question was asked in terms of religious belief (Glauben). In the 1925 and 1933 censuses the question was asked in terms of formal membership in a church or similar religious body, although the same word, Glauben, was used to describe the concept (Rosenthal 1944: 234). Results from the 1933 census item on religion were first published by the German Statistical Office in its official journal, Wirtschaft und Statistik, in October 1934 (Vol. 14, no. 19: 657–659). In the same journal several months later appeared a report, “Jews in Germany 1816 to 1933” (Vol. 15, no. 4: 147–151), also labeled as a 1933 census output. According to Rosenthal (1944: 241–243) the German Statistical Office included in the latter report a special cross-classification of the Jewish population by both nativity and citizenship to create “a further basis upon which Jews could be classed as aliens.”

Six years later the May 1939 population census not only asked about membership in a religious organization, but also attempted to identify “racial” Jews according to the categories of the anti-Jewish Nuremberg Laws (Plate 1939: 423–424; Blau 1950: 161–162). Under this latter concept, the religion of all four grandparents had to be taken into account in addition to a person’s own religion. On the basis of these questions, the German Statistical Office was able to produce a report, “Jews and Jews of Mixed Ancestry” [Mischlinge] in Wirtschaft und Statistik in 1940 (Vol. 20: 84ff) and a final publication in 1944 (Blau 1950: 161). The former source presented cross-tabulations of Glaubensjuden (that is, those who reported Jewish as their current religious affiliation) with various categories of “racial” Jews, as well as similar cross-tabulations for married men and married women where at least one of them was Jewish according to either definition (Blau 1950). It also presented some comparative data for 1933 and 1939 (Hilberg 1985: 157–158).

Writing shortly before the 1939 census, Plate (1939: 424) indicated that information pertaining to “racial Jews” in the census was to be recorded on a supplementary card for each person present on enumeration night and for all household members who were temporarily absent. After the card was completed it was to be placed in a special envelope to be opened only in the German Statistical Office. Plate (ibid.: 428–429) also emphasized the role of the 1939 census in the search for “a solution to the Jewish question,” noted that the census would for the first time permit a “statistical investigation of persons of Jewish ancestry,” and described some of the tabulations that were planned.

The instructions for the census item on Jewish ancestry were complex since they entailed questions about the religion of all four grandparents of each person. These instructions were reportedly written by Friedrich Burgdörfer, a professor of statistics and population policy at the University of Munich and a director in the German Statistical Office (Weinreich 1946:...
Burgdörfer had been the senior professional responsible in the Statistical Office for the 1925 and 1933 censuses. He was also an author of a number of papers on racial issues presented at scientific conferences and published in professional journals in the 1930s (see early issues of Population Index and its predecessor, Population Literature, beginning with Vol. 1, no. 1, 20 January 1935). The person with day-to-day responsibility for this aspect of the 1939 census was Dr. Roderich Plate, author of the main professional paper describing the census (Plate 1939). Plate was Eichmann’s “call-back” expert at the German Statistical Office and, between mid-1941 and early 1942, one of the statisticians on Himmler’s staff. In this last capacity, he appears to have provided Eichmann with the population statistics used at the Wannsee Conference (Aly and Roth 1984: 61).

Friedländer (1997: 199), citing Aly and Roth (1984) and Drobisch (1993), outlined a different use of the supplementary cards from the 1939 census. According to him, at a conference of middle-level officials of the SD (Sicherheitsdients, the Security Service of the SS) in November 1937, plans were discussed for using the census cards to carry out a “complete registration of all Jews in Germany (including half- and quarter-Jews).” Friedländer added, “The Jews were registered, as planned, and the card files fulfilled their function when the deportations began.” As discussed below, at the time the mass deportations began, the Gestapo (Geheime Staats Polizei, the State Secret Police) and the other agencies involved had access to more-recent data sources so that while unprotected microdata from the 1939 census may have contributed to the compilation of the deportation lists, it was probably not the exclusive, or even the primary source. Moreover, in a secret report to Himmler, discussed more fully below, Dr. Richard Korherr also questioned the usefulness of data, particularly pertaining to “half- and quarter-Jews,” generated by the item on racial Jews in the 1939 census. Korherr noted that since the responses to this item “were to be handed in in a sealed envelope and could not be examined on the spot, they were filled out poorly” (Wellers 1978: 178). Korherr had first-hand access to authoritative information about the 1939 census since Plate had served as his deputy for some months (Hilberg 1985: 1205; Aly and Roth 1984: 61).

In July 1939 the Reichsvereinigung, the community organization to which all Jews in Germany were required to belong, together with its local offices in each city, was taken over by the Security Police (Sicherheitspolizei, consisting of the Gestapo and the non-uniformed criminal police) (Hilberg 1985: 184). Dr. Cora Berliner, Plate’s and Burgdörfer’s former colleague from the German Statistical Office, had overall responsibility for the Reichsvereinigung’s statistical work (Hilberg 1985: 186; Baker 1978: 171), although the scope of her activities was far broader (see, for example, Schmitt 1997: 109). Born in 1890 in Hanover and a graduate of Heidelberg University in 1916, by 1930 she had attained senior professional status (Regierungsrat und Mitglied) in the Statistical Office and like Burgdörfer and
Plate was published in the leading statistical journal (e.g., Berliner 1930). Subsequently, she became a senior official in the Economics Ministry until 1933 (Sauer 1987: 369). These were unusual accomplishments for a woman and a Jew, even in the Weimar republic (Kaplan 1979; Barkai 1989: 27). In addition to her work in economic statistics and policy, Berliner at one point was vice president of the Jüdischer Frauenbund (Koonz 1986: 287). (Established in 1904, it was the largest Jewish women’s organization in Germany.) Like several others in the Reichsvereinigung’s leadership, she chose not to accept opportunities to emigrate (Baker 1978: 248–249). She was deported to her death from Berlin in June 1942. When last seen by a friend shortly before her departure, she “was sitting in the sun in her garden reading Goethe” (Kaplan 1979: 205).

Among the first new responsibilities assigned by the Security Police to the Reichsvereinigung were “reporting deaths, births, and other demographic data to the Reich Security Main Office [RSHA] . . . [while] . . . toward the end, they prepared charts, maps, and lists . . . in preparation for deportation” (Hilberg 1985: 187). Three distinct sources for the deportation lists have been mentioned: (1) a regular monthly canvass of the Jewish population that the Gestapo ordered Jewish community organizations to carry out beginning in May 1941 and continuing until at least September 1944 (Blau 1950: 171); (2) the Gestapo card file of Jews based on unprotected microdata from the 1939 census (Friedländer 1997: 199); and (3) a mixture of police records, Jewish community organization tax and housing records, and card files of ghetto residents maintained by the community organizations, supplemented by information obtained from special questionnaires administered to ghetto residents (Hilberg 1985: 455, 460–462). According to Friedländer (1997: 199), work on starting the Gestapo card file predated the 1939 census by more than two years, and the principal justification for the card file as expressed in a 1937 internal Gestapo meeting was that it would “establish the number of Jews and of people of Jewish origin according to the Nuremberg Laws living today in the Reich.”

Since detailed arrangements for deportation—which started on a massive scale beginning in 1941—varied from city to city and by time period (Hilberg 1985: 455–456), it is possible that information from all three sources was used, although by 1941 the 1939 census information had become outdated for operational purposes. Moreover, the concept of Mischlinge had to be simplified for operational reasons in the census enumeration from the concept specified under the anti-Jewish regulations (ibid.: 418). Certainly Hilberg’s description of what happened in Frankfurt is consistent with the multiple-source hypothesis:

During the spring of 1941 the statistical division [of the Frankfurt office of the Reichsvereinigung] was instructed to make up a roster of all members of
the community in triplicate. One day in the fall, a list of 1,200 people [came back] from the Gestapo, which had to be supplemented with additional information. Rumors that the list was to serve the purpose of deportation were denied by the Gestapo. Two days later, on October 19, 1941, the roundup began. (ibid.: 456)

Poland

Nazi-occupied Poland is another well-documented example of the intricate involvement of statistics and statistical systems with the administrative processes that ended in genocide. Immediately following the occupation of Poland, Reinhard Heydrich, Head of the Reich Central Security Office (Reichssicherheitshauptamt, abbreviated RSHA, which at this time was responsible for the Security Police and the uniformed police) under Himmler, issued a set of instructions, dated 21 September 1939, on policies and operations concerning Jews in the occupied territories. These instructions called for the establishment of Judenräte, or Councils of Jewish Elders, one of whose responsibilities was “to carry out an approximate census of their areas” showing persons classified by sex and age group (Arad, Gutman, and Margaliot 1981: 174; Robinson and Sachs 1976: PS-3363).

Within days of Heydrich’s instruction, the newly designated Chairman of the Warsaw Judenrat, Adam Czerniakow, recorded in his diary beginning on 4 October 1939 a flurry of activities related to preparations for the census (Czerniakow 1979: 78–89). These included extensive consultations with the German authorities (see entries for 7, 12, 20, 21, and 23 October 1939), and at least some consultations with the Polish National Statistical Office (see entries for 17, 19, and 21 October 1939). Apparently, the census was successfully carried out and tabulated and the results made available to the Germans (see entries for 28 and 31 October and 1 November 1939), although at least one respondent, Chaim Kaplan, observed in his diary, “our hearts tell us of evil—some catastrophe for the Jews of Warsaw lies in this census. Otherwise there would be no need for it” (Kaplan 1965: 57). Kaplan seems not to have been alone in his concern, for Czerniakow himself, even while noting the success of the census, wrote of having received “from all sides questions about the purpose of the census” (entry for 28 October 1939).

Following this initial demand for data, various Nazi authorities continually requested additional statistical information from the Warsaw Judenrat throughout its existence (see, for example, Czerniakow’s (1979) diary entries for 18 and 22 November 1939; 7 July 1940; 3 May, 11 and 14 July, 13 September, and 14 October 1941; and 29 April 1942). While the topics covered were varied, including health, housing, and nutrition, the major focus was, as in the first census and the minutes of the Wannsee Confer-
ence, data on the total population and on occupational distribution. Shortly after the Wannsee Conference, moreover, and by hindsight in clear preparation for the series of mass deportations to Auschwitz and other camps, Fein (1984: 241) quotes the 1973 edition of Kaplan (1965) to the effect that the Warsaw Judenrat instructed everyone to complete, by 31 January 1942, a questionnaire seeking information on name, parents’ name, family status, prewar and present address, and occupation as of 1 September 1939 as well as current occupation. Terming this new special census a “roll call,” Kaplan observed that “exiles from other cities tell us that in their cities, too, the evacuations began with such a roll call.”

While the arrangements varied from city to city, other Judenräte were also required to carry out initial censuses in line with Heydrich’s instructions (Trunk 1972: 48), to maintain population and vital event registration systems, the latter in association with the local municipal registration authorities (1972: 172), and to provide numerous regular and ad hoc statistical reports to the Nazi authorities (ibid.: 277–280). To fulfill these responsibilities, most of the Judenräte established statistical and/or registration departments (ibid.: 172–175) and, “in the case of the large ghettos, such as Warsaw, Łódź, Lwów, and others, needed [to employ] trained statisticians” (ibid.: 279). Many of these statistical and registration departments (for example, Warsaw, Łódź, Crakow, Vilna, Kaunas, and Czestochowa) also carried out research on their own and released statistical and analytical reports, bulletins, and yearbooks (ibid.: 174–175).

Finally, as in the case of Warsaw, just prior to the massive deportations to the death camps, these registration or statistical departments were ordered to use the data systems they maintained to generate “lists of ghetto inmates arranged by age, sex, and occupations, etc.” for use by the authorities (ibid.: 173). This task was not a voluntary one nor was its purpose necessarily anticipated. For example, Trunk reports that in Grodno, a city in the Bialystok region,

Arye Marder, who had been in charge of the ghetto’s statistical department, submitted his resignation . . . when it became apparent that the Germans intended to use his statistical materials to liquidate the Jews. The Council put his name on the next transport. When he learned about this he committed suicide. . . . His family was deported on the next transport. (ibid.: 444)

France

Special censuses or registrations of the Jewish population were carried out in both occupied and Vichy France. In the Occupied Zone of France, a German ordinance of September 1940 required a census of Jews to be carried out by the French police. In Vichy France the Pétain government issued a
similar law in June 1941 requiring all Jews to make, within 30 days, elaborate declarations in person. Police, prefectural, and administrative authorities were all involved in the census (Marrus and Paxton 1983: 100). For example, in Marseille “personnel at the prefecture gathered the census data through normal administrative channels” on the basis of declarations made at the town hall (Ryan 1996: 35). Persons not complying with the census essentially had to go underground (ibid.: 36).

As Adler (1987: 3) points out, “the German census of October 1940 and the census held in the Vichy Zone in June 1941 . . . occupied a central position in the application of anti-Jewish policies: the Jews had to be defined and recorded as a group.” Subsequently, in both the Occupied Zone and Vichy France, names and addresses obtained through these same censuses were used to generate the lists of Jews that the Gestapo and the French police employed to identify and locate Jews for deportation to various concentration and death camps (Marrus and Paxton 1983: 243; Ryan 1996: 41–42 and footnote 53).

The precise role of the French statistical services in these activities has been a matter of some concern in France, particularly in recent years. In order to obtain an authoritative assessment of the behavior of the official statistical services under the Vichy regime and the German occupation, Jean-Claude Milleron, the Director-General of INSEE (the French national statistical office) from 1988 to 1992, commissioned a study of the issue. He asked Jean-Pierre Azéma, a leading French historian of the period, and Raymond Lévy-Bruhl, a former senior staff member of INSEE with extensive knowledge of the organization, including its administration, personnel, and formal and informal archives, to undertake the study. Although the Holocaust was not specifically mentioned in the terms of reference of the Azéma/Lévy-Bruhl study, it is clear that when a report of the study is issued one of the questions it will help to answer is the contribution, if any, that the statistical services may have made to the Holocaust in France.

Shortly after the INSEE study was commissioned, and as a result of public charges made in France about the sources of information used to identify and detain Jews prior to their deportation to the East, a French governmental committee chaired by the historian René Rémont was established to investigate the way in which registers of Jews were created in France in the period 1940–44. The report of that study (Rémont et al. 1996) reveals a complex and ambiguous picture. On the one hand, no direct evidence was found linking unprotected microdata produced by the statistical services in either part of France with the lists used in the deportations (ibid.: 12 and 143–144).

On the other hand, both Henri Bunle, head of the Statistique générale de la France (SGF), and René Carmille, head of the Service national des statistiques (SNS), which absorbed the SGF in October 1941, are on record
as having volunteered their agency’s services to Xavier Vallat, Commissaire général aux questions Juives in the Pétain government. From the start Vallat gave priority to carrying out a census of Jews in France (ibid.: 68), and Bunle wrote to Vallat shortly after the latter’s appointment, “France is nearly the only country in Europe where the number of Jews within its population is not known, nor a fortiori their distribution by age, citizenship, occupation, etc.,” concluding “the SGF is at your disposal . . .” (ibid.: 69). Although Bunle added a cautionary note that “. . . the results of the survey would be kept rigorously secret by my office and transmitted exclusively to your department” (ibid.), it is not clear whether he was trying to protect the respondents or the SGF. Carmille, in his letter to Vallat, seemed to abandon any distinction between statistics and administration, which in this case was persecution, writing in part:

I am at your disposal for studying, jointly with your department, a form which would allow your Commissariat général as well as the Service de la démographie to gather all useful information on the Jews, to identify those who did not make their declarations, to organize the control and the eventual transfer of their possessions in line with the law, and finally to have a precise picture of the Jewish problem. . . . (ibid.: 70)

Ironically, it was Vallat who demonstrated sounder views on statistical policy, however reprehensible his other views may have been. He turned down Carmille’s offer within three days because “he did not wish any interference between the two types of censuses ‘given the special nature of the information I need’; he preferred the type of registration form ‘that had been well-tested in the occupied zone’” (ibid.). Ultimately, the statistical service was asked to process the forms and the cards from the June 1941 census, and it did so, although at some point Carmille may have given a verbal order to slow down operations (ibid.: 142–144) and after 1942 made a point of keeping a strict separation between the statistical and police functions (Lévy-Bruhl 1998).

Carmille, a Polytechnique graduate, had for some years been driven by a vision of the transformation of the entire French administrative services by the new data processing technologies then becoming widely available (Rémond et al. 1996: 140). It appears that he saw in the circumstances of France and its Jewish population a way of demonstrating a practical application of his vision of the new demographic statistics. In Carmille’s words, The agencies which have been working in demography have compiled a wide range of statistics, always in terms of statistical aggregates. . . . The new agency will have a quite different starting point, its objective will be the creation of individual records. . . . From now on it is no longer a matter of counting, but of following individuals. . . . The new organization must now be designed so
that information can be gathered continuously, requiring that updating be done with meticulous precision. (Rémond et al. 1996: 140–141, quoting from Carmille 1941)

Not surprisingly, Carmille’s vision was opposed by “some researchers from the SGF who thought that it was dangerous to move from statistical counting to individual recording, . . . [but received] strong support from those in Vichy who favored the transformation of statistics into a by-product of individual control” (ibid.: 141).

Within France, and this is also reflected in Rémond’s report, the overall assessment of Carmille is tempered by the view that he is considered to have been, in some respects, a patriot. For example, an objective of one of his massive registration efforts was to prepare for a clandestine remobilization by identifying potential recruits for a new French army. In any case, he was arrested in February 1944 and deported to Dachau, where he died in January 1945 (ibid.: 145).

The final report of the Azéma/Lévy-Bruhl study is now being completed and is expected to be given to the Director-General of INSEE later in 1998. Lévy-Bruhl recently provided the following summary of the main conclusions that he and Jean-Pierre Azéma reached (Chapron 1997; Lévy-Bruhl 1998):

(a) the massive arrests and deportations of Jews in France were organized on the basis of registers compiled by the French police and the German Gestapo. No registers from the French governmental statistical services were used;

(b) no evidence has ever been found to support the allegation that individual denunciations of persons who changed identity and residence were associated with the register of individuals compiled by the governmental statistical services in 1941;

(c) nevertheless, the existence of this register, which included the individual names and recent addresses of the whole population, given the situation in France at that time was unquestionably a source of potential danger, both to individuals and communities;

(d) moreover, the behavior of the leadership of the French government statistical services in the early years of the occupation exposed individuals and communities to potential threats emanating from these services.

Netherlands

In the Netherlands, the registration of Jews was ordered by a decree of the occupying German authorities dated 10 January 1941 (Presser 1969: 35–39; Robinson and Sachs 1976: PS-3323). The actual registration process, however, was carried out by the Dutch administrative services, adapting the then recently enhanced population registration system to this new task.
The local burgomaster or population registration office received the registration report, and the registration office also received half of the fees that Jews were charged for registration. The registration process was carried out under the direction of J. L. Lentz, head of the population registration office. Lentz was actually responsible for developing and administrating several interrelated, but distinct systems. These included the newly improved population registration system (1936), an obligatory identity card covering the entire population (October 1940), the registration of Jews (January 1941), and a new control card for the rationing system (December 1943) (Nobel 1998).

The German authorities considered the adaptation of the population registration system and identity card that was used to register the Jews to be an outstanding technical success. In the words of Dr. Friedrich Wimmer, the German Generalkommissar for Administration and Justice in the Netherlands, writing on 5 September 1941,

> With the establishment of a Central Register of Jews and Jewish half-breeds by the Registration Office in The Hague there has been created an instrument and a central information bureau . . . whose use I recommend and request in all cases of doubt. Close links between the Central Register and the Municipal Registration Offices in the Netherlands ensure the speedy detection of all changes (of residences, for instance) and thus guarantee that the register at all times reflects the actual state of affairs in individual cases and for statistical purposes. (Presser 1969: 38)

For his part, Lentz proudly wrote to the German authorities one month later, citing his office motto: “To record is to serve” (ibid.).

The Germans, with the assistance of Lentz and his colleagues, used this register to pursue work on both “individual cases and statistical purposes.” The registration record and the related identity card were used directly in locating and apprehending Jews preparatory to their deportation from the Netherlands (Fein 1984: 266–267). The important role of the various registration and control systems developed by Lentz is also clear from the numerous efforts made by the Dutch resistance, particularly as the war advanced, to disrupt them. For example, in March 1943 one resistance group attempted to burn down the Central Population Registration building in Amsterdam and in April 1944, at the request of the resistance, the Royal Air Force bombed the population registration system building in the Hague with more success (De Jong 1965; Nobel 1998).

On the statistical side, the Dutch Central Population Registration Office under Lentz produced a report in 1942, Statistical Record of Persons of Jewish Blood in the Netherlands, presenting data on the number of Jews by nationality, locality in the Netherlands, and other characteristics and another volume on Jewish immigration into the Netherlands (Presser 1969:
Serving both the statistical and the operational uses of the register of Jews and related data systems was a series of maps issued by the Amsterdam Municipal Bureau of Statistics in March 1941 showing population density of the Jewish and non-Jewish population by district (Presser 1969: 216) and a “List of Family Names of Persons of Jewish Blood” issued by Lentz’s office in March 1942 (ibid.: 301; Nobel 1998). An earlier version of these so-called dot-maps played a major role in the February 1941 attacks aimed at certain Jewish residential areas of Amsterdam, while the list of Jewish family names was developed to assist in identifying Jews (Nobel 1998). After the war, Lentz was convicted by a Dutch court and sentenced to prison for three years for his wartime activities (Fein 1984: 267; Aly and Roth 1984: 67). The charges against him centered on his role in developing the new rationing control card at the end of 1943, rather than his earlier work (Nobel 1998).

Although Lentz was portrayed by Presser as simply a zealous bureaucrat, he and his work on population registration were well known among English- and German-speaking government statisticians and demographers. A few years before his success in registering the Jews of the Netherlands, Lentz, together with H. W. Methorst, Director-General of the Dutch Central Bureau of Statistics, had informed the statistical and demographic communities about the new Dutch population registration system, including its value as a source of population statistics. The first version of their paper (Methorst and Lentz 1935) appeared in an early issue of an occasional journal, Population, issued by the predecessor to the International Union for the Scientific Study of Population. Methorst also gave a brief report on the new system at the 1935 International Population Conference held in Berlin (Methorst 1936a). In 1936, versions of this paper appeared in the Journal of the American Statistical Association (Methorst 1936b) and in a leading German statistical journal (Methorst and Lentz 1936). Moreover, the editor of the German statistical journal himself presented a paper at the 1937 International Population Conference in Paris (Zahn 1938), citing Methorst and Lentz (1936) and stressing the potential usefulness of the Dutch population registration system for “needed racial hygienic purification” (Nobel 1998, citing Seegers and Wens 1993: 90–91).

In a follow-up communication to the Journal of the American Statistical Association reporting on the rapid progress being made in the implementation of the new population registration system, Methorst highlighted several advantages of the new system, which in his words followed each individual “from the cradle to the grave.” Among the specific uses he identified was the system’s potential as a cost-effective replacement for the traditional population census. He also commented that

The system opens up wide perspectives for simplification of municipal administration and at the same time social research. On behalf of science, a
Demographic and Genealogical Archive is gradually being created of great importance. (Methorst 1938: 714)

Other than his reference to science, Methorst did not further specify how such an archive would be used. Despite such ambiguities and his strong support for the population registration system as a source for statistical and administrative data, Methorst throughout his career was reportedly concerned with protecting the confidentiality of responses to statistical inquiries. For example, in the case of the archive, he emphasized the procedures used to ensure the confidentiality of medical diagnoses (Methorst 1940). Moreover, preparatory work on the archive was halted at the outset of the German occupation (Nobel 1998). Lentz, on the other hand, although not a member of any Nazi or other known anti-Semitic group, seemed to be motivated solely by his dream of the value of a complete registration system, undeterred by the uses the Germans made of it (Moore 1997: 198–199).

Lentz wrote a book on the new system (Lentz 1936) that received a favorable review in the American Sociological Review from a highly regarded demographer, Dorothy Thomas (Thomas 1937). In January 1938, as reported in a note in Population Index (Vol. 4, no. 2: 70), “a new [monthly] demographic journal, De Bevolkingsboekhouding (Population Bookkeeping), made its appearance . . . under the editorship of J. L. Lentz, Royal Inspector of Population Registers. Its purpose is to further ‘insight into the aim, significance and value of population accounting.’” The note also referred to an editorial in the new journal, “Peace after conflict,” which described the 40-year struggle that led to the introduction of the new system permitting one to “follow each person from birth to death through his various communities of residence and contain[s] a cumulative record of his demographic experience.” According to the citations in Seegers and Wens (1993: 141), the journal continued publication until at least January 1944.

Norway

In October 1941 the Germans instructed the Norwegian authorities to prepare a regulation requiring the identity cards of Jews to be marked distinctly. The police issued such an order in January 1942, along with related guidance as to who was to be classified a Jew (Abrahamsen 1991: 95). This order was announced publicly on 22 January 1942 and by this time plans were already underway to carry out a special census among all persons classified as Jews. The census questionnaire “consisted of four pages which, in addition to vital data, also asked whether one belonged to a religious society and asked for detailed information about one’s economic situation. The last page had to be filled out by the local police . . . ” (ibid.: 96). After they were printed, 12,000 blank questionnaires were sent to the statistic-
cal office of the Norwegian national socialist political party, Vidkun Quisling’s Nasjonal Samling party. Subsequently, the questionnaires were dispatched to the police and sheriff precincts throughout the country for completion.

Information obtained from the completed questionnaires was employed directly some months later in generating the lists used in the mass arrests of Norwegian Jews, which began in late October 1942 (ibid.: 102, 110, and 120) with the statistical office of the Nasjonal Samling again playing an active role (ibid.: 105). On the statistical side, at the end of 1942 the same office, NS Statistiske Kontor, under the direction of “engineer [Siegfried] Nylander” (Mendelsohn 1987: 54; Søbye 1998) issued a report, “Jews in Norway: Graphical presentation of the number of full Jews according to occupations based on the census of Jews carried out at the beginning of 1942” (Abrahamsen 1991: 3 and 54).

The decision by the Germans to work through the party statistical office in Norway may well have been motivated by their sense that the Norwegian national statistical office was politically unreliable from a Nazi perspective (Nordbotten 1997). In fact, the Director-General of the national statistical office, Gunnar Jahn, was a leader of the Norwegian resistance. In addition, nearly the entire the staff were anti-Nazi. When Jahn was arrested in 1944, his Nazi-appointed replacement never showed up because he was aware of the lack of cooperation he would have received (Bjerve 1998). Jahn, who survived his imprisonment in a concentration camp, served as Director-General of the Norwegian statistical office from 1920 to 1945. Among his many non-statistical responsibilities, he served from 1942 to 1966 as chair of the Norwegian Nobel Committee responsible for awarding the Nobel Peace Prize. Recent research by Søbye (1998), however, indicates that the role of the Norwegian statistical office and Jahn may have been more complex than portrayed here.

**Himmler’s statistical overview**

Large-scale and complex governmental programs, including genocides, may be assisted by data on progress achieved. Such data are used to assess how well the program is doing and how it can be improved and to defend it against those who question its wisdom or effectiveness. During the Holocaust many of the responsible Nazi authorities, both civilian and military, routinely reported information on the number of Jews killed in the course of specific actions or the numbers transported to concentration camps (see, for example, the operational reports cited by Hilberg 1985: 1211–1216 and many of the documents indexed under “statistics on extermination and deportation” in Robinson and Sachs 1976: 234).

It is difficult, however, to be certain about the quality of these figures, which are subject to many of the limitations usually associated with ad-
administrative-based program data or enemy casualty figures generated by the military. For example, Hilberg (1985: 1203), commenting on the “shooting statistics [that] were produced by the SS and police units, especially the Einsatzgruppen,” observed that “at times these formations seemed to justify their existence with numbers,” and he, along with others, noted many gaps in the data (see, generally, Hilberg 1985: 1201–1220 and Fein 1981).

On balance, with respect to the reports of the Einsatzgruppen themselves, Headland (1992: 176) concluded that “ultimately, it is probable that the reports err on the side of incompleteness, rather than being an exaggerated version of what happened.” Factors cited by Headland as offsetting the inevitable exaggerations included the reporting system’s failure to cover many mass shootings (ibid.: 272) and specific efforts by some of those involved to guard against exaggeration (ibid.: 170). For example, the head of one of the four Einsatzgruppen, Otto Ohlendorf, stated in an affidavit (Robinson and Sachs 1976: NO-2856) that he tried to keep the number killed by each group in his command secret “in order to prevent the Kommando leaders from making a contest out of it and reporting larger numbers than had actually been executed” (Trials 1949–1953: (4) 134). This informed approach to a data quality problem may be attributable to Ohlendorf’s graduate training as a social scientist, in sociology according to his university records (Müller-Hill 1996: 76), and to his work in compiling economic and public opinion data for Himmler both before and after his service as the commanding officer of Einsatzgruppe D (Trials 1949–1953: (4) 227–240).

Himmler also expressed misgivings about the quality of some of the available numbers and sought expert advice, although it is unclear whether he considered them too low or too high (Hilberg 1985: 1204–1205). In an instruction dated 18 January 1943, Himmler gave this assignment to Dr. Richard Korherr, his Inspector for Statistics (Wellers 1978: 145; Fleming 1984: 135–136; Robinson and Sachs 1976: NO-4790). On the same date Himmler wrote to Ernst Kaltenbrunner, by now Head of the Reich Central Security Office, informing him of Korherr’s assignment and stating that Kaltenbrunner’s “Office is hereby relieved of its statistical responsibilities in this area, since the statistical materials submitted to date have consistently fallen short of professional standards of precision” (quoted in Fleming 1984: 136). Korherr’s first statistical report on this subject was dated 23 March 1943 (ibid.; Reitlinger 1968: 534; Robinson and Sachs 1976: NO-5194; Wellers 1978: 145). The full text of this report in German and English is given by Wellers (1978: Appendixes A and B, 165–188); an excerpt also appears in Arad, Gutman, and Margaliot (1981: 332–334). Eichmann’s recollections of Korherr’s assignment and report are also available (Lang 1983: 112–115).

This 16-page report presented data up to 1 January 1943 based on German and other European census statistics, data from Jewish commu-
nity organizations working under the supervision of the Reich Central Security Office, figures prepared by the Reich Central Security Office itself, and Korherr's own estimates. It included data on changes within the Jewish population of Germany, the number of Jews "evacuated," Jews remaining in the ghettos, nonevacuated Jews in concentration camps, and Jews in penal institutions and "involved in works projects." Data on evacuations were shown by place or country of origin and destination, with the largest single group, over 1.4 million, listed under the euphemistic rubric "transportation of the Jews from the eastern provinces to the Russian east" (Wellers 1978: 183). Headland (1992: 105) considers the approximately 633,000 persons given by Korherr as the Jews "evacuated" in Russian areas to be the total of Einsatzgruppen killings up to the end of 1942. (Korherr himself identifies this number, in language that is both more precise and more opaque, as "the figures provided by the Reich Main Security Office [RSHA] for the evacuation of Jews from the Russian territories including the formerly [independent] Baltic countries since the beginning of the Eastern campaign" (Wellers 1978: 184).)

After receiving Korherr's first report, Himmler further ordered him to prepare "a condensed report with rigorous numerical data to be shown to the Führer" (Wellers 1978: 207–208). This seven-page report (ibid.: Appendixes C and D, 195–210; Robinson and Sachs 1976: NO-5193), which was apparently completed a few days before 19 April, contained much the same material as had been in the earlier report, with selected data updated to 31 March 1943. Both the tabular and text portions of this version of his report seem clearer and more focused than his earlier, longer report. Korherr's "necessary preliminary remarks" on the quality of the data provide some insight into his perspective. He observes that among the sources of error affecting the "statistical analysis of Jewry" are

the character and development of Judaism, its definition, the many thousand years of restless wandering, the numerous conversions to and from Judaism, the efforts toward integration, the miscegenation with the native population and above all the efforts of the Jews to avoid registration. . . . [As a result,] errors of classification tend to vary in inverse proportion to the amount of Jewish blood. (Wellers 1978: 202)

A copy of this report was returned to Eichmann with a note from Himmler, "The Führer has taken note, destroy" (Lang 1983: 113; Fleming 1984: 135–139).

Reitlinger (1968: 534) considered Korherr's report "... one source of inestimable value in dealing with debatable figures. ... This report tallies with so many counter-checks that reliability may be assumed even where counter-checks are lacking." Similarly, Hilberg (1985: 1204) considers that "the keystone of all the German records is the recapitulation by the SS
statistician, Dr. Richard Korherr.” Wellers (1978: 148), making use of the added information in the condensed report about the first quarter of 1943, also considered Korherr’s data to be highly reliable.

No subsequent reports from Korherr have been identified, although in the covering letter that forwarded his March report to Himmler’s office Korherr volunteered “to produce a definitive elaborated report with flawless numerical material and unassailable figures as to numerical development of Jewry, perhaps at best as of July 1, October 1 or December 1, 1943, after careful preparation of the presently still very contradictory numerical data” (Wellers 1978: 190; Sereny 1995: 346). Hilberg (1985: 1206) reports that Eichmann testified at his trial that no final summary was prepared for 1944 or 1945, although statistics of new deportations were assembled.

Prior to his work for the SS, Korherr was a well-established demographer and statistician. He wrote and published extensively beginning in the late 1920s. For example, Reitlinger (1981: 221) noted, apparently based on a memoir Korherr prepared for him in 1955, that as early as 1927 Korherr had written “an essay . . . in a Bavarian journal on population shrinkage and its causes. [The essay] had impressed Himmler so much that in 1935 he had republished it himself with his own preface.” Glass (1967: 220, 274) refers to the first two editions of this work (Korherr 1927, 1928) and the discussion it aroused. Korherr’s work also greatly impressed Mussolini, who wrote the preface to the Italian edition published in 1928 (Zahn 1937–38; Glass 1967: 220).10 (One also finds a number of entries under Korherr’s name in the early volumes of Population Index and its predecessor, Population Literature, beginning with Vol. 2, no. 1, 20 January 1936.)

In 1936 Korherr was appointed director of statistics for the municipality of Würzburg.11 He was also a participant at the 1935 and 1937 International Population Conferences held in Berlin and Paris, respectively, with his papers published in the proceedings of both Conferences (Korherr 1936a, 1938a, 1938b). His population policy paper from the Paris Conference (1938a), moreover, was cited to substantiate a point in an authoritative postwar demographic text (United Nations 1953: 23).

In 1938, the annual meeting of the German Statistical Society was held in Würzburg, allowing Korherr to host the leading figures of German statistics (Allgemeines Statistisches Archiv 1938). Among the participants at the meeting were Roderich Plate and Friedrich Burgdörfer, whose Holocaust-related work has already been described, as well as Professor Friedrich Zahn, who was simultaneously the Society’s President, President of the Bavarian State Statistical Office, Professor of Statistics at the University of Munich, editor of Allgemeines Statistisches Archiv, the immediate past President of the International Statistical Institute, and a strong supporter of Korherr in the 1920s and 1930s. Aly and Roth (1984) provide further biographical information on Zahn (pp. 28–29), Burgdörfer (pp. 29–32), Korherr (pp. 32–35), and Plate (pp. 60–61).
After meeting with Himmler in early 1939 and carrying out several assignments for him during 1940 as an “independent retainer” (Aly and Roth 1984: 32), Korherr was appointed Statistical Inspector for the Reichsführer SS (i.e., for Himmler) in December 1940 (Reitlinger 1981: 221; Höhne 1970: 433; Wilhelm 1990). The initial idea for this appointment appears to have been Himmler’s, and Korherr considered it a “glorious” opportunity (Aly and Roth 1984: 32). In October 1940 he developed a written proposal for a statistical activity under Himmler in which he indicated that “I can see a meritorious personal assignment whereby I could work for the organization in unobtrusive scientific study” of the population resettlement project. In this connection he argued that

[Statistics that penetrate to the heart of the great event, need as precise a scientific basis as possible which would necessarily grow out of collaboration with the various institutes . . . and out of a critical examination of the generally contradictory statistics. . . . It would initially be a matter of collecting and arranging and scientifically checking and evaluating the data thus obtained, then a matter of its scientific interpretation and evaluation of its practical application so that, finally, the best and the most reliable data attainable for the purposes of resettlement and the consolidation of the German people as a whole would be available in this office. (ibid.: 33)

By late 1942 or January 1943 Korherr received the assignment to prepare the “balance sheet of Jewry.” According to Korherr, sometime after August 1943, following a series of disputes with SS officials who felt threatened by various internal studies he was carrying out, Himmler established a statistical research institute for him near Regensburg (Höhne 1970: 434; Reitlinger 1981: 222). Indeed, the 1 November 1944 Directory of the SS did include a listing for the “Statistical Research Institute of Reichsführer SS” that was located near Regensburg (Office of the US Chief of Counsel 1946: (5) 414, PS-2796). The last statistical report by Korherr, so far identified, is a September 1944 memorandum to Himmler giving figures on the number of SS staff (Hilberg 1985: 200-201; Robinson and Sachs 1976: NO-4812), although Aly and Roth (1984: 34) refer to some later, more bombastic and ideological reports during the winter of 1944-45.

After the war, Korherr’s reported reflections on his wartime experiences underwent an apparent transformation. Reitlinger (1981: 222-223), citing Korherr’s 1955 memoir, reported in a study first published in 1956 that Dr. Korherr himself, now happily denazified and employed by the West German Finance Ministry, claims that he was never permitted to know the truly murderous significance of his own balance sheet.

Wilhelm (1990) states that Korherr lost his ministerial job after Reitlinger’s book was published. Hilberg (1985: 1205-1206), citing a number of state-
ments Korherr made between 1951 and 1965 in connection with official investigations, was more skeptical than Reitlinger about Korherr’s assertion that he did not even understand the figures in his report or that he did not realize that Einsatzgruppen killed people. Throughout the post-war years, Korherr as a potential witness or defendant in West German court proceedings was a frightened man, and ignorance was his banner.

Based on an interview with him in 1966 and a review of his papers, Höhne (1970: 433–434) concluded that Korherr was “a devout Catholic and one of the most brilliant statisticians of the Reich,” who was “shy . . . and sensitive” and really in over his head among the corrupt and cynical SS bureaucrats.

By contrast, when Sereny (1995: 346) talked to Korherr in 1977, she recorded his observation that everybody in Germany knew about the gassings. Good heavens, the sparrows were whistling it from the rooftops. Let no one tell you differently.

The Nuremberg trials

The question of how data and analysis were used at the Nuremberg War Crimes Trials to prosecute the major Nazi figures, an important one for those concerned with prosecutions for genocide or other crimes against humanity in the late 1990s, is relatively easily answered.

Count one of the indictment against the major defendants at the International Military War Crimes Tribunal at Nuremberg, issued 18 October 1945, dealt with their “participating in the formulation or execution of a common plan or conspiracy to commit . . . ” crimes against peace (Taylor 1992: 648 and Appendix B). As read by Deputy US Prosecutor Sydney Alderman, this count asserted inter alia that “of the 9.6 million Jews who lived in the parts of Europe under Nazi domination it is conservatively estimated that 5.7 million have disappeared, most of them put to death by the Nazi conspirators” (IMT 1947: (2) 36).

The opening statement of Robert Jackson, Chief US Prosecutor at Nuremberg, delivered 21 November 1945, in addressing “Crimes against the Jews” under count one of the indictment, not only referred to these figures, but also introduced some analytical discussion of them (IMT 1947: (2) 119):

Of the 9,600,000 Jews who lived in Nazi-dominated Europe, 60 percent are authoritatively estimated to have perished. Five million seven hundred thousand Jews are missing from the countries in which they formerly lived, and over 4,500,000 cannot be accounted for by the normal death rate nor by immigration [sic]; nor are they included among the displaced persons. . . . I advert to
It seems clear that Jackson had some sort of expert demographic advice to arrive at his estimate of over 4.5 million deaths beyond those accounted for by normal mortality and emigration. However, the source of this expertise has not yet been identified.

Reitlinger (1968: 533) asserted that “the figure used at Nuremberg was supplied by the World Jewish Congress at a moment when few reputable data were available,” although it is unclear which of the several figures cited at Nuremberg he was referring to; he also referred to the report of the Anglo-American Committee of Inquiry (1946: 65–66), an inter-governmental committee established to examine ways of resettling Jewish refugees who had survived the Holocaust, which implied a loss between 1939 and 1945 of 5.7 million in the Jewish population of Europe. Both of these sources would have been highly unlikely as the basis for Jackson’s estimate.

An estimate of 6 million Jewish deaths was only mentioned by the prosecution after it obtained an affidavit from Dr. Wilhelm Höttl, a colleague of Eichmann’s at the Reich Central Security Office (see below). The analyst responsible for any data from the World Jewish Congress is likely to have been Jacob Lestschinsky. His estimate that 6 million European Jews had died since 1939 was first presented in early 1945 (New York Times, 8 January 1945: 17), well before the trial began. This appears to be the first public reference to the estimate of 6 million deaths and seems to have been based on a comparison of the number of European Jews alive in 1939 with the number of estimated survivors (Lestschinsky 1946). Lestschinsky (1876–1966), although little-known today, had an extensive career covering a variety of fields, including population statistics, in Russia, Germany, Poland, the United States, and Israel (see Encyclopaedia Judaica, s.v. “Lestschinsky, Jacob”). A 1927 paper of his was even quoted by Korherr in his 16-page report prepared in early 1943 for Himmler (Wellers 1978: 187). The estimates of the Anglo-American Committee of Inquiry could not have been the source of estimates used at the trial since the Committee did not begin its work until January 1946 (1946: vii), two months after Jackson cited the 5.7 million figure.

Robert Jackson, along with the other prosecutors, frequently referred to estimates or counts of Jews killed in specific localities (e.g., countries, regions, towns, ghettos, camps) throughout the trial, and he returned to
statistics on the total number of Jews killed in the Holocaust in his closing statement in July 1946. By this time the prosecution had been better able to digest the massive amount of materials obtained by the investigative staff, including an affidavit by Höttl about a conversation he had had with Eichmann (for the text of the affidavit see Office of the US Chief of Counsel 1946: (5) 380–382, PS-2738). On the basis of this affidavit, Jackson was then able to say

Adolf Eichmann . . . has estimated that the anti-Jewish activities resulted in the killing of six million Jews. Of these, four million were killed in extermination institutions, and two million were killed by Einsatzgruppen, mobile units of the Security Police and SD [Security Service of the SS]. . . . (Jackson 1947: 130)

Höttl’s affidavit is dated 26 November 1945, four days after Jackson made his opening statement. Eichmann’s reported estimates, based on the Höttl affidavit, were first referred to by Assistant US Prosecutor William F. Walsh in his statement to the tribunal in mid-December 1945 (Taylor 1992: 202). On its face, Höttl’s affidavit appears to contain several inconsistencies, although it is unclear whether these are attributable to Höttl himself or to Eichmann’s self-professed unreliability concerning dates and numbers. In his affidavit Höttl states that the conversation with Eichmann took place in August 1944, yet he asserts that Eichmann said that Himmler “would [emphasis added] send someone from his Office of Statistics . . . to make a new report . . . in which exact figures should be worked out.” For his part, during his interrogation in Jerusalem in the early 1960s, Eichmann estimated “one way or another, about six million Jews must have been killed” (Lang 1983: 110), but that any information he gave Höttl would have been based on Korherr’s finding that “five million” had been killed (1983: 119, 112).

During his trial, Eichmann disowned both the 5 and 6 million figures and any direct knowledge of Korherr’s study (Ministry of Justice 1993: 1561). In fact, while the numbers in Korherr’s reports are fully consistent with a final estimate of 6 million victims, as would be expected for reports prepared in the first part of 1943, neither report mentions the 5 or 6 million figure. August 1944 also seems premature for Höttl’s estimate of 6 million since organized killing in some camps continued beyond that date, but not for Eichmann’s “five million” figure. Indeed, it appears that both Eichmann and Höttl had a reasonably accurate picture of the final total, whatever confusions they spun out about their respective sources. Eichmann, moreover, had a reasonably reliable running total of persons transported, which was a good predictor of the number of Jews killed. As Eichmann explained it, his office received current reports on “evacuation
and shipment figures. . . . And from those figures [Rolf Günther [Eichmann’s deputy] drew up a graph on the wall of his office . . . , everyone who came into that office could see it, a long thick line” (Lang 1983: 113).

The tribunal in its written judgment, citing Eichmann as the source, quoted the 6 million and 4 million figures at the end of a section dealing with the “Persecution of the Jews” (IMT 1947: (22) 496). Data on the number of Jewish deaths and deportations, moreover, were mentioned in the judgments of the tribunal concerning several of the individual defendants found guilty on one or more counts (1947: (22) 524–587). For example, the tribunal in its judgment on Ernst Kaltenbrunner, who was found guilty on two counts and sentenced to death, listed among the reasons for its
decision that 

approximately six million Jews were murdered, of which two million were killed by Einsatzgruppen and other units of the Security Police. . . . The murder of approximately four million Jews in concentration camps has heretofore been described. This part of the program was also under the supervision of the RSHA [Reich Central Security Office] when Kaltenbrunner was head of that organization. (1947: (22) 538)

Reitlinger (1968: 534) also indicated that “figures compiled for Heydrich and Himmler . . . became the gruesome exhibits of later Nuremberg trials.” Headland (1992: 159–176), in far more specific terms, provided detailed information on the highly effective use made of the Einsatzgruppen reports, and the statistics they contained, in the trials of those operationally responsible for that aspect of the Holocaust. The impact of these numbers, and the reporting system that generated them, is clear from the opinion of the court in the so-called Einsatzgruppen Case (Trials 1949–1953: (4) 427):

[T]he mention of one million deaths produces no shock at all commensurate with its enormity because to the average brain one million is more a symbol than a quantitative measure. However, if one reads through the reports of the Einsatzgruppen and observes the small numbers getting larger, climbing into ten thousand, tens of thousands, a hundred thousand and beyond, then one can at last believe that this actually happened—the cold-blooded, premeditated killing of one million human beings.

Despite the frequent references to data throughout the trials, the prosecutors made relatively little use of documents containing statistics or describing statistical systems as exhibits in the early trials. Several factors probably account for this. First, the prosecution had to carry out its initial investigations and prepare its first cases in a limited period of time and in the chaotic conditions that existed in Europe in 1945 (Taylor 1974). It has
been observed that most international tribunals face the same challenges of time pressure and of chaos and dislocation (Spirer and Seltzer 1997). Second, the Holocaust was not really part of the original judicial agenda of the Nuremberg tribunal, although during the course of the first trial it emerged as an important element. Third, the prosecution was probably unaware of the potential value of looking for statistics and statistical systems, not just to describe the scope of the crime but to provide strong evidence of the deliberate, systematic, and genocidal nature of the killing of the Jewish population of Europe. These systems formed a tangible and identifiable part of the administrative processes used to define, concentrate, and annihilate the Jewish population (Hilberg 1985: 53–62). Both the Wannsee Protocol and the Korherr report, moreover, underscore prosecutor Jackson’s statement about “evidence of a purpose and a knowledge common to all defendants.”

Discussion

It should be understood that this article was not based on an exhaustive study of materials on the Holocaust or the Nuremberg trials. It was further limited by the fact that I am not a trained historian and was working primarily with materials available in English. I had, on the other hand, one advantage. As a specialist in population statistics with experience in one current genocide investigation and prosecution, I could more readily assess the relevance of what I read to the issues at hand than could most historians or political scientists. It is clear that a wealth of material pertaining to statistical and demographic issues appears to have gone unnoticed, and at times to have been misinterpreted, by those unfamiliar with population statistics. For me, the conclusions to be drawn from these materials are largely self-evident and are set out in the final section of the article with little further comment or justification. However, there are two areas where I believe elaboration is necessary. The first concerns our ignorance about the past and the second concerns what, if any, policy implications about the organization and work of a national statistical service can be drawn from events described above.

Clearly, some of what has been written about the Holocaust has touched on statistical and demographic topics. As a rule, however, experienced statisticians and demographers have addressed only the estimation of Holocaust mortality, while everything written about the association of statistical operations, methods, and personnel with the Holocaust has been written by victims, survivors, perpetrators, historians, and political scientists without detailed knowledge of the field of population statistics. As a result, some of what has been written is incomplete or incorrect. More seriously, nothing about how population data systems were used to further the Holocaust appears in the current statistical or demographic litera-
ture or seems to have explicitly entered into recent international debates on statistical policy. Admittedly, the period of Nazi domination of Europe put all governmental institutions to the test and, in many countries, most were found wanting. Nevertheless, unless we are clearly aware of what went wrong, we can do little to protect the public and ourselves from grave potential abuses of our own technology and methods. (For example, policy discussions about nuclear safety and technical work on nuclear power do not ignore the events at Three Mile Island or Chernobyl, even though they are recognized as rare.)

A few examples can serve to illustrate this near-complete silence about the subject by statisticians and demographers at international forums. First, given that the 1939 German census was used to identify future victims of the Holocaust, I find it surprising that this experience went unmentioned in reports of the debate leading up to the postponement of the 1983 German census (Butz 1985) or at a 1987 conference organized by the German Statistical Office dealing with the rescheduled census (Butz and Scarr 1987). Second, the report of a 1987 conference organized by Statistics Sweden (1987) on respondent concerns about providing data for official statistics is also silent on the Holocaust experience that touched many of the countries participating, although several attendees including the Directors-General of both the German and the Dutch Statistical Offices acknowledged that the potential for serious abuses existed. Third, given how population registration and related systems were used in the Netherlands between 1940 and 1945, it is disturbing that in a paper about recent Dutch experiences in gathering population statistics prepared for an international audience only the statistical advantages of a registration-based system are mentioned, with no hint of the potential for abuse or discussion of possible safeguards (van Bochove 1996). Fourth, a detailed report by a panel of the Committee on National Statistics and the Social Science Research Council (National Research Council 1993) that provided long-term policy recommendations on confidentiality and accessibility of US government statistics discussed only the essentially benign experience of the United States, Canada, and the post–World War II developments in the democracies of Western Europe. Fifth, a report, “Politics and statistics” (Seltzer 1994), that attempted to review and document major abuses of official statistics and official statistical systems in countries around the world ignored the events discussed here, except for brief references to the misuse of the 1939 German census and the 1940 US census. Finally, since the 1930s at least, international scientific meetings of demographers and statisticians have extensively discussed the technical merits of population registers and related data systems. Yet these same scientific meetings have rarely considered the vulnerability of such systems to gross abuses such as those that have been reviewed in this article. Similarly, no such discussions took place at the

For many, the silence arose out of ignorance of the role that statistics and statistical systems played in the Holocaust. At least in the United States, the silence has also been justified by some statisticians and demographers on a variety of grounds: first, the perceived probability of the contemplated disaster is low; second, public discussion of the issues would stimulate paranoic fears of governmental conspiracies; third, such a discussion might raise undue public concerns about a host of benign statistical programs; fourth, if any public policy issues do arise, they are general in character, with no special relevance for statisticians and demographers; and finally, statisticians and demographers who work for the government might be deemed disloyal if they were to develop and maintain procedures to protect against misgovernment. (For a discussion of the tension that can arise between the expectation that government statisticians will “follow orders” and the requirements of ethical norms, see Seltzer 1994: 23 and 25–26.)

In Europe, where there is greater awareness of what happened during the Holocaust, if not always explicit knowledge of how it happened, privacy concerns are strong in a number of countries. Indeed, Flaherty (1989: 373–374) considered that in Europe data protection laws include the hidden agenda of discouraging a recurrence of the Nazi and Gestapo efforts to control the population, and so seek to prevent the reappearance of an oppressive bureaucracy that might use existing data for nefarious purposes. This concern is such a vital foundation of current [data protection] legislation that it is rarely expressed in formal discussions . . . Thus European legislators have reflected a real fear of Big Brother based on common experience of the potential destructiveness of surveillance through record keeping. None wish to repeat the experiences endured under the Nazis during the Second World War.

Despite these public concerns, European statisticians have sometimes argued that it would not be wise for official statisticians to disquiet the public by discussing these issues, lest response rates in statistical operations and access to administrative data be adversely affected.

I would argue that a policy of silence, however well intentioned, only perpetuates ignorance and increases the difficulties that sound statistical programs will face when the events of the past are raised by those attempting to discredit such programs. Such a policy is also open to question on both ethical and legal grounds, given that “I didn’t know” and “I was only following orders” are only limited defenses against murder or genocide. As an alternative to ignorance or silence, it is important to examine possible past abuses and to assess the potential for future abuses. For these reasons,
the decision of the French statistical authorities, referred to earlier, to thor-
oughly examine the possible role of statistical systems and methods in France
in furthering the Holocaust is commendable, as are the decision of the Ger-
man Statistical Office to commission a study of the 1939 German census
(Kopsch 1998) and the decision of Statistics Norway to publish Søbye's

Several attempts have been made to use assessments of the relative
strengths and weaknesses of different methods of gathering population sta-
tistics (see, for example, National Research Council 1981: Tables 1.3, 1.5,
and 1.6) to guide decisionmaking about the rational use of complementary
data sources. These comparisons focused on such factors as timeliness, sub-
ject matter and geographical detail, accuracy, and flexibility, all factors re-
lated to the usefulness of the data produced by the system. Population data
systems may also be assessed in terms of their potential for abuse in ex-
treme situations. The results of such a comparison, presented in Table 1,
are based on the following factors: (1) all persons in the population being
covered by the system, at least in principle, (2) ease of use of definitions
and classifications based on legal or administrative considerations, (3) the
timeliness of the information available from the system, and (4) the accu-
racy of the information available from the system. Each of these factors
contributes to a system's suitability for targeting a desired segment of the
population for persecution or genocide.

The major conclusion one can draw from these summary assessments
is that the traditional population census, the system most closely associ-
ated with potential abuse in the public's mind, rates comparatively low in

<table>
<thead>
<tr>
<th>System</th>
<th>Entire population included</th>
<th>Legal definitions easy to apply</th>
<th>Timeliness</th>
<th>Accuracy^a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population census</td>
<td>High</td>
<td>Low</td>
<td>Low</td>
<td>Varies</td>
</tr>
<tr>
<td>Population sample survey</td>
<td>Low</td>
<td>Low</td>
<td>Medium/High</td>
<td>Varies</td>
</tr>
<tr>
<td>Population register</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Varies</td>
</tr>
<tr>
<td>Vital registration system^b</td>
<td>Varies</td>
<td>High</td>
<td>High</td>
<td>Varies</td>
</tr>
<tr>
<td>Special census^c</td>
<td>High</td>
<td>Low</td>
<td>High</td>
<td>Varies</td>
</tr>
</tbody>
</table>

^aAccuracy here refers to paucity of response error on specific items. The common rating of "Varies" obscures
some clear-cut differences among the systems. For those few items on which an administrative system, such as a
population register or civil registration system, places special emphasis, very high standards of accuracy are
often achievable. However, for other items the quality of response is often far poorer. On the other hand, in
general population censuses quality will typically be a function of how well the questions are understood.
Overall, the accuracy of the responses in a general population census is likely to be far lower than comparable
survey responses.

^bCovers primarily live births, deaths, marriages, and divorces.

^cSpecial censuses may be organized to reenumerate a jurisdiction where rapid population change has taken
place or where large numbers of a special population are located.
terms of “high-risk” factors. Indeed, as was shown earlier, although the 1939 German census may have played some role in the Holocaust, a monthly population canvass was required to keep it up-to-date and to fine-tune it to the desired target population.

On the other hand, population registration has the highest ratings in terms of the risk assessments shown in Table 1. This finding is consistent with the high mortality of Dutch Jews in the Holocaust (about 73 percent), particularly in light of the comparative mortality that Jews experienced in nearby Belgium (40 percent) and France (25 percent) (Moore 1997: 2). In seeking to explain this difference, Moore (ibid.: 195–196) observed that

one specific aspect of the Dutch bureaucracy looms large in the history of the Holocaust in the Netherlands and requires detailed analysis. This was the system of population registration which formed an integral part of the Dutch state machinery. Innocent enough in peacetime, this system became an ‘unfavorable factor’ peculiar to the Netherlands in its comprehensiveness. Neither Belgium nor France had such a complete registration. Moreover, the Dutch system was long established with its own specialist bureaucracy.

There is no question that the population registers in the Netherlands assisted the German occupiers in a number of important respects.

Specifically with respect to the Holocaust, Moore (ibid.: 196) identified both a direct role of the Dutch registration system in the compilation and checking of arrest and deportation lists and an indirect one. The latter arose because the very existence of the population registration system “made the Jews feel that there was little point in not cooperating with other forms of registration. Failure to comply would be identified from other records and lead to discovery and punishment” (ibid.: 256).

A population registration system also figured in at least one recent genocide. In Rwanda, personnel from Human Rights Watch obtained extensive documentary information from local government offices around the country concerning a population register and related reporting system that generated, inter alia, monthly statistical reports providing the number and basic demographic characteristics of the population, classified by ethnicity, in each local administrative area in the period prior to the 1994 attempted genocide of the Tutsi population (Des Forges 1996). Subsequent evidence indicates that information from the registration system was used to plan and assist in the implementation of the killing operations (Des Forges, forthcoming).

Given the role of population registration systems in at least some genocides and the far more uncertain contribution of regular population censuses, it is surprising that the public, parliamentarians, and the press tend
to focus their concern on the census rather than on the registration system. For example, in both the Netherlands and the German Federal Republic, primary public fear and hostility were concentrated on the census, rather than the registration system. As van Bochove (1996) emphasized, public hostility to the census in the Netherlands encouraged that country’s statisticians to shift to a register-based census. This despite the fact that in any given year the data from a decennial census are, on average, between five and seven years old and have questionable legal standing, while registration-based data are essentially current and have legal standing.

Population or similar registers, where they exist and function well, serve a wide range of administrative purposes (for example, taxation and entitlement to various types of social insurance and benefits). These registers may also serve a number of statistical functions, as they can be the source of a wealth of population-based statistics on a current basis and provide the sampling frame for a variety of population-based surveys. In addition, in some European countries, population registers have now completely replaced traditional population censuses, as foreseen by Methorst (1938). Where such registers are widely used, it is sometimes argued that statistical policy issues are largely irrelevant as long as the statistical system and statistical uses are insulated from the administrative uses and users.

Even in normal times, however, a blurring of the statistical and administrative functions can occur, in appearance if not in fact. Those supporting the advancement of improved registration systems often stress the statistical and research advantages of these improvements (see, for example, Trsinar 1995 and van Bochove 1996). Indeed, in some cases the statistical and demographic uses may be more visible than the administrative uses. Moreover, frequently statisticians and statistical considerations play a prominent role in establishing the registration system. In these circumstances, it seems essential to consider explicitly the potential abuses of the system in making decisions on statistical policy. In recent years a number of persons concerned with such policy have been sensitive to and have written about general issues of confidentiality and privacy threats arising from official statistics (see, for example, Begeer, de Vries, and Dukker 1986 and National Research Council 1993). However, these discussions do not explicitly refer to the Holocaust and other events during World War II or to genocide more recently.

If we accept that population registers can facilitate genocide-based mortality (or can cause other harm to “a potentially censurable or vulnerable entity”—Begeer, de Vries, and Dukker 1986) and if we use registers to generate population statistics, do statisticians and demographers have a special responsibility to encourage the development of technological, as well as legal, safeguards against abuse? Again, I would answer this question in the affirmative. (That others in society, such as registration system admin-
Safeguards are built into a wide range of risk-prone activities: nuclear reactors that shut down automatically, atomic weapons that can only be armed through the positive action of two or more persons, or even seat belts that can protect us from our own and others' driving mistakes. Indeed, some European countries, as Flaherty implied, have introduced safeguards into the operations of their population registers. For example, in the Netherlands the registration system is deliberately kept as decentralized as possible (Begeer 1998), and in Norway safeguards were initially developed with the idea of limiting the usefulness of the system to a foreign invader (Brunborg 1998). However, without discussion of the actual harms that arose during the Holocaust and other genocides, it is difficult to be fully aware of the continued importance of up-to-date safeguards against serious abuses. Moreover, if the idea of population registers is promoted for export to other countries, then it is the responsibility of the exporters to ensure that the required safeguards are bundled into the system architecture and software.

The need for effective safeguards is even greater now than it was in the 1930s because of the widespread availability of powerful data processing technologies in both the developed and developing world and numerous examples of public- and private-sector efforts to use these technologies to maintain data bases covering all or large parts of the population. For example, echoing the enthusiasm and even the words expressed by Methorst (1938) 60 years earlier, a recent front page New York Times article (20 July 1998) referred to government

plans to assign every American a unique identifier, a computer code that will track every citizen's medical history from cradle to grave. . . . Proponents, including insurance companies and public health researchers, say that the benefits would be vast. . . . A national disease data base could be created, offering unlimited opportunities for scientific study.

Flaherty (1989) and the National Research Council (1993) have reviewed the challenges presented by some earlier public-sector data base efforts and experiences with related safeguards. (To date, public-sector data bases have seemed to pose a greater threat than those maintained by the private sector, probably because the former were the source of the most serious abuses in the past and because of their ability to use legal sanctions to improve their completeness and accuracy.) In addition to technological safeguards, other approaches to individual protection are available. The simplest method is to avoid collecting or storing information on “risk-prone” topics such as ethnicity, religion, mother tongue, or place of birth. (Unfortunately, in a
data base with a medical component, certain diagnoses may pose a risk of administrative or legal sanctions.) Statistical methodology itself also offers protections: for example, data bases can be based on probability samples rather than all members of the population, or random errors can be introduced into the values stored in a data base to make it difficult to link any record with a real person. Finally, a number of legal, organizational, operational, and personnel arrangements and procedures can foster individual protection.

Some of these protections are absolute (for example, information not collected cannot be misused, or data obtained for only a sample cannot be used to identify all members of a population). For most such protections, their effectiveness will depend on how they are implemented and what threats they must protect against. In this connection, it is instructive to recall that the aforementioned New York Times story about plans for a comprehensive medical data base quoted opponents of the proposed system as saying “the [identity] code smacks of Big Brother” (20 July 1998, p. 1). It is not surprising, given the silence referred to earlier, that the threats envisioned were expressed solely in terms of a fictional abstract image taken from George Orwell’s novel, 1984, rather than by any reference to the historical experience of modern genocide.

Five conclusions

First, I believe I have demonstrated to those concerned with present and future investigations and prosecutions of genocide and related crimes against humanity that data and analysis can play a role in bringing the perpetrators of these crimes to justice. Estimates of Holocaust losses even in approximate terms were of assistance to the prosecution at Nuremberg and were cited by the tribunal in its decisions. As Minna Schrag, a former prosecutor with the International War Crimes Tribunal for Yugoslavia, observed at a 1997 conference on the use of quantitative data and analysis in international criminal tribunals (Center for the Study of Human Rights 1997), “data can help us tell the story of the crime.” A similar conclusion is the starting point of the handbook by Spirer and Spirer (1993).

Second, I hope investigators and prosecutors will see how they can go beyond their predecessors at Nuremberg by searching, from the start, for the data and the administrative and statistical systems that may have been part of the processes used to plan and carry out genocide. In many situations statistical outputs, systems, and methods are a necessary part of the effort to define, find, and kill an initially dispersed target population. Moreover, in those situations where such data or systems were used in planning and implementing genocide or related crimes, I hope I have encouraged prosecutors to see this as part of the evidence of criminal intent.
and culpability and systematic criminal behavior. As has been shown, such evidence had a powerful impact at the Nuremberg trials. Since the personnel of international human rights, refugee, and humanitarian assistance organizations and related nongovernmental organizations are often the initial evidence gatherers, they, too, should be alert to the potential value of such evidence.

Third, I have sought to remind statisticians and demographers that there is an ethical dimension to their work. Richard Korherr was called in by Himmler because Himmler did not trust Eichmann’s figures. Korherr certainly produced a good statistical report. But was he a good statistician? The ethical tradeoffs that statisticians and demographers need to address are usually more complex, or at least appear so, than those faced by Korherr. Nevertheless, it is useful to remember the examples of Korherr or J. L. Lentz when considering our own choices. Korherr does not appear to have been an early or active member of the Nazi party. Yet he, along with Carmille and Lentz, who were not party members, all demonstrated a professional zeal untempered by a full consideration of the consequences, in human terms, of their work. Similarly, David, Fleischhacker, and Höhn (1988: 89) attributed the willingness of German medical scientists, “even if they did not fully embrace Nazi racism,” to teach anti-Semitic racial hygiene to the fact that they “welcomed the opportunity of translating their intrinsically theoretical research into government policy.”

Fourth, I have reminded those concerned with potential misuse of the major data systems that produce population statistics of the need to examine and take into account the abuses that have occurred under aggressively malevolent governments, particularly given the singular ease with which population registration systems have been mobilized for genocidal purposes. Although some European countries have introduced various protective measures through privacy protection legislation, these measures seem to be aimed primarily at the comparatively minor abuses that occur under essentially benign circumstances. Are these protective measures adequate to deal with more widespread, systematic, and malevolent threats, including domestic tyranny or external occupation? If not, how can such measures be strengthened and extended to be up to that task? To answer these questions we must first overcome the half-century of near silence on the role played by population statistics, statistical and related data systems, and statisticians and demographers during the Holocaust. Current protective policies and official statistics have both been ill-served by this silence, whatever its source or motivation. In many senses, this conclusion is closely linked with the previous point related to our ethical responsibilities.

Finally, I hope I have also demonstrated that the subject is one that will benefit from further research. It seems obvious, given the misleading statements in several texts about the nature of the statistical operations
that took place during the Holocaust, that those knowledgeable about statistical operations and demographic methods must be actively associated with this research. The benefits of this research would be threefold. First, it would advance our knowledge and understanding of a little-explored aspect of the Holocaust and the Nuremberg trials. Second, it may assist those investigating and prosecuting future instances of genocide and similar crimes against humanity in seeking evidence concerning the use of statistics and statistical systems by the alleged perpetrators as well as quantitative evidence of the extent and nature of the crimes themselves. Third, it would lead to sounder statistical policymaking by broadening the information available on the most serious abuses of data-gathering operations in the population statistics field.

Notes

The underlying research for this article was greatly facilitated by the wealth of materials available in the Sidney Rosenblatt Holocaust Collection of the Fordham University Libraries. I am deeply grateful to Jane Berger, Helen Fein, Thomas Jabine, and Herbert Spirer for their encouragement and the many valuable comments and suggestions they made on earlier versions. I am also grateful to several others, now or formerly associated with their countries’ national statistical systems, who provided valuable information and comments on those portions of the article dealing with specific national experiences. They include: J.-E. Chapron, R. Lévy-Bruhl, and J.-C. Milleron (France), G. Kopsch (Germany), W. Begeer and J. Nobel (Netherlands), and P. J. Bjerve, H. Brunborg, S. Nordbotten, and E. Søbye (Norway). In addition, I thank J.-E. Chapron and Susan Ray for translating selected portions of Le ‘Fichier Juif’ (Rémond et al. 1996) and Die restlose Erfassung (Aly and Roth 1984), respectively.

1 My research was stimulated by a question, posed at a conference on the role of data and quantitative analysis in investigating and prosecuting genocide and other crimes against humanity, on the extent to which quantitative data were used at the Nuremberg trials. The 14 experts who participated were drawn from the legal, human rights, statistical, and demographic fields (Center for the Study of Human Rights 1997). The initial motivation for the conference arose out of experience in the international tribunals for the former Yugoslavia and Rwanda as well as proposals now being considered by the international community for the establishment of a permanent international tribunal for crimes against humanity.

2 An enormous volume of documentation covering the entire Nazi period was gathered for possible use at the Nuremberg trials. Many documents are reproduced, some in their original language, some in translation, in one of several multi-volume publications. A few documents from three of these sources, IMT (1947), Trials (1949–1953), and Office of the US Chief of Counsel (1946), are cited in this article. A comprehensive listing and index of all documents and materials appears in Robinson and Sachs (1976). At the time of the trials each item was assigned a unique code consisting of one or two letters (e.g., NO, NG, PS) and a number. To assist readers in locating any Nuremberg item referred to in this article, the citation for each item also includes its document code.

3 For example, Reitlinger (1968: Annex I) cites data from censuses carried out in the 1930s in Czechoslovakia, Poland, and Yugoslavia; and Marrus and Paxton (1983: 100) remark that “religion and ethnicity had not been part of vital statistics in France for al-
most 70 years, although some incomplete data on Jews had been collected in the general census of 1941. Significantly, the most thorough review of national experience with asking questions about religion in population censuses was published in the leading German statistical journal (Buck 1937).

4 Reitlinger (1968: 535) ambiguously refers to the 1933 German population census as “a census of the pure Jews of Germany.” Although Luebke and Milton (1994), drawing in part on Aly and Roth (1984), provide valuable information about the 1933 and 1939 German population censuses, particularly the data processing procedures and technology used, they do not have a clear understanding of the details of census operations or content. For example, they imply that the new Nazi regime decided in April, after taking power at the end of January, to launch the 1933 census in June as a new initiative (1994: 26). The 1933 German population census, as with any general population census carried out by a well-established national statistical office, had been in the planning stage for some time before Hitler became Chancellor. As indicated by Burgdörfer (1933: 145–146) the census had originally been planned for 1930, but was postponed first to 1931 and then to 1932 because of budgetary problems. Luebke and Milton (1994: 28) also label the tabulations based on the 1933 census item on religion a “special census of Jews.”

5 There is also some misunderstanding about the nature of this census, which was formally titled the Population, Occupational, and Industrial Census of 17 May 1939. Edlund (1996: v–vi) asserts that this census was limited to “a census of the nation’s non-Teutonic peoples,” citing “authorities at the Bundesarchiv [Potsdam]” who maintained that “no general population census was ever planned for 1938–1939.” As Burgdörfer (1938) and Plate (1939) state, a general census was first planned for 17 May 1938 and then postponed to 17 May 1939. The item on “racial Jews” was also included in the original plan. The most plausible explanation for the postponement of the census, and the one indicated by Burgdörfer and Plate, was the desire by Hitler to include Austria in the geographic scope of the census after it was annexed by Germany in mid-March 1938, about two months prior to the original census date. Less plausible is Edlund’s view that “fiscal difficulties” accounted for the delay. Several published outputs from the 1939 census were issued by the German Statistical Office between 1939 and 1944 on a variety of topics unrelated to Jews and other “non-Teutonic peoples” (see relevant issues of Population Index).

6 Burgdörfer was not, however, head of the German Statistical Office as suggested by Luebke and Miller (1994: 27). Between 1933 and January 1943, the president of the Statistische Reichsamt was Dr. Wolfgang Reichardt. After his death, Curt Godlewski was appointed to this position (Wietog 1998).

7 She had well-established and well-connected relatives in the United States (see, for example, Encyclopaedia Judaica, s.v. “Berliner, Emile”).

8 Despite the emphasis on the use of new technologies in related efforts in Germany and France noted by Aly and Roth (1984), Luebke and Milton (1994), and Rémond et al. (1996), it is probably simply a reflection of a common intellectual perspective that the introduction to this 1942 Dutch publication specifically mentions that the tabulations were produced by Hollerith machines (Nobel 1998).

9 One reason for this may be that it was only in February 1943 that the Prime Minister of the Government-in-exile in London explicitly prohibited any collaboration by Dutch civil authorities with the occupying power. Another consequence of the Prime Minister’s order was that, in the later stages of the war, the Central Bureau of Statistics systematically inflated municipal population estimates so that a larger number of ration control cards were made available than needed by the population legally present (Nobel 1998).

10 Aly and Roth (1984: 34) indicate that Mussolini claimed to have translated the work into Italian “with his own hands.”

11 Between 1934 and 1939, Korherr wrote 11 brief notes on books published and
five longer articles in Allgemeines Statistisches Archiv. The notes in volume 25, no. 2 were signed in Munich and the notes and article in volume 25, no. 3 gave his new title in Würzburg. Incidentally, the latter article, a report on the population conference held in Berlin in 1935, indicated that “Methorst . . . spoke about population registration” (Korherr 1936b).

12 I served as director of the United Nations Statistical Office (1986–94) and as chief of its Demographic and Social Statistics Branch (1974–86). In 1996 I was a consultant to the International Criminal Tribunal for Rwanda.

13 For example, see notes 4, 5, and 6 for misunderstandings arising from unfamiliarity with the field of population statistics. In addition, Presser (1969) frequently used the term “census” where the concept or word “registration” was meant. To facilitate understanding, I simply substituted “registration” for “census” whenever the latter term was mistakenly used.

14 The issue has been raised internally in Germany, but not by statisticians or demographers. For example, the short monograph by Aly and Roth (1984), which appeared after the postponement of the 1983 German census, was written by political scientists. Although presenting a perspective hostile to the population census, it does recount in detail the misuse of population statistics and methods under the Nazis. Until relatively recently (see, for example, Friedländer 1997 and Luebke and Milton 1994), this study has been largely ignored.

15 This omission by van Bochove should not be interpreted as indicating his indifference to issues related to human rights or data protection. In his current work in Statistics Netherlands, van Bochove has frequently consulted with the Dutch national office of data protection (Nobel 1998). His paper was cited as one example among many where the advantages of population registration systems are stressed without any discussion of needed safeguards against potential abuse. The unconditional optimism of Methorst and Thomas, expressed in the 1930s, about the promise of “cradle to grave” registration can be excused as naïveté. On the other hand, today, given the abuses that have occurred, the era of unqualified optimism should be over.

16 For example, according to Methorst and Lentz (1935: 42), at that time in addition to being Director-General of Statistics, H. W. Methorst was “Head of the Government Inspection of the Population Registers,” a position that Lentz later held. Even after Lentz assumed responsibility for the system, Methorst wrote “… it was decided in 1938 by the Netherlands Government, on the suggestion of the Central Statistical Bureau, to introduce this system in all communes before the [planned, but never-taken] census of population in 1940” (Methorst 1938: 713–714).

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Sociodemographic Differentials in Adult Mortality: A Review of Analytic Approaches

ROBERT A. HUMMER
RICHARD G. ROGERS
ISAAC W. EBERSTEIN

ADULT MORTALITY differentials—usually specified by race/ethnicity, gender, socioeconomic status, and marital status—are a major concern to the research and policy communities in the United States (Lee 1995; Moss and Krieger 1995; Williams and Collins 1995). These differentials remain large and in some cases are increasing. In one of the most widely cited investigations of recent mortality trends, Pappas et al. (1993) found that the inverse relationship between socioeconomic status and the level of mortality became significantly sharper since 1960 for men and women, whites and blacks, and family members and unrelated persons (also see Feldman et al. 1989; Preston and Elo 1995). Their 1986 data (see Table 1) show that individuals at the lowest socioeconomic levels are several times as likely to die as individuals at the highest socioeconomic levels, although this differential varies by sex, socioeconomic status indicator, and race. Likewise, a recent analysis of mortality differences by marital status showed a widening of the gap since 1960. These data, also from the late 1980s, indicate that never-married white men are 2.08 times more likely to die than married white men, compared to 1.75 times more likely in 1960. For non-white men, the current figure is 2.65, compared to 1.67 in 1960 (Smith 1996). In addition, sex and race differences in mortality, while generally not widening, have remained relatively constant in recent decades. Table 2, for instance, shows that females and whites each exhibit about seven years of
additional life expectancy in comparison to males and blacks, respectively, and that these gaps have remained relatively stable over the last 30 years.

This article explores analytic approaches and data needs in research on sociodemographic mortality differentials. We first argue that the literature fails to explain why such differences in mortality exist. Second, we identify the conceptual perspectives underlying many recent contributions to the study of sociodemographic mortality differences and highlight their strengths and weaknesses. Finally, we specify a set of questions on which future research should focus and provide examples of studies that are moving in those directions.

**TABLE 1** Socioeconomic differences in all-cause mortality, US adults aged 25-64 years, 1986

<table>
<thead>
<tr>
<th>Variable</th>
<th>White men</th>
<th>White women</th>
<th>Black men</th>
<th>Black women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4+ years college</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>1-3 years college</td>
<td>1.54</td>
<td>1.17</td>
<td>0.83</td>
<td>1.45</td>
</tr>
<tr>
<td>12 years</td>
<td>1.54</td>
<td>1.39</td>
<td>1.33</td>
<td>1.77</td>
</tr>
<tr>
<td>0-11 years</td>
<td>2.71</td>
<td>1.89</td>
<td>2.23</td>
<td>2.82</td>
</tr>
<tr>
<td>Family income</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$&gt;25,000</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>$19,000-24,999</td>
<td>1.92</td>
<td>1.88</td>
<td>1.31</td>
<td>1.22</td>
</tr>
<tr>
<td>$15,000-18,999</td>
<td>2.38</td>
<td>2.06</td>
<td>2.72</td>
<td>1.61</td>
</tr>
<tr>
<td>$9,000-14,999</td>
<td>4.25</td>
<td>2.13</td>
<td>3.00</td>
<td>1.96</td>
</tr>
<tr>
<td>&lt;$9,000</td>
<td>6.67</td>
<td>4.06</td>
<td>5.42</td>
<td>3.30</td>
</tr>
</tbody>
</table>

*Index value for highest education and income group = 1.00.
SOURCE: Derived from Pappas et al. (1993)

**TABLE 2** Life expectancy at birth, in years, by race and sex in the United States, 1960 and 1990

<table>
<thead>
<tr>
<th>Year</th>
<th>White</th>
<th>Black</th>
<th>Difference in years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>70.6</td>
<td>63.2</td>
<td>7.4</td>
</tr>
<tr>
<td>1990</td>
<td>76.1</td>
<td>69.1</td>
<td>7.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Female</th>
<th>Male</th>
<th>Difference in years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>73.1</td>
<td>66.6</td>
<td>6.5</td>
</tr>
<tr>
<td>1990</td>
<td>78.8</td>
<td>71.8</td>
<td>7.0</td>
</tr>
</tbody>
</table>

SOURCE: NCHS (1996)
Identifying the problem

To specialists and nonspecialists alike, the sociodemographic study of adult mortality often seems simplistic and atheoretical. This research usually focuses on only two closely related variables, namely timing and cause of death, and describes the differences in each of these across social groups. Further, broad disciplinary issues in social demography (e.g., agency versus structure or costs versus benefits) often seem less pertinent to mortality studies than to the study of other aspects of social demography where human volition is more of a factor. In other words, since most people want to avoid death for as long as possible, an agency versus structure or a cost versus benefit debate, while perhaps relevant in some ways, does not seem as relevant as it does for studies of fertility, migration, marital patterns, labor force participation, and welfare program clientele.

Research on sociodemographic differentials in mortality has been primarily descriptive and focused on issues of accurate reporting, data quality, and measurement error rather than on conceptual development and understanding, and tests of theoretical principles. Some investigators have recently begun to develop more comprehensive conceptual frameworks useful for guiding the study of mortality differentials (e.g., Adler et al. 1994; Hummer 1996; Preston and Taubman 1994; Sickles and Taubman 1997; Williams, Lavizzo-Mourey, and Warren 1994). Moreover, the study of infant and child mortality has advanced our understanding of the processes that generate differentials and may have application by analogy to adults (Caldwell 1986; Mosley and Chen 1984; Nam et al. 1989). Nonetheless, social demographers to date have engaged in only limited discussion and investigation of the multifaceted and complex processes leading to social differentials in the cause and timing of death among adults (Crimmins 1993: 587; Menken 1987: 709). Indeed, few statistical models in this area have attempted to specify the behavioral and biological pathways through which sociodemographic mortality differentials are realized (Preston and Taubman 1994), and even fewer studies have considered the contextual or historical sources of these mortality differences (LeClere, Rogers, and Peters 1997).

Interpreting this situation in a positive light, Crimmins (1993: 587) noted that “because no ‘theory’ of mortality currently exists, this area is likely to undergo considerable theoretical development in the present decade.” Biodemographers have most effectively answered this call. A burgeoning literature of biodemographic work has estimated the limits to the human lifespan (e.g., Carey et al. 1992; Manton and Stallard 1996; Yashin and Iachine 1996), used non-human mortality findings to speculate on human mortality patterns (e.g., Carey 1997; Vaupel and Carey 1993), and renewed the search for a “law of mortality” across the human age range.
(e.g., Carnes, Olshansky, and Grahn 1996; Olshansky and Carnes 1997). Much of this work is grounded in an evolutionary perspective and has allowed for significant progress in understanding human senescence and, in particular, how age may be fundamentally related to mortality. For the most part, however, this biological approach focuses on the common prospects of low mortality that may be possible for all humans and is not centrally concerned with mortality differences across sociodemographic groups (for an interesting exception, see Carey and Liedo 1995). For example, in a review article on Gompertz’s law of mortality and ongoing work in that tradition, Olshansky and Carnes (1997:11) argue that:

Humans have altered their environments and lifestyles to such an extent that extrinsic causes of death have been reduced dramatically. Almost everyone now has an opportunity to live to his or her biological potential—something that only humans and a few of the animals they manage (zoo animals, household pets, and animals raised under laboratory conditions) have achieved. What is being revealed by human intervention is a more “pure” biologically influenced mortality schedule for these species. . . .

Social demography, on the other hand, while conceding that human mortality prospects have improved for nearly all social groups, focuses on a different core issue utilizing different underlying perspectives. Sociodemographic mortality studies most often document differences in mortality between groups, implying that the lowest level of mortality is not, at least at the current time, attainable for all groups of people within a given society. While often not openly stated, the identification of mortality differentials implies inequalities in the availability and use of resources by population subgroups that require explanation and, potentially, remediation (Nam 1994). In short, the fundamental assumption underlying sociodemographic studies of mortality differentials is that the differences are not biological, but social, in origin.¹

This assumption, however, does not imply that the job of social demographers is solely to document such mortality patterns. As the next section suggests, social demography has improved greatly in the area of documentation, with new methods and data sets. However, the challenge to social demographers is to demonstrate why such differentials exist and to model the causal processes involved—that is, to understand the background sources and biobehavioral pathways by which social categories such as race, gender, and socioeconomic status translate into inequalities in timing and cause of death. Before discussing the questions that social demographers need to ask to move in those directions, we review the conventional approaches used to study adult mortality differentials.
Conventional approaches to mortality differentials

The strictly demographic approach

The earliest demographic work in mortality and the continuing backbone of the differential mortality literature emphasizes simple comparisons across subpopulations, often analyzed through comparisons of age-specific or age-standardized mortality rates, and sometimes specified according to underlying cause of death (e.g., NCHS 1996; Zopf 1992). The central goal of this approach is the accurate documentation of mortality patterns within and between demographic groups, usually by age, sex, and race/ethnicity, but sometimes including such factors as educational level, occupation, and marital status. The most frequently used data for describing adult mortality patterns are death certificates combined with US census data. Since geographic coverage of deaths in the United States has been complete since 1933, this system is advantageous for its comprehensive coverage of the population, its consistency over time, and the simplicity, yet power, of its results (Hoyert, Singh, and Rosenberg 1995). The National Center for Health Statistics and other demographic researchers publish differential mortality information using these data on a regular basis.

Much of what is known about mortality differentials—some of which is non-intuitive—stems from these careful descriptions. For example, the race/ethnic mortality literature contains two, now well-known, phenomena that such careful documentation has uncovered. The “epidemiologic paradox” points to the lower adult mortality rates exhibited by Hispanic populations in comparison to non-Hispanic whites, despite major differences in the demographic and socioeconomic profiles of the two populations that would seem to favor the latter (Markides and Coreil 1986; Sorlie et al. 1993). While originally thought to be an artifact of poor data (Markides 1983), this finding has been shown to be consistent across several data sets, even those that use a single, self-reported ethnic identifier (Rogers et al. 1996; Sorlie et al. 1993). In another example of a similarly unexpected differential, the “racial mortality crossover” points to higher mortality rates among US whites in comparison to US blacks among the oldest-old segment of the population—usually those people aged 85 and older (Nam 1995). As with the epidemiologic paradox, the mortality crossover has been speculated to be due to poor data quality, particularly involving age misreporting among older blacks. Indeed, there is extensive evidence on age misreporting both on death certificates and in the US census (the primary sources used to construct mortality rates), particularly for blacks (Coale and Kisker 1986; Elo and Preston 1994; Preston et al. 1996; Rogers, Carrigan, and Kovar 1997). Nevertheless, recent analyses using the Medicare Master
Beneficiary Record files from the Social Security Administration, which contain the most carefully documented birth and death dates used in US mortality research to date, demonstrate that the racial mortality crossover is real and occurs at age 87 for women and age 88 for men (Kestenbaum 1997; also see Kestenbaum 1992). Such careful documentation and re-documentation of mortality patterns has been invaluable for understanding the association between sociodemographic factors and mortality and for use as a starting point for causal studies between the two.

Similarly, the information provided by cause-of-death comparisons is important for speculating on the pathways responsible for mortality differentials. The case of sex differentials in mortality is a propos. For most of the twentieth century, the sex gap in US life expectancy at birth widened, moving from a low of 1.8 years in favor of females in 1920 to a peak of almost eight years in the 1970s (Knudsen and McNown 1993). In the last 20 years, the sex mortality gap decreased slightly and then stabilized; currently, women enjoy a seven-year advantage in life expectancy over men. While a small portion of this advantage is attributable to female survival advantages during infancy and childhood, much of it is due to causes of death in adulthood, particularly heart disease (Nathanson 1984). In fact, about 40 percent of the US sex mortality differential is due to ischemic heart disease alone (Knudsen and McNown 1993). Thus, descriptive cause-of-death information has led to a search for risk factors (e.g., smoking, dietary patterns, hormonal differences) that place men at higher risk of ischemic heart disease than women (Nathanson and Lopez 1987; Waldron 1986)—particularly those risk factors that have changed in frequency and/ or effect over time.

It has been well established, on the other hand, that some of the data used for these descriptive purposes are subject to systematic error. Inaccurate reporting of age on death certificates and in the census, especially for the elderly, has already been mentioned; inconsistent reporting of race/ethnicity between death certificates and census data is another example (Hahn and Stroup 1994). In response to such errors, demographers have improved descriptions of mortality differentials in several creative ways. One example, mentioned above, is through the use of Medicare enrollment data from the Social Security Administration. Found to have much more reliable age reports for the elderly than death certificates, these data allow for precise descriptions of mortality among the oldest old, and of differentials by sex and race/ethnicity (Kestenbaum 1992, 1997). Other examples include the use of intercensal cohort comparisons, extinct generation methods, model life table methods, and death certificate linkages to historical censuses to estimate mortality patterns when conventional data are prone to error (e.g., Elo and Preston 1994; Preston et al. 1996; Rosenwaike and Logue 1983). Such methods have been especially valuable in
comparing US racial mortality differences over time and using various sources of data.

In sum, the strictly demographic approach to adult mortality differentials yields a large amount of information that is increasingly more accurate, comparable over time and place (e.g., across states and countries), and continually updated. The recent use of data sets that contain more reliable age, race/ethnic, and cause-of-death reports has led to more accurate documentation of basic demographic mortality differentials. For many mortality researchers, these detailed descriptive findings provide the basis for further work in uncovering pathways and mechanisms by which the mortality differentials are generated. The limitations, however, of the strictly demographic approach point to the need for a more comprehensive study of mortality differentials. Most important, such findings are not explanatory; they show patterns and trends, but the data only allow for speculation on the reasons why patterns exist. Thus, both the scientific and the policy implications of such findings are vague. In addition, a strictly demographic approach to mortality is narrow; for example, the United States is one of the few developed countries that have not routinely documented socioeconomic mortality differences. Finally, these descriptive results are nearly always based on cross-sectional data, thus ignoring the influence of cohort effects.

A broader sociodemographic approach

During the 1960s, socioeconomic variables such as income, education, and occupational status became a central concern to analysts of mortality. Prior to this time, American studies largely downplayed socioeconomic mortality differences because of the notion that the United States was a “classless” society (Krieger et al. 1993). Owing to increased social awareness and unrest during the 1960s, and a focus on societal inequities in general, American demographers became more concerned with socioeconomic variables. Starting at about the same time and continuing to the present, new computing tools and individual-level sample surveys have allowed for greater in-depth analyses of mortality differentials than ever before. Thus, demographic and socioeconomic variables came to be seen as inter-correlated and interacting determinants of mortality, and the key issue underlying much of the demographic mortality literature concerned the association between social and survival inequalities.

Kitagawa and Hauser’s (1973) classic work provides an example of this shift toward a sociodemographic approach. Using a sample of US death certificates from 1960 matched to census data of the same year, they estimated cause-specific mortality differences by education, family income, occupation, marital status, nativity, and other social factors. Most importantly,
they focused on socioeconomic variables, demonstrating that income and education each exhibited strong inverse associations with mortality that were greater for persons aged 25 to 64 than for those 65 and older. As noted above, several recent studies have confirmed the persistence of such an association between socioeconomic status and mortality, and, in drawing comparisons to the Kitagawa–Hauser findings, some have even noted a widening of the mortality gap between socioeconomic groups (Feldman et al. 1989; Pappas et al. 1993; Preston and Elo 1995).

Indeed, Kitagawa and Hauser’s use of multiple socioeconomic indicators and broad cause-of-death categories provided the foundation for a new emphasis in demographic mortality studies that has dominated the American literature ever since. Since the publication of their study, much of the sociodemographic literature has focused on sorting out the main and interacting associations between socioeconomic variables and mortality (for excellent reviews, see Adler et al. 1994; Feinstein 1993; Preston and Taubman 1994; Sickles and Taubman 1997; Williams 1990; Williams and Collins 1995). The immense interest in this topic has led to recent debates about the meaning and measurement of socioeconomic status, about gradient versus threshold effects in the associations between socioeconomic factors and mortality, about the role of health as a determinant of both socioeconomic status and mortality, and about the relationship between race, socioeconomic status, and mortality.

We briefly illustrate the debate over the use of alternative socioeconomic status measurements. Some argue that education is the optimal measure because it is usually determined early in life; can be assessed for all individuals; is important for employment, income generation, and information gathering; influences health behavior; and is critical for the use of, and negotiation through, the health care system (Christenson and Johnson 1995; Elo and Preston 1996). Income, on the other hand, is used to purchase health care and preferred qualities of nutrition, transportation, exercise equipment, and housing, and is therefore the socioeconomic measure chosen by some analysts (e.g., Adler et al. 1994). Income can also be specified along a continuum, leading to more refined descriptions of mortality differentials across the socioeconomic gradient. In addition, occupation, long used as the preferred measure of “social class” in European mortality studies (Navarro 1990), is associated with US adult mortality. Yet, relatively few US studies include occupational variables along with education and income. In one of the few that have, Sorlie, Backlund, and Keller (1995) found considerably weaker mortality effects for occupational status than for education and income; however, specific groups such as the unemployed, service workers, and homemakers demonstrated substantially higher risks of death in comparison to workers classified as professional. Overall, current thinking emphasizes that one-dimensional socioeconomic measures are insufficient for capturing the range of inequalities that persist in US
society (Krieger and Fee 1994; Moss and Krieger 1995). Furthermore, there is a growing need for longitudinal studies to assess how different lengths of time spent in poverty and unemployed are associated with mortality; cross-sectional studies cannot adequately address such issues.

Other analysts have begun to test the importance of income accumulation, or wealth, on mortality, particularly because wealth in the United States is much more unevenly distributed than income (Smith 1997). Limited studies have demonstrated that wealth displays a strong, inverse relationship with adult mortality, even net of income and education (Menchik 1993; Mutchler and Burr 1991). In short, socioeconomic mortality studies, while plentiful, continue to be of great interest because of the open scientific questions and policy interests surrounding them (Lee 1995; Moss and Krieger 1995; Williams and Collins 1995).

While interest in socioeconomic factors has dominated the sociodemographic approach, a small, but growing demographic literature—closely related to studies in medical sociology and social epidemiology—considers associations between adult mortality and other social factors, such as marital status, marital transitions, social support, nativity, and religion. Several of these variables, while included in the Kitagawa–Hauser and other early studies, were downplayed for many years because of a lack of data or poor-quality data. However, a conceptual broadening of the interests of social demographers in combination with more in-depth, survey-based mortality data sets, has led to an increasing number of studies that consider them. Interest in the linkage between marital status and mortality has been greatest. Married persons in the United States consistently exhibit lower mortality risks than the unmarried. While controlling for age, sex, and race, Rogers (1995a) reported that widowed and divorced persons were twice as likely to die as married persons, while never-married individuals were about three times as likely to die in a recent year. Further evidence suggests that these differences persist net of socioeconomic factors (Sorlie, Backlund, and Keller 1995). In addition, transitions in marital status are associated with differences in adult mortality. Men experience immediately reduced mortality prospects with marriage, and the advantage continues throughout the life course. The transition out of marriage for men—whether through separation, divorce, or widowhood—immediately increases mortality risks. In contrast, women receive no immediate mortality reductions with the transition into marriage, but survival benefits accumulate over time (Lillard and Waite 1995).

Other recent studies have considered associations between adult mortality and social support, stress, nativity, and religious participation. For example, Sorlie et al. (1993) found that both foreign-born Hispanic and non-Hispanic white adults exhibit lower mortality than their native-born counterparts, which is suggestive of a “healthy migrant” effect. Little work has investigated whether this effect may be generalized across other race/
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ethnic groups and whether it is dampened with the acculturation process. Religious observance also exhibits an association with adult mortality. Those who never attend services in the United States exhibit the highest mortality risks, while those who attend services once a week or more exhibit the lowest risks, net of controls for baseline health and socioeconomic status (Berkman and Syme 1979; Hummer et al. 1999; Seeman et al. 1987; Zucker- man, Kasl, and Ostfeld 1984). Further, people who strongly adhere to behaviorally strict religious principles tend to exhibit lower mortality than those who are more loosely tied to the same religious groups (Jarvis and Northcott 1987). Such studies point to the beneficial effects of social participation and support on adult mortality risks (e.g., House, Landis, and Umberson 1988; Rogers 1996), a general area of study that is infrequently investigated by social demographers.

The increasing number and breadth of high-quality studies of sociodemographic and other social mortality differences at the individual level are in large part the result of innovative data linkages between various nationally representative surveys and the National Death Index (Horm 1996; Makuc et al. 1990; Rogot et al. 1992). These data linkages, only commonplace in the past five years, have been the most important new resource for demographers who study mortality. To illustrate, individuals included in recent (1986–94) years of the National Health Interview Survey (NHIS) have been linked through identifying characteristics to the same persons listed in ensuing years (1986–95) in the National Death Index (a compilation of US death certificate information) to provide a large and rich data source for mortality analysis. As a consequence, the richness of the baseline NHIS survey data is available to researchers, along with the follow-up of the survival status of individuals. Similar linkages have been made to the Current Population Survey to create the National Longitudinal Mortality Study (Rogot et al. 1992), and other survey-based data sets are likely to be linked in years to come. Such data sets also avoid the aforementioned problem of inconsistent reports of age and race/ethnicity between death certificates and census data, the combination of which generally biases mortality rates downward for minority groups and upward for whites (Hahn and Stroup 1994; Sorlie, Rogot, and Johnson 1992).

In sum, the sociodemographic approach has moved from documenting simple associations between socioeconomic characteristics and mortality to more complex examinations that reflect multidimensional and longitudinal components of socioeconomic status and interactions with other sociodemographic variables. This approach will continue to be widely used because of its descriptive value, because social differences in mortality remain wide, and because debates regarding a number of issues—some of which were alluded to above—remain unsettled. However, like the strictly demographic approach, this approach has numerous limitations. Again, most findings are not explanatory; they show patterns and trends, but the
approach and available data often only allow speculation on the reasons such patterns and trends exist. Second, policy questions remain open. If, for instance, individuals with low education experience greatly elevated risks of mortality in comparison to the highly educated, is increased education the answer for closing the gap? Without more information on the sources of, and trends in, educational inequalities and the pathways by which education influences mortality, such a policy recommendation remains questionable. Finally, concern is growing about the influences of health factors and early life conditions on the mortality of adults, especially about how these factors relate to cross-sectional findings regarding sociodemographic mortality differences. All of these issues raise important questions for current and future adult mortality studies, a topic we now discuss.

Unanswered questions

The following sections specify key issues and questions that need to be addressed to move demographic and sociodemographic mortality studies beyond the descriptive stages highlighted above toward a more inclusive and causal perspective. In addition, we briefly highlight some innovative studies and data sets that are moving the field in these directions.

What are the pathways?

Despite greatly increased specificity in sociodemographic studies of mortality, missing in the above approaches is an explanation of why sociodemographic characteristics are associated with the mortality prospects of individuals; that is, causal attribution is lacking. Indeed, recent reformulations of epidemiologic transition theory stress the fundamental importance of proximate determinants such as cigarette smoking, dietary patterns, exercise, and sexual behavior for understanding the mortality process, including the specification of mortality differences between sociodemographic groups (Olshansky and Ault 1986; Olshansky et al. 1997; Rogers and Hackenberg 1987). The availability, use, and quality of health care—which are known to vary in the United States across sociodemographic groups—may also represent important, but often unspecified pathways by which mortality differentials are created. In effect, most demographic and sociodemographic studies strip mortality of its behavioral, health care, and biological properties and fail to recognize that mortality, at least at the individual level of causal attribution, is best conceptualized as a process that is influenced by different classes of independent variables. Thus, sociodemographic factors, as background mortality determinants, might best be conceptualized as working through behavioral, psychosocial, health care, and biological factors—often termed proximate determinants—to influence mor-
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tality. The proximate determinants approach moves demographic studies toward an integrated, multidisciplinary conceptualization of mortality and, in so doing, is an important step in understanding the causal pathways by which mortality differentials are realized. Consequently, the main potential of such an approach is the scientific understanding of mortality as a socially influenced biological process.

Another important aspect of the proximate determinants approach to mortality is the improved potential for policy formulation. Concerning child mortality differentials in the developing world, for instance, Mosley and Chen (1984: 41) write:

There are numerous situations in which a multidisciplinary approach to the study of child survival could provide guidance for health policymakers in the developing world. For example, in many developing countries large differences in infant and child mortality have been observed between various regions, or between mothers with different educational or social characteristics within a given area. In-depth investigation to connect these ecological or socioeconomic factors to specific proximate determinants can give policymakers insights into health-related development strategies that could reduce these differentials.

Likewise, the identification and modeling of proximate determinants of adult mortality is apt to be an important way for researchers to identify policies that facilitate reductions in mortality differentials. In short, specific policies or programs can be developed targeting the proximate determinants that place certain sociodemographic groups at high mortality risk.

Of course, such an approach is not new to social demography; Davis and Blake (1956) had conceptualized the distinction between socially based background variables and behaviorally and biologically based proximate variables related to fertility. Others have made similar contributions in the child health and infant mortality literature in more recent times (e.g., Mosley and Chen 1984; Nam et al. 1989) and, indeed, the adult mortality literature contains several examples of this approach. At this point, however, few demographic studies of mortality are conceptualized in this manner, and many data sets are not conducive to the statistical specification of both sociodemographic factors and proximate determinants related to mortality (Preston and Taubman 1994).

Nevertheless, a proximate determinants approach has been used in studies of socioeconomic (Feldman et al. 1989), sex (Wingard 1982; Wingard, Suarez, and Barrett-Connor 1983), race/ethnic (Rogers et al. 1996), and general sociodemographic (Rogers 1995b) mortality differentials. Interestingly, these studies employ similar approaches and arrive at parallel conclusions. Methodologically, they measure cause-specific mortality differences prior to, and after the inclusion of, a set of theoretically
relevant proximate variables. In terms of results, each fails to explain fully
the sociodemographic mortality differences in question, pointing to miss-
ing proximate determinants and crude measurement of the included vari-
ables as reasons. Nevertheless, they go well beyond descriptive studies by
offering a partial explanation of the mortality difference in question and
empirical evidence from which policymakers can address the differentials.

For example, the study by Feldman et al. (1989) of US socioeconomic
mortality differences incorporated dichotomous measures of smoking, body
mass, serum cholesterol, and systolic blood pressure as proximate determi-
nants in the attempt to explain educational differences in heart disease
mortality. Measures of proximate determinants were taken from the first
(1971–75) National Health and Nutrition Examination Survey, and the sur-
vival status of these individuals was ascertained for up to 13 follow-up years.
The inclusion of proximate determinants explained only a modest portion
(10–25 percent across most age-sex groups) of the observed educational
mortality differences, with the crude, single-point-in-time measurements
hampering the explanatory potential of the proximate variables. Never-
theless, the usefulness of this approach should become more evident if fu-
ture studies can uncover clearer specific pathways (proximate determinants)
by which sociodemographic factors exert their influence.

Thus, one of the main issues involves the availability of data for speci-
fying proximate determinant models. To date, perhaps the best data sets
for investigating the proximate determinants of adult mortality come from
community studies—such as the Alameda County, Charleston Heart, and
multiple-site EPESE studies. While they are characterized by lesser
generalizability, smaller samples, and less inclusive sociodemographic mea-
sures than many national data bases, they often include a wide range of
proximate determinants and multiple measures of such items over time
(e.g., Wingard 1982). At the national level, the National Health and Nutri-
tion Examination Survey (e.g., Feldman et al. 1989) and the various cross-
sections of the National Health Interview Survey (e.g., Rogers 1995b; Rogers
et al. 1996) and the National Long Term Care Survey (Manton, Stallard,
and Corder 1997), each linked to follow-up mortality data, are some of the
most inclusive data sets for this type of approach.3

Incorporating time into causal models
of differential mortality

One of the most difficult issues in modeling adult mortality differentials is
the influence of time. Unlike demographic models of fertility, migration,
and even infant mortality and child health, the adult mortality process un-
ffolds over six, seven, or more decades, making causal modeling a challeng-
ing task. In fact, Elo and Preston (1992) identify biological, medical, co-
hort, and household characteristics stemming from birth and childhood that
are thought to affect the mortality of adults (also see Van de Mheen et al. 1997). In addition, social characteristics such as income, marital status, gender roles, and religious participation vary over the lifecourse, while factors like cigarette smoking and alcohol use, dietary intake, stress, and the use, quality, and availability of health care may have long latency periods before influencing the onset of degenerative diseases and can also change over time. Interestingly, the importance of time—in the lifecourse sense—is rarely discussed in the differential mortality literature.

Nevertheless, at least three strategies can be used to take into account the longitudinal nature of the adult mortality process. The first is through cohort studies. For example, Manton, Stallard, and Corder (1997) examined differences in the age and sex patterns of mortality between three ten-year cohorts of US individuals born between 1887 and 1917. All of the individuals in the study were surveyed in the 1980s, with their survival status determined beyond that point. Individual data for these cohorts were not available before the time of the survey; importantly, though, Manton and colleagues reviewed the general history of economic conditions, medical breakthroughs, health policy and the health care system, nutrition, and other risk-factor exposures and interventions so that any observed cohort differences in age and gender patterns of mortality could be understood in a longitudinal framework. Thus, changes in the age pattern (lower mortality by age with cohort progression) and gender pattern (lower mortality for each gender with cohort progression) of mortality across these cohorts were interpreted using the key historical changes that had earlier been identified. While largely speculative, such an approach illustrates how current survey data can be combined with historical research to yield insights on mortality differentials and their changes over time.

A second approach to taking the time dimension of the mortality process into account is through the use of actual longitudinal data. This approach follows individuals over time to measure changes in their social status, behavior, health, and survival status. While ideal for studies of mortality differentials, this approach is infrequently used in the demographic mortality literature because longitudinal designs—particularly at the national level—are time consuming, expensive, and subject to sample selectivity in follow-up. One example of the use of longitudinal data to aid in understanding sociodemographic mortality differences is a study of marital status differences among American men. Using longitudinal data from the Panel Study of Income Dynamics, Lillard and Panis (1996) focus on the relationship between marital status, health, and mortality. Echoing other analysts, they argue that people may be selected by their poor or good health into marriage and re-marriage and, therefore, may have mortality prospects that are simultaneously related to both the selective and protective influences of marriage (e.g., Goldman 1993; Rogers 1995a; Zick and Smith 1991). However, few longitudinal data sets have been available to model
the relationship in timing between marital status and health, and most demographic studies of marriage and mortality imply that marriage is causally prior to both health and survival status. Indeed, Lillard and Panis find that behavior affecting marital status is, in part, dependent upon health and that the high mortality of divorced men is largely a product of their poorer health. On the other hand, both never-married and widowed men seem to experience higher mortality risks because of their marital status, and not their health selection. Again, this kind of analysis shows the importance of sorting out time effects in models of mortality differentials. The increased availability and use of longitudinal data will best allow for the understanding of such health selection effects on mortality, particularly among effects related to marital status, income, and occupation.

Another way to incorporate time in the analysis of the mortality process is through the use of retrospective measures that consider the life histories of individuals. For example, differential smoking patterns are often hypothesized to help account for mortality differentials between sex, race/ethnic, marital status, and socioeconomic groups. Yet, smoking behavior is often gauged with a simple “yes” versus “no” response, which does not account for the differential risks incurred by the histories of individual smokers. Indeed, some former smokers—particularly males—exhibit much higher mortality risks than those who have never smoked, a group with which former smokers are often grouped (Hummer, Nam, and Rogers 1998). In addition, former smokers can be classified in different risk groups across various dimensions of previous smoking behavior (Nam, Hummer, and Rogers 1994). Thus, it is important to ascertain the histories of smoking behavior to better understand the intervening effect of this variable on sociodemographic mortality differentials. A second example is the realization that current income and occupation are only limited indicators of an individual’s socioeconomic history. Researchers are beginning to ascertain the changing and often cumulative nature of socioeconomic variables across the life course to better understand how socioeconomic status is related to mortality, such as by measuring longest occupation instead of current occupation (Mare 1990; Rogers and Carrigan 1997) and by measuring wealth instead of income (Menchik 1993; Smith and Kington 1997). These simple examples illustrate the notion that even when researchers use cross-sectional survey-based designs to model mortality differentials, there are data that can be collected and measures that can be developed to unravel the longitudinal dimension of the mortality process.

What are the relevant outcome measures?

To gauge overall differences in mortality across sociodemographic groups, most studies use simple dichotomous measures of survival status as the outcome measure. However, mortality differentials also differ across causes
of death, and each cause is characterized by its own set of proximate determinants. American blacks, for example, are several times as likely as American whites to die from homicide, diabetes, and infectious diseases; on the other hand, blacks are only somewhat more likely than whites to die when circulatory diseases, cancers, and accidents are considered, and are less likely to die from suicide (Rogers 1992). Thus, cause-specific measures can provide more specific outcome differentials on which to base modeling efforts, and can greatly enhance the identification of proximate determinants of mortality. Most often, cause-specific mortality is measured in an underlying-cause format based on cause groupings listed in the International Classification of Diseases (e.g., USDHHS 1990). Important to note is that the underlying-cause specification assumes that a single cause is responsible for triggering death.

It is typical, on the other hand, for more than one cause to be identified on death certificates, and it is reasonable to assume that combinations of causes hasten death and indicate greater morbidity during the final stages of life (Manton and Stallard 1984). This realization has compelled demographers to refine the standard specification of an underlying cause of death. Multiple cause-of-death measures, for example, emphasize that individuals generally have several morbid conditions before and at the time of death, and the isolation of a single cause may misdirect attention from the reality of multiple causation. At least three types of multiple-cause-of-death coding schemes have been developed, including those based on total mentions, cause combinations, and cause lethality (Nam 1990). Several studies have demonstrated that the interpretation of age, sex, and racial mortality differentials varies depending upon whether an underlying- or multiple-cause scheme is employed (Manton and Stallard 1984; Wrigley and Nam 1987). Despite being useful for specifying mortality differentials, multiple-cause coding schemes are rarely utilized because of the complex nature of the outcome variable that such schemes produce.

In order, then, to more clearly ascertain the close relationship between morbidity and mortality, researchers have also examined active life, or healthy life, expectancies by employing multi-state demographic methods to determine how transitions into and out of different health and functional states affect mortality across sociodemographic groups (e.g., Crimmins, Saito, and Ingegneri 1989; Rogers, Rogers, and Belanger 1989). These transitions specify the ways in which individuals move in and out of independent, dependent, and institutionalized states, and they may ultimately be related to causes of death. Pertinent research has examined active life expectancies with social covariates (Land, Guralnik, and Blazer 1994) and with linkages to causes of death (see Hayward, Crimmins, and Saito 1997). In short, refined outcome measures allow more precise specification of the causal processes that lead to mortality differentials.
What is the influence of macro-level factors?

To this point, our discussion has involved the association between individual-level factors and resulting differences in mortality across groups. A growing body of work also demonstrates the relevance of factors beyond the individual level for understanding adult mortality differentials. One type of study looks solely at the association between macro-level characteristics and mortality differentials occurring in specific geographic areas. Potter (1991), for example, demonstrates that larger homicide rate differentials between US blacks and whites are associated with increased black isolation within metropolitan areas and suggests that inner-city blacks are isolated from resources conducive to high rates of survival. McCord and Freeman (1990) illustrate this in one locality, as they estimated that black men living in the Harlem District of New York City had lower chances of surviving from age five to age 65 than men in Bangladesh. Building on the McCord–Freeman study, Geronimus et al. (1996) demonstrated that the magnitude of excess black-to-white mortality in the United States, although wide in all cities considered, varies significantly between communities and may depend upon specific current and historical conditions, such as medical care availability, crime, the quality of housing and the environment, and minority political power. These and related studies demonstrate the potential significance of social contexts—or the characteristics of places—in this case for understanding racial mortality differences.

In general, a macro-level approach emphasizes that mortality differentials across sociodemographic groups are, at least in part, influenced by forces operating beyond the individual. Such an approach shifts the focus from how individuals of a certain group behave, the amount of health care they receive, and how much money they have to how their group is embedded within a socio-historical context. Thus, macro-level variables represent the socioeconomic, political, health service, cultural, and physical environments in which health and mortality outcomes are shaped and then ultimately manifested through individual-level processes. Consequently, there is great potential at the macro level for developing theory on the socio-historical sources of mortality differentials. In addition, the macro-level approach implies that the closing of mortality differences may in part rely on programs and policies directed toward contexts, and not just toward individuals.

While many studies (including those identified earlier in this section) employ a purely macro-level approach to mortality differences, we have identified only a few that consider both macro- and individual-level variables. The first, using data from a single community, found that both black and white adults living in federally designated poverty areas experienced higher mortality risks than those not living in such areas (Haan, Kaplan, and Camacho 1987). For example, adult whites in poor areas exhibited 44
percent higher mortality than whites in non-poor areas, net of individual-level characteristics. Using national-level data, Anderson et al. (1996) found that both individual-level income and census-tract average income exhibited strong associations with all-cause mortality. The census-tract variables approximate the neighborhood characteristics in which individuals are embedded, an assumption that is made in other areas of social demography (e.g., Brewster 1994). Although the effect of individual-level income on mortality was stronger, Anderson et al. (1996: 42) concluded that “area socio-economic status makes a unique and substantial contribution to mortality and should be explored in health policy and disease prevention research.” LeClere, Rogers, and Peters (1997) also used nationally representative data to demonstrate that several neighborhood characteristics—including racial segregation, education, income, and aspects of family structure—exhibited associations with all-cause mortality, net of individual-level characteristics. The inclusion of neighborhood characteristics also helped to narrow black–white differences in mortality, suggesting that individual-level explanations of differences may be incomplete.

Other studies have used a multi-level approach focusing on individual- and household-level characteristics. For example, Smith and Zick (1994), in an analysis of couples living in shared households, found that cigarette smoking, risk-avoidance behavior, poverty, and the presence of children—as household characteristics—influence wives’ and husbands’ mortality in similar ways. Thus, they argue that marriage partners, by agreeing to share households, also end up sharing mortality prospects even beyond those related to the individual characteristics of each partner. While such studies have only begun to assess the importance of contexts for understanding why individuals in different sociodemographic groups experience particular mortality risks, it is increasingly clear that a sole focus on individuals is misplaced.

To date, though, few individual-level mortality data sets allow for the inclusion of macro-level variables, particularly given the recent domination of an individual-level, medically oriented paradigm in US health and mortality research (Kunitz 1987). Our summary of the demographic literature also reflects this limitation. Perhaps because of the strength of the few mortality studies that have considered both individual- and macro-level variables, recent calls for the incorporation of multiple levels of variables in data sets have been strong (e.g., Moss and Krieger 1995). Confidentiality restrictions placed on individual-level data sets remain a major stumbling block to their conventional inclusion, however (Hoyert, Singh, and Rosenberg 1995). We assert here, nevertheless, that the conventional availability of macro-level characteristics within individual-level data sets may lead to a greatly improved understanding of how multiple levels of characteristics interact to influence the mortality of individuals and of specific sociodemographic groups.
The methodological and statistical issues of multi-level data and analyses are new, numerous, and challenging. At the macro level, for example, geographical boundaries are fuzzy and may change over time, and measures that capture neighborhood, city, and state-level characteristics are difficult to define (LeClere, Rogers, and Peters 1997). At the interaction of the individual and macro level, it is difficult to ascertain whether some effects are macro- or individual-specific, particularly when measures between the two levels may not be consistent. Further, there is a question of the selection of individuals into households, neighborhoods, cities, or even states. For example, healthy individuals may disproportionately select one type of place to live; such personal preferences may bias associations between macro-level variables and individual mortality. Finally, multi-level statistical packages that correct for the survival correlation of individuals within places are relatively new and not in general use. Despite these issues, though, a multi-level approach will be vital for our understanding of sociodemographic mortality differences.

Conclusion

Current US mortality risks among people aged 80 years and older may be the lowest in the world, while US mortality risks among younger adults are higher than in many countries with similar overall life expectancies (Himes 1994; Kestenbaum 1992; Manton and Vaupel 1995). One reason for this anomaly is the large resource differentials between sociodemographic groups in the United States—resource differentials that have survival implications for group members. Consequently, demographers and other health-related researchers continue to be interested in adult mortality differentials, with the implicit goal of seeing such gaps closed. To this end, the focus of the adult mortality literature is moving from descriptive studies that often feature solely demographic factors and simple mortality outcomes to more recent studies that incorporate larger sets of variables at different levels of analysis, longitudinal designs, behavioral and biological factors, controls for health selectivity, and carefully defined mortality outcomes. This transformation is also characteristic of the field; in general, demography has moved toward models that aim both to document and to explain population processes (Crimmins 1993).

At a more basic level, the description of sociodemographic mortality differences remains an important segment of the literature and will continue to provide the foundation for explanatory analyses. Much recent work, for instance, has focused on measuring and describing socioeconomic mortality differentials. Such efforts will and should continue, especially as socioeconomic and mortality outcome measures are further refined and as the United States experiences educational and occupational changes. Ques-
tions concerning the mortality consequences of increasing income inequality and a growing service-sector economy, and the consequences of mortality for intergenerational wealth flows are some of many such issues that need to be addressed. Changing migration patterns and multi-ethnic identifiers will present similar challenges for those documenting mortality trends. Similarly, other sociodemographic mortality patterns should continue to be monitored and documented. For instance, is there a crossover in age patterns of mortality for race/ethnic groups other than blacks and whites? Are the mortality patterns of individuals with higher and lower educational levels becoming increasingly divergent? Will gender-based mortality differences be reduced with the convergence of smoking behavior? Data sets that permit the comprehensive documentation of mortality differentials across specialized population groups will be increasingly relevant.

Demographic interest in mortality patterns, however, must not be limited to documentation; indeed, the explanation of phenomena is a central goal of social science. To accomplish this goal and build stronger sociodemographic theories of mortality, more work should be devoted to collecting data and testing hypotheses regarding the mechanisms by which sociodemographic mortality differences are generated. At one level, data collection and modeling efforts must not ignore the fact that sociodemographic groups are embedded within a socio-historical context. All too often, demographic models of mortality reduce social patterns to individual-level processes, ignoring the means by which the groups in question become differentiated in the first place. For example, work on ethnic mortality differences must recognize the historical and geographical uniqueness that affects the structure of each group’s demographic outcomes; similarly, different age and gender groups experience historical events, medical breakthroughs, and economic swings that undoubtedly shape their specific mortality patterns. Consequently, data collection agencies, researchers, and policymakers must ask such questions as: What contexts are most important for the emergence of mortality differentials? What are the key macro-level variables? How can they routinely be incorporated in major data sets? What can be done, at the macro level, to narrow mortality differences across groups? Theoretically, and in terms of policy issues, these questions need to be addressed.

At another level, sociodemographic differences in mortality are realized through individual-level processes. Recent progress has been made in developing frameworks that suggest the mechanisms by which social and demographic factors ultimately influence adult mortality (e.g., Nathanson and Lopez 1987; Williams 1990; Williams, Lavizzo-Mourey, and Warren 1994). Behavioral, health care, psychosocial, and health variables are most often cited as the key links between sociodemographic factors and mortality, and recent studies have begun to incorporate such variables in statistical analyses. Of course, the successful specification of such mechanisms
relies on high-quality, time-dependent data and can be difficult when several underlying-cause and many multiple-cause patterns of death are taken into account. Nevertheless, such multi-disciplinary models of the mortality process hold great potential for theoretical and policy development.

While no single study or data set may answer all of the questions we have raised, it is imperative that sociodemographic exploration of mortality expand beyond the conventional descriptive approaches identified. Both theoretical development and policy formulation depend on the more precise specification of differential mortality models, and the questions raised and the examples provided should move demographers another step in those directions.

Notes

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1 The intent here is not to downplay the importance of biological factors for understanding adult mortality. Rather, the focus on mortality differentials across groups warrants greater attention to social and demographic factors than to biological factors. For example, although it is widely recognized that biological differences between women and men are, in part, responsible for the sex mortality gap (Waldron 1983), gender differences in roles and in health-related behaviors are thought to be the major reasons underlying the mortality differential (Nathanson and Lopez 1987).

2 See Rumbaut and Weeks (1996) for an excellent example of this kind of analysis as it pertains to infants and children.

3 The periodic US National Mortality Follow-back Surveys conducted by the National Center for Health Statistics (e.g., NCHS 1993), which contain a variety of potentially powerful proximate determinants of adult mortality, do not contain an identical sample of surviving adults to serve as denominator data. Thus, differential mortality analysis using these data sets is limited to those items in the data set that can be linked with nationally representative surveys of surviving individuals (e.g., Pappas et al. 1993; Rogers 1992).

4 Income- and occupation-based studies of mortality differentials are similar in this regard, with unhealthy people more likely to be socioeconomically disadvantaged and more likely to die (e.g., Illsley 1986).

5 Our call for the increased availability of macro-level characteristics within individual-level data sets does not mean that the confidentiality of individual data is not a concern. Rather, we assert that the scientific potential of multi-level data is great and that steps should be taken to make such data both confidential and widely available.

References


Population Policy in the Age of Fascism: Observations on Recent Literature

CARL IPSEN

Until about 15 years ago practically the only book-length English-language source for information on population policy in Western Europe between the two World Wars was David Glass’s *Population Policies and Movements in Europe*. Glass’s book, published in 1940, is a fine catalog of policy up to that time. It includes chapters on the major European countries—two in fact for France, which has the longest history of population anxiety. The policies of Nazi Germany and Fascist Italy are also discussed, although not of course their tragic conclusions in World War II.

Today that situation is much changed, as a series of monographs has begun to fill the gap. The fickleness of fashion, even in scholarship, is difficult to explain, but two reasons may help us to understand this development. The 1960s saw the beginning of a fruitful relationship between demography and history. Thanks to new methods including family reconstruction, back projection, and imaginative use of demographic models, the work of Louis Henry, E. A. Wrigley, and a host of demographically trained researchers has vastly improved our understanding of European demography in the past. The work of these pioneers focused on the early modern period, the period for which their methods were best adapted. As a result of their accomplishments demography joined economics and other social sciences in the tool box of the historian, and it was perhaps only a matter of time before European historians specializing in more recent epochs began to investigate demographic topics as well.

A second reason relates to “deviant” science. Before World War II, eugenics, or the science of racial improvement, had been a well-established discipline with practitioners in many countries and universities; it had even
inspired policies in the United States and various European countries aimed at preventing the spread of what were deemed hereditary diseases. These diseases included mental illness, venereal disease, and alcoholism; and the methods employed to combat them included most notably legally mandated sterilization (though a premarital blood test for syphilis is of course also a eugenically inspired measure). Subsequently, the tragedy of the Holocaust tainted eugenics, as it became clear that Hitler’s racial vision was nothing more than the logical, if extreme, conclusion of a particular eugenic world view; and along with “respectable” anti-Semitism, respectable eugenics became oxymoronic. In the political arena, not only eugenic policy but population policy in general became highly suspect, especially in the former Fascist dictatorships.

Since World War II, the historical, anthropological, sociological, and other literature produced on Nazi Germany has been vast. And it may have been inevitable that the eugenically inspired Nazi population policy would eventually come in for specialized scrutiny, setting an example for similar studies in other national settings. Motivation, though, likely also came from another quarter. The anti-establishment sentiments felt so strongly by American and European university students in the late 1960s and 1970s manifested themselves in the area of the history of science as an interest in alternative science—astrology and witchcraft, for example—and also as an interest in the relationship between politics or ideology and science. Both interests clearly challenged the positivist view of science as a disinterested search for truth, and both might lead one to the study of eugenics. The combination, then, of an increasing role for demography in history and an interest in cases where political concerns formed scientific ones—blatantly in the case of eugenics in Nazi Germany and only somewhat less so elsewhere—helps to explain the recent interest in population policies between the two World Wars.

These policies can be traced back to the population anxiety that emerged in late-nineteenth-century Europe and focused on the decline of fertility and, potentially, population. Following World War I, Oswald Spengler (1928) expressed a widespread sentiment when he linked this decline to a more general decline of the West, and much of the interwar population rhetoric and policy concerned this trend and how it might be reversed. These issues are treated in a general and engaging way in Michael Teitelbaum and Jay Winter’s The Fear of Population Decline (1985; see also PDR 12: 589–592), now unfortunately out of print. Those same collaborators continued to pursue their interest in the history of population issues in a fine edited volume on Population and Resources in Western Intellectual Traditions (1989) that appeared as a supplement to this journal. The essays in that volume explore population concerns in the contexts of ideology, politics, and science.
Scholarship on eugenics enjoys a longer pedigree than that on population policy per se, and not surprisingly the greatest scrutiny has been directed at Germany and the Anglo-American world. Two excellent in-depth treatments of Anglo-American eugenics are Daniel Kevles’s In the Name of Eugenics: Genetics and the Uses of Human Heredity (1985), which looks at both sides of the Atlantic, and Richard Soloway’s Demography and Degeneration: Eugenics and the Declining Birthrate in Twentieth-Century Britain (1990; see also PDR 17: 731–732). Kevles contrasts the class hostility inherent in the British eugenics movements with the immigration and racial concerns characterizing the American version. In both contexts he documents the important links between eugenics and other scientific disciplines such as genetics and the burgeoning statistical enterprise as well as other, more socio-political phenomena, like the birth control and women’s movements. He devotes considerable space to the now almost century-old IQ controversy and follows the eugenic story through to recent developments in genetics and sociobiology. Comparison of Britain and the United States reveals an important difference, namely between the implementation of sterilization laws in many states of the United States and the failure to do so in Britain. As compared with Kevles, Soloway devotes greater attention to the links between eugenic and demographic concerns (exclusively in Britain); in particular he examines the specter of population decline as it relates to the fear of degeneration elaborated by Francis Galton, founder of the science of eugenics. He also devotes proportionally more attention to public health policy and less to developments in genetics and statistics.

Work on Nazi population policy also began to appear in the 1980s. Gisela Bock, for example, has addressed general questions of racism and sexism as they related to the German response to Hitler’s call for more births (1983 article in Signs) and also applied a feminist analysis to Nazi sterilization policy (1986). The policy of forced sterilization of those deemed unfit to reproduce was in fact only a prelude to the still more radical aspect of Nazi population management, the Final Solution. Among scholars writing in English on these topics, Robert Proctor discusses various aspects of Nazi population policy in his Racial Hygiene: Medicine Under the Nazis (1988), as do Michael Burleigh and Wolfgang Wippermann in The Racial State: Germany, 1933–1945 (1991), a well-researched if not well-edited work. The most ambitious (and longest) of the recent works on population policy in Germany is Paul Weindling’s Health, Race and German Politics Between National Unification and Nazism, 1870–1945 (1989). Weindling examines the emergence of unofficial and then official population policies in Imperial, Weimar, and Nazi Germany, including measures to reduce infant mortality and increase German fertility. Throughout the period covered, he traces a thread of eugenic (or racial hygienic) thinking in, especially, the physicians in charge of social health and welfare programs. In the context of an ostensi-
liberal political economy, Weindling describes the emergence of a collective, biologically based social hygiene. It was this program that the Nazis coopted and onto which they grafted their obsession with racial purity. Whereas eugenicists generally accepted alcoholism and madness as racial poisons that had to be eradicated, the Nazis also included “inferior races” such as Jews, gypsies, Slavs, as well as problem groups like homosexuals.

Surprisingly, there is no equivalent to Soloway or Weindling writing on the situation in France. Surprising because France was the first European country to experience fertility decline and so has the longest history of population anxiety. Yet the only general work in English on the history of demographic policy and the population debate in France remains Joseph Spengler’s 1938 *France Faces Depopulation*. This is not to say that population issues have been entirely ignored by historians. Work on the birth control movement, for example, predates any of the writings I have mentioned here (and the same holds for British historiography; indeed Angus McLaren has written on the birth control debate in both countries). And it is again by way of eugenics that an opening has been made toward a more general discussion of population politics in France.

In this regard, it is commonplace to remark that while eugenics flourished in Protestant northern Europe and the United States, it found few champions in the Latin and Catholic countries, largely because of opposition from the Church to interference with the sacrament of marriage and to sterilization and other forms of artificial birth control. William Schneider, in his *Quality and Quantity: The Quest for Biological Regeneration in Twentieth-Century France* (1990), refutes this standard view, not only demonstrating that there existed a “biologically based movement for social reform” in France from at least the late nineteenth century, but also documenting the history of the French Eugenics Society, from its founding in 1912 through World War II. Schneider’s definition of eugenics, though, is a general one. He does not, for example, restrict eugenics to programs for racial improvement by the application of artificial selection to humans, programs usually incorporating Weismannian ideas of heredity, but expands that field to include Lamarckian-inspired ideas for improving the stock by means of perinatal care, puericulture, physical fitness, better diets, and so on. Schneider’s definition is consistent with the pre–World War II use of the term eugenics in France (and elsewhere as well). It does create confusion, though, as eugenics today is most often used in the sense of negative eugenic programs to restrict the reproduction of the unfit. Schneider indeed shows that the latter current existed in France as well and came to the fore under Vichy. He also touches repeatedly on the French pronatalist movements and the way in which pronatalist and eugenic ideas have at times coincided and at others come into conflict.

There are other signs that French population politics may indeed be coming in for its own treatment. Scholars interested in the history of French
population issues include, again, McLaren and also Rachel Fuchs, who, in addition to her work on infant abandonment and motherhood in nineteenth-century France, has recently edited an issue of French Historical Studies on “Population and the State in the Third Republic” (1996). The authors of that collection explore the population problem in France from various angles: ideological, propagandistic, and theoretical as well as political and institutional. In addition to shedding light on the more obviously demographic questions, such as fertility decline, these studies also address the issues of social management, individual rights versus collective responsibility, and paternalistic versus maternity-focused policy proposals. One hopes that they are all previews of more to come.

Population policy in Fascist Italy, too, has received several treatments of late. These include David Horn’s Social Bodies: Science, Reproduction, and Italian Modernity (1994), Cecilia Dau Novelli’s Famiglia e modernizzazione in Italia tra le due guerre (Family and Modernization in Italy Between the Wars) (1994), Maria Sophia Quine’s Population Politics in Twentieth-Century Europe: Fascist Dictatorships and Liberal Democracies (1996; see also PDR 22: 793–794), and my own Dictating Demography: The Problem of Population in Fascist Italy (Ipsen 1996; see PDR 23: 668–671).

Horn’s work derives from the Foucauldian tradition of analyses of bodies and power in modern Europe. He opens with a discussion of the “social”: “The domain of the social is, in fact, a relatively recent and culturally specific construction, linked to the development in late-nineteenth- and early-twentieth-century Europe and the United States of particular kinds of knowledge, particular practices of power and government, and particular forms of social struggle and resistance. Social Bodies looks at the constitution of reproduction and welfare as objects of these new sciences, technologies, and arts of government in 1920s and 1930s Italy” (p. 3). The “social” as noun includes all or most of the instances in which “social” as adjective is used: social science, social problem, social work, and so on. In a short section on “the construction of the social,” Horn writes (with reference to Gilles Deleuze), “the social designates a new terrain, a ‘particular sector’ in which, in the course of the nineteenth century, a wide variety of problems came to be grouped together, a ‘sector comprising specific institutions and an entire body of qualified personnel’” (p. 11). It is then within this context of the social that Horn will examine the bodies of his title: “The book is organized around the linked scientific constructions of the Italian nation as a body threatened by the ‘disease’ of declining fertility, and of the bodies of women and men as social bodies—located neither ‘in nature’ nor in the private sphere, but in that modern domain of knowledge and intervention carved out by statistics, sociology, social hygiene, and social work” (pp. 3–4). Horn proposes to explore the social sciences, broadly understood, as they impinge upon reproduction and bodies in the context of Fascist Italy. His broader aims include the proposal to show “that
the distinctively modern concerns with reproduction, welfare, and social planning... have shaped not only arts of government and the human sciences, but also the ways individual women and men experience social life and constitute themselves as subjects,” as well as the “hope to make apparent the constructed and struggled-for nature of scientific knowledge” (p. 5). Conciseness of expression aside, Horn has set himself ambitious tasks in the areas of social and intellectual history—or more appropriately cultural anthropology, which is his field. And he attempts to accomplish them in a little over 100 pages. He is not entirely successful.

The five chapters that follow take the reader through a limited selection of primary sources. The criteria for that selection are not always clear. Each source is discussed on its own merits, but little effort is made to contextualize them in the larger currents of social scientific and political thought at the time. As a result, their individual significance tends to be exaggerated. As representative examples, Horn in Chapter 2 attempts to establish links between two currents of social scientific thought and the Fascist criminal code of 1930 authored by Alfredo Rocco. The currents of social scientific thought he chooses are Corrado Gini’s organic theory of society and Cesare Lombroso’s ideas about the bodily manifestations of criminality.

Gini was a leading statistician/sociologist/demographer of the interwar years, probably the Italian in these fields with the most prominent international reputation. In his theory of neo-organicism Gini draws parallels between regular laws of society that might be discovered by the sociologist or demographer and the laws of the human body revealed by physiologists: as Horn puts it, a “medicalized metaphor of the social body.” Neo-organicism was fundamental to the development of Gini’s thought, in particular to his cyclical theory of population; yet in spite of Gini’s prominence, neo-organicism found few converts. Indeed in my own reading of interwar Italian population literature, I have never seen it cited; for that matter, his better-known cyclical theory was generally rejected or politely ignored, both in Italy and abroad. And yet Horn writes, “Nor was Gini’s ‘physiology’ the only scientific construction of bodies that could have served as a model for knowledge about, and interventions in, society. What matters here is the contingent convergence of scientific and political stories and the practical consequences of this convergence” (pp. 24–25). This is a difficult statement to pin down. Gini’s physiology apparently did not serve as a model for intervention in society; nor does Horn offer any evidence that it did so, beyond Gini’s own statement (in Il neo-organicismo) that his theory was well-received by Italian nationalists, a typically Ginian mixing of political and scientific ideas. On the other hand, it may only matter to Horn that these ideas, however lacking in influence, were enunciated; that organicism, neo or otherwise, was, so to speak, in the air.

The link to Rocco is at best implicit. Rocco may have been one of those nationalists by whom Gini’s work was well-received. In fact, Rocco
did share Gini’s views on emigration and fertility decline, but Horn offers no evidence that he might have been one of the rare readers (and even rarer supporters) of neo-organicism. Rocco’s statement, cited by Horn, that “[t]he various human societies . . . exist as a biological concept and a social concept” (p. 26) is about the extent of the support offered for Horn’s claim that Rocco “developed an organic model of society,” and so the tenuous segue from Gini’s organic model.

Horn’s discussion of Lombroso focuses on the bodily character of the latter’s so-called positivist criminological theory, a theory certainly more influential both in Italy and abroad than Gini’s organicism (or his population theory, for that matter). And yet, as Horn himself points out, the positivist school’s proposed revision of the Italian criminal code failed precisely when the Fascists came to power, only to be replaced by Rocco’s code. Nonetheless, Horn tells us that Rocco’s code “presented itself as a ‘compromise’ between the classical and positivist schools of criminology” (p. 33). His larger point is that, consistent with Lombroso’s belief in morphologically manifested innate criminality, there was a transition under Fascism from criminal repression (ex post facto) to criminal prevention (ex ante). Undoubtedly there was, but the debate between those who believed civil disorder should be repressed when it occurred and those who favored preventing its outbreak beforehand was an old one that had long divided the left and right wings of the Italian Liberal camp. Horn over-problematizes the fact that the Fascist regime felt little compunction about extending the purview of social control; the protection of individual liberty was rejected in favor of law and order and state management of society. But as the literature on the origins of Fascist ideology reveals, this sort of anti-liberalism came from sources other than Lombroso.

The limitations imposed by Horn’s use of sources are especially revealed in his chapter on “The Power of Numbers.” The title suggests that the chapter is about statistics, a topic whose importance he emphasizes on a couple of occasions: “Crime, work accidents, poverty, disease, and infertility . . . came to be understood not only as problems of society but as statistically regular phenomena that could be read, managed, and defended against at the level of individual bodies ‘in the social’” (p. 18). And yet he devotes just a bit over two pages to statistics (pp. 53–56): pages in which he describes the founding by the Fascist regime in 1926 of a new statistics institute (headed by Gini) while saying virtually nothing about the sort of statistics the institute collected—special studies on fertility, for example—so revealing of the regime’s demographic concerns.

Another topic considered in the same chapter is the Italian position on population matters as articulated at the 1927 World Population Conference. That conference marked an important moment in the Western population discourse of the interwar years; it was attended by an Italian delegation led by Gini that, with its pronatalism and anti-eugenics, created
headaches for the conference’s principal organizer, the American birth control advocate Margaret Sanger. But to use the statements that Gini and colleagues made there as a guide to Italian population thought masks the evolution and variety of that thought. Most notably, Horn presents Gini’s ideas on the cause of fertility decline (loss of reproductive power) without reference to the fact that his was a decidedly minority opinion among Italian population analysts (pp. 52–53). Similarly, it is impossible in a single paragraph (pp. 59–60) to do justice to the evolving Fascist attitudes toward biological race and the problem of racial mixing, a paragraph moreover that omits reference to Italian racial policy (mentioned, however, in a footnote).

Pronatalism occupies a central place in Social Bodies. As Horn puts it, “at the same time that the female body was closely identified with reproduction, the body’s reliability was called into question and made an object of concern. . . . The task was to develop social technologies to defend the body of society against the disease of infertility, and to manage the reproduction of bodies in the social” (p. 64). Horn rightly identifies the family as the object of demographic policy and the casting of reproduction as a national duty, although he goes to excessive lengths to preface this observation with a section (the longest in the book) on marriage law, largely based on secondary sources. More to the point, his discussion of “governing reproduction” focuses on the repressive aspects of Fascist reproductive policy and includes brief discussions of the bachelor tax and anti-contraception legislation as well as the anti-abortion articles in Rocco’s criminal code. Horn interestingly traces the transition from a liberal conception of abortion as a crime against the individual to a Fascist one in which it constitutes a threat to the nation and the state. Similarly he notes that Fascist assistance, as represented by the National Agency for the Protection of Maternity and Infancy (ONMI), was opposed to traditional ideas of charity and insisted instead that assistance serve the needs of the state: “preventive and prophylactic measures aimed at the diseased body of society” (p. 92). The brief section on fertility incentives (pp. 88–90), however, fails to capture the dynamics of the policy, in particular the 1937 attempt to revitalize it in reaction to apparent Nazi successes at raising the German birth rate. The interpretation that few of those eligible for large-family tax exemptions took advantage of them is mistaken (p. 89).

Ultimately, Horn has taken some interesting and for the most part valid observations and cloaked them in a difficult theoretical framework that over-problematizes them. Graver still, he has not adequately fleshed out or contextualized his sources, sources that in any case are insufficient to support his broad statements. As a result, he falls at times into unsubstantiated inference and occasionally also error. In general terms, he is certainly correct, as other volumes cited above confirm, that starting in the
late nineteenth century Western governments became increasingly concerned about demographic issues and increasingly sought to manipulate the demographic behavior of their populations. But if his aim is in fact to explore the evolution of new attitudes regarding “biopolitics” in nineteenth- and twentieth-century Italy, then more work needs still to be done.

While Horn approaches the population issue from the point of view of social welfare and social engineering, Dau Novelli does so from that of the family. Her primary aim is to analyze the central place of the family in the Italian debate between Fascism and the Catholic Church. Devoting roughly equal space to the regime and the Church, she explores the ideology, policy, and institutions (especially girls’ and women’s groups) of each as they relate to the family. Fascist populationism and demographic policy receive ample treatment, and Dau Novelli rightly identifies the family as the primary object on which that policy sought to act. In broad outline she finds, as have others in the past, that Church and regime were in substantial agreement regarding Fascist pronatalist and pro-family measures. She distinguishes between a “demographic” policy in the early years of the dictatorship and a “family” policy that superseded it in the mid-1930s. This distinction is not entirely clear, nor is it convincing. For while the policy certainly did evolve, a look at other aspects not treated by Dau Novelli, for example the regime-sponsored internal colonization of reclaimed land, reveals that it was aimed at the family from the outset. Subsequently, in the late 1930s, as Mussolini adopted racist and pro-Nazi policies, Dau Novelli notes that Catholic enthusiasm for Fascism declined, a decline reflected of course within Italian society at large.

Dau Novelli’s most important contribution is her thorough review, at Papal, Episcopal, and lay levels, of Catholic opinion on questions of family and family policy. She also examines the various links between “cross and fasces” (to recall Richard Webster’s title (1960), a work she fails to cite); these include, for example, the calls of various bishops for Fascist–Catholic collaboration in reestablishing the traditional if probably mythical Italian family. There do, however, seem to be limits to how far she is willing to implicate the Church in the Fascist experiment. She states, for example, that “Pius XI, with rare exceptions, ignored the tremendous effort made by the regime to influence Italian family life” (p. 78; my translation here and below). Nonetheless in his 1930 encyclical on chaste marriage, Pope Pius did warmly praise the friendly cooperation achieved by the Church and the Italian state on the question of marriage and family in the recent Lateran treaty. Dau Novelli cites this encyclical at length but not that closing statement. She also has little to say about the later phases of the regime except to note the gradual disenchantment of the Catholic hierarchy with Fascism. Nonetheless, there remained a committed group of clerico-Fascists, in particular those led by Father Gemelli at the Catholic University of Milan.
The fact that this group supported Fascist racial laws, which outlawed marriage between Italians and Jews (as well as other non-Aryans), argues for some mention in a book about the family (see Webster 1960: 153–161).

In spite of these apparent lacunae, Dau Novelli has written a solid work on ideas about the family and their use by both Catholics and Fascists up to about 1938. She concludes that the approaches of the two groups diverged in a fundamental way. While the Church’s vision was a moral one centered on chaste marriage and on the family as a locus for Catholic education, the Fascist regime instead sought to use the family both as a tool for its demographic battle and as “one of the privileged means for the totalitarian conquest of the nation” (p. 161). Not only did paternity and maternity emerge as essential characteristics of good Fascists, of participants in the new society to be created by the regime, but the family thereby created was to act as an intermediary between the state and the individual.

Dau Novelli belongs to the so-called revisionist school on Italian Fascism and fully endorses Renzo De Felice’s much-debated observations (e.g., 1974) on Mussolini’s achievement of consensus during the middle period of the regime. She attributes, incidentally, much of this consensus to Fascist achievements in the areas of social welfare and public works programs. She also rightly notes the limits of that consensus. Indeed she points out a fundamental contradiction in the Fascist program, namely the regime’s attempt to favor the traditional Italian family as part of the larger program of modernization, in particular the mobilization of the family as a political subject. She finds that this program entailed new consumerist models as well and that the forces of economic change and modernization finally overwhelmed the efforts of the regime. Unwittingly Fascism in this way favored greater autonomy for the family in spite of its totalitarian aims.

Quine’s Population Politics in Twentieth-Century Europe: Fascist Dictatorships and Liberal Democracies (1996) echoes Teitelbaum and Winter in that it “aims to give an account of the origins and impact of the profound shift in attitudes which accompanied birthrate decline in different nations” (pp. 15–16). Those nations are Fascist Italy, Nazi Germany, and Third Republic France, each of which gets a chapter. The book is intended as a synthetic work, rather than a piece of original research; and in the context of those writings referred to above one can well imagine that it is time for such a synthesis. Unfortunately, Quine’s book is characterized by a general lack of balance, surprising omissions, and a few inaccuracies as well. The absence of Britain, for example, in a book purporting to deal with population politics in European liberal democracies is striking, especially in a work that includes so many references to eugenics. A further point in relation to the title: the advertised chronology is misleading, as the book includes many references to the nineteenth century and virtually none to the twentieth after 1945.
Surprisingly, given Quine's own specialization, the chapter on Italy is the most problematic. On the topic of Italian population politics before World War I, for example, she makes a number of weakly supported and exaggerated claims. Interesting to note, several of those claims relate, as with Horn, to Lombroso and Gini. With regard to Lombroso she states that the leniency shown in abortion cases (under the Zanardelli penal code of 1889) “reflected the influence on Italian criminology of the followers of Cesare Lombroso, a theorist who believed in women's mental inferiority” (p. 24). No citation is offered in support of this claim save perhaps the reference a few pages earlier to her own 1990 dissertation and the suggestion that where references do not appear in the book they can be found in the dissertation (p. 19 fn.), although that dissertation (done at the University of London) is generally unavailable outside Britain. As to the Lombroso reference, it can certainly be challenged. Quine does not, for example, entertain the possibility that leniency in abortion cases reflected widespread social acceptance of the practice. My own limited exploration of this area suggests that abortion was indeed widespread and generally tolerated in the 1920s and probably in previous decades as well.

Quine’s discussion of Gini hinges on his status as “the kingdom's most famous pronatalist” and “[t]he first to popularize demography in Italy” (p. 29). The first comment is made in connection with Gini’s role in helping to establish the Italian Eugenic Society in 1912, and while he certainly was then already, at age 28, among Italy’s rising stars in the social sciences, he had hardly achieved fame and was still overshadowed by the previous generation. With regard to the popularization of demography, a number of important figures (Francesco Saverio Nitti, Rodolfo Benini, Napoleone Colajani, Achille Loria) before Gini did as much if not more to bring the new science of demography to public attention in Italy. Gini himself wrote exclusively for small-audience scientific journals, and his monographs were not widely read, although he does need to be credited with founding the first Italian demography faculty, in Rome. I would suggest instead that Mussolini (after 1927) better fits the description of both “most famous pronatalist” and “first to popularize demography.” In this regard, I also think Quine exaggerates the importance of pre-World War I pronatalism in Italy. A far more important demographic issue at the time was massive emigration, plausibly a sign of overpopulation.

Both here and in her dissertation, Quine is also insistent on the link between eugenics and Fascist population policy. Unfortunately, in neither source does she define precisely what she means by eugenics (unlike Schneider and others who attack the concept head on). Without an adequate definition it is difficult to comment on a statement like the following: “Pronatalist and welfarist in orientation, Italian eugenics shaped the fascist demographic campaign” (p. 27, again no citation). There was in-
deed a link between eugenics and fascist demographic policy, but one can just as easily argue that eugenic arguments were employed as a further justification of a pronatalist policy informed by a simple faith in the power of numbers. In searching for other sources of Fascist demographic policy, she states that Mussolini’s “paradoxical goal” of minimum mortality and maximum fertility “was based on Gini’s bizarre premise that fertile people were robust” (p. 31). Yet while Gini certainly had the Duce’s ear, other, almost certainly more important influences contributed to Mussolini’s conversion to pronatalism. If anything, I would argue that the influence of Mussolini on Gini was greater than the reverse, as insistence by the dictator seems to have convinced the professor to abandon some of his skepticism regarding the efficacy of pronatalist incentives.

Quine’s Italian chapter as a whole lacks historical narrative and offers surprisingly little consideration of the actual pronatalist measures adopted by the Fascist regime. Quine, like Horn, discusses the important issues of social hygiene and welfare, but in general the choices made, here and elsewhere, seem to reflect more the author’s personal interests than the topic at hand: Giuseppe Sergi’s turn-of-the-century racial theories, for example (pp. 28–29), or children’s adventure literature (p. 47). On the other hand, the apparently relevant population issues of emigration, internal migration, colonization, and Fascist racial policy are skipped over, although the last does receive a few paragraphs in the chapter on Germany. In this regard Quine identifies a fundamental change in Fascist thinking represented by the use of the term stirpe or stock before 1936 and razza or race afterward (pp. 93–95). That change is exaggerated. Razza was frequently used in the earlier period, as in Mussolini’s Ascension Day Speech of 1927 (discussed by Quine) in which he stated “we must care for the razza beginning with motherhood and infancy.” What changed was not so much the terminology but the way in which the terms were used.

The chapters on France and Germany are superior to that on Italy, particularly with regard to historical narrative, although they too are characterized by occasional and curious digressions and imbalances, particularly hard to justify in a short, synthetic work like this one. Quine devotes, for example, four pages (pp. 55–58) to the nineteenth-century French population theorist Frédéric Le Play, who, according to Quine, “had an enormous influence on politics during the Third Republic” (p. 56). He may have, but so did others not even mentioned here, likeArsène Dumont or Pierre Leroy-Beaulieu. And certainly the extent of Le Play’s influence has to be qualified by the fact that few if any of his proposals were acted upon. On the other hand, Quine’s discussion of the French family wage and pro-family groups is useful and to-the-point.

The chapter on Germany includes a good discussion of Weimar welfare programs and perforce addresses Nazi eugenic sterilization, euthana-
sia, and genocide. Indeed, in the chapters on both France and Germany, Quine’s emphasis on welfare and eugenic thought may be more justifiable. Unfortunately she also enters into the Sonderweg debate (pp. 96–98), includes an extended discussion of Weindling’s aforementioned volume (pp. 98–103), and devotes nearly five pages (pp. 116–121) to US sterilization laws. All of these are out of place and distracting in a synthetic and pedagogical work. All in all, then, Quine’s final product is rough and disjointed, and for a synthetic discussion of population issues in nineteenth- and twentieth-century Europe we shall have to stick for the moment to Teitelbaum and Winter (1985).

It should come as no surprise that my particular interest in the literature on Italy stems from work in that same area, and support for some of the more polemical statements made above can be found in my 1996 Dictating Demography. In that work I explore Mussolini’s “demographic battle” on several fronts: pronatalism; anti-urbanism; racism; protection of motherhood and infancy; and policies on emigration, internal migration, and demographic colonization. I also examine the rebirth of Italian statistics under Fascism, a rebirth both inspired by and revealing of the regime’s demographic concerns, as well as the theoretical work on population for the period—of Gini naturally but of a host of others as well—work that reveals the interaction of social science and politics in a so-called totalitarian setting. In adopting the above schema I am using the categories of the regime itself, which saw these policies as parts of the whole. It is an approach that helps us to understand the way Fascism sought to employ population management in the larger effort to create a new Fascist society, in both mind and body. On the whole, Dictating Demography views the policy from the top down, and there are of course other and complementary approaches. I might, for example, have been more theoretically adventurous and taken gender studies and the “new cultural history” into greater account, but I both feared confusion (of myself as much as the reader) and wanted to avoid the temptation to fit evidence into predefined categories; I might also have made a greater effort to view the policy from below, namely its reception and impact at a local level; and I might, as Dau Novelli does, have paid more attention to the role of the Church (though I ignore neither of these last two issues entirely). In subsequent work (Ipsen 1999) on population issues in the earlier Liberal period, I am attempting to construct something of a theoretical apparatus and to get at the issues of public and popular (including Catholic) opinion. Conceivably that line might lead back to the Fascist period by a different route.

Needless to say, the issue of population and policy, even for interwar Western Europe, is far from exhausted. One would like to see work on other nondemocratic contexts, like Franco’s Spain, as well as important democratic ones (from the point of view of policy innovations) like Bel-
gium and Sweden. And of course a synthetic work taking into account all the areas mentioned would be especially welcome—one that might address among other things the issue of the degree to which we distinguish between liberal and authoritarian approaches to population. Moreover, these chronological and geographical categories are of course artificial and mask important links to Eastern Europe and North and South America both before and after World War II and to the exportation of Western population ideas to other parts of the globe as well.

References

Is the Pace of Japanese Mortality Decline Converging Toward International Trends?

John R. Wilmoth

From the end of World War II until recently, the pace and magnitude of the Japanese mortality decline were unprecedented in human history. Records in the years immediately after the war are incomplete, but an estimate of Japanese life expectancy at birth in 1947 is around 52 years (Nanjo and Kobayashi 1985). Life expectancy at that time was about 67–69 years in North America and the less war-ravaged parts of Western Europe. By 1951 Japan’s postwar recovery had begun, its statistical system had improved, and life expectancy had risen to about 61 years.\footnote{1}

From 1951 until 1980, life expectancy rose at an average rate of about five years per decade. As a result, male and female Japanese life expectancies surpassed those of the traditional world leaders, including the Scandinavian countries, just prior to 1980.\footnote{2} By 1996 female and male life expectancies in Japan were 83.6 and 77.0, respectively, ahead of all other large national populations. Japan’s closest competitors are now, for women, France and Switzerland at 82 years and, for men, Sweden and Iceland at 76 and 77 years, respectively (Population Reference Bureau 1997).

Japan’s rapid rise to the top in matters of health and longevity offers an unusual opportunity for reflection on the nature and especially the speed of historical mortality change. Let us consider a few simple questions: Can the pace of the postwar decline in Japanese mortality continue, or will future gains come at a slower pace? Can we predict what the future rate of improvement will be? Without pretending to foresee the future, in this brief note I recapitulate an earlier argument, provide some updated supporting evidence for that argument, and suggest some ideas for further analyses of these questions.
Why expect convergence?

A major part of the Japanese mortality decline during the past 50 years consisted of catching up with the traditional leaders in this area. Japan came out of World War II with more national experience in matters of public health and modern medicine than any country outside of Europe and its diaspora. In fact, relative to its level of wealth and development in the prewar period, Japan had been notably successful in improving the physical wellbeing of its population (Johansson and Mosk 1987). Following the war, Japan continued its tradition of borrowing generously from Western science and technology and of successfully adapting these to local conditions. The rise of life expectancy in postwar Japan was one aspect of its emergence as an economic superpower during this period.

Now, however, Japan has entered uncharted territory in matters of health and longevity. Today, other countries look to the Japanese for the secrets of their success, and it is the Japanese who must push back the frontier if they wish to remain at the head of the pack. As a late starter in the process of mortality decline, Japan was able to make rapid progress by borrowing from the experience and technology of other countries, but this advantage necessarily diminished as the country reached the mortality level of the early starters. Thus, it is intuitively plausible that the pace of Japanese mortality decline should have slowed in recent decades to a level that resembles the long-term pace of decline experienced by earlier world leaders. We may refer to this process as “convergence.”

For sake of argument, let us define the “avant-garde country” at any given point in history as that country whose overall level of mortality equals the minimum achieved at that time by any national population. For nearly two decades, then, Japan has been the avant-garde country. In earlier periods, it was Sweden, Norway, the Netherlands, and so forth. Thus, to rephrase our earlier questions: Now that Japan has become the avant-garde country, should we base our expectation of its future mortality trends on past Japanese experience or on the experience of previous avant-garde countries? Intuition suggests that future trends in Japanese mortality should come to resemble those of the long-time leaders in this field. A comparison of the mortality histories of Japan and Sweden confirms this expectation.

Figure 1, which presents age profiles of the average annual rate of mortality decline in Japan for four time periods since 1951–55, shows that over this period the pace of Japanese mortality decline at ages below 50 years has fallen substantially. At ages above 50 years, the pace of change has been steadier. Figure 2, on the other hand, demonstrates that the rate of mortality decline in Sweden has been relatively stable across the age range over this period. Taken together, these figures illustrate the unusual
FIGURE 1 Age pattern of mortality decline during four time periods: Japan, sexes combined, 1951–95

NOTE: The average annual rate of mortality decline, \( \rho \), for a given age group and time period is calculated as follows. If \( M_1 \) and \( M_2 \) are observed mortality rates (for some age group) in the earlier and later time periods, respectively, then

\[
\rho = -\frac{1}{T} \ln \left( \frac{M_2}{M_1} \right),
\]

where \( T \) is the number of years between the midpoints of the two time intervals. On inaccuracies of reported age among the elderly see note 4.


nature of the Japanese mortality decline. Whereas the rise of life expectancy in most other developed countries can be separated into an early phase characterized by very rapid reductions in infectious diseases at younger ages (Omran 1971) and a more recent phase characterized by an accelerating decline in death rates among the elderly (Kannisto 1994; Kannisto et al. 1994), these two sets of changes occurred almost simultaneously in Japan (Horiuchi and Wilmoth 1998). The temporal proximity of these two health transitions produced the unprecedented, yet unsustainable, pace of mortality decline in Japan during the early postwar period.

Prediction and confirmation

In a project begun in 1992, presented at a scientific conference in 1993, and published in 1996, I made a series of mortality forecasts for Japan based on four sets of assumptions (Wilmoth 1996). Here, let us consider only
two of the four scenarios explored in the previous work. The first scenario was a simple extrapolation of Japanese trends from 1951 to 1990, based on a technique proposed by Lee and Carter (1992). In other words, the first scenario contained the implicit assumption that the pace of Japanese mortality decline during 1951–90 would continue in future years.

The second scenario was based on the idea that Japanese mortality trends should be converging toward those of the avant-garde country. Sweden was used as a proxy for the avant-garde country, and the trend of Japanese mortality decline was forced immediately (after 1990) onto the extrapolated Swedish trend. In this scenario Japan retains its advantage over Sweden as of 1990, so that forecasts of life expectancy for the two countries rise nearly in parallel. Forecasts of Japanese life expectancy at birth for the two scenarios are shown in Figure 3, along with actual and extrapolated trends for Sweden.

What has happened since 1990? Mortality data for Japan are now available through 1996. Figure 4 again compares the first and second scenario-based forecasts for Japan. The additional lines in this graph show confidence intervals, computed by the Lee–Carter method, for the first sce-
nario. As noted in an earlier publication, the prediction for the second scenario falls outside the confidence intervals for the first scenario after about nine years (Wilmoth 1996: 275). Now, with six more years of data, it is notable that the observed trend has been closer to the second scenario, which was based on the notion of an avant-garde country, than to a simple extrapolation of Japanese postwar trends prior to 1990. Although observed life expectancies for 1991–96 are still within the confidence bands for the first scenario, they are consistently below the trend line for that extrapolation. While firm conclusions are not possible based on only six data points, the trend in Japanese life expectancy since 1990 seems to be following the prediction of the second scenario quite closely. Thus, the pace of Japanese mortality decline has not only slowed in recent decades but has also been converging with international trends.

Ideas for further analysis

It is debatable whether the results described here are truly provocative, or whether they merely confirm our expectations based on common sense. Perhaps no one would in fact have suggested that social and biological
progress in Japan could maintain its exceptionally rapid pace once the country became a world leader in many domains. In any event, it is reassuring to observe that reality accords well with our expectations.

A deeper aspect of these observations may be the notion of a hypothetical avant-garde country, which defines the limits of progress along one dimension (average longevity) at any point in time. The national avant-garde of longevity was found in Europe (and perhaps occasionally in North America) over many decades (perhaps centuries) prior to 1980. Its migration to Japan and thus East Asia was a momentous event in human history, since life expectancy at birth is perhaps the best single indicator of the overall wellbeing of a population.

The notion of an avant-garde country has importance as well for the theory of mortality forecasting. Whereas the rate of progress in a single country may vary and exhibit sharp changes at particular moments in history, trends for the avant-garde country have been steadier. In preparing mortality forecasts for a given country, the extrapolated trend for the avant-garde country should form the basis for a long-term “high” scenario in terms of life expectancy. In other words, the most optimistic expectation for any country should be based on a projection of trends for the avant-garde country.
This research was supported by a grant from the National Institute on Aging (R01-AG11552). The author acknowledges the helpful suggestions of Shiro Horiuchi and Ronald Lee on a previous draft. Please send comments via email to jrw@demog.berkeley.edu.

1 Detailed mortality data for Japan during 1951–96 are available through the Berkeley Mortality Database, located at http://demog.berkeley.edu/wilmoth/mortality.

2 Male life expectancy in Japan surpassed Swedish levels in 1977. Japanese women first had a higher life expectancy than their Swedish counterparts in 1979, fell below Swedish levels in 1980, then moved and stayed ahead beginning in 1981.

3 As used here, the overall level of mortality refers to life expectancy at birth. A more complicated notion of an avant-garde country might be based on minimum levels of age- and/or cause-specific mortality.

4 Inaccuracies of reported age among the elderly are known to affect adversely the quality of Japanese vital data until perhaps as late as 1970 (Wilmoth and Lundström 1996). It is likely, therefore, that the apparent increase in mortality rates at advanced ages during the interval from 1951–55 through 1961–65, as shown in Figure 1, is an artifact of erroneous data.

5 By design, the extrapolated trends for Sweden and Scenario II for Japan are exactly parallel in terms of the time parameter of the Lee–Carter model, but only close to parallel in terms of life expectancy at birth. This parameter follows trends in the logarithm of mortality rates and is thus the basis for extrapolation in the Lee–Carter projection technique. Although the trend in Swedish death rates has been stable over a much longer period, the projections for Sweden used in Scenario II were based on data for 1960–90 only (because they were the only detailed mortality data for Sweden available to the author at the time the original projections were made).

6 In their previously published form, these forecasts were made separately for women and men. Here, forecasts based on identical methods are presented for both sexes combined, since results for the two sexes do not differ with regard to features now under discussion.

Notes

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References


On the Populousness of Africa: An Eighteenth-Century Text

Reproduced below in full, retaining the original spelling and punctuation, is a short essay, titled On the Populousness of Africa, published in London in 1764 by John Hippisley. The author, of whom little is known, died in 1766. The essay would seem to be the earliest printed discussion of its subject in English, hence it is of evident historical interest. Biographical and bibliographical information about the author and the publication and a brief commentary on the essay by Professor R. Mansell Prothero, who suggested republication of this item in PDR’s Archives, follow the text in a Comment.

Whilst the great increase and high cultivation of the sugar colonies in the West-Indies have, for more than a century past, made the demand for Negroes so extremely great, it has often been asked with astonishment, how Africa has been able to supply them with such prodigious numbers. For these eighty or an hundred years past, forty thousand at least have been exported yearly by the English, French, Portuguese, Dutch, Danes, and North-Americans. They are dearer, indeed, upon the Coast, from the number of trading competitors, and the increase of their value in the West-Indies; but the purchases are still very quickly made, and slaves seem quite as plenty as they were twenty or thirty years ago.

It is said by historians, and the writers in political arithmetick, that the blow struck by Ferdinand and Isabella, and by Philip the Third, in driving about a million of Jews and Moors from the dominions of Spain, affects that kingdom to this moment, though the first expulsions took place so long ago as the end of the fifteenth century, and the other an hundred and seventeen years after. Now, if Spain, in near three centuries, has not recovered of this wound, what shall we say of a part of Africa, vastly more
extensive indeed than Spain, but consisting, as has been supposed, mostly of barren sands, and wide-spread, uninhabitable deserts, that in less than a hundred years has furnished the planters in the West-Indies and America with four millions of its inhabitants, and is at this day so little affected by these draughts, that if double or treble that number should be wanting in the same length of time, there is more than sufficient fund to supply them, without the least danger of exhausting the country?

To account for this, we must compare the extent of the most populous countries in Europe with that part of the continent of Africa from which we get slaves. This last we know to be very great; but for the notion of its interior regions being full of barren wastes, inhabited only by wild beasts, this is a mere vulgar error, derived from the ancients, who gave up the whole torrid zone as uninhabitable. By the accounts we have along the west side of Africa, from traders who out of all dispute have come from the most inland parts, they are extremely well peopled, and the country in general quite fruitful and verdant. It lies, indeed, almost entirely in the torrid zone: but will that be taken for a reason, even if we had not the above accounts, for its being thought bare of inhabitants? Let us look to those countries, both to the east and west of Africa, that lie in the same latitudes. Is the Mogul Empire, Siam, Sumatra, Java, Borneo, part of China, the Philippine Islands, and the other places in the East-Indies between the tropicks, thinly inhabited? Was any place more populous than Peru and Mexico before the Spaniards extirpated the natives? yet does the equinoc-tial line pass directly over the middle of these countries.

Our most northern place of traffick is Senegal, the most southern Angola, a coast which, allowing for the indentations of the bays, contains little less than four thousand miles in length. Many of the slaves brought to the different trading places scattered on this vast extent of sea-shore, we have very sufficient reason to conclude from the accounts of the black merchants trading to the gold coast, and often from the colour of the slaves themselves, are natives of nearly the utmost extremities of Africa. The descriptions they give of the dress, persons, and customs of the nations from which they come, or to which they are near neighbours, agree exactly with those of the Moors in Barbary, and the back parts of Tripoli; a distance so prodigious from the gold coast, that we may from thence very reasonably take for granted that great numbers of the slaves purchased at Angola are brought from the interior parts of Ethiopia, and the borders of the Indian Ocean. Thus then, the space from which we draw slaves, has an extent, along the sea, from sixteen degrees north to about twelve degrees south, and its inland boundaries reach from the confines of Mount Atlas to the back of Nubia, the head of the Nile, and so on to the Straits of Mozambique.

I believe it will be very readily allowed, that there never could have been fewer inhabitants in this tract of country, being at least three fourths of the whole continent of Africa, than in the British Islands, Holland, Ger-
many, Switzerland, Italy, France, Spain and Portugal, which together make scarcely one fourth of Europe.

Now let us consider the very different circumstances of Europe and Africa with regard to the advantages and disadvantages attending the propagation of the species.

What numbers of both sexes in our quarter of the globe are born, grow up, and die without ever having children! How many Men abstain from marriage from humour, a contemplative and philosophick turn, love of retirement, an indolent or pleasurable disposition! How many Women from coldness, caprice, coquetry, and the not being asked! The increase of luxury has always been a hindrance to marriage. The vain are unwilling to abridge any part of the sumptuousness of their appearance in the world, and if they cannot figure as much after matrimony as before, give up all thoughts of marrying at all. The inconveniences from indigent circumstances, and the certainty of multiplying them by having children, prevent vast numbers of both sexes from entering into wedlock, and many others till very late in life. The long absence of husbands from their wives on the account of trade, to say nothing of war, prevents the latter from breeding as often as they otherwise would. Debauchery cuts off the very source of propagation in many, or at least leaves their immediate offspring unfit to continue their families. A state of servitude in the parts of Europe I have mentioned, precludes the state of matrimony to more than two hundred thousand men, and as many women,—for who will take or keep a married servant of either sex?—But above all, religion, in the Roman Catholick countries, strikes the heaviest blow at propagation. France, Germany, Italy, Spain, and Portugal, contain five hundred thousand of each sex, who, if they were allowed the privileges of a conjugal state, would furnish those countries yearly with two millions of people.

Let us now take a view of Africa. There we shall find desire unchecked by the dread of want; there alone we shall behold nature unaffected by humour, caprice, or coquetry, taking its full scope.—A solitary genius, a turn to speculation and abstracted studies, resolutions of chastity from disappointed love, unmarried servants, long voyages, and religious vows, are all utterly unknown in those regions.—It may be objected, that where there is no restraint to the indulgence of desire, constitutions may be spoiled by a too excessive use of certain springs; but this by no means is so likely to happen to savage or unlettered people, as to the inhabitants of the refined parts of the world; for, to the confusion of learning, or at least what is called polite study, the more exquisite sensations are sharpened by it. The imagination, enlivened by a cultivated mind, figures to itself the objects of pleasure in such numerous, bright, and attractive images, as never present themselves to the thoughts of the vulgar. Satiety takes its natural course in these last, terminates their efforts, and suspends the indulgence of desire, till nature truly gives it by having had a due time to recruit itself. But far
different is the course the passions take in the other case:— there desire succeeds desire before nature gives the regular warning; and yet, by the powerful strugglings of an over-heated imagination that can figure to itself a pleasure even beyond what really exists, the body is brought, for a time at least, to obey the summons, over-acts its powers, and prostitutes itself, if I may so say, to the mind. Thus, by the most perverse turn, the faculties that, as it should seem, were destined to subdue the appetites, become provocatives to them, and instead of regulating the simple calls of nature, serve, very often at least, as the incentives to intemperate lust.

This is the first time, for aught I know, that sentiment has been reckoned as an hindrance to population; but I believe there can be no doubt but it frequently is, and that the Africans, those however about whom I am writing, are almost totally devoid of it.

Neither are the fruits of promiscuous lewdness so bitter in that part of the world as they are in Europe, and consequently not so hurtful to procreation. The Lues Venerea and the Gonorrhoea are indeed both known in those countries of Africa we are acquainted with; but their symptoms are very mild, the infection not so communicable as in our parts of the world, and the cure vastly more easy. The natives think nothing of them, nor are they, however carelessly managed, scarcely ever attended with rotten bones, or an impaired habit of body. The only medicine among these people for the Gonorrhoea, and which always carries it off, is an infusion of diuretick and vulnerary herbs; and the care of the confirmed Tabes, if it deserves that name, is effected by a strict and warm confinement in the house, a rigid abstinence from all high-seasoned animal food and taking the decocction of sarsaparilla. The sarsa, I suppose, was originally introduced among them by some European, as it does not grow in Africa: its good effects must however have been very manifest for them to have adopted the practice so universally among themselves, that sarsa is become an article in trade, is constantly brought to the Gold Coast, sold to the traders there, and carried to the inland parts of the country.1

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1We might account for the mildness of the symptoms in this disorder from the excessive perspiration, did not the same take place also in the West Indies, where the symptoms of Lues Venerea are however, by what I have heard, not quite so severe as in Europe. The true reason undoubtedly is, its not being a malady peculiar to the climate; for it has been observed by physicians, that exotic disorders as well as plants degenerate, and will in time die away. The Elephantiasis of the Greeks, and the Leprosy of the Egyptians, continued but a little in the western parts of Europe, and are now hardly ever seen. The Venereal disease has also declined in its violence of symptoms in Europe, insomuch that Dr. Astruc ventures to prognosticate that in a course of years it will be totally extirpated.—This way of reasoning may appear singular enough in the subject before us, it being generally agreed to now, that the Venereal disease in Europe was occasioned by Columbus's sailors bringing the Yaws from America, a cuticular disorder in that country, but which changed its appearance from the alteration of climate. Now the Yaws is as peculiar to Africa as it ever was to the West Indies: how then shall the Venereal disease, which owes its origin to an endemic of Africa, be called a foreign one? We answer, By its entire variation of symptoms; a circumstance altogether sufficient to make us reckon it a new disease. A negro family carried from Guinea to Europe would find their constitutions quickly altered; and if their descendants, after the second or third generation, were removed to Guinea, they would feel every effect of that climate in the same manner, and be subject to the same disorders, as the ab origine Europeans. The Burgundy vine transplanted to the Cape of Good Hope produced the fine Constantia wine, as different from Burgundy as one wine can be from another.—Should the Cape vine be now transplanted to France, the grape of it would doubtless produce a wine different both from the Burgundy or Constantia.
Debauchery in the pleasures of the table has gained very little footing in Africa. The people are remarkably negligent as to the nature and condition of their food, nor are they a whit more anxious about the manner of dressing it. With them, in the vulgar phrase, a belly-full is a belly-full. Drinking, and that to excess, prevails among many of the negroes upon the coast, and a little way inland: but from the quantity of spirits imported in this country, compared to the number of its inhabitants, we may very reasonably conclude, that some millions of them never tasted a drop of distilled liquor during the whole course of their lives.

Luxury in dress, building, furniture or equipage has not yet been introduced;—and the means of living in so vast, and in general so fruitful a country being therefore very easy, no man will be afraid of not having it in his power to provide for a family; an anxiety which when once out of question, we may always trust to natural inclination for the rest.2

Neither does a state of slavery prevent population, as it doubtless would in a civilized part of the world, where liberty is considered in so rapturous a light. A man or woman of sensibility,— that sensibility increased by reflection, and perhaps study, would, under the yoke of slavery, be deaf to all the calls of inclination, and refuse giving being to wretches doomed to inherit the misery their parents feel in so exquisite a manner.3 But the idea of slavery is different in Africa; for independent of the almost total absence of keen sensations, the slaves of a family are considered as no unrespectable part of it. Scarce one of them is ever sold, unless for very great crimes;4 and then the rest of his fellows are consulted, and the case exactly laid before them. Should a master do otherwise, and dispose of one through mere ill humour or avarice, he stands in danger of the rest running away from him. Slaves also, if they have abilities, are permitted to make the most of them; by which they often become rich, and purchase slaves for themselves. In this they meet with no interruption, provided only that they acknowledge their subservience from time to time, and occasionally make some little presents to their master and his descendants. Nor are the less opulent slaves afraid of the burthen of a family, or that their offspring may want the assistance so absolutely requisite in their infant and tender state; it being a constant observation, in this as well as in every other country where slavery is allowed, that the masters and mistresses have almost the same fondness for the children of their slaves as for their own, and are equally careful in the bringing them up: a circumstance that ought to

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2In every place whatever, where two people can live conveniently, a marriage follows of course. Nature disposes sufficiently to this, where she is not stopped by the difficulty of a subsistence. Spirit of Laws, chap. x. book 23.

3Did not the women of America make themselves miscarry to prevent their children having such cruel masters? Spirit of Laws — from Gage’s Account of the Spanish West Indies.

4The slaves shipped from Africa are almost all prisoners taken in war, and brought by the inland traders to the slave market towns at the back of the Gold Coast, where they are met at a certain day (generally Wednesday) every week by the Fantee and other coast negroes; and from these they are bought by the white men.
awaken our reverence of the Divine Providence, which in the default of
parental love, or its inutility, supplies the want by an adventitious affec-
tion in one totally unconnected by the ties of blood to the poor helpless
infant.

As to coquetry, platonism, inappetency and whim among women,—
these will scarcely happen in a country where education and elegance of
thinking never found place; where the air is so soft, the sun so powerful,
the shade so voluptuous, and the food, however simple, of so rich and
stimulating a nature.5

The journeys made by the Africans are seldom or ever beyond the
limits of their own countries, or just to the confines of a neighbouring one
for the purposes of trade, never through curiosity, or for amusement; and
even then their wives generally accompany them; so that few children are
lost to these states by the absence of husbands from home. We may add here,
that childbirth is easier throughout all these countries than it is in Europe.

The wars are infinitely less bloody than ours. Scarce any of the prisi-
oners taken in battle are put to death, but are almost all sold, and brought
to some part of the coast.

Polygamy is universally allowed through Africa, and contributes vastly
to its populousness. It would, however, be hurtful to that of Europe. Among
us the number of males and females born is nearly equal, or at least differs
only so much6 as about makes up for the multitudes of the former cut off
by war, sea-voyages, and other casualties attending their active state. Po-
lygamy must in this case be certainly hurtful to population, for this plain
and common reason, that ten women will not have so many children by
one husband, as they might by ten; and if one man has ten wives, many
others must go without any wives at all. But Africa is very differently cir-
cumstanced: and first with regard to the trade.

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Of all the slaves shipped from the coast, not a sixth part are women;
consequently, the number of that sex remaining in the country, being
greater than that of the other, polygamy becomes necessary. It ought, how-
ever, to be confessed, that this inequality, arising from the trade, is not of
itself sufficient to show the propriety of polygamy's being allowed in a coun-
try, where scarce any man of opulence has less than two or three wives,
and some of them have many hundreds. Some men must be cut off by
war: and the male slaves sent from Africa, being five or six times more
numerous than the females, is a mere trifle in explaining such a case as
this, where there is such a prodigious difference between the numbers of
wives and husbands. Here, therefore, we must have recourse to another ar-

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5The Chian pepper is used in almost every dish of the negroes, and that in great quantities. Fish, when
to be got, is preferred to every other kind of food; Soups are in great esteem, and these they fill with rich
stomachick mucilaginous vegetables of various kinds.
6In the proportion of fourteen to thirteen.
argument, if so we may call what is barely a recital of matter of fact. From
the observations then of those Europeans who have long resided on the
several parts of the African coast, and up the rivers, of those who so often
visit them on account of trade, and by the strictest enquiries from the in-
land merchants, it appears that no man goes without a wife from a scarcity
of women; that the richest men having many wives, does not prevent the
poorest having one or two; in short, that an unmarried black man is sel-
dom or ever seen. The number of women must, therefore, exceed that of
the men; nor are we to look on this as a singular case, the same happening
in some places (exactly under the same latitudes as Africa) in the East-
Indies.7

Thus, of the many hindrances to population in Europe, not one takes
place in Africa.8 Now by the most moderate calculations, just hinted at in
the beginning of this essay, a very small part of Europe, though doubtless
the most populous, is prevented having a yearly recruit of at least three
million people. It follows then, that if a century ago, this small part of Eu-
rope contained as many inhabitants as almost the whole continent of Af-
rica, (which I believe we may be pretty clear it did not) the encrease of the
last must have exceeded that of the other by an astonishing number. Think
only of the difference of three millions the first year! These marrying early,
their numbers would double at the end of twenty years: what must the
encrease be, allowing however largely for deaths, in a century? We will
not burthen this essay with such enormous calculations. It appears at one
glance, that Africa not only can continue supplying the West-Indies in the
quantities she has hitherto, but, if necessity required it, could spare thou-
sands, nay, millions more, and go on doing the same to the end of time.

I have not here taken upon me to defend the slave trade, or offered
any arguments to shew that it can be reconciled to the feelings of human-
ity. I have only endeavoured to set in a clear light a subject which hitherto
seems to have been very little considered, and to demonstrate that we need

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7In Japan, Kempfer says, there are more females born than males. At Bantam, it is said, there are ten
girls born for one boy.— See collection of those voyages which contributed to the establishment of the Dutch
East-India Company, Vol. I.

In short, this seems to be the case in all the southern parts of Asia; and, in consequence, throughout
all these countries polygamy is allowed. On the contrary, in the northern parts of that quarter of the globe,
more males than females are born, and particularly at Tibet the disproportion is so great, that women are
permitted to take more husbands than one. Du Halde’s China.

8So great then are the advantages that attend the propagation of the species in this country, that it
should seem there should be a superabundance of inhabitants, if the slave trade did not take so many off.
Certain it is, that in many of the eastern parts of Asia, the climate and other circumstances are so much more
favourable than the soil, that whilst the people multiply, the famines destroy. In this case is China; there a
father sells his daughters, and exposes his children. The same causes operate the same effects, according to
Dampiere, at Tonquin. So fruitful are the women in the Island of Formosa, that they are not permitted to
bring children into the world till they are thirty-five years old: before they have attained that age, the priest-
ness tramples upon their bellies, and makes them miscarry.— See Vol. V. of voyages relative to the establish-
ment of the Dutch East-India company.

This is mentioned, as we would, if possible, render the slave trade less terrifying than at first sight it
may appear.
not fear wanting a sufficient supply of slaves from Africa, even though the
demands of our colonies should become vastly greater than they are at
present. To declaim upon the horrors of this trade would have been beside
the question, and, as far as I can see, could have answered no good pur-
pose; for the impossibility of doing without slaves in the West-Indies will
always prevent this traffick being dropped. The necessity, the absolute ne-
cessity, then, of carrying it on, must, since there is no other, be its excuse.
We would not, however, be quite silent upon this occasion. A hint will be
forgiven by those who do not need it, in consideration of those who (per-
haps) do. We hope then, it will be ever remembered that the traffick is in
human creatures; that sensibility, and deep reflection upon their sad state,
do not operate very powerfully among the negroes; yet they are not totally
devoid of them; that certain ties there are, which, when broken, affect even
brutes; and that feeling, bodily feeling at least, is the portion of everything
that has life. Shall we then forget that many of these poor creatures, to say
nothing of their common misfortune, in leaving their native country for
ever, have been torn from the woman, the child, or the parent that they
loved? circumstances of so piteous a nature, as, instead of inspiring wan-
ton cruelty, or cold neglect, should teach the white possessors to soften the
misery of their condition by every safe and reasonable indulgence that their
humanity can suggest, and that the nature of the case will admit.
John Hippisley on the Populousness of Africa: A Comment

R. Mansell Prothero

During the eighteenth century many books and pamphlets appeared in England concerned with the slave trade between Africa and the Americas (Thomas 1997). Among them was a slim volume of three essays published in 1764, the first titled “On the Populousness of Africa”. It would seem to be the earliest extant published statement on this subject. Elements in the essay have been referred to frequently in the literature (for example: Donnan 1931, Martin 1927, Priestley 1961), but it has not been available in its entirety nor has its context been considered.

Its author was John Hippisley, about whom at present only a limited amount is known. There is a brief reference to him in the entry for his father (also John Hippisley) in the UK Dictionary of National Biography. The Hippisleys were from Somerset, a theatrical family of some note; John Hippisley, author of the essay, himself appeared as Tom Thumb in Covent Garden in 1740, although this theatrical lineage and early experience seem to bear no relation to his essays of 1764. In his will made in that year he described himself as “. . . of the City of Bristol Merchant now bound for the Coast of Africa where I shall reside for some time. . . .” But he is not listed in the records of the Society of Merchant Venturers of that city, nor is his name in the records of Bristol merchants involved in the slave trade in the eighteenth century (Richardson 1991). He does not appear in the catalogue of the Record Office of either Bristol or Somerset.

Hippisley is known to have served in the 1750s as an officer of the Committee of the Company of Merchants Trading to Africa (the successor to the Royal African Company, which ceased to exist in 1752) at several of their forts on the Gold Coast in West Africa. These were established from the other essays, “On the Trade at the Forts on the Cold Coast” and “On the Necessity of erecting a Fort at Cape Appolonia,” together with “. . . A New Map of Africa from Cape Blanco to the Kingdom of Angola,” were related but their details are not of concern here.
the seventeenth century, with those of other European nations, for the furtherance of the slave trade. His service was not continuous but, unlike many Europeans in West Africa of that time, he survived to rise in the hierarchy and was appointed on 1 March 1776 Governor of Cape Coast Castle, the premier English fort on the Gold Coast (Claridge 1915). Tenure of that post was short, as he died there within the next twelve months.\(^2\)

It has been said that those from England who served on the West African coast in the eighteenth century were for the most part undistinguished. They were certainly poorly rewarded. Nonetheless, the Committee of the Company of Merchants indicated a wish for its officers to be “from the middle class of life, young men of respected connections, and very well educated,” though “we do not make the classics a sine qua non” (Martin 1927). Hippisley would seem to have met those requirements, and his essays show him to have been a man of some learning and ability, probably well above average among his fellow officers.

The 1764 volume was prefaced with an address “To the Right Honourable Wills, Earl of Hillsborough, First Lord Commissioner of the Board of Trade and Plantations, and one of His Majesty’s Most Honourable Privy Council, &c.&c.,” who was involved in a parliamentary inquiry into “the Africa trade.” Slaves were the major element in this trade, and the inquiry concerned opposing views as to whether trade should be open to individuals or controlled by a joint stock company. Hippisley was in favor of individual freedom to trade, pursuing his case in the preface at such length that he felt constrained to apologize for it. In the preface he also justified the essay; for in supporting the need for enlarging the slave trade it was necessary to show this was possible, with an ample supply of slaves to meet demand.

While this is the underlying theme, the essay is much more than a crude discourse on a matter of European involvement in Africa that is now looked on with distaste. The anti–slave trade movement was not to gather momentum in England until the latter decades of the eighteenth century, culminating in the outlawing of the trade in Britain in 1807 and later elsewhere. Hippisley’s essay should be read in the context of the time in which it was written. In the closing paragraphs, he shows that he was not insensitive to the evils of the trade, and was indeed unusually aware of these (Priestley 1967). But like many others, whether in Africa, across the Atlantic in the Americas, or in Western Europe, he regarded the trade as necessary and acceptable (Thomas 1997).

\(^2\)The date of his death is given as 1 January 1767 in the entry for his father in the UK Dictionary of National Biography, but a letter written from Cape Coast Castle on 28 September 1766 states “Governor Hippisley, Esq., . . . is very lately dead, after having been stationed here only five months and eleven days, with a very short illness” (Priestley 1967).
Hippisley engaged qualitatively and intuitively on aspects of Africa’s population at a time when much of the thinking on population in Europe was immature and divided. In England there was controversy as to whether its population had increased since the end of the seventeenth century. “The view that the population of specific countries, and of the world as a whole, had fallen since ancient times, was widespread . . . ” (Glass 1952). There were few data to support the differing views, and none for Africa.

Although writing with a specific purpose, Hippisley ranged widely in considering Africa’s population, with comparisons of its condition with that in other parts of the world. He was aware of constraints to which that population was subject even if his reasoning and conclusions were not always sound. Altogether there is a degree of sophistication in the work, sufficient for a knowledgeable colleague with whom it has been discussed to comment that it reads more as if it had been written several decades later. Yet the essay was published two years before the birth of Malthus and 34 years before the publication of the first edition of An Essay on the Principle of Population, which with subsequent and enlarged editions was to provide the basis for so much discussion on population through to the present day (James 1989). Malthus himself wrote “Of the Checks to Population in different Parts of Africa,” based to a considerable extent on information from Mungo Park and James Bruce, Scottish explorers in West and North East Africa respectively, but with no firsthand experience and limited perception. He concluded that despite losses through warfare, disruption, the Atlantic slave trade, and “. . . checks from vice and other causes, it appears that the population is continually passing beyond the means of subsistence.”

Hippisley’s thoughts on the capacity of Africa’s population to sustain itself despite the removal of substantial numbers to the Americas have some accordance with a more recent estimation of the impact of the slave trade. From an entirely different premise John Fage, a historian of West Africa, has argued that the removal of slaves from that part of the continent slowed and possibly halted population growth but was not sufficient to have reduced population (Fage 1969, 1975). Such interpretations continue to be contentious.

Before proceeding to further analysis of Hippisley’s essay, there is the need for investigation that will hopefully provide information about the experiences that caused him to write on the population of Africa and the influences to which he was exposed that resulted in such an unusual piece of work. Work on documentation in the UK Public Record Office relating to the Gold Coast in the eighteenth century is one major source for further consideration of the essay in greater depth.

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References


BOOK REVIEWS

Nature’s Services, Human Follies: A Review Essay*

VACLAV SMIL

The last three decades have seen a continuously shifting, yet by now familiar debate about long-term prospects of reconciling the growth of modern civilization with its biospheric limits. At the beginning of the debate Rachel Carson and Barry Commoner worried about agricultural chemicals, about pesticides leaving behind persistent residues in plants, animals, and people, and about fertilizers contaminating well waters and choking water bodies with algae thriving on nutrients leached from the fields.¹

Soon afterward came concerns about running out of mineral resources, the years of debates about the impending demise of fossil-fueled civilization, and a quintupling of crude oil prices (1972–74), followed by another near quadrupling (1979–80). During the 1980s the focus shifted rapidly from acid rain falling on Western Europe and eastern North America to the thinning of the stratospheric ozone layer above Antarctica and then to the threat of global warming caused by increasing concentrations of greenhouse gases released mostly from combustion of fossil fuels. During the 1990s the main focus has been on global climate change and on widespread reduction of biodiversity—the variety of organisms embracing genetic variation within a single species as well as differences among the world’s major ecosystems.²

*Books under review:


Perhaps the most important reason why debates about every new concern seem so familiar is that they have been disproportionately influenced by proponents of two extreme positions who prefer to ignore complex realities. Catastrophists believe that in the long run the Earth can support merely a fraction of today’s humanity, that our economies rest on unsustainable extraction of nonrenewable resources, and that a great deal of environmental degradation is already irreversible. To them every new example of environmental change is yet another proof of a steadily deepening crisis.

Catastrophists have no closer allies in their denial of realities than their very opposites, ebullient cornucopians. These techno-optimists revel in large population increases as the source of endless human inventiveness, and they consider resource scarcities and environmental degradation as merely temporary inconveniences. Attitudes toward possibly rapid climate change caused by greenhouse gases—catastrophists see it as an unprecedented challenge with the direst consequences; cornucopians consider it an unproven scientific theory of little practical import—capture well that deep split. Both sides now have yet another reason to display their polarized views as they consider a new scientific approach that examines the dependence of our civilization on nature’s services.

Perhaps the best way to introduce these services is by contrasting them with a much more familiar concept of natural goods for which we keep finding new substitutes: steel girders instead of wooden beams, microwaves instead of copper wires, lighter yet stronger carbon fibers where metals used to be. The same has been true about energies whose conversions are needed to power every civilization. Wood lost its global dominance to coal about a century ago, crude oil is being steadily substituted by natural gas (which already supplies nearly 60 percent as much heat as oil does), and there is no shortage of candidates for the post-fossil era. Possibilities range from photovoltaics and fuel cells (performances of both have been rising and their prices have been dropping encouragingly) to radically redesigned nuclear reactors (yes, they could be made inherently safe).

But substitution is not a universal problem-solver. How does soil remain well aerated and permeable for soft root tips? How do the flowering plants get pollinated, wastes decomposed and detoxified, air and water purified, and elements cycled through ecosystems, oceans, and the atmosphere? For such everyday miracles we have to rely on nature’s services. Soils are being constantly fluffed up by moving, breeding, and feeding earthworms, millipedes, and centipedes, and by much larger numbers of barely visible or microscopic nematodes, mites, springtails, and other invertebrates. About 220,000 out of 240,000 species of flowering plants are pollinated by insects. Myriads of bacteria and fungi decompose and detoxify wastes, releasing elements bound in complex compounds of dead organisms back to the air, soil, and water so that carbon, nitrogen, sulfur, and phosphorus can begin new cycles of life.
No substitutes are practical, the need is irrevocable: smooth functioning of nature’s services, much more than the provision of its often readily substitutable goods, delimits human fortunes. What ecologists take for granted, most economists—transfixed by human actions, and viewing the environment merely as a source of valuable goods—have yet to accept: no matter how complex or affluent, human societies are nothing but subsystems of the biosphere, the Earth’s thin veneer of life, which is ultimately run by bacteria, fungi, and green plants.

Advanced civilization, humane and equitable, could do very well without Microsoft and Wal-Mart or without titanium and polyethylene—but, to choose just one of many obvious examples, not without cellulose-decomposing bacteria. Only these organisms can take apart the most massive component of plant matter, accounting for about half of all trunks, roots, leaves, and stalks. In their absence more than 100 billion tons of plant tissues that die every year (their mass more than ten times larger than all fossil fuels we now extract in a year) would begin piling up in forests and on grasslands and fields.

If ours were a rational society, we would be paying much more anxious attention to nature’s services than to Dow Jones and NASDAQ indexes. Above all, we would not be destroying and damaging with such abandon the stocks of natural capital—intricate assemblages of living organisms in forests, grasslands, wetlands, fertile soils, coastal waters, or coral reefs—that produce them. Viewed from this perspective, environmental changes as disparate as pollution of coastal waters in the Gulf of Mexico and destruction of montane rain forest in the Congo basin share a common factor: they weaken, or locally even eliminate, provision of various environmental services.

The idea of environmental services is hardly new. Without using the term explicitly, many biologists have been identifying nature’s services and uncovering their place in the biosphere during the past 200 years. Darwin, to give a prominent example, devoted his last completed work—a now largely unknown little book that is much more readable than the famous *Origin of Species* and that appeared in 1881, less than a year before his death—to one of nature’s most remarkable services, the soil-forming and soil-conditioning actions of debris-swallowing earthworms.

Even the label is not new: the term “environmental services” was used perhaps for the first time in 1970 in a summary of an MIT-organized meeting on the state of the global environment.

What is new is a much greater appreciation of this natural largesse: an appreciation that has brought, for the first time, systematic attention to its scope and its vulnerability to human impact. A session on environmental services was held at the 1997 annual meeting of the American Association for the Advancement of Science, almost coinciding with the publication of *Nature’s Services: Societal Dependence on Natural Biosystems*. The greatest
strength of that volume is its systematic sweep. As with most edited works, the quality of chapters is uneven, but virtually everything of essence has been included.

This task required looking at a great diversity of topics. The book’s opening chapters deal with overarching environmental services permeating the biosphere. These include interactions of atmosphere and life (ranging from bacterial generation of oxygen to regulation of global CO₂ levels by forests and shell-building marine organisms), maintenance of biodiversity (a key precondition for smooth functioning of ecosystems), formation of soils (they are complex, evolving assemblages of mineral compounds and living organisms), and provision of pollination and pest control services (interspecific competition keeps more pests in check than we ever could by using pesticides).

Subsequent chapters deal with more specific services provided by major ecosystems, and the book closes with a few examples of localized case studies. This comprehensive scope makes it a book that deserves to be repeatedly consulted, one whose message should stimulate unorthodox thinking and, eventually, lead to effective action.

In her introduction, Gretchen Daily concludes, rightly, that the Earth’s ecosystemic services have no accurately specifiable value to be revealed by future research. But soon after the book came out one of the contributors, Robert Costanza, one of the founders of the International Society for Ecological Economics, and his colleagues published precisely such a global estimate in Nature. Of course, in this money-dominated world, putting a price on the priceless seems irresistible. We do it all the time with human life—but the quotidian nature of that process does not ennoble a practice whose outcome always depends on questionable relative judgments.

Estimating costs of environmental services is tempting and challenging, but also misleading and ultimately misplaced. Costanza’s group offered $33 trillion (in 1994 terms) as the most likely total worth of the Earth’s biospheric services. Given the degree of uncertainty involved in such estimates, almost any figure of many trillions would be equally wrong. The critical point is that, even if we were somehow able to purchase a few individual components of the natural capital that provides environmental services, we could not replicate the functioning wholes that have taken eons to evolve.

As a new version of the cornucopian testament shows, proponents of human supremacy will not embrace this understanding readily. Julian Simon, who died in February 1998, was undoubtedly the best-known cornucopian: The Ultimate Resource, published in 1981, was the most exhaustive statement of the cornucopian credo, winning the accolades of economists and the opprobrium of ecologists. A decade and a half later he came back with The Ultimate Resource 2, and, as in a Hollywood sequel, the...
book contains plenty of familiar action. Simon’s key message remained unchanged, as he argued that more people, creating more than they destroy, make for a better world.

This highly arguable assertion rests on the Simonian version of perpetuum mobile, which may be stated as follows. In the short run, demands made by larger populations enjoying higher disposable incomes will cause more damage to the environment and will heighten scarcities of natural goods; in a free society, these shifts will push up prices, and higher prices will prompt higher rates of invention and innovation that will bring, eventually, effective solutions both to supply problems and to environmental stresses; in the long run we are better off than if these problems had never arisen, as prices are lower, quality of the environment is enhanced, and more people can consume more goods, causing more short-run problems and.

This unbeatable mantra is used to explain everything: any setbacks or failures either can be seen as short-run problems that will eventually be resolved, or can be ascribed to markets made imperfect by government intervention. Simon chanted it constantly in order to dismiss and disparage all critics, particularly environmental catastrophists led by his bête noire, Paul Ehrlich, another headline-grabbing publicist.7

Reading these records of cornucopian–catastrophist duels, I always regret that their authors had poured so much intellect into forays that will be essentially ignored by their opponents. In their ripostes they amass, often very skilfully, facts and arguments buttressing their positions—but they never acknowledge that the other side might be making some very sensible points. Indeed, close reading reveals much of value in both kinds of writing.

In The Ultimate Resource 2 Simon made much of having been right as far as the availability of crude oil or continuing decline of prices for major natural goods is concerned. Of course, he was far from alone in concluding, quite correctly, that the soaring crude oil prices of the 1970s did not signal an imminent end of the oil era, and that fluctuating prices of natural goods display overwhelmingly downward long-term trends. His welcome service is to recapitulate these points with clarity and zest. Simon’s replays of these controversies should be required reading for all panicky environmentalists who have badly misunderstood the basic parameters of mineral economics and the dynamics of energy supply. Inexcusably, they have taken declining global reserves of crude oil as a clear sign that the fuel’s resources are close to exhaustion. But reserves are only that small fraction of total resources in the ground which can be recovered profitably by using available commercial techniques.

A combination of technical innovation and higher prices constantly shifts mineral commodities from the resource to the reserve category. As
world prices rose, so did crude oil reserves, and because of new techniques they have kept rising even after 1985 when prices fell back. Geophysicists now can see three-dimensional images of oil-bearing strata on their computer screens, and drilling engineers can direct not only highly slanted, but even horizontal wells through these formations in order to extract from them twice as much oil—up to 60 percent of the liquid originally in place—as a generation ago. In 1997 the world’s crude oil reserves were 70 percent larger than in 1977.

Mineral resources are of course finite, but long before they would be physically exhausted, the higher price of their recovery will bring greater conservation efforts and eventually force substitutions by different commodities. Many environmentalists grossly underestimated both of these processes. Conservation can work on any scale. During the 13 years of rising energy prices the G-7 countries increased their fuel and electricity consumption by less than 5 percent while their economic output (expressed in constant terms) grew by 35 percent. And a new superinsulated house—with gas-filled triple windows, polystyrene around basement walls, and a natural gas furnace converting 95 percent of its fuel to heat—uses in a year no more energy than ordinary houses do in two winter months.

In contrast to his realistic and persuasive treatment of mineral resources, Simon dealt with environmental consequences of growing populations and rising consumption in a perfunctory and unconvincing manner. That he said nothing on environmental services in 650 pages of text and notes might be explained by the relative novelty of the concept—but superficial and exceedingly selective attention was his way of dealing even with longstanding, well-researched, and clearly worrisome problems.

In one of the best examples of this approach Simon questioned any effects of soil erosion on crop yields by referring to a single 1984 US Department of Agriculture press release about declining rates of the problem in the United States. Yet the past 15 years have brought scores of well-documented reports detailing concerns ranging from very high rates of siltation in China’s reservoirs (reducing both their flood control and irrigation capacities) to small but steady declines of staple crop yields (usually masked by applications of fertilizers and planting of better cultivars) around the world.8

To note just one more of many obvious omissions, Simon illustrated improved air quality by focusing on particulate matter (that is, both visible and microscopic airborne dust and ash) and on sulfur dioxide, the two pollutants whose long-term decline correlates with growing populations and greater affluence—but he completely ignored our failure to reduce levels of ozone. This gas is the most aggressive health- and plant-damaging ingredient of photochemical smog, whose effects are now reaching far beyond urban areas, be it in the US Southeast or East China.

Simon also dismissed any worries about declining biodiversity, while in the book’s introduction he established his green credentials by referring
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to his avid bird watching, which led him to conclude that there were more kinds of birds in his mulberry tree in the mid-1990s than 45 years ago. Perhaps so—but a great deal of incontrovertible evidence documents long-term, often very drastic declines in numbers of songbirds in North America. Indeed, one of the most striking documentations of that decline comes from Rock Creek Park in Washington, DC, not too far from where Simon lived. Ornithologists attribute this trend to more predators and parasites at nesting sites (often a consequence of small size of fragmented Eastern woodlands) and loss of wintering habitat caused by deforestation in Central and South America. Total numbers of breeding pairs have been declining also in many parts of Europe, and in large Chinese cities one can spend a week without seeing a single bird (save the ones imprisoned in bamboo cages).

An afternoon spent in a science library could also have made Simon aware of recent threats to more than just a few species of such charismatic megafauna as chimpanzees, tigers, and pandas. Numbers of frogs, toads, and salamanders are declining around the world; in some North American ponds more than half of all amphibians have bizarre deformities; several fish species show feminized response to environmental estrogens; the Canadian Atlantic cod fishery has collapsed; and a mass slaughter of anything that moves has been underway in China as the country’s nouveaux riches indulge their tastes for snakes, turtles, sharks, rare fish, birds, and mammals (and what is not eaten ends up in traditional medicines). Of course it is easy to anticipate Simon’s reply: when the Chinese become really rich they will have snake gall and bear paw farms, and, as we have done, only 3 percent of them will be farmers, leaving more land free for wild animals.

I wonder whether Simon really believed that his perpetuum mobile, even under nearly ideal free-market conditions, has always performed as expected? Did he not have, at least fleetingly, some doubts that many eventual solutions may come too late, that the grand deliverance machinery might seize up? And how could he be so confident that we will always judge correctly the acuteness of a problem demanding a timely solution? Destruction of stratospheric ozone by chlorofluorocarbons (CFCs) released from refrigeration, air conditioning, and industrial operations is an excellent example of such a close call.

What would have happened to marine phytoplankton, whose cells are vulnerable to UV radiation, or to our health, had emissions of CFCs continued for another generation, causing the protective layer of stratospheric ozone to thin considerably? Simon says: nothing. Research behind the CFC ban has been worth three Nobel prizes, but Simon dismissed it by saying “Scares come and go” and, if this one were to come, by recommending a more frequent wearing of hats. He does not say what the phytoplankton in the Antarctic Ocean should wear.

I find Simon’s lack of doubt, and hence of humility, both exasperating and regrettable. Regrettable, because he brought some welcome cor-
rectives to unalloyed catastrophist perspectives. Exasperating, because as a
diligent student of history he could not be unaware of what William McNeill
calls so aptly the conservation of catastrophe: we cannot assume that our
ingenuity can always win a race with nasty eventualities, and it is far from
clear which side is winning.\textsuperscript{10} As I already noted, all Western cities now
have much less sulfur dioxide but much more ozone. And while we have
successfully reduced the risk of increased UV radiation by eliminating CFCs,
it is far from certain that we will do the same for the threat of global warming
by reducing emissions of greenhouse gases, whose rising production has
been a key mark of growing affluence.

I have, incidentally, read Paul Ehrlich’s writings with the same mix-
ture of exasperation and regret. He rushes to conjure end-of-the-world sce-
narios from every negative trend, he ignores so many undeniably positive
lessons of history, and he is too eager to engage in normative social engi-
neering by prescribing how many people the Earth can support. At the
same time, he offers the much-needed ecosystem-oriented thinking, and
the concerns he so exaggeratedly articulates will surely require more, not
less, attention in our more crowded future.

These mutually disdainful antagonists are so much alike in their hauteur. Did Simon’s distaste for coercive programs of birth control (which so
many people share) need to be expressed by singing the praises of infinite
population growth and worshipping omnipotent markets? Does Ehrlich’s
concern about the integrity of the biosphere (which many of us feel no
less acutely) have to take the form of specifying, arrogantly and highly
arguably, how many people should be permitted to live in the world ac-
cording to his image? Encouragingly, it now appears that neither man will
get his population wish.

Simon’s dreams of continuously growing population may come to an
end even sooner than some of his severest critics have anticipated, but not
because of resource scarcities or environmental collapse. As the most ex-
traordinary century of population growth comes to its end, the global count
appears to be moving toward an end point faster than foreseen by demog-
graphers even a few years ago. In 1900 the world’s population totaled a bit
over 1.6 billion and it doubled to 3.2 billion in just over 60 years. The next
doubling was forecast before the end of the century, and yet another one
afterward. In retrospect, these were exaggerated expectations.

The first key turning point was reached during the 1960s when the
relative rate of the world’s population increase peaked at just over 2 per-
cent a year. Because of the growing base, absolute annual additions kept
on increasing, but fertility declines—particularly rapid in Asia and Latin
America—ended these increases sooner than anticipated by UN demo-
graphers even five years ago. While their earlier estimates put the average
global rate of increase at 1.57 percent per year during the first half of the
1990s, in their latest edition of World Population Prospects they revised the rate to 1.48 percent. Consequently, the global increase peaked at 87 million people a year during the late 1980s, and it fell to a bit over 80 million by 1995: annual growth is now declining even in absolute terms. With fertility levels falling but the total base growing, the absolute annual increase is not expected to fall much below 80 million for perhaps as long as 25 years, but—a fact of enormous importance—it is virtually certain that it will be steadily declining during much of the twenty-first century.

Depending primarily on assumptions about future fertility rates, by 2050 the global population may be anywhere between 7.7 and 11.2 billion people, with 9.4 billion being the UN’s most likely forecast. These are the lowest UN predictions so far. In the longer run—by the end of the twenty-first century—the UN’s “medium” forecast foresees a nearly stabilized global population of just slightly above 10 billion, bracketed by “high” and “low” projections of 17.5 billion and 5.6 billion, respectively.

This large difference emphasizes how little we know about the forces that drive the transition to a stable population, and about the best means of getting, and staying, there. These are powerful reasons to entertain doubts about any grand prescriptive solutions, to emphasize caution, and to act as risk-minimizers. Scientific evidence makes it clear that human impact on the biosphere is not just an exaggerated temporary annoyance as Simon would have it; it also makes us realize that our civilization is not, as catastrophists believe, caught in an inevitable slide toward global demise. Neither the Simonian ratcheting of greater growth causing bigger problems and leading eventually to better solutions, nor the Ehrlichian advocacy of drastic population reductions to stave off anticipated environmental catastrophes is a sensible strategy.

Our best chance for supporting larger numbers of people enjoying a decent standard of life is to do much more with much less. A combination of higher prices and sensible laws can make it possible to deploy an impressive array of readily available but unused, or badly underused, technical innovations that can greatly lighten our impact on the environment. Why should a single person commute in a three-ton, four-wheel light truck or all-terrain vehicle at less than 20 miles per gallon when a comfortable sedan weighing only half as much will travel nearly 40 mpg? And, as even the three big US car makers now concede, there are no engineering reasons why hybrid-drive cars (combining internal combustion engines and electric motors) could not double that performance within a decade.

I would not argue that Factor Four: Doubling Wealth, Halving Resource Use, the latest report to the Club of Rome assessing such options, is the best blueprint for the future. The record of technical innovation clearly shows that some of the book’s 50 examples of higher efficiency in energy, material, and transportation sectors do not sufficiently appreciate many
underlying challenges, and its activist tone almost certainly exaggerates the near-term consequences of many desirable measures. Three decades ago Nobel laureates were predicting that by now virtually all electricity generation would be nuclear, and two decades ago Amory Lovins was assuring us that by now the renewable forms of energy would be dominant: both of these prophecies were wrong.

Still, the book’s subtitle—Doubling Wealth, Halving Resource Use—is not an unrealistic long-term goal. Indeed, eventually we should do even better. Reaching these goals could be hastened if affluent countries would simply consume less. Dismissing this as a naive wish is easy. Nevertheless, the numbers begging us to accept such a choice do not lie. We know that even if it is relatively more efficient, further economic growth (tied as it has been to higher demand for energy and materials) continues to impose greater absolute burdens on the environment. But we also know that once the prevailing affluence, be it measured in GDP or energy terms, reaches relatively moderate per capita levels its further growth shows practically no correlation with such key indicators of the physical quality of living as adequate food supply and life expectancy at birth.¹³

Plotting per capita food supply against average per capita GDP shows that adequate nutrition is available wherever the latter rate is above $2500 per year, or roughly the current Chinese level and one-tenth of the rate now prevailing in affluent Western countries (of course, problems with equal access plague even affluent countries). Plotting average per capita energy consumption against life expectancy at birth shows only marginal gains of life spans once the annual per capita consumption of all commercial energy becomes equivalent to about two tons of crude oil, or merely one-fifth of the current North American mean.

Nor do such increases bring any commensurate intellectual and social benefits. In fact, just the opposite has happened in most of the affluent countries as they have doubled, even tripled, their per capita use of energy and of many other natural goods during the past 50 years. In some of them the rate of functional illiteracy has increased: astonishingly, one-quarter of all Canadians cannot either read or correctly interpret the first sentence on the label of a container of aspirin. In most of these countries family cohesion, be it measured by children born to unwed adolescent mothers or by divorce rates, has been weakened. And, as opinion polls repeatedly demonstrate, fears of crime, of losing a job, and of long-term inadequacy of pensions have eroded the sense of personal security.

Of course, an inevitable consequence of claiming less for ourselves would be to leave more of nature’s capital intact so the biosphere could continue providing the services we cannot do without. Such a tradeoff, ignoring market forces, might puzzle economists but it would justify the Linnaean designation of our species as sapiens.
Notes


S. Ryan Johansson

Writing a world history of medicine from antiquity to the present is an ambitious undertaking that would daunt most ordinary historians. But Roy Porter is Britain's leading medical historian, an exceptionally prolific scholar who has published on a wide range of topics. Moreover, his books are invariably praised for being informative, clear, and a pleasure to read. Much of Porter's research has focused on aspects of the long eighteenth century (c. 1680 to c. 1820), but this latest book signals his intention to make all of medical history interesting and accessible. As befits its sweeping topic, this long book contains 22 chapters. The introduction is followed by 11 chapters that are chronologically arranged (from prehistory to Pasteur) supplemented by two others dealing with Indian and Chinese medicine as alternatives to the Western tradition. Seven chapters are devoted to special aspects of modern medicine, such as psychiatry, surgery, and clinical medicine; but nontechnical topics such as medicine and the state and medicine and the people are also discussed. The concluding chapter links the past to the present and future. Over 50 illustrations grace the book, but only four figures provide an alternative to text, with nary a footnote to be found. Instead, Porter acknowledges all those whose research he has drawn on and gives the reader an extensive general bibliography for further reading (pp. 720–728). There is also a guide to the secondary sources used chapter-by-chapter (pp. 729–764).

But neither the introduction nor the conclusion is followed by a guide to relevant readings. Moreover, the introduction itself does not contain the usual overview, in this case about the state of research in the history of medicine. When a professional historian dispenses with footnotes and an introductory review of the field, most historians are likely to regard the book as a nonfiction alternative to a novel. Porter's book is certainly entertaining, but it is also an ambitious cross between an encyclopedia (covering theories, thea-

pies, and specific diseases) and a serious narrative history that interprets historical evidence for contemporary policy-related applications.

When narrative historians such as Porter select a well-defined, chronologically circumscribed topic, and stick closely to the relevant primary sources, the knowledge they produce is, if anything, more trustworthy than that produced by quantitatively grounded historians who make unrealistic simplifying assumptions in order to construct and test models using complex statistical methods that only a few other readers can evaluate. While Porter is an accomplished narrative historian, in this case his text covers thousands of years and myriad topics. As a grand narrator he is forced to rely on secondary sources, trusting that what they present as established facts (statements that would be widely accepted by experts as true) are not “factoids” (controversial opinions, misleading half-truths, outright errors, and the like). Writing any kind of grand narrative based on secondary sources is a risky undertaking because most texts violate the reader’s trust to some extent. This is why it is essential for any historian to explain those risks to his readers.

Porter acknowledges that only limited forms of certainty can be achieved in medical history, given the limits on source materials and the difficulties of interpreting what they tell us. Although he probably knows more about medical history than any other single individual, he modestly confesses his continuing “ignorance” in the face of our very limited knowledge (p. 13). Nevertheless, Porter gives the impression that he will stick to the most reliable facts and that his interpretations will avoid both “anachronism and judgmentalism” (p. 5). This sounds suspiciously like a claim to objectivity once removed.

Since many demographers and social scientists are still in the habit of regarding traditional narrative historians as “useful drones” who mine sources for knowledge that more theoretically oriented minds will transform into general theories about human societies, the impression of detachment Porter creates is problematic. Porter’s history is a mine of valuable information, but he is no one’s drone. Like all historians who are more than antiquaries, he creates knowledge about the past by using an informal theoretical framework to select evidence, establish its significance, and integrate it into a coherently structured story that is designed to make sense. What Porter does not do in this book is straightforwardly explain to his readers what framework is guiding his selection, evaluation, and interpretation of the material presented, probably because he is using two frameworks that normally work at cross purposes.

**Heroic and anti-heroic medical history**

Porter alludes to both interpretative frameworks in his introduction and in his conclusion, but he never explicitly draws out their implications for the
selection and interpretation of evidence. In the introduction Porter takes pains to assure readers that this book is a “medical history” of medicine (p. 5). Most readers would be excused for wondering whether there could be any other kind, and they may find it strange that Porter virtually apologizes for focusing on what healers said and did.

But Porter identifies doctor-oriented medical history with “Whig” history. In Britain historians who chronicle the march of progress are called Whigs, and most doctors who wrote medical histories before the 1970s wrote about medical progress as the accumulation of great discoveries made by great doctors. When Porter affirms that “the prominence of medicine has lain only in small measure in its ability to make the sick well” (p. 6), he is distancing himself from Whig medical history and positioning himself as a social historian of medicine.

Most social historians have seen their task as debunking Whig medical history. In fact they work in an interpretative framework designed to chronicle medicine’s professional failures, including the disappointments expressed by so many ordinary patients and the doubts that medical reformers have and have had about the efficacy of their efforts as healers.

In his conclusion, Porter discusses the reaction against Whig medical history, which began in the 1950s and 1960s when “sociology put modern medicine under the microscope” (p. 717). These non–medically trained outsiders concluded that modern medicine’s disease categories and methods of diagnosis were deficient in most respects. Because of its failures, modern medicine was described as making very little difference to present health or life expectancy. Debunking the medical present quickly led to debunking the medical past. Sociologically oriented historians of medicine began depicting earlier doctors as well intentioned but impotent, or as particularly inept healers who pursued their own selfish professional interests and shortened more lives than they had saved—if indeed they had saved any at all until very recently. These “doctor bashing” historians (another conventional phrase, but not one used by Porter) described traditional therapies like bleeding and purging as worse than the diseases they were intended to treat. Porter himself observes that although not all new medical historians were “trendy Lefties,” they were united in disparaging the physician as “a figure of authority, a tool of patriarchy, or a stooge of the state” (p. 717).

Porter himself became prominent for critically evaluating Whig medical history, and he also pioneered writing medical history from the bottom up—from the patient’s point of view, not the doctor’s. This may be why he assures us that he is now writing what he labels winners’ history, “not because they are ‘best’ or ‘right’ but because they are powerful.” Powerful “winners” can be studied without “siding with them” (p. 12).

The obvious strategy would be to combine the two conflicting interpretative frameworks and strive for a more balanced perspective on the
production of medical knowledge in the past, as well as its impact on health and mortality. Balance is something that all professional historians support, at least in theory. But can what amounts to pro-medical Whig history be fruitfully combined with anti-medical sociologically oriented history? How beneficial will “the greatest benefit to mankind” turn out to be when assessed, as here, by a leading social historian of medicine who has not been kind to Whig history in most of his earlier research?

As a Whig-come-lately, Porter states emphatically that Western scientific medicine is an enormous achievement (p. 12); and true to this claim, subsequent chapters describe its disease-specific advances in detail, using the same material that comprises the core of traditional medical histories of medicine. Nevertheless, as someone who is studying winners without taking their side, he finds a way to minimize the benefits associated with each medical breakthrough, while maximizing the problems associated with any form of medical progress. Such an approach might illuminate the complexity of the past, but in this case it creates confusion.

**Medicine, health, and mortality**

For example, contemporary demographers and social scientists are debating whether people are getting less healthy or more healthy as death rates continue their decline. On page 3 Porter affirms that we are healthier than ever, although we are also “more anxious about our health.” In the conclusion one source of our anxiety turns out to be doctors themselves, who have been deliberately converting normal physiological events like menopause into diseases to keep themselves busy now that people are much healthier. In addition, new diseases keep appearing that medicine cannot control, including AIDS and various exotic fevers. Even an old disease like diabetes, which can be clinically managed using insulin, cannot be cured and continues to spread (p. 12).

Nevertheless, we are really healthier than ever because we live longer. Given this fact, it is surprising to read on page 12 that “the basic health of the developing world is deteriorating.” The demographic reader will find this “fact” puzzling because, if health is gauged by life expectancy, then health in the developing world should be increasing as well, since death rates are still falling and people are living longer. (Russia and other formerly communist countries are exceptions, but they are not categorized as developing countries.)

The answer may be that health history is about much more than mortality, and who could disagree? But then why make confusing claims and present them as facts that link the past to the present? Moreover, in the conclusion we are told that our longer lives give us more time to be sick, which implies that we are now less healthy than before, when we led shorter lives (p. 710). Contradictions like this could be the result of the casual use of vague but central concepts like “health.” Theoretically sophisticated so-
cial science historians regard lack of attention to formal conceptualization as one of the greatest failings of traditional narrative history, which is sometimes called POH (plain old history). But in Porter’s text such contradictions are more likely to be the result of the quiet war waged between pro-medical history (i.e., Whig history) and social history as a form of anti-medical history.

Those readers who progress to the later chapters will find ever more medical progress linked to ever more failure. On page 595 it appears that modern clinical science has been highly successful: “For almost all diseases something can be done; some can be prevented or fully cured.” However, cancer patients can only be “patched up” at a cost so great as to “cripple our economy” (p. 596). No relevant data are provided. In a concluding assessment modern clinical medicine is said to weigh little in the balance of health, and many of its efforts have been “off target” (p. 714). If this were true then the implications for health policy are clear: most modern medical research and the treatments that flow from it are a waste of money. This remains the core of the anti-medical sociological critique of modern medicine.

“The particular powers of medicine, and the paradoxes its rationales generate, are what this book is about,” says Porter on page 8. The subtle paradoxes generated by complex phenomena are usually illuminating, but how many social scientists will find it illuminating to be told that we are both more healthy than ever because we live longer, and less healthy than ever because we live longer? What have we learned when an expert on the past informs us that medicine can only make forms of progress that leave us no better off than before, or even worse off?

Quantitative social science history can be boring, but it usually forces a rigour on research that discourages the casual production of sweeping generalizations that are intended to hold implications for policy. Porter claims that medical breakthroughs have saved more lives over the last 50 years than in any epoch since any form of medicine was practiced. But what does this unquantified assertion mean if it is not explained using relevant mortality statistics, or, at the very least, is not accompanied by a discussion of the relevant literature on the problems of measuring the impact of modern medicine on mortality?

The rise of Western scientific medicine

One of the major themes of the book is how Western medicine became so much more influential than non-Western, alternative systems of treatment, such as those found in China and India.

The traditional Whig answer is that Western medicine’s current global sway is based on its scientific foundations, which were laid in the 1500s
at the latest. It was during the later Renaissance that Western European medicine began to explore a very different evolutionary path than the most highly developed non-European medical systems, by relying increasingly on experimental methods. For reasons unspecified, Porter begins his treatment of Renaissance medicine (Chapter VIII) not with the rise of science, but with the tragic, “mainly unintentional” loss of life inflicted on New World peoples by European invaders and their germs (pp. 163–166).

The research on which Porter is basing his observations is now outdated. Recent historians have gone back to emphasizing the role of warfare, expropriation, and ecological disruption in wreaking intentional damage on native peoples of the Americas. This damage probably contributed as much or more to sustaining long-run demographic decline by preventing recurrent rebounds from epidemic disease. Other research stresses the technical problems of counting natives who could so easily escape enumeration by Europeans, whose control over the more remote areas of their new domains was tenuous.

Porter connects this material to his main theme by describing the attitude of medical superiority assumed by conquering Europeans, making it seem as if all native medical knowledge was disdained and/or destroyed. But in other sections he freely acknowledges that sixteenth-century Europeans enthusiastically imported New World drugs (just as they imported novelties from everywhere). Early modern European physicians made increasingly extensive use of exotic drugs and new ideas in practice, if not in theory. Some readers would be free to conclude that Western European medicine became dominant over alternative systems solely as a side effect of military conquest and cultural chauvinism. Others might conclude that access to non-Western medicine increased the efficacy of European medicine. Both conclusions contain some truth, but they exclude the key role played by the formation of a unique scientific mentality in Western European medicine and the scientific basis for its continuing progress.

Porter discusses syphilis as a disease imported to the Old World from the Americas. Over several generations innovative physicians developed a portfolio of drugs and treatments designed to cure it (in the sense of alleviating its most visible symptoms); but Porter concludes that nothing European physicians tried was “truly effective,” as if that were a fact. But it is not, nor could it be, given the absence of relevant data.

There follow separate sections on scientific anatomy and surgery. Anatomical research was one of the prime empirical manifestations of the new scientific mentality in sixteenth-century Europe. Porter asserts that surgery was “relatively unaffected by the new anatomy” (p. 186). What I have read elsewhere suggests that early modern surgical experimentation (and it was very extensive) was stimulated and legitimized by the new science of anatomy.
The reader will find most information on early modern science in Chapter IX, which deals with the seventeenth century. The middle of this century is described as a time when a “new and often aggressive scientific spirit was rampant” in medicine (p. 226); but this spirit failed to produce a revolution in medical treatments or cures (p. 231). Porter reviews the classical series of incremental improvements in cure and care, long described by Whig historians, but leaves the impression that none of them mattered to health and mortality. The chapter ends with a pessimistic review of the strong hold that religion, not science, continued to have over the ordinary understanding of sickness and death in the 1600s and 1700s.

Readers of PDR interested in how Western medicine influenced health and mortality in non-Western countries will find a chapter on “Tropical Medicine, World Diseases.” It contains a comprehensive and sound treatment of how a series of lethal tropical diseases was brought under greater medical control using scientific techniques developed in the West. But readers will also be informed that European rule brought a “hail of death” to non-European countries, and “[t]he good that western medicine did was marginal and incidental” (p. 482). The period to which Porter is referring is not clarified. What “marginal” means in measurable terms remains anyone’s guess. As far as I know, direct European rule in Africa and Asia is usually associated with population growth, or its acceleration, caused by both rising fertility and declining mortality.

As Porter continues the story of medical progress, he combines facts and factoids in varying proportions. Inexpert readers will not be in a position to decide which is which, and expert readers will be unable to check the specific sources on which his conclusions are based. The chapters I found least problematic dealt with subjects with which I am least familiar, for example medicine in antiquity (Chapter III), traditional Indian medicine (Chapter VI), or Chinese medicine (Chapter VII). Medical research after 1900 (Chapter XVII), including modern clinical science and surgery, is a vast and technical subject that is inherently difficult to treat briefly; nevertheless Chapters XVIII and XIX present much useful information with admirable clarity and brevity. If the chapters dealing with the twentieth century seem particularly informative, they also seem to be written in a much more analytically rigorous, less anecdotal style.

Maternal mortality and medical progress

Toward the end of the book Porter draws up what he calls a “balance-sheet” for assessing medical progress, using as a benchmark what he regards as the “most tragic medical disaster: women dying in childbirth” (p. 711). He states correctly that medicalized childbirth in England now carries a less than one-in-10,000 risk of maternal mortality versus a one-in-250 chance of death in the 1930s. Sulpha drugs introduced in the 1930s
and antibiotics from the 1940s are given the credit for this achievement, but even earlier the “majority of deaths could have been prevented by better obstetrics.” He notes that Scandinavia and the Netherlands were safer places to have a baby in the nineteenth and early twentieth centuries than England and the United States, largely because their maternity services were based on highly qualified midwives, not male physicians in general practice.7

It would be possible to describe highly trained midwives as specialists, and the male general practitioners who delivered babies as nonspecialists (with all the disadvantages for patients that less-specialized knowledge entails). But Porter asserts that male doctors were largely “trigger-happy with forceps and drugs.” The explanation for men’s failures is limited to “gut prejudices and professional esprit de corps” (p. 712). Porter concludes this overtly anti-medical discussion with the observation that “[m]edicine likes to think it is the most ‘beneficent’ profession, but it is deeds not words that count” (p. 712).

On the other hand, Porter does not want us to “hanker after some mythic golden age”: one religious sect in Indiana that rejects orthodox medicine and practices home births experiences a perinatal mortality rate 92 times higher than the state’s average (p. 712).

Aside from the fact that perinatal mortality pertains to very early infant mortality, not to maternal mortality (which makes the use of this statistic logically irrelevant in the context of his discussion), what does this balance sheet add up to? Are drugs and midwives credits that saved lives in the recent past, while doctors were debits that took them prematurely? If so, were doctors really indifferent to women’s lives, and why were they more indifferent in England than in Scandinavia and the Netherlands? Moreover, how does this balance sheet relate to the discussion of doctors in early modern Europe? Centuries ago, male doctors seemed to be the driving force behind programs to improve the training of midwives in the Netherlands and Sweden, if not England (pp. 231–232).

Whatever its limitations as an interpretation of the past, Porter’s book is the only one-volume history of world medicine. For that reason alone, it is sure to be widely read and quoted by general readers, as well as by social scientists. As an educational tool it presents a great deal of solid information on a wide variety of topics in a clear and engaging style. But if it is a mine of facts, it is well to recall that all forms of mining produce both ore and slag. Without an independently acquired background in medical history, which sharpens the ability to tell the difference, this book could often mislead social scientists who have a professional interest in medicine, mortality, health history, and modern health policy.

Much is currently being made of the historical turn in the social sciences, but this trend will have to involve more than returning to traditional narrative history. Demographers and other social scientists who are
looking for constructive historical insights into the relationship between medicine, health, and mortality should read this book but should also look elsewhere.

Notes

1. For the last decade or so, Roy Porter has published at least one book a year as a sole author, coauthor, or editor. One of his most widely read sole-authored works is Disease, Medicine, and Society in England, 1550–1860 (Houndmills, Basingstoke: Macmillan, 1987). With Dorothy Porter, he has written In Sickness and in Health: The British Experience, 1650–1850 (London: Fourth Estate, 1988); as an editor, he published Medical Journals and Medical Knowledge: Historical Essays (coedited with W. F. Bynum and Stephen Lock) (London: Routledge, 1992), which is one of my favorites. He is also one of the editor/authors of The Western Medical Tradition: 800 BC to AD 1800 (Cambridge: Cambridge University Press, 1995). The other editor/authors were Lawrence Conrad, Michael Neve, Vivian Nutton, and Andrew Wear. Porter contributed an essay on his specialty, eighteenth-century medical history.

2. Literature reviews are essential to scholarly persuasion among professional historians. They position a new contribution to research in a field or subfield within the body of knowledge being produced by a community of scholars. See S. Ryan Johansson, “Food for thought: Rhetoric and reality in modern mortality history,” Historical Methods 27 (1994): 101–125.


4. Since this book was published a cocktail of drugs has been developed that seems to check the development of AIDS in most HIV-infected individuals.


6. Currently in the United States, and probably everywhere, much more narrative history is being written than social science history; in particular, cliometric history, the most quantitative form of social science history, is suffering a relative decline. About half as much quantitative research is being conducted and published at present than several decades ago. Charles Wetherell reviewed the present state of play in “The future of cliometric history,” a paper prepared for the Second European Social Science History Conference, Amsterdam, 5–7 March 1998.

7. This reviewer has recently completed a manuscript entitled “Death and the doctors: Medicine and elite mortality in Britain from 1500 to 1800,” which will be published in the series of working papers published by the Cambridge Group for the History of Population and Social Structure, 27 Trumpington Street, Cambridge, England CB2 1QA.
SAMUEL HOLLANDER  
The Economics of Thomas Robert Malthus  

This massive volume by the University Professor of Economics, University of Toronto, is not only overwhelming in itself, but it is Number Four in Hollander’s Studies in Classical Political Economy, following volumes interpreting Adam Smith, Ricardo, and John Stuart Mill.

The density of the text can be exemplified from the book’s very first pages. Were Malthus’s famous geometric and arithmetic ratios equivalent to Edwin Cannan’s law of diminishing returns? J. S. Mill, J. A. Schumpeter, W. S. Jevons, Alfred Marshall, Lionel Robbins, G. J. Stigler, and A. M. C. Waterman all wrote on the issue and their varying views are quoted. “The matter is far more complex than I ever imagined,” Hollander comments, and “there is good reason for the extraordinary disparity between the interpretations we have reviewed.” The argument is carried through Chapter 1 (pp. 13–69), with many intricacies and asides. The conclusion is hardly in accord with the usual interpretation of Malthus. In his argument, Hollander states, there is no “allusion, even tangential, to an actual or prospective decelerating growth rate of food.” In short, “the Essay on Population presents a far less pessimistic picture than seems to be the case at first glance.”

The 1817 edition of the Essay substantially expanded some of the earlier arguments. In particular, Malthus did not treat prudential control of fertility (that is, a later age at marriage) as an exogenous factor to be brought about by one or another type of education. Rather he regarded it as an endogenous element of the embourgeoisement of the lower classes: with a rise in the level of living would come a taste for more and better goods, and thus a desire to acquire them by reducing family responsibilities. The greater emphasis on this process was a highly significant development of the Essay’s whole argument.

In a chapter on demographic trends, Hollander challenges the interpretations of Gary Becker, E. A. Wrigley, and Mark Blaug, all of which he finds “seriously wanting.” Well aware that England’s population was increasing during the years he was revising the Essay, Malthus held that the main reason was not a rise in fertility but rather a decline in mortality. According to two modern analyses of British population trends (by R. D. Lee and R. S. Schofield, and by Wrigley), however, the relative importance of the two factors was reversed: a rise in fertility was of greater importance. Malthus, Hollander comments, was “far more ‘optimistic’ than is apparently justified—a pleasing irony, considering his reputation.”

The bulk of Hollander’s book pertains, of course, to Malthus’s position on various elements of economic theory as expounded in his Principles of Political Economy, a number of shorter works on specific topics, and the voluminous correspondence between Malthus and Ricardo. It seems appropriate here to pass over these meticulous analyses, given both the probable interests of most readers of this journal and my own lack of genuine mastery of economics. It is nevertheless worth mentioning, pars pro toto, that in a chapter on agricultural protection Hollander notes uniquely that, contrary to the consensus over a wide range of commentators, Malthus reversed his stand on the Corn Laws and eventually supported free trade. In short, he examines in stimulating detail not only Malthus’s population theory but also his economics.
In sum, “there is little excuse for charging Malthus with spawning a dismal doctrine.” Following the lead of Adam Smith, Malthus proposed that the state provide universal education, which would raise workers’ income and help some of them rise into the middle class. Hollander gives us a thorough and nuanced analysis of Malthus’s position on the Poor Laws, with a conclusion that, at the very least, the issue is more complex than the typical critic’s presentation. The last two chapters of the 1798 Essay, a defense of God’s ways in light of the principle of population, were dropped, in Hollander’s characterization, as an “embarrassment.” Although critics have invariably dubbed him “Reverend Malthus,” his works on population and economics were solidly based, as Hollander demonstrates, on a secular foundation.

That over the whole of the past century Malthus has been routinely misrepresented is well known, and no one has undertaken to examine and correct these errors so thoroughly as Samuel Hollander in this book. The standard charges that Malthus was inconsistent and even intellectually dishonest are thoroughly demolished. Whether or not I fully subscribe to Hollander’s often unorthodox views, without exception reading them gave me a better base for judging the issues.

It is axiomatic that one cannot attain an adequate command of population theory without a grounding in Malthus, the father of modern demography. And now one can add a corollary: in addition to reading the original works, there is hardly a better route to a full and subtle understanding of Malthus than Hollander’s exposition.

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WILLIAM PETERSEN

NOBLE DAVID COOK
Born to Die Disease and New World Conquest, 1492-1650
Cambridge: Cambridge University Press, 1998. xiii +248 p. $54.95; $15.95 (pbk.).

This is not an especially original book, but it is a useful one. All of us, except the experts, need neat and comprehensive summaries every few years to bring us up to date on the latest research and interpretation on subjects of current controversy, in this case on the impact of the arrival of Europeans and Africans in the Americas after 1492. It has been six years since the Columbian quincentennial triggered a landslide of publications on this subject, 11 years since Russell Thornton’s American Indian Holocaust and Survival (and 17 since Cook’s own Demographic Collapse: Indian Peru, 1520–1620). Born to Die is a book whose time has come.

Cook is a proponent of the current orthodoxy that the most important factor in the ease of the European conquest of the Americas (as contrasted with their frustrations in Africa and Asia) was the diseases they brought with them, diseases unknown to Native Americans such as smallpox, measles, typhus, plague, influenza, malaria, and yellow fever. The author states the thesis and his own sympathies in the dedication: “To Cuitláhuac and Huayna Capac and the millions who fell not to the sword but to the unseen foe within.” I wish Cook had discussed the mystery of why these two leaders (the first Aztec, the second Inca) died of Old...
World infections, while Ferdinand and Isabella did not succumb to New World infections; but perhaps the fact that, respectively, the pairs did and did not is enough for one book.

Cook, unlike some other experts in this field, does not speak ex cathedra, but admits that the epidemiological and demographic history of Native Americans, especially in the first decades after contact with the invaders, is obscure. How many indigenes were there in 1492? We can burn out our computers, but cannot really do much better than to say that there were far more than we thought a scholarly generation ago. How many died of imported diseases? Some investigators estimate 90 percent and more, others less. All agree, with very few exceptions, that their losses were crippling militarily and psychologically.

What specific diseases were involved? The Native Americans’ terminology is opaque (cocoliztli?), the Europeans’ often not much better (doler de costado, modorra?); and the early European settlements, where almost all the documentation we have on this matter originated, were vortexes of infection, malnutrition, brutality, and despair for both natives and newcomers. Accurate answers to the question above are impossible. A more useful question might be: Why did the locals not recover demographically from the epidemics, as, for instance, the Europeans did after the first decades of the Black Death? For years I have wondered what the history of Europe would have been like if Genghis Khan had arrived at the same time as the plague, in the way Cortés arrived in Mexico in tandem with smallpox.

The conquest of the Americas was more complicated than simply a matter of epidemiological superiors versus epidemiological inferiors. To accept that explanation is to drift into pseudoscientific racism. Cook takes pains to prevent that mistake, pointing out, for instance, that Euroamericans born in the New World had both the advantages and the disadvantages immunologically of Native Americans, that is, they usually avoided the Old World’s childhood maladies, such as smallpox and measles, and, therefore, were susceptible to these dangerous infections as adults.

My one strong complaint about this book is that it refloats the story about Europeans purposely infecting Native Americans with imported diseases. Cook suggests that this was common practice, but provides but a single example, the old chestnut about Jeffrey Amherst, who sought to communicate smallpox to Indians by use of blankets. There is scant evidence for this sort of thing, which leaves me, as a professional historian dependent on documentation, uncomfortable about statements that it happened often enough to be significant. The rebuttal that there is little documentation because the Europeans concealed what they were doing does not suffice. If they were racists and brutes in their relations with Native Americans, as they so often were, they would have boasted of waging bacteriological warfare.

Cook is an expert on the epidemiological and demographic history of colonial America; has read, it appears, all the pertinent publications, old and new; and provides clear and sophisticated analyses, along with an excellent bibliography. Born to Die is now the best introduction to the worst demographic catastrophe in the history of our species.

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ALFRED W. CROSBY
JAMES P. SMITH AND BARRY EDMONSTON (EDS.)
The Immigration Debate: Studies on the Economic, Demographic, and Fiscal Effects of Immigration

In 1997, the National Research Council published The New Americans: Economic, Demographic, and Fiscal Effects of Immigration, the most comprehensive study to date of the effects of immigration in the United States. The Immigration Debate is the companion volume, containing the background papers commissioned for the project.

The Immigration Debate contains nine intelligent, professional research papers, divided into three sections: fiscal studies; labor market studies; and studies of historical, demographic, and social consequences. Each of the papers has merit on its own, and each will be of interest to specialists. The only section in which the whole is greater than the sum of its parts is, however, the one on fiscal studies, consisting of four chapters.

The section begins with a paper—by Thomas MaCurdy, Thomas Nechyba, and Jay Bhattacharya, titled “An economic framework for assessing the fiscal impacts of immigration”—that breaks significant new ground. The authors argue that studies of the fiscal impact of immigration are almost always based on partial-equilibrium models that omit some of the most important connections. A fully persuasive study should examine not only the taxes paid and expenditures absorbed by immigrants, but also the indirect fiscal effects of immigrants on the resident population, through such routes as economies of scale, displacement from jobs, changes in wage rates, and the spreading out of the costs of public goods. Such studies should also include estimates not only for the current year, but for the lifetimes of the immigrants, and perhaps of their descendants as well. Needless to say, this is a tall order, and the authors conclude that the required data probably do not yet exist. Nevertheless, they set out the conditions under which immigration would be fiscally neutral, show how each one of those conditions is violated, and conclude that immigration probably imposes a fiscal cost on residents.

The papers that follow—by Deborah Garvey and Thomas Espenshade on New Jersey, and by Michael Clune on California—represent the best empirical estimates in the literature on the fiscal impacts of immigration. They conclude, in general, that immigrants impose a fiscal cost on residents of those two states, the costs being larger in California because of the concentration of immigrants and the lower-income status of immigrants in that state. Both studies are based on micro survey data at the household level. They are not, however (as their authors freely acknowledge), fully general-equilibrium studies, as called for in the first paper.

The detailed empirical results from New Jersey and California are drawn into question by the last paper in this section, by Ronald Lee and Timothy Miller. Lee and Miller compare four methods of conducting fiscal-impact studies of immigration. The first three are based on current-year cross-sections, by looking at (1) individual immigrants, (2) immigrant-headed households, and (3) living immigrants and all their current descendants. The fourth method, which they prefer, is longitudinal, and includes future (discounted) as well as current fiscal benefits and burdens. Lee and Miller demonstrate that, of these four methods, the immigrant-headed household method is most likely to yield the conclusion that immigrants
impose a fiscal burden on residents. The household method counts the children of immigrants only during the years when they are a burden—e.g., absorbing expenditures on public education—not when they are adults, living away from their parents’ households and likely to be making a net fiscal contribution by paying taxes. In Lee and Miller’s calculations, only the household model shows a net fiscal burden of immigration; the other three methods show a net benefit for residents. Yet it is the household method that was chosen by both Garvey and Espenshade and by Clune.

In this volume, as is typical of the field, the exploration of the economic effect of immigration is divided into two subtopics: (1) the effects on the incomes of residents, especially labor incomes, and (2) the effects on the residents as taxpayers. While none of the four papers in this section goes quite the final step, collectively they point to the conclusion that in a fully general-equilibrium model the distinction between these two subtopics would be erased. As opposed to partial-equilibrium studies, general-equilibrium studies (as pioneered in the field of public finance) compare the real incomes of people before and after an event. To find the true effects of a tax, for example, one looks not at who physically pays the tax, but at how people’s incomes compare before and after the tax is imposed. This is the central economic question related to immigration policy: how does immigration affect the real, after-tax incomes (including non-money benefits) of residents? To take a hypothetical example: An immigrant displaces a resident worker from her job, causing her income to fall precipitously because her unemployment insurance payments are less than her former wage. A partial-equilibrium fiscal-impact study would miss this effect completely, because the unemployment payment is made to a resident, not to an immigrant. A general-equilibrium fiscal-impact study would include this event but might misinterpret it. It might count the unemployment payment as a fiscal burden to residents; but because it goes to a resident, it might also count it as a benefit. Only a fully general-equilibrium economic impact study would interpret the event properly, as a negative impact of immigration upon a resident’s after-tax and after-transfer income.

We are far from being able to carry out such studies, because questions remain unanswered on all aspects of the economic effects of immigration—on wages, non-wage incomes, unemployment, taxes, and public expenditures. The studies in this volume represent a significant step toward addressing these issues.
thors plenty of room to flesh out discussions of immigrants and their socioeconomic incorporation, their role in the labor market, their rights and benefits, the state’s refugee and asylum policies, policies to control illegal migration, and German migration policies seen “through American and Japanese eyes.” Myron Weiner introduces the volume and summarizes its message, arguing that Japan and the United States, as “polar cases,” make interesting contrasts deserving close examination. The book is based on papers presented at two symposiums organized by the Massachusetts Institute of Technology and the Japan Institute of Labour in 1994 and 1995.

The United States is a prototypical country of immigration while Japan has on balance been a country of emigration. Japan did experience four waves of immigration: the immigration of Korean artisans in the eighth century and of outcasts from the Ming dynasty in the 1640s, the immigration of imported Korean and Chinese labor in the 1930s and 1940s, and today’s inflow of highly skilled legal immigrants and of illegal unskilled labor. But larger numbers of Japanese emigrated, particularly in the late 1800s and up to the 1950s, with much of that flow going to the Americas, North and South. More recently, the Japanese Nikkeijin from South America have been returning to Japan to find work. Between 1980 and 1993 this flow amounted to 190,000, making up a racially similar but culturally and linguistically different subpopulation in Japan. About 680,000 Koreans live in Japan, many of them third- and fourth-generation residents at this point. These “old” and new foreign populations, along with assorted others, number 1.3 million. Additionally, there are estimated to be about 300,000 illegal residents. The “immigrant” groups in 1993 made up just 1.1 percent of Japan’s population, much less than the US immigrant share of 8.6 percent.

The story of these immigrant populations represents the most interesting aspect of this volume. Whereas the United States is a largely successful patchwork of ethnic groups, the Japanese regard their ethnic homogeneity as an important source of their phenomenal record of national development. What then to make of these foreigners in their midst? The historical-legal foundations of US pluralism make for successful, though not tension-free incorporation of immigrants into the population at large. In Japan, the “sociologically Japanese” third- and fourth-generation Koreans tend not to be citizens, as Japanese citizenship passes through blood lines, and they continue to face marked discrimination. Although the Nikkeijin are racially Japanese, they tend to live apart in company towns, and they and their children are not fully accepted. The mostly Asian illegal population finds itself in the most precarious position, with limited legal rights and remedies against social ostracism or protection from exploitive employers.

These subpopulations fill distinct and noncompetitive labor market segments ranging from an all-Japanese core to the bargain-basement of “3D” jobs (dirty, dangerous, and demanding) held by illegal immigrants. Kazutoshi Koshiro asks whether Japan needs these immigrants. The Japanese population of labor force age (15 to 59 years) is projected to decline by 7 percent over the coming decade, while the numbers of elderly 60 and older are projected to increase by 25 percent. Koshiro estimates a future demand for half a million additional workers each year, noting that “there is no cause for optimism” about maintaining economic growth without access to unskilled immigrant labor. Yet, the Japanese government main-
tains a policy that is somewhat favorable to skilled, temporary labor but that shuns unskilled workers, calling instead for technological and other solutions. The Japanese interpret the German Gastarbeiter lesson as one where today's temporary unskilled worker is tomorrow's permanent, ethnically distinct, and sometimes problem-causing resident. A parallel concern with the difficulties inherent in long-term or permanent incorporation guides the Japanese state's refugee policy. Few refugees are accepted, although Japan generously funds refugee programs abroad.

But does Japan or the United States have a choice in the matter of immigration? Separate chapters on the efforts to "control" immigration reach equally skeptical conclusions about the ability of these two liberal states to stop unwanted entries. Both countries confront the familiar push factors from developing countries, have aging domestic populations, experience a growing demand for services, and face increasingly segmented labor markets. Japanese firms have been more aggressive than US firms in moving low-paid manufacturing jobs (hence labor demand) overseas. However, both countries fail adequately to use training or temporary-labor programs, and exhibit deficient labor market and entry enforcement mechanisms. Legal or illegal, low-skilled migration may continue, especially if domestic technological innovations and labor-absorbing development in the sending countries fail to materialize.

This is a worthwhile volume, with the "unevenness" among the individual chapters balanced by a wealth of information they provide. Most of the chapters present new materials and include full bibliographies. The chapters are readable although semi-technical in tone and content, and are best suited for advanced students and a sophisticated audience. Some of the chapters stand on their own as contributions to the US literature at least—in particular the chapters by Wayne Cornelius and Peter Schuck, who discuss recent enforcement of immigration regulations and legal developments on immigration respectively. Readers looking for explicitly comparative studies will be disappointed, while those looking for side-by-side discussions of the relevant issues in each country will be rewarded.

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RICHARD E. BILSBORROW (ED.)
Migration, Urbanization, and Development: New Directions and Issues

In 1996, the UNFPA convened an international Symposium on Internal Migration and Urbanization in Developing Countries in preparation for the United Nations Conference on Human Settlements, at which the 13 research papers in this volume were presented. The volume also includes an Introduction by the editor, Richard Bilsborrow, and an Appendix with recommendations from the 1996 symposium. Migration and urbanization scholars will find much of interest in this volume, which is organized into four sections: patterns of internal migration and
urbanization in developing countries; the determinants of internal migration and linkages with economic growth; the consequences of migration; and migration, urbanization capacity, and the world economy.

An overarching theme in the book is that internal migrants are not the main cause of urban growth or problems. Nancy Chen, Paolo Valente, and Hania Zlotnik provide the empirical documentation for that argument in their overview of global and regional trends in urbanization in recent decades. Their data show that, contrary to the widespread claim that internal migration fuels urbanization, in the 1980s urban growth in Africa and Latin America resulted mainly from natural increase; although migration and area reclassification were the major components of urban growth in China, in the rest of Asia natural increase accounted for about half of such growth. The authors reiterate that rural societies are being transformed into urban ones in all parts of the world and that governments wishing to slow urban growth should focus on curbing natural increase rather than rural–urban migration.

The two other chapters in the first section focus on the importance of new migration patterns. John Oucho argues that rural–rural migration is as important as rural-urban migration in sub-Saharan Africa, and José Marcos Pinto da Cunha documents the growing importance of intra-urban migration among metropolitan Sao Paulo’s 36 municipalities and within the capital district. Unfortunately, Oucho’s claim lacks empirical support, while Pinto da Cunha’s argument would have benefited from drawing a distinction between local moves and internal migration, given that “the most significant [intra-urban] flows occur between neighboring municipalities” (p. 134).

The next two sections include empirical examinations of the determinants and consequences of internal migration. This eclectic group of studies offers findings from various parts of the developing world. Although some of the findings are familiar (e.g., those on the demographic or socioeconomic selectivity of migrants, or others on the role of family and household ties in shaping migration), these chapters provide new insights into the migration and urbanization process. Some of the studies develop or apply new methodologies: for example, efforts by Andrew Morrison and Xin Guo to specify a production function methodology to estimate the effects of migration on economic output in Lima and origin areas; and Junming Zhu’s use of multilevel data and techniques to assess the extent to which migration decisions in nine villages in Guangdong prefecture are shaped by human capital, household, and community factors. Other studies provide useful discussion of sampling and measurement issues: for example, an evaluation by Philippe Bocquier and Sadio Traoré of the strengths and weaknesses of the 1993 seven-country survey of migration in West Africa; and Philip Guest’s discussion of how survey methodology shapes the research questions that can be addressed.

The empirical studies provide little evidence or argumentation to support pessimists’ claims that migrants cause or exacerbate urban economic, social, and environmental problems. Although many of the generalizations are based on limited data, they are nonetheless refreshing because they cast new light on migration and urbanization processes. For instance, based on an analysis of migrants to Delhi in the mid-1970s, Biswajit Banerjee concludes that policy efforts to stem rural–urban migration by promoting rural development may not work because those efforts could push more people into income groups that have a higher migration
propensity. Rita Afsar draws a similar conclusion—rural development to improve roads and infrastructure will likely increase nonpermanent migration—based on a study of rural-urban migrants to Dhaka. Nonetheless, Afsar favors improvements in roads on the premise that these would facilitate commuting and circular migration, which, in turn, may deter migrants from settling permanently in urban areas. Guest compares migrants and nonmigrants in Bangkok on several indicators and finds that migrants are more likely to be employed, especially in the transport/production sector and services, and less likely to use such urban services as public transportation because housing tends to be provided by employers and is located proximate to places of work. His study also makes comparisons of return migrants and nonmigrants in areas of origin. Using DHS data to examine fertility impacts of migration in 14 sub-Saharan African countries, Martin Brockerhoff finds that immigration actually depresses total fertility rates at the city and national levels and that migrants adopt the reproductive behaviors of long-time city residents after a few years of urban residence.

Several authors allude to the role of globalization in shaping migration and urbanization, an issue that is explicitly addressed by the three papers in the final section. In the first, Carlos Brambila Paz looks at the historical evolution of Mexican cities in this century in relationship to their changing national and global economic function. He sees the urban system as consisting of a hierarchy of cities, each of which has functional roles and linkages to a rural hinterland as well as to other urban areas. This urban system evolves across time, largely in response to economic forces; policy efforts to decentralize economic activities and population, on the other hand, have not been successful because they have neglected the role of urban management.

A key question in the debate on the effects of rapid urban growth in developing countries is whether cities can meet the employment, housing, and social service needs of the expanding population. Based on a study of coping capacity of Latin American cities, Alan Gilbert makes a strong case that urbanization and migration do not increase urban poverty. In fact, he argues that the quality of life in Latin American cities has improved considerably in recent decades, as measured by trends in employment, housing, and access to services. Gilbert argues further that such urban problems as traffic congestion, air pollution, and rising land prices are due largely to weak governance and fluctuations in national economic growth, rather than to rapid population growth. Economic fluctuations, in turn, increasingly depend upon international forces.

In the final chapter, Dennis Rondinelli and Gyula Vastag advance the globalization argument by developing a model to assess the international competitiveness of global metropolitan areas. They argue that in the twenty-first century, economic growth and standards of living of cities will depend on how their economic enterprises fare in the global competition for trade and investment. Cities likely to do better in international competition are those that have local conditions supportive of businesses engaged in international trade and investment; are located in a country that has a strong national economy; adhere to international trade agreements; and have industries and enterprises that are “agile” competitors. Although potentially useful, the model relies heavily on subjective indicators and results in a ranking of 14 world cities that could probably have been done without
benefit of the model (New York, Frankfurt, San Francisco, and London are at the top of the list and Seoul, Bangkok, Beijing, and Shanghai are the final four).

While I am sympathetic with the optimistic conclusions conveyed by most of the authors, one can only wonder whether these would hold for other regions (e.g., sub-Saharan Africa, South Asia) and for rapidly growing mega-cities (e.g., Lagos, Kinshasa, Cairo, or Calcutta) cursorily examined in this book. For instance, Gilbert’s study of the coping patterns of Latin American cities, which provides most of the evidence for the conclusion that urban population growth has not been a problem, could not be replicated in sub-Saharan Africa and probably not in South Asia because of the lack of data. This fact alone implies that countries need to have a certain level of economic and other resources before they can afford the luxury of investing in data collection efforts.

Indeed, limitations imposed on knowledge by lack of data is a theme highlighted in several chapters. Perhaps the strongest case that improved data are needed before substantive and policy conclusions can be drawn is made by Bilsborrow in the Introduction. He discusses each chapter, pointing to the limitations imposed by the data and sampling techniques. Although such statements imply a need for data collection, Oucho reminds us in his chapter that of the 36 sub-Saharan African countries that carried out a census in the 1980 round, all but one collected data on place of birth and several collected additional data on place of previous residence, duration of residence, and other aspects of migration. Fewer than ten of these countries, however, published the results. Given that publication of data is considerably less expensive than data collection, this suggests that some improvement in knowledge could be gained for a relatively modest cost. One is also encouraged to underscore publication of existing data by seeing the wealth of information that several of the researchers gleaned from census and other administrative data.

This edited collection will appeal primarily to academics and students. Policy-makers, too, should pay attention to this book, given its optimistic tone and implications for resource expenditures. Researchers planning to undertake migration surveys will find detailed discussions of the strengths and weaknesses of different sampling and methodological approaches. Although one will find unevenness in quality in these chapters and more spelling and other errors than might be expected in this wordprocessing era, the collection is a useful contribution to knowledge of a topic that continues to be largely ignored by the demographic community and by funders of research.

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Bill McKibben
Maybe One: A Personal and Environmental Argument for Single-Child Families

Bill McKibben has written lucidly and perceptively about global climate change (The End of Nature); about what is—and, in particular, what is not—available to
viewers on American television (The Age of Missing Information); and about specific contemporary instances of societies that manage to “live lightly on the earth” (Hope, Human and Wild).

In Maybe One he reiterates his concern with environmental issues and the threats inherent in the combination of further increases in human numbers with further increases—at unsustainable levels—in human consumption. His approach is broad based, long term, and commonsensical; his prose lively and intelligible. Like his other books, this one makes for good reading—even if most readers probably could have done without the personal touches dealing with his vasectomy and his love for his little singleton daughter.

McKibben’s reference points are familiar. First, the world’s people are threatening the ecological conditions on which all species depend, and, with the additional increase in human numbers entailed in demographic momentum, will pose more such threats in the not-so-distant future. Second, human numbers and human appetites are causing irreversible changes in our once stable planet. The earthquakes, hurricanes, droughts, plagues, crop failures, and other natural disasters of the past never shook “the basic physical stability of the planet as a whole.” But the recent concentrations at the extremes—of temperature, rainfall, tidal levels—along with the damage to the ozone layer and the build-up of greenhouse gases and the like suggest that the possibility that we live on a new Earth can no longer “be discounted entirely as the fever-dream of cranks.”

McKibben views the next 50 years as “a special time” in which we will see the zenith, or very nearly the zenith, of human population size, as well as, with luck, the maximum production of carbon dioxide and toxic chemicals, and the peak of species destruction and soil erosion. The task is to “squeeze” the world through these next 50 years. The problem being systemic, any solution will require working simultaneously on all parts of the equation—on our ways of life, our technologies, and our population growth.

But McKibben thinks, not unreasonably, that the requisite changes in consumption will be harder to come by than those in fertility. There is too much denial of the existence of limits, and the general momentum of growth economics and rising aspirations runs deeply and powerfully in the wrong direction: “Even as we [Americans] are consuming at levels that would have stunned a medieval monarch, . . . most of us don’t feel particularly rich, which makes it still less likely we’ll make huge changes. . . . [I]n a television-dominated nation, there’s no chance that we might be unaware, even for a day, that someone has more somewhere else.” And television portrayal of consumption and lifestyles in modern industrialized societies is rapidly becoming worldwide.

This leaves fertility limitation: no silver bullet, but it could buy time. It is to the goal of reducing the birth rate by increasing the acceptability of having but one child that most of this book is addressed. McKibben begins with a statement of what he is not saying: that it is wrong to have several children, that governments should coerce people into having smaller families, that population is the main problem. He then presents a brief account of how the negative conventional wisdom about only children took hold. Despite many attempts to find it, empirical support for this “wisdom” is lacking. Single-child families can work and singletons are no different from anyone else.
McKibben effectively refutes the same “wisdom” concerning the “little emperors” arising from China’s one-child policy, as well as the claims by Frank Sulloway, in Born to Rebel, of differences in personality associated with birth order. But his only mention of vulnerability among the parents of singletons is a passing reference to such feelings as one of the points raised by the surgeon who performed his vasectomy. Yet, in the highly risk-averse America of today, with its safety-helmeted Little Leaguers and bike riders, its daily diet of media mayhem, and its widespread gun ownership, one could reasonably expect—whatever the data—that fear of losing a child would be a significant motive for having at least one more for “insurance.” A book arguing for single-child families ought to have addressed this issue.

But all this begs a question. As an only child, I welcome material showing the ordinariness of singletons. And in a period of economic hubris, a brief, well-written discussion about ecological limits can do no harm. But why the need to stop at one? Especially given the vulnerability of single-child parents, would not time, that “little room for ingenuity and discipline and grace” McKibben seeks, be more readily gained by working at the margin: by creating an environment that made it easier for the far more numerous women with two, three, and four children and their partners to decide not to have another child? McKibben’s arguments strike me as relating no more specifically to bearing a singleton than they do to the bearing of any other child.

Washington, DC

LINCOLN H. DAY

SHORT REVIEWS

by Ann E. Biddlecom, Martin Brockerhoff, Geoffrey McNicoll, William Petersen, Michael P. Todaro

JOHN AVERY
Progress, Poverty and Population: Re-reading Condorcet, Godwin and Malthus
London: Frank Cass, 1997. xvi + 151 p. $45.00 ($19.50 pbk.).

The author, an associate professor at the University of Copenhagen, undertook what at first sight might seem to have been a worthwhile project. He reread the works of Condorcet, Godwin, Malthus, and, in part, of such others as the Shelleys, Ricardo, and Francis Place, in order to get a fresh look at the origins of the Malthu-
sian debate. For anyone at all familiar with the subject, however, much of this regurgitation is less than stimulating.

It does not help that the recapitulation is neither complete nor accurate. As Avery points out, Ricardo concluded from Malthus's principle of population that there is an "iron law of wages," which set workers' income at a starvation level (p. 84). In this context it is distorting not to add that Malthus totally disagreed. "Were Malthus and Ricardo right," Avery asks, "in believing that the benefits of progress must inevitably be eaten up by population growth?" (p. 95). In the first edition of the Essay, Malthus wrote not of inevitability but of contingencies; by the sixth edition, he almost reached the conclusion that embourgeoisement of the lower classes, realized by the universal education that Malthus strongly advocated, would eliminate the deleterious effects of rapid population growth.

Having misinterpreted the final version of the Essay, Avery ends by using Malthus's alleged prediction to enlist him in support of the preposterous notion that currently the Earth is running out of food. In his Acknowledgments the author expresses gratitude to Anne Ehrlich, who with her husband has persisted in endlessly repeating this disastrous prognosis, no matter how often it has been proved wrong.—W.P.

FELIX MOSES EDOHO (ED.)
Globalization and the New World Order: Promises, Problems, and Prospects for Africa in the Twenty-First Century

There is a large recent literature about the phenomenon of globalization—of trade, technology, and finance—and its impact on the economies of both developed and developing countries. Within the developing world the emphasis has been principally on Asia and to a lesser extent Latin America. Little has been written about Africa, other than comments offering routine "basket case" descriptions. For this reason, the present collection of 12 essays by a group of African business and social scientists resident at American universities is welcome.

The contributors focus on the effects of economic globalization and political marginalization on Africa now and in the twenty-first century. They view the current economic crisis as both a dilemma and an opportunity for Africa to adjust to the changing environment of international relations. In the opening chapter, the editor, Felix Edoho, examines fundamental questions concerning the cumulative ramifications of globalization for sub-Saharan Africa. He assesses the prospects for Africa's economic transformation, political renaissance, and "sociocultural reengineering" in the new world order. This overview is followed in Part I by a discussion of military regimes and their impact on African economic development, by Elizabeth Garbrah-Aidoo and Louis Osuji; an analysis of economic instability and Africa's marginal role in the new world order, by N. Frank Ekanem; a look at problems of resource allocation in the broader context of sustainable development, by Berhanu Mengistu and Mtumwa Mfikirwa; and a critical evaluation of the impact of recent structural adjustment programs on the persistence of economic crises in Africa, by Osuji.
The three chapters in Part II examine the globalization of technology. In Chapter 6 Edoho discusses the ramifications of rapid scientific breakthroughs and technological innovations in the context of Africa's economic and technological backwardness, identifying both problems and opportunities. Valentine Udoh James offers an incisive analysis of the implications of Agenda 21 for Africa; here the discussion of rapid population growth in the context of sustainable development receives its most direct treatment. Indeed, other chapters avoid discussion of population issues, and there is no entry for population in the index. The book's remaining chapters focus on such topics as trade and regional cooperation, governance, and international development assistance. Although none of the individual essays in this volume is remarkable and few would be likely to find their way into professional journals, together they fill a void in the scant literature on the impact of globalization on Africa's development problems and prospects. Index.—M.P.T.

THOMAS J. ESPENSHADE (ED.)
Keys to Successful Immigration: Implications of the New Jersey Experience
Washington, DC: The Urban Institute Press, 1997. xix + 428 p. $69.50; $26.95 (pbk.).

It is important to assess the consequences of immigration at the state and local levels because, while the federal government has sole authority to establish immigration policy, most costs associated with immigration—financial and otherwise—are the responsibility of local governments. Thomas Espenshade asserts that the many recent studies on regional effects of immigration "have only scratched the surface" of this important issue. Accordingly, this book presents a detailed case study of immigrants in New Jersey around 1990, focusing on their demographic, economic, and social characteristics, issues of assimilation and adjustment, and effects of immigration in the 1980s on immigrants and the US native population. The broad conclusion, supported by analysis of census data and public opinion surveys, is that immigrants to New Jersey have fared remarkably well, and not at the expense of native-born residents. For instance, the foreign-born population has achieved rapid home-ownership, wage growth, and tolerance from natives, as well as incipient political clout and residential desegregation, while low-skilled native workers have not been displaced by the inflow of low-skilled immigrants (indeed, they seem to have benefited). Successful immigration to New Jersey—which contrasts with the experience of states such as California and Texas—is attributed to the relatively high levels of education among its immigrants, their diverse ethnic composition, low levels of illegal entrants, New Jersey's rapid economic growth in the 1980s, and historically liberal attitudes in the Northeast toward immigration that facilitate adjustment. A shorter explanation might be that few of New Jersey's immigrants are Mexican, and that most state residents have benefited substantially from their proximity to New York City and its booming economy.

The editor and several of the authors of the 14 chapters in this book emphasize repeatedly that the successful experience of New Jersey may be replicable in other high-immigration states, despite the radically different contexts in which immigration is occurring among states. Espenshade notes that replication will depend on the federal government's "ability to create immigrant streams that are
diverse, well educated, and reside legally in the United States” (p. 22), as is the case in New Jersey. Suggested reforms include a point system based on fulfillment of desirable qualities for legal entrance, and deposits of several hundred thousand dollars by temporary immigrants to ensure that they do not overstay. Such statements hardly remind one of the inscription on the Statue of Liberty, on New Jersey’s shore: “Give me your tired, your poor, . . . the wretched refuse, . . . the homeless . . . .” To paraphrase the editor, an appropriate national immigration policy, to benefit all states, might instead request: “Give me your most intelligent, wealthiest, and able of willing movers.” To be sure, there are lessons to be learned from New Jersey’s comparative success with immigration, but how such positive experience can inform policymaking in Florida, California, or other states with more formidable problems deserves greater deliberation than it receives in this book.—M.B.


This book brings together 20 previously published articles, many from the journal International Regional Science Review, on major trends in migration over the past three decades. It is designed as a reader for students and researchers in demography, geography, regional science, urban studies, and planning who wish to examine the migration literature in both developed and less developed countries together. The editors hope that this will help to integrate these two bodies of literature. Two additional objectives of the selections included are to highlight overlapping theoretical premises that are often overlooked by researchers and to stimulate further research in the field. The notion of “differential urbanization” is an effort to capture the fact that population concentration and deconcentration are occurring simultaneously in both the developed and developing world. Accordingly, the selections presented in Part One focus on changing views of counterurbanization in the industrial countries. Reprints of articles by B. J. L. Berry, C. L. Beale, D. R. Vining, Jr. and A. Strauss, P. Gordon, and K. Richter focus on trends in the United States since 1970, while reprinted articles by A. J. Fielding, R. Koch, and A. G. Champion examine international trends over the same period. Part Two looks at major trends in migration in the less developed world since 1970, while Part Three examines long-term migration trends and cycles. Reprints of well-known articles by H. W. Richardson and by Vining on international LDC trends complement case studies on Brazil, South Korea, Venezuela, and South Africa. The volume concludes with an essay, presumably by the editors (although unsigned), that attempts to connect some of the disparate themes contained in the articles. This closing chapter defines, discusses, and attempts to measure such concepts as polarization reversal, counterurbanization, and differential urbanization. It also discusses why counterurbanization occurs, the links between developed and less developed country migration, whether polarization and counterurbanization are likely to continue, mainstream versus “undercurrent” (i.e., poorly documented) migration, and the “migration cycle” approach to urban development.
Given the vast literature on migration and urbanization, including several collections of previously published articles, it is difficult to ascertain the contribution of the present volume. While this collection represents a novel attempt to select from both developed and less developed country literature, one does not sense any common theme despite the editors’ attempts at consolidation. Perhaps it would have been more fruitful if the editors, who contribute three of the selected reprints as well as the overview and concluding chapter, had produced a book of their own focused on the various concepts and themes that they attempt to tease out of a diverse set of publications. Index.—M.P.T.

GAVIN W. JONES AND PRAVIN VISARIA (EDS.)
Urbanization in Large Developing Countries: China, Indonesia, Brazil, and India

The four countries analyzed in this book contain over 40 percent of the world’s population; each country’s experience with urbanization therefore is worthy of examination, even if aspects of the experience are not comparable between countries or instructive for smaller developing countries (as the editors claim they are). An introductory chapter by the editors offers fresh insights while thankfully avoiding mere summation of findings from the 14 substantive chapters that follow. The editors note that traditional anti-urban attitudes in China and India are deeply rooted in Maoist and Gandhian thought; that reclassification of rural areas as urban (as much as natural increase or net inmigration) has been responsible for fluctuations in the pace of urbanization; that the blurring of urban and rural boundaries implies that regional development, rather than measures directed at municipalities, may be most effective in managing cities; and that reducing fertility rates is a more effective means of lowering rates of urban growth than attempts to restrict immigration.

The quality of the several chapters on each country varies considerably. Aprodicio Laquian’s assessment of China’s urban strategy and regional development policy makes the startling but ill-supported assertion that “upheavals in Beijing... in the early 1990s may be partly traced to some of the economic and physical planning approaches that have been responsible for China’s rapid growth in the preceding decade” (p. 68). The most interesting chapter on China, by Yokshiu F. Lee, describes the failure of urban housing reforms in the 1980s in the city of Yantai. Rapidly rising prices of commercialized housing and the slow pace of rent increase have reinforced urban housing inequalities in this city and probably in most others in China. With notable foresight, Mike Douglass observes that Indonesia’s reliance on foreign investment in the extended metropolis of Jabotabek as a vehicle to promote national economic growth, which has spurred mega-urbanization in Java, could result in severe negative externalities in the occurrence of a global economic downtown or a downfall of the Suharto regime. Rakesh Mohan thoughtfully critiques India’s longstanding policy of locating industries far from cities, noting that only large cities can “function effectively as incubators for new industrial investment” (p. 314). George Martine and Clélio Campolina Diniz present
an insightful historical review of São Paulo’s emergence as one of the developing world’s largest cities and its population’s deconcentration from the core city in recent years. Their predictable explanations for this deconcentration, however—agglomeration diseconomies, environmental pollution, labor problems, and so forth—are not based on any systematic analysis.

In sum, the book makes a worthwhile contribution to the relatively small literature on urbanization in developing countries. One glaring omission—perhaps the subject for a subsequent book—is consideration of the likely environmental impacts of future urbanization in China, India, and Indonesia, predominantly rural countries whose inevitable urbanization will involve very large populations and may occur under rapid economic growth that threatens sustainable environmental development.—M.B.

MARC LINDER
The Dilemmas of Laissez-Faire Population Policy in Capitalist Societies: When the Invisible Hand Controls Reproduction

Marc Linder, a law professor at the University of Iowa and expert on labor law, has written a dense and instructive study of population policy in the modern state. His thesis is that “the planlessness of the reproduction of the biological basis of the workforce is no more (but also no less) a problem for capitalism than its spontaneous market processes.” In other words, the advanced capitalist societies face difficulties in governing fertility just as they do with the business cycle and other systemic instabilities. The argument is developed in a series of historical essays: on classical population theory and what the author calls “invisible hand Malthusianism”; on the demography of the Poor Laws; on Marx’s demographic theory; on the “birth-strike” debate in pre–World War I Germany (whether working-class women could improve their lot—and promote socialism—by curtailing their fertility); on family size and poverty; and on the history of family allowances. Throughout, the discussion is aimed at illuminating modern issues, which the reader is led to see from a new angle, within a broader context of radical social criticism and the historical debates on poverty and socialism.

The author’s political standpoint manifests itself in a generalized skepticism of laissez faire but also of much social planning. The main lines of argument, however, are less clear than they might be. One reason for this is also one of the book’s principal merits: the remarkable range and depth of reading it evidences—in demography and population policy, economic and social theory (particularly classical and Marxian economics), political history, and social policy—covering the German as well as English literatures. The referencing is exhausting as well as exhaustive, often tending to submerge the analysis. An additional, less admirable reason is the turgidity of style. A fairly representative sample is the following (pp. 15–16): “The new microeconomic demography serves as an apologetics for capitalism and free markets insofar as people—and especially women—take on reproductive labor that has lower exchange value and higher opportunity costs because
they continue to recognize a culturally enhanced use value of procreational production that shifts the ordinary pleasure-pain calculus and seems to lack any market proxies.”

Linder is not optimistic that a solution to the problem of population policy under current circumstances exists. “Societies are imaginable in which [procreative] decisions could be integrated into an interactive process between the democratically formulated needs of the community at large and those of each potential individual procreator, but a militantly competitive capitalism . . . is not one of them” (p. 314). Bibliography, index.—G.McN.

WILLIAM MARSIGLIO
Procreative Man
New York: New York University Press, 1998. xi + 276 p. $55.00; $18.95 (pbk.).

Men’s connections to procreative matters, from prenatal to postnatal, are the focus of this informative book. The author examines two related concepts: procreative consciousness and procreative responsibility. Procreative consciousness is a man’s sense of the procreative realm and of its personal relevance. Procreative responsibility consists of a man’s perceived level of obligation to his social fatherhood roles and the practical aspects of reproductive events, such as being present during a partner’s childbirth. The bulk of the research cited is from the United States.

Marsiglio draws mainly on symbolic interactionism, scripting perspective, and identity theory to examine men’s reproductive experiences, although comparisons are sometimes made with explanations from evolutionary biology and rational choice theories. This spirited inclusion of multiple theoretical perspectives leads to interesting questions about the comparative importance for men of biological versus social fatherhood. The book’s orientation is contemporary and ultimately weighted toward the biological connections to fatherhood. For example, in the chapter on pathways to paternity, far more space is devoted to assistive reproductive techniques than to adoption and stepfatherhood.

Most of the attention to policy concerns men’s rights in abortion decisions and the consequences for child support. The author accurately points out that American women have the right to make abortion decisions, and at no time during a pregnancy do male partners have a legal voice in the matter. Men are obligated to make child support payments regardless of whether or not they wanted the pregnancy brought to term. Men’s groups argue that unmarried men’s willingness to have sexual intercourse should not be treated as their formal commitment to become fathers. Marsiglio takes up this provocative challenge through an interesting contractual approach that would enable men not to be held financially accountable if their partners decided to carry an unintended pregnancy to term.

Overall, important questions are more often raised than answered. For example, is procreative responsibility contingent on a man’s relationship with the child’s mother, or does it depend more on a man’s biological relatedness to the child? And why are so many men in the United States willing to risk causing unintended pregnancy? One is left longing for an understanding of why men take
such chances, much as Kristin Luker’s 1975 book on risk-taking, abortion, and the decision not to use contraception laid some of the groundwork for understanding women’s reproductive decisions. Despite these limitations, readers interested in a social-psychological perspective on men’s reproductive experiences will find this book worthwhile. Index.—A.E.B.

NICHOLAS POLUNIN (ED.)
Population and Global Security
Cambridge: Cambridge University Press, 1998. xii + 316 p. $74.95; $29.95 (pbk.).

Security, in this book, apparently refers to ecological stability and resource adequacy. A reader expecting to learn anything about the demographic dimensions of international politics will be disappointed. It is a collection of essays on population and the environment, covering material that is largely familiar from a slew of similar volumes. The modal author is a retired senior official of an international agency. Most chapters take a strong environmentalist stance, depicting a grim future for the natural world and for humanity unless both population growth in the poor countries and high consumption in the rich are curtailed. On fertility, the policies advocated are mainstream Cairo. On consumption, no policies are offered. Two chapters stand apart from the rest (and from each other) in topic and tone. Garry Trompf, writing on “The attitudes and involvement of religions in population,” gives a neat comparative summary of the relevant doctrines and popular beliefs of the major world faiths along with those of selected “indigenous religions” and “quasi-religions.” He notes the lack of contact within each between its ethical positions on the environment and on human reproduction. Johan Galtung’s “Global migration: A thousand years’ perspective” is a politically incorrect sketch of the clash of “races” (five of them, identified by color) and civilizations (six) through invasion and colonization, ending with a prospect of the presently underpopulated regions ripe for “massive” immigration. Nicholas Polunin, who died in 1997, was an ecologist and head of the Foundation for Environmental Conservation, Geneva. In an odd use of an editor’s prerogative, he has peppered the text with his own footnotes, phrased in the editorial plural (“our wife . . .”)—most of which firmer copyediting would have removed. A “limited edition” of the collection was published in 1994; the essays have been revised for this version. Index.—G.McN.

JAMES E. ROSEN AND SHANTI R. CONLY
Africa’s Population Challenge: Accelerating Progress in Reproductive Health

This report issued by a US-based advocacy agency presents a current “family planners’ view” of sub-Saharan Africa’s population and development situation and the policy directions that should be followed. It is of particular interest in manifesting the effect of the 1994 Cairo conference’s Program of Action on donor thinking about this region. Economic retrogression (with “the average African 22 percent poorer than in 1975”) forms the background, seen as adding to the urgency of
government action rather than itself depressing fertility. Declines in levels of desired family size and increases in contraceptive use are observed starting in the 1980s, coinciding with greatly expanded government efforts to deliver family planning services. Most of the authors' attention is on the scope of those services and on what more needs to be done. That the Cairo recipe will work and is an improvement on the "target orientation" of old-style family planning are taken for granted. Indeed, in the latter respect Africa already is held to have an advantage: "An important difference in Africa is that health concerns, rather than concerns over rapid population growth, have been the primary force behind the expansion of family planning programs in the region. As a result, African programs have avoided the emphasis of some older Asian programs on meeting numerical goals for recruitment of family planning clients. . . . African programs have been generally free of abuses. . . ."

The report's recommendations virtually all start with the words "Governments must . . ." with predicates that entail strengthening program activities and aligning them to better accord with the Cairo emphases on reproductive health. In a few recommendations, NGOs are admitted as relevant actors. The private (for-profit) economy rates only one mention: "Governments and donors must intensify efforts to tap the full potential of the private nonprofit and commercial sectors"—mainly in social marketing. In a region where government failure across a broad span of activities is such a marked feature, the capabilities called for in these policy directions are far from assured. Statistical annex.—G.McN.

SIRIN TEKELI (ED.)
Women in Modern Turkish Society: A Reader
London and New Jersey: Zed Books, 1995. xi + 324 p. $65.00; $25.00 (pbk.).

This collection of papers, which stems from a 1989 symposium in Germany, examines women's lives in modern Turkey in the 1980s. (Earlier versions of the reader were published in Turkish in 1990 and in German in 1991.) The introductory chapter describes a set of inconclusive changes characterizing the 1980s, growing Islamic radicalism being one of the most pronounced departures from recent Turkish history. The volume is organized into six sections that at times seem to impose a contrived unity upon the individual chapters. The first section, on "attractions of tradition," features an interesting chapter on how women's clothing was portrayed in the satirical press at the end of the nineteenth century, in order to contrast the way women in Islamic dress were portrayed then and now. Two chapters on women's roles in the Islamist movement draw on the content of Islamist women's journals and interviews with university women involved in that movement. In fact, the history of women's movements in Turkey is described in a number of chapters throughout the book, providing a needed backdrop to understanding Turkish women's current activism.

The second section, the most cohesive of the book, assesses economic problems confronting women in Turkey. Three chapters consist of analyses of women's marginalization in urban labor markets and their declining gains in social mobility.
through migration and education, and a well-written case study of how gender inequality varies with agrarian transformation, forms of carpet-weaving organization, and household structure. Two further sections cover women’s contemporary experiences in the public sphere—the educational system, rural development, and the media; and the private sphere—highlighted by the exceptionally rich chapter by Hale Cihan Bolak on marital power dynamics.

The last two sections focus on Turkish women’s efforts to organize and participate in social and political change. Problems of widely varying quality of scholarship especially plague the chapters here. Moreover, readers are forced to make large leaps from one level of analysis to another without guiding explanation; for example, a chapter on comparative observations on feminism and the nation-building process is followed by a study of factors linked to domestic violence based on a survey of 140 women admitted to a psychiatric clinic in Istanbul.

It would have been informative to compare conclusions reached in this volume with those from a similar edited volume in 1981 called *Women in Turkish Society*. In fact, one of the less successful aims of the present book is its attempt to identify what has or has not changed in the situation of women since the 1981 publication. This lack of comparison along with vague connections between chapters makes the present volume less useful as a reader on women in modern Turkey than as a disparate collection of papers from which to pick and choose carefully. Index.—A.E.B.

**United Nations High Commissioner for Refugees**

The State of the World’s Refugees: A Humanitarian Agenda

Oxford: Oxford University Press, 1997. xii + 298 p. $16.95 (pbk.).

As public awareness of refugee crises grows in the 1990s—even as the global refugee population declines—the UNHCR has been compelled to issue ever more elaborate editions of *The State of the World’s Refugees*; the annual report has doubled in length since 1993. One benefit of the longer format is more in-depth presentation of refugee problems that have gone largely unnoticed—for instance, internal displacement in Colombia and forced movement and repatriation of the Tuareg in the northern Sahel—as well as detailed discussion of unconventional themes in the refugee and migration literature—for instance, urban refugees and stateless children. The latest edition goes so far as to explain UNHCR’s conditions of support for asylum seekers who are persecuted on the basis of gender—including homosexuals, genitaly mutilated girls, and persons denied their reproductive rights through lack of access to family planning methods of choice. As usual, the volume is an invaluable source of statistics on refugee populations, streams of movement, trends, and policies.

Unfortunately, the book is marred by the inclusion of several sections that are redundant, unfocused, and marginally related to refugee issues. The book covers such topics as the “sources of human insecurity”—global economic restructuring, poverty, insufficient investment in social development, and so forth—that are discussed routinely in other United Nations publications and do not warrant sub-
stantial consideration here. Perhaps because the organization must increasingly defend its high-profile involvement in war-related crises (and seeks to substitute benevolent state action for its own involvement), there is lengthy elaboration at the outset and in subsequent chapters on the military and “war-based economy” roots of current refugee problems. Persons of direct concern to UNHCR—refugees, internally displaced persons, returnees, asylum seekers, and stateless people—are said to share one common trait: insecurity. Yet, this is also the one characteristic that undoubtedly is shared by hundreds of millions of people living in poverty; a more precise rationale for defining the organization’s scope of interest is called for.

The report makes a convincing case for increased public and government attention to refugee problems, despite an apparent decline since the early 1990s in the number of persons considered as refugees. Simply put, the argument is that local conflicts now tend to generate global repercussions (as in the need for military intervention, or the disturbance of trade relations), electronic media provide swift information for public consumption and policy formation, and the potential to resolve refugee problems is greater than ever as a result of increased multinational cooperation for humanitarian response with the end of the Cold War.—M.B.
The United Nations on the Impact of HIV/AIDS on Adult Mortality in sub-Saharan Africa

Surveillance of the global HIV/AIDS epidemic is conducted as a joint effort of the United Nations Programme on HIV/AIDS and the World Health Organization. Their most recent survey charting the continuing spread of the disease around the world (Report on the Global HIV/AIDS Epidemic—June 1998, Geneva: UNAIDS and WHO, 1998, 75 p.) estimates that by the beginning of 1998 a total of 30.6 million people (of which 1.1 million children under age 15, and 12.2 million women) were infected with HIV, the virus that causes AIDS, and that 11.7 million people (of which 2.7 million children and 3.9 million women) had already lost their lives to the disease. The number of people newly infected with HIV in 1997 is estimated as 5.8 million (of which 590,000 children and 2.1 million women). The number of AIDS deaths in 1997 is estimated as 2.3 million (of which 460,000 children and 800,000 women). The number of AIDS orphans—children who lost their mother or both parents to AIDS when they were under the age of 15—since the beginning of the epidemic is estimated as 8.2 million. The geographic distribution of the 30.6 million persons living with HIV/AIDS is as follows: sub-Saharan Africa: 21 million; South and South-East Asia: 5.8 million; Latin America: 1.3 million; North America: 860,000; Western Europe: 480,000; East Asia and the Pacific: 432,000; the Caribbean: 310,000; North Africa and the Middle East: 210,000; Eastern Europe and Central Asia: 190,000. The geographic patterns of the spread of the disease are uneven. The Report notes that infection rates are rising rapidly in much of Asia, Eastern Europe, and southern Africa. The picture in Latin America is mixed, with prevalence in some countries rising rapidly. In other parts of Latin America and many industrialized countries, the number of infections is falling or is close to stable.

The impact of the epidemic is particularly severe in sub-Saharan Africa: some 83 percent of the world’s AIDS deaths have been in this region. A section of the Report, reproduced below, presents newly available sophisticated estimates of the impact of the epidemic on adult mortality in some of the most severely affected countries in that region.

In many countries HIV is known to have contributed to a major rise in adult death rates, although measuring that rise is a challenge, especially in developing countries. Different types of studies can each provide one piece of the jigsaw, however. Putting them together builds up an alarming picture which shows that HIV is responsible for a massive increase in death among men and women in their most productive years.
A recent analysis of sibling survival reported in Demographic and Health Surveys carried out by a number of African countries shows that death rates among adults aged 15–60 more than doubled in some countries in the late 1980s and early 1990s. As Figure 1 shows, Zimbabwe, which had relatively low adult death rates before the onslaught of AIDS, saw adult mortality among men nearly triple between 1988 and 1994. Among women the probability of dying between age 15 and 60 more than doubled over the same period. In Zambia, mortality among men nearly doubled, as shown; among women it increased by two-thirds.

It is important to bear in mind that because of the long lag time between infection with HIV and death, any rise in death rates due to AIDS will reflect infection rates of several years ago.

The survey data do not record who died of what. But if we assume that the rise in adult deaths in Zimbabwe, for instance, was at least in part due to HIV infection, we must expect worse to come. Data from the 1994 survey suggest that adult death rates rocketed between 1988 and 1994. To the extent those deaths were HIV-associated, they most likely reflect infections that occurred several years earlier, around the mid-1980s. At that time, the country was just at the start of a steep growth in infection: under 10% of the adult population of Zimbabwe was estimated to be infected with HIV in 1985. Now, between a fifth and a quarter of Zimbabwe’s adults are believed to be HIV-positive.

National data also indicate that the bulk of the increase in adult death is in the younger adult ages—a pattern that is common in wartime and has become a signature of the AIDS epidemic, but that is otherwise rarely seen. Of course, this increase in adult mortality may be from causes other than HIV. Looking at smaller community-based studies that have information on HIV status and record causes of death can help give an idea of how many of the extra deaths HIV might be responsible for.

Studies in rural areas of East Africa confirm that a huge proportion of adult deaths can be laid at the door of HIV, as Figure 2

FIGURE 1  Increase in mortality among men 15–60* between 1986 and 1997, based on household reports (sibling histories), selected African countries

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*Changes in the probability of dying between ages 15 and 60 years (q_{15}^a - q_{60}^a) [Ed.]

SOURCE: Timaeus I, London School of Hygiene and Tropical Medicine, from Demographic and Health Survey data.
shows [Figure 18 in the original]. Where just 4% of adults are infected with HIV, the virus accounts for 35% of all adult deaths. At HIV levels of around 10%, prevalence rates observed in many parts of East Africa, the presence of the virus in a population more than doubles the probability of dying at working age. And where one in five adults are infected, 75% of deaths are due to HIV.

In specific age ranges HIV is responsible for an even higher proportion of deaths: in an area where overall HIV prevalence is 8%, HIV accounts for four out of five deaths between the ages of 25 and 34—a time when most people are forming families and laying the foundations for their professional lives.

**Life expectancy**

Clearly, death rates at child and especially adult ages are higher because of HIV/AIDS than they would be without the disease. How does that affect life expectancy at birth, the measure of health status most commonly used by policy-makers to assess progress in human development?

Figure 3 [Figure 19 in the original] compares life expectancy in the community as a whole with life expectancy among adults who were HIV-negative in a Ugandan study where 8% of adults were infected with HIV. The presence of the virus in the population even at low levels knocked 16 years off life expectancy in the community as a whole.

Projections made by the United Nations, illustrated in Figure 4 [Figure 20 in the original], suggest that many countries will take decades to recover losses to life expectancy caused by HIV. Botswana, where great strides had been made in increasing life expectancy, will see a particularly dramatic fall. Although the epidemic arrived later in Botswana than in East African countries, its growth has been explosive. The government now estimates that a quarter of the population aged 15–49 may be infected. The impact on development is already becoming clear. Between 1996 and 1997, the country dropped 26 places down the Human Development Index, a ranking of countries that takes into account wealth, literacy and life expectancy.
FIGURE 3  Life expectancy in a rural Ugandan community, total population and HIV-negative population, 1994–1995

![Life expectancy chart]


FIGURE 4   Projected changes in life expectancy in selected African countries with high HIV prevalence, 1955–2000

![Projected life expectancy chart]

Sound assessment of the public interest in population matters and informed discussion of population policy presuppose that reasonably accurate data are available on population size and dynamics. In the developing world, of the two traditional sources of demographic information, census and vital registration, the former, presenting a quantitative description of the population at a given moment of time, has shown considerable improvement in recent decades. In contrast, data on population flows, notably accurate information on the number of births and deaths over time, remain highly deficient in many developing countries; indeed, existing systems of registration sometimes have shown retrogression in timeliness and coverage. Paradoxically, progress in statistical techniques, notably the increasing sophistication of sample survey methodology, has contributed to this situation. Sample registration systems can provide valuable information on many aspects of population dynamics, including estimates of birth and death rates on the national level, and to some extent for subnational aggregates. But their use seems to have lessened the incentive for developing comprehensive vital registration systems, even though for more refined and continuous monitoring of population change such systems are an essential requirement. Vital registration is also important for the individual in legal matters and is a condition of sound administration of various public programs—in public health, education, social welfare, and social security—commonly found in modern states. Proper proof of birth, age, and death is a requisite of sound development of market-based insurance schemes.

Selecting the topic of birth registration as one of the main themes addressed in its recent report Progress of Nations 1998, the United Nations Children's Fund (UNICEF) presents a cogently reasoned argument why such registration is important, offers a critical description of the deficiencies of birth registration in developing countries, and issues a strong call for improvement. Although quantitative assessment of the degree of completeness of birth statistics is itself a difficult estimating problem when a large percentage of births remain unregistered, the report concludes that some 40 million births per year—about one-third of all births—go unregistered.

Excerpts from the report are reproduced below. The first section discusses the deficiencies of birth registration and presents UNICEF’s rough regional and country estimates of the incompleteness of birth registration. The second section consists of an excerpt from an incisive commentary on the topic written for the report by Unity Dow, a High Court judge in Botswana.
Birth registration: Flawed figures

“The child shall be registered immediately after birth . . . ” mandates article 7 of the Convention on the Rights of the Child. But despite almost universal ratification of this human rights treaty, one third of all births—about 40 million babies—go unregistered every year. While the industrialized nations register virtually all their children, civil registration systems are still rudimentary in many developing countries. [See Figure 1 below.] Many are uncertain as to what proportion of their children are registered; some do not even have a registration system. For these reasons, the league table [see below] presents broad percentages of coverage rather than precise numbers.

The problems in estimating registration coverage include the following:

—While many countries have estimates of the percentage registered, most of these estimates are approximate. Very few countries have made the effort to assess coverage objectively and thoroughly.

—Registration rates differ widely within many developing countries. Cities tend to have higher rates than rural areas because civil registries are centralized. Similarly, babies born in hospitals are more likely to be registered than babies born at home because the registration process often takes place in the hospital.

—In many countries, ethnic minorities have lower rates of registration than the general population.

—Despite the fact that the Convention on the Rights of the Child calls for children to be registered “immediately after birth,” many children are registered later in life, such as when they enrol in school.

—Civil registration systems lag in sub-Saharan Africa because of underdevelopment. In some countries, the leftover structures of colonial governments, which in many cases did not register the black population, have impeded progress on registration.

—The responsibility for registering children at birth typically falls on mothers, adding another burden to their heavy workload. This is especially true in Africa and southern Asia where more than half of babies are born outside of hospitals.

The evidence of improvement in birth registration coverage is mixed. While many countries report increasing rates of registration, coverage is falling in others. Rates in Kyrgyzstan and Tajikistan have declined in the past 10 years due to the disintegration of administrative structures following the break-up of the Soviet Union. China’s registration system is being strained by an increasingly mobile population.

Registration must not be left to chance. Better quality and more timely information is vital to fulfilling children’s rights and for national planning, and it is not that difficult to obtain. Countries including Brazil, Pakistan and Turkey have recently used household surveys to assess birth registration coverage.

These surveys also highlight disparities within countries. In Pakistan, for instance, Punjab Province registers 88% of children, while in North-West Frontier Province the figure is only 46%. Turkey’s western region has a coverage rate of 84%, compared to the figure in the east—56%.

So far, too few countries have taken birth registration seriously. All developing countries need to assess their current status, set specific targets for improvement and follow up with regular monitoring.

League table for birth registration

A birth certificate is a child’s proof of identity and represents the first acknowledgement of his or her significance to the country. Proof of birth is needed for a number of services, and it offers a degree of legal protection. But too few developing nations take birth registration seriously, and rates vary widely within and between countries. Some nations do not even know what percentage of their citizens are registered. All developing countries need to assess their status, set targets for improvement and make sure they fulfil them.
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<th>FIGURE 1 Regional disparities: Unregistered births*</th>
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*Does not include countries for which no data are available.

SOURCE: UNICEF.
Birth registration: The ‘first’ right

Commentary by Unity Dow

Hidden behind the well-known images of children who have missed out on life’s opportunities for want of adequate care is a huge but silent group of children denied another fundamental right: the right to a name and nationality. These children are denied their birthright by their very invisibility. Lacking birth certificates, they spend their lives on the edges of the ‘official’ world, skirting or falling over obstacles that never arise in the paths of those who had the good fortune to be registered when they were born.

In the scheme of things, the need for a birth certificate may not seem profound, especially when compared with the hurdles children routinely have to scale in developing countries. But in reality, that piece of paper is crucial. It is the proof that what might be called the ‘first’ right, the right to an official identity, has been fulfilled.

Registration of birth is the State’s first acknowledgement of a child’s existence. It represents recognition of a child’s significance to the country and of his or her status under the law. This ticket to citizenship opens the door to the fulfilment of rights and to the privileges and services that a nation offers its people.

Without proof of birth, a child cannot be legally vaccinated in at least 20 countries. More than 30 countries require birth registration before a child can be treated in a health centre. Many require one for supplemental feeding programmes. Such fundamental activities as getting married, opening a bank account, owning land, voting and obtaining a passport may be denied to a person without a birth certificate, because it is the basis on which a country identifies its citizens.

In addition to conferring privilege, proof of birth can also protect. With it, a boy can verify that he is ineligible for military service, a girl that she is too young to go to work. Registration can offer a degree of protection from sex traffickers. Knowing that a girl without papers is more vulnerable and less likely to run away, traffickers typically snare their victims in remote villages where poverty is high and registration rates are low.

And a birth certificate can be a useful ally in the hands of a teenager accused of a crime. I am presiding over a murder trial of a young man who doesn’t have a birth certificate. If convicted, he could face the hangman’s noose because he cannot prove that he was under 18 at the time the crime was committed.

If birth registration is significant for the individual, it is profound for the nation. Without vital registration systems capable of determining how many people live within a country’s borders, the authorities may not know how many doses of vaccine to buy or how many schoolrooms to build. Without a registration system, a country does not know its own birth rate—or death rate. An effective system of birth registration is fundamental not only to the fulfilment of child rights but to the rational operation of a humane government in the modern world.

Millions are ‘missing’

The number of people who have been denied the right to birth registration is unknown, and therein lies the problem. Many countries simply do not have adequate systems for keeping track. The available data suggest that many millions of citizens have slipped between the cracks—or, more accurately, the chasms—of government registries. Every year, around 40 million births go unregistered.

The right to be registered at birth is rooted in article 7 of the Convention on the Rights of the Child. It states: “The child shall be registered immediately after birth and shall have the right from birth to a name [and] the right to acquire a nationality. . . .” There is no equivocation here; the 191 countries that have ratified the Convention are obligated to fulfil this pledge.

And they are obligated to make clear to their citizens why it is important. In rural societies where people live their entire lives within a small radius, where the teacher is your neighbour and the health worker your aunt, the idea that you need a piece of paper to prove your existence may be unfathomable. And to suggest that children must be registered for
purposes of government planning is in some cases plainly threatening.

But the world is changing, and the circles in which people spend their lives are enlarging. In this far more complex and anonymous environment, proving nationality is not a utopian exercise in child rights. It is a practical necessity. Whether migrating to the city for work or fleeing armed conflict across a national border, a person who lacks proof of identity is, in the eyes of officials, a nonperson.

Governments need to make the process easier. Many hospitals now begin the registration process as soon as the baby is born, but that is only a partial solution. In some areas of the world, such as Africa and southern Asia in particular, more than half of all babies are delivered outside hospitals.

A country’s birth registration system may fail, by accident or design, to function for all the people. Myanmar has three levels of citizenship: Since 1982, only people who can prove continuous residence and no intermarriage back to their great-grandfathers have been granted full citizenship. Until recently in Thailand, many children of the 750,000 hill tribe population were not eligible for nationality because their parents are not Thai citizens.

The obstacles to registration are often banal, the product of misplaced priorities and bureaucratic inadequacies. Poor and rural countries tend to have lower registration rates, struggling as they must to cope with the inevitable shortages of trained personnel and modern technology, the logistical problems of travelling to registry offices and ignorance or fear of the process. As a result, birth registration lags in countries such as Sierra Leone, which has a registration rate of less than 10 per cent; Zimbabwe, with around one third registered; and Bolivia, where about half the people have a birth certificate.

Yet other countries, though dealing with economic and other difficulties, still manage to register a significant proportion of their children. Despite per capita gross national product of less than $800 a year, eight countries—Armenia, Azerbaijan, China, Honduras, Kyrgyzstan, Mongolia, Sri Lanka and Tajikistan—manage to register at least 90 per cent of births.

Some countries have not managed even to establish a mandatory birth registration system, among them Afghanistan, Cambodia, Eritrea, Ethiopia, Namibia and Oman. Some of these countries may keep other forms of records—such as Oman, which records children in a national health register once they visit a health centre—but such procedures are prone to errors of both omission and commission. They cannot replace a dedicated birth registration system. The Palestinian Authority is in the process of developing such a system, transferring birth data from the records of the Israeli Government.

There are many specific reasons, some of them quite rational, why families avoid registering their children. Most commonly, they simply cannot overcome the logistical hurdles of getting to the proper office, and governments must take steps to solve this problem by decentralizing the registrars. Registration may also conflict with tradition, or ethnic minorities may view it as an official attempt to dilute their culture.

In Madagascar, where traditional naming practices are considered sacred, the civil registration system is not widely regarded as worthwhile. In Kenya, birth registration became compulsory for whites in 1904, but only in 1971 did it become mandatory for all. Viewing registration as a colonial custom unconnected to their culture, many citizens were slow to accept its benefits.

A person who is knowingly skirt ing the law will certainly be reluctant to report vital events to the government. So it is no surprise that in China a main reason for nonregistration at birth is nonconformance with the prescribed family planning policies.

Sometimes the system itself is an obstacle. This fundamental right costs money in at least 50 countries, which charge for either the registration or the certificate. Or the procedure may be clouded in bureaucratic confusion, as in Indonesia, where collection of birth information is complicated by the overlapping jurisdictions of government and civic bodies: the Ministries of Interior, Justice, Health and Family Welfare, as well as the Central Bureau of Statistics.

Parents in China have 30 days to register a child’s birth, but they must do so in the village of the mother’s official residence, a
The 1997 Asian financial crisis began in Thailand and spread quickly to other countries of East and Southeast Asia, acquiring broader economic and political dimensions. No country has been affected as severely as Indonesia, where the outcome has been a large contraction of the economy, a currency depreciation of some 80 percent (and consequent inflation), massive capital flight, widespread corporate insolvencies, disruption of trade and distribution systems, and a drastic fall in living standards. Riots in Jakarta and some other cities, aimed especially at businesses owned by Chinese Indonesians, led to many deaths and much physical destruction. There were compounding factors: drought associated with the El Niño phenomenon had caused serious crop losses and forest fires earlier in 1997; and anticipation of a leadership succession—the first since the 1960s—created major political uncertainties. (Suharto was elected to a seventh five-year term as president in March 1998, but resigned under pressure two months later.) Coming after 25 years of growth in GNP per capita averaging 5–6 percent per year, along with a decline in the proportion of the population in poverty (those with incomes below a level roughly equivalent to US$1 per day at 1985 prices) from above 40 percent to about 10 percent in the same period, the reversal of fortune in Indonesia is astonishing. The sheer size of population—some 205 million—adds to the gravity of the situation.

The social effects of the crisis, observed and projected, and proposed responses to them are discussed in a World Bank document “Addressing the Social Impact of the Crisis in Indonesia,” a background note prepared for the meeting of the Consultative Group for Indonesia (CGI) held in Paris on 29–30 July 1998. The CGI is a consortium comprising Indonesia and its principal donors, both countries and international agencies. The note focuses on increases in poverty—resulting from price rises for food and fuel and higher unemployment—and on the consequent lessened affordability of health services and education. An excerpt from this note is reproduced below.

The note does not explore possible demographic consequences. The nearest comparable experience in Indonesia’s history was the Great Depression. Fertility (or net child survival)
declined over the 1930s, on the evidence of later age distributions (see Recent Trends in Fertility and Mortality in Indonesia, Report No. 29, Committee on Population and Demography, National Research Council [Honolulu: East-West Center, 1987], pp. 25–28). Any such effect now might be amplified by the puncturing of aspirations created by the decades of improving economic and social conditions—during which fertility has fallen strongly (from a TFR of around 5.5 in 1970 to 2.9 in 1995). On the other hand, the affordability of modern contraceptives will likely diminish. The increased numbers in poverty may lead to a rise in mortality, especially infant mortality. A potential migration effect would be the forced repatriation of some of the million or so undocumented Indonesian workers in Malaysia—an economy that has also suffered, though far less seriously.

The magnitude of the shock and its consequences

In the year since the last CGI [Consultative Group for Indonesia] meeting, the earth has moved in Indonesia. Many saw the seismic pressures building: the increasing unhedged private foreign borrowing, the growing fragility of a financial system based on shaky regulatory and legal foundations, the increasing “slippage” in government programs at every level, an aging leader with no clear successor, spectacular wealth being accumulated through “KKN” (the Indonesian acronym for “corruption, cronysim, and nepotism”), and rising social resentments.

But while the risks from each of these was apparent, just as with earthquakes, few could have predicted the speed or scale of the crisis that swept Indonesia in the past year:

— the collapse of the exchange rate from 2,500 to levels as low as 15,000 has contributed to one of the largest real depreciations in the post–world war two era;

— the turnaround in growth of 22 percentage points (from positive 7.8 percent in 1996/97 to possibly negative 10–15 percent for 1998/99) dwarfs anything experienced in the OECD countries since the Great Depression;

— the $22 billion reversal of private capital flows from inflows of $10 billion in 1996/97 to outflows of $12 billion in 1997/98 is nearly as large as the total net private capital flows in the entire decade to 1985–95;

— this financial and economic crisis has been accompanied by natural disasters. The drought occasioned by El Niño reduced rice harvests and agricultural production generally and severe localized droughts contributed to uncontrollable forest fires;

— the price of Indonesia’s key export, oil, has fallen to $13 a barrel, its lowest level in real terms in 30 years;

— enormous political changes are taking place.

This historic combination of events is creating severe economic and social dislocation for many Indonesians.

While Indonesia is justly proud of its rapid poverty reduction since the 1970s, the present crisis will see large scale reversals of that progress. Table 1 shows just one possible estimate of the increase in poverty due

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>Changes in poverty due to falls in real incomes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Change, 1998–2000</td>
</tr>
<tr>
<td>Using standard poverty line</td>
<td></td>
</tr>
<tr>
<td>Headcount*</td>
<td>10.1</td>
</tr>
<tr>
<td>Millions</td>
<td>20.5</td>
</tr>
<tr>
<td>Using a poverty line 25% higher</td>
<td></td>
</tr>
<tr>
<td>Headcount*</td>
<td>22.6</td>
</tr>
<tr>
<td>Millions</td>
<td>45.5</td>
</tr>
</tbody>
</table>

*percentage of people below poverty line [Ed.]
SOURCE: World Bank staff calculations, which update the poverty estimates from the 1996 SUSENAS data assuming (distributionally neutral) changes in occupationally specific consumption expenditures equal to changes in actual and predicted real GDP at the sectoral level (e.g. the incomes of workers reporting “agriculture” as their principal occupation as assumed to change by an equal percentage amount as agricultural GDP). The assumed change in GDP is negative 14 percent in 98/99 and zero in 99/00.
to the crises. Using the standard poverty line, the simulations forecast that the proportion of Indonesians living in poverty will increase from 10 to 17 percent, thrusting an additional 15 million people into dire poverty.

However, any particular absolute poverty line is potentially misleading, as many people who may not be “extremely poor” are just as likely to be hurt by the crises. This is especially true in Indonesia, as one consequence of having a relatively equal distribution of incomes is that there is a large clustering of people near the poverty line.

For instance, if the expenditure level that defines poverty is just 25 percent higher than the estimate of people currently in poverty doubles, to 45 million, and the additional number estimated to fall into poverty due to the crises increases to 25 million, with 71 million in poverty.

Other estimates of the impact of the crisis on poverty are even higher. One estimate includes both the effect of falling income and changes in relative prices to conclude that poverty could rise to 53 million. A report by the Asian Development Bank combines both output falls and the real income effect of rising prices and estimates that rural poverty among Indonesia’s 80 million farm households could rise by as much as 40 million. This means that if there are roughly an additional 10 million urban poor, as many as 50 million additional Indonesians could face a descent into poverty.

Problems and response

Worrying about the exact numbers of the poor is less important than immediate action to stabilize the economy, to restore growth in real incomes, and to mitigate the tragic human consequences of the crisis.

Take the point of view of a poor family struggling to maintain their standard of living. What problems do they see?

- rising prices, including necessities like rice and cooking oil, eroding real incomes;
- falling incomes due to lower real wages, fewer opportunities for formal work, and rising unemployment; and
- increasing difficulty in providing a future for their children through investments in their health and education.

People will struggle to protect themselves against these reversals through a variety of means: working longer hours, increasing informal economic activities, depleting savings and selling assets, drawing on informal social support networks. But there are three broad areas for public sector action to help the poor, including promoting the availability and affordability of key commodities, creating employment opportunities, and preserving social services.

Successful public action is far from guaranteed. Although there has been a political change at the very top, the government agencies and institutions now expected to carry-out social safety net actions are very much the same: centralized and top-down with little citizen participation, lacking in transparency and accountability, and potentially susceptible to “KKN.” Introducing mechanisms for monitoring and institutional reform is an integral part of creating a response to the social impacts.
International Migration 1965–96: An Overview

HANIA ZLOTNIK

Various measures of international migration are used to discuss trends since 1965. Estimates of the migrant stock in each country of the world for 1965 and 1990 are used to assess changes at the global level. For developed countries, flow statistics permit the analysis of trends in South-to-North and East-to-West migration over 1965–96. Analysis of trends in other world regions is made on the basis of less comprehensive data. Labor migration to Western Asia and the Pacific Rim is assessed using statistics on contract clearances issued by sending countries. Data compiled by UNHCR are used to evaluate trends in forced migration. The resulting overview captures both the continuity and change exhibited by migration trends since 1965.

Infant Abandonment and Adoption in China

KAY JOHNSON
HUANG BANGHAN
WANG LIYAO

This article reports the findings of a research project conducted in 1995–96 on infant abandonment and adoption in China. These two practices were found to be closely linked. Restrictive birth planning policies combined with parents’ perceived need for a son produce patterns of abandonment that primarily affect higher-parity daughters in sonless families. A lesser, but nonetheless strong desire for daughters among daughterless families leads to adoption as a means to remedy this situation as well as a means to overcome childlessness. These aspects of contemporary Chinese culture—the desire for daughters and the willingness to adopt unrelated children as a method of family construction—have helped alleviate the ill effects of increased infant abandonment in the 1980s and 1990s by leading many families to adopt foundlings. Because government laws and regulations discriminate in various ways against foundlings and over-quota children, and punish the parents who raise them, much of this popular solution to a difficult social problem has taken place outside of official channels and institutions. There is hope that legal changes may soon alter this situation.

Population Statistics, the Holocaust, and the Nuremberg Trials

WILLIAM SELTZER

Drawing on a variety of sources, the article examines how population statistics were used by the Nazis in planning and implementing the Holocaust and how the data systems that gathered these statistics and other information were also employed to assist in carrying out the Holocaust. This review covers experience in Germany, Poland, France, the Netherlands, and Norway. Attention is also given to the role played in this work by some of those then professionally active in demography and statistics. The use and impact of perpetrator-generated Holocaust mortality data and other estimates of Jewish losses presented at the Nuremberg trials are then described. Finally, present-day implications of the historical experience under review are discussed. These include: the lessons for formulating prudent national statistical policies, approaches to investigating future genocides and prosecuting those believed responsible, and the need for increased attention by statisticians and demographers to the ethical dimensions of their work.

Sociodemographic Differentials in Adult Mortality: A Review of Analytic Approaches

ROBERT A. HUMMER
RICHARD G. ROGERS
ISAAC W. EBERSTEIN

Sociodemographic differences in US adult mortality, although increasingly better docu-
Migration internationale de 1965 à 1996 : vue d’ensemble

HANIA ŻLOTNIK

Différentes méthodes servant à évaluer la migration internationale et à en discuter les tendances depuis 1965 sont utilisées dans le présent article. À l’aide d’estimations de la population de migrants dans chaque pays du monde pour les années 1965 et 1990, on tente d’évaluer les changements au niveau mondial. En ce qui a trait aux pays développés, les statistiques de flux permettent l’analyse des tendances migratoires du Nord au Sud et de l’Est à l’Ouest entre 1965 et 1996. L’analyse des tendances dans d’autres régions du monde est effectuée à partir de données moins exhaustives. La migration de la main d’œuvre en Asie occidentale et dans les pays côtiers du Pacifique est estimée à l’aide de statistiques sur les permis de contrats émis par les pays visiteurs. Les données compilées par le Haut Commissariat des Nations Unies pour les Réfugiés sont utilisées pour évaluer les tendances de la migration forcée. La vue d’ensemble qui en découle saisit autant la continuité que le changement qu’affichent les tendances migratoires depuis 1965.

Abandon et adoption d’enfants en bas âge en Chine

KAY JOHNSON
HUANG BANGHAN
WANG LIYAO

Le présent article présente les résultats d’un projet de recherche mené en 1995–1996 sur l’abandon et l’adoption d’enfants en bas âge
en Chine. Il a été démontré qu'il y avait un rapport étroit entre ces deux pratiques. Des politiques de planification familiale restrictives, combinées au besoin d'avoir un fils que ressentent les parents, produisent des modèles d'abandon qui touchent principalement les filles dans les familles sans fils. Un désir moindre, mais tout de même fort, d'avoir des filles dans les familles où il n'y en a pas, pousse à l'adoption pour remédier à cette situation ou pour surmonter l'infécondité. Ces aspects de la culture chinoise contemporaine, à savoir le désir d'avoir des filles et la volonté d'adopter des enfants à l'extérieur de la famille pour bâtir une famille, ont contribué à atténuer les conséquences désastreuses de l'abandon croissant d'enfants en bas âge dans les années 1980 et 1990 en permettant à bon nombre de familles d'adopter des enfants trouvés. Étant donné que les lois et règlements gouvernementaux exercent de diverses façons une discrimination contre les enfants trouvés et ceux provenant de familles qui ne respectent pas les quotas, et punissent les parents qui élèvent ces enfants, cette solution populaire à un problème social difficile s'exerce en grande partie à l'extérieur des voies et des institutions hiérarchiques. Il y a cependant de l'espoir que des réformes du droit modifieront cette situation.

**Statistiques démographiques, l'Holocauste et les procès de Nuremberg**

**WILLIAM SELTZER**

Puisant dans différentes sources, le présent article examine la façon dont les statistiques démographiques ont été utilisées par les Nazis pour planifier et mettre en œuvre l'Holocauste d'une part, et la façon dont les systèmes de données qui ont recueilli ces statistiques et autre information ont également été utilisés pour exécuter l'Holocauste. Des relevés ont été recueillis en Allemagne, Pologne, France, les Pays-Bas et Norvège. On s'attarde également sur le rôle joué par certains milieux professionnels de cette époque qui étaient actifs en démographie et en statistiques. L'utilisation et l'incidence des données sur la mortalité et autres estimations des pertes chez les Juifs causées par les agressions lors de l'Holocauste et qui ont été présentées aux procès de Nuremberg sont discutées. Enfin, les implications actuelles de l'expérience historique en question sont discutées, à savoir : les leçons à tirer pour formuler des politiques de statistiques nationales éclairées, les façons d'aborder l'investigation de génocides futurs et les poursuites de ceux que l'on estime responsables, et la nécessité que les statisticiens et les démographes accordent plus d'attention aux dimensions morales de leur travail.

**Différentielles sociodémographiques dans la mortalité adulte : étude des démarches analytiques**

**ROBERT A. HUMMER**
**RICHARD G. ROGERS**
**ISAAC W. EBERSTEIN**

Bien que les différences socio-démographiques dans la mortalité adulte aux États-Unis soient de mieux en mieux documentées, elles demeurent mal comprises. Les études de mortalité différentielle adoptent souvent des approches descriptives dont la portée est étroite et la conception, ambiguë. Après avoir présenté une discussion sur les approches conventionnelles qui sont utilisées pour l'analyse de différentielles dans la mortalité adulte, les auteurs posent une série de questions dans le but d'axer la recherche sur la mortalité différentielle dans des directions nouvelles et pertinentes du point de vue de la causalité. Parmi ces nouvelles directions, on mentionne la modélisation de la mortalité différentielle dans une optique de facteurs déterminants directs, l'incorporation du temps dans les modèles de mortalité différentielle, l'inclusion d'indicateurs de résultats plus raffinés et l'utilisation d'une perspective macro-niveau permettant de mieux comprendre les différentielles de mortalité. Des exemples d'études récentes qui explorent ces directions sont décrits brièvement.
Politique démographique à l’époque du fascisme : observations sur des documents récents
CARL IPSEN
Le présent article examine de façon générale la documentation sur la population et les politiques en Europe de l’Ouest durant la période entre les deux guerres qui a paru au cours des 15 dernières années; de plus, il étudie à fond certaine documentation qui traite de la «bataille démographique» du fascisme en Italie, sujet de la recherche personnelle de l’auteur. Les politiques démographiques (ainsi que les théories démographiques) de cette période chevauchaient obligatoirement les préoccupations raciales et eugéniques, et ces questions sont également examinées. La prolifération récente d’études nationales—sur l’Angleterre, l’Allemagne et l’Italie, en excluant la France, ce qui est surprenant—insiste sur une nouvelle synthèse.

Le rythme du déclin de la mortalité au Japon converge-t-il vers des tendances internationales?
JOHN R. WILMOTH
L’espérance de vie au Japon a augmenté à un rythme sans précédent dans les années qui ont suivi la dernière Guerre mondiale. Vers les années 1980, le Japon avait atteint sa position actuelle de chef de file à l’échelle mondiale en ce qui a trait à la moyenne de longévité. Cependant, après avoir rattrapé puis dépassé les autres pays, le rythme du déclin de la mortalité au Japon semble maintenant converger vers des tendances internationales.

Migración internacional, 1965–96: Una visión general
HANIA ZLOTNIK
Se usan varias medidas de migración internacional para presentar las tendencias observadas desde 1965. Para evaluar cambios a nivel global se utilizan estimaciones de los grupos de población migrante en cada país del mundo para 1965 y 1990. Para los países desarrollados, las estadísticas de flujos migratorios permiten analizar las tendencias de migración norte a sur y este a oeste a través de 1965–96. El análisis de las tendencias en otras regiones del mundo se hace en base a datos de menor amplitud. La migración laboral al Asia Occidental y al Perímetro del Pacífico se evalúa usando estadísticas basadas en aprobaciones de contratos expedidos por países remitentes. Datos compilados por el UNHCR [Alto Comisionado de las Naciones Unidas para los Refugiados] se usan para evaluar las tendencias de migración forzada. La visión que se obtuvo capta tanto la continuidad como el cambio que exhiben las tendencias de migración desde 1965.

Abandono infantil y adopción en China
KAY JOHNSON
HUANG BANGHAN
WANG LIYAO
En este artículo se presentan los hallazgos de un proyecto de investigación llevado a cabo en 1995–96 sobre el abandono infantil y la adopción en China. Se encontró que estas dos prácticas están estrechamente vinculadas. Las políticas restrictivas de la planificación de nacimientos, combinadas con la necesidad de tener un hijo varón que sienten los padres, producen patrones de abandono que afectan principalmente a las hijas de alta paridez en familias sin hijos varones. Un menor, pero sin embargo fuerte deseo de tener hijas entre familias sin hijas conduce a la adopción como una medida para remediar esta situación como también una medida de compensación para parejas sin hijos. Estos aspectos de la cultura contemporánea china—el deseo de tener hijas y el consentir a la adopción de niños no emparentados como método para establecer una familia—han contribuido a aliviar el mal efecto del aumento del abandono infantil en
los años de las décadas de 1980 y 1990 al impulsar a muchas familias a adoptar expósitos. Dado que las leyes y reglamentos del gobierno discriminan de varias maneras contra los expósitos e hijos que sobrepasan la cuota, y castigan a los padres que los crian, gran parte de esta solución popular a un problema social difícil se ha producido fuera de los canales e instituciones oficiales. Hay esperanza que cambios legales puedan mudar pronto esta situación.

Estadísticas de población, el Holocausto, y el Proceso de Nuremberg

WILLIAM SELTZER

Recurriendo a una variedad de fuentes, el artículo examina cómo los dirigentes Nazis usaron las estadísticas de población en la planificación del Holocausto y cómo los sistemas de datos que recolectaron estas estadísticas y otras informaciones fueron también empleados para ayudar a llevar a cabo el Holocausto. Esta reseña cubre la experiencia en Alemania, Polonia, Francia, los Países Bajos, y Noruega. Se le da atención también al papel que jugaron en este trabajo algunas personas profesionalmente activas en ese tiempo en demografía y estadísticas. El uso e impacto de los datos de mortalidad del Holocausto generados por los perpetradores y otras estimaciones de las pérdidas judías presentadas en el Proceso de Nuremberg son luego descritas. Por último, las consecuencias para la actualidad de la experiencia histórica bajo examen son debatidas. Estos aspectos incluyen: lecciones para la formulación de políticas prudentes de estadísticas nacionales, criterios para la investigación de genocidios futuros y la prosecución de aquellos que se cree son responsables, y la necesidad que estadísticos y demógrafos presten una mayor atención a las dimensiones éticas en su trabajo.

Diferenciales socio-demográficos en la mortalidad adulta: Una revisión de los enfoques analíticos

ROBERT A. HUMMER
RICHARD G. ROGERS
ISAAC W. EBERSTEIN

Las diferencias socio-demográficas en la mortalidad adulta de los Estados Unidos, aunque cada vez mejor documentadas, siguen siendo mal comprendidas. Estudios diferenciales de mortalidad adoptan frecuentemente enfoques descriptivos que son de poco alcance y conceptualmente ambiguos. Luego de presentar los enfoques convencionales usados para analizar diferenciales en la mortalidad adulta, los autores plantean una serie de interrogantes cuyo propósito es estimular la investigación de la mortalidad diferencial utilizando direcciones nuevas que sean pertinentes causalmente. Estos incluyen la creación de modelos de mortalidad diferencial aplicando una perspectiva de determinantes próximos, la incorporación de tiempo en los modelos de mortalidad diferencial, la inclusión de medidas de resultado más refinadas, y el uso de una perspectiva a nivel macro para mejorar comprender los diferenciales de mortalidad. Ejemplos de estudios recientes que se expanden en estas direcciones son brevemente descritos.

Política de población en la época del Fascismo: Observaciones sobre publicaciones recientes

CARL IPSEN

Este ensayo explora en general las publicaciones sobre población y política en la época entre las dos guerras en la Europa Occidental, publicaciones que han surgido más o menos en los últimos 15 años y considera a fondo varias que discuten la “batalla demográfica” fascista italiana, el tópico de la investigación propia del autor. La política (y teoría) de población en esa época inevitablemente coincide parcialmente con preocupaciones eugenésicas y raciales, y esas problemáticas también son consideradas. La proliferación reciente de estudios nacionales—sobre la Gran Bretaña, Alemania e Italia, pero sorprendentemente no Francia—pide una nueva síntesis.

El ritmo de descenso de la mortalidad japonesa, ¿converge hacia tendencias internacionales?

JOHN R. WILMOTH

La esperanza de vida en Japón en los años subsiguientes a la Segunda Guerra Mundial
aumentó a un ritmo sin precedente. Alrededor de 1980 el Japón había logrado su posición actual de líder mundial con respecto a longevidad promedio. Sin embargo, después de alcanzar y luego sobrepasar a otros países, el ritmo del descenso de la mortalidad en Japón parece ahora converger hacia las tendencias internacionales.
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