

**Full title: The Demographic Impact of Partition:
Bengal in 1947**

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Keywords: South Asia, Partition, refugees, survivorship, religion, historical demography, population dynamics, census

Abstract¹

Following on an initial study of the Punjab, this paper examines the demographic consequences of Partition in 1947 in Bengal, using data published in the 1931, 1941, and 1951 Censuses of India and the 1951 Census of Pakistan. Estimates of population growth rates by sex from 1931 to 1951 indicate a major slow-down of population growth between 1931-41 and 1941-51, a slow-down that cannot be explained by migration, and probably reflects the effects of the 1943 Bengal famine. Estimates of population loss rates between the age groups of 0-9 and 50-59 from 1941 to 1951 for a number of individual administrative districts that remained in India whose boundaries did not change substantially at Partition are considerably higher than comparable rates between 1931 and 1941. The immediate aftermath of Partition was associated with some degree of religious homogenization at the district level, but this homogenization was very much less pronounced by our end point in 1951 than in the Punjab.

¹ This work has been funded by the Andrew W. Mellon Foundation and the Weatherhead Center for International Affairs at Harvard University. Earlier versions of this paper were presented at conferences hosted by the South Asia Initiative of the Harvard University Asia Center (Cambridge, MA, Sept 2003), the Population Association of Pakistan (Faisalabad, Pakistan, December 2003) and Jamia Millia Islamia University (New Delhi, India, January 2004). This project is one of the research modules of the South Asia Initiative.

I. INTRODUCTION

In terms of size and rapidity, the Partition of India in 1947 constitutes perhaps the largest example of voluntary and involuntary mass population movement in modern history. Estimates of migrants between 1947 and 1951 as a result of Partition range from 10 to 17 million, while estimates of deaths associated with Partition range from 200,000 to over 1 million. The magnitude of the Partition refugee crisis can be appreciated in comparison to the 20.5 million persons world-wide currently under the United Nations High Commissioner for Refugees' mandate of concern².

Despite the passage of over 50 years, the demographic consequences of Partition in 1947 have not been systematically described or assessed. The few existing studies employing modern techniques of demographic analysis make use of only Indian or Pakistani census and other data in the post-Partition period {Retherford, 1982;Preston, 1984;Bhat, 1998 }. An earlier paper (Hill et al. 2005) examined the demographic consequences of Partition in the Punjab. This paper presents a broadly similar analysis for Bengal, intended to quantify more accurately the magnitude of the demographic upheaval associated with Partition. We address a number of barriers to such an analysis by applying demographic techniques to data for Bengal from the 1931 and 1941 censuses of India, and from the 1951 censuses of both India and Pakistan.

One of the key barriers to such an analysis is posed by changes in administrative boundaries, particularly those that occurred as a result of Partition. A key analytic strategy adopted is to consider pre-Partition Bengal as a whole, combining post-1947 data from both India and Pakistan, in order to try to describe the overall picture. In this way

² UNHCR estimates there were about 20.5 million persons of concern as of 1 January 2003 (<http://www.unhcr.ch/cgi-bin/texis/vtx/basics>).

we can effectively disregard boundary changes by carrying out an analysis on the basis of virtually the entire area of the former Bengal province as it existed at the time of the 1931 Census³. Such an analysis also mitigates the effects of another barrier, the confounding of population changes due to mortality and migration, to the extent that a substantial portion of the migration at the time of Partition that affected Bengal took place within Bengal itself. However, we are also interested in exploring population changes at a lower level of geographic aggregation, so we attempt to follow district populations over time, adjusting for boundary changes to the extent possible, but recognizing that at this level the effects of mortality and migration cannot be disentangled.

A further barrier to isolating the effects of Partition is the Bengal famine of 1943. Deaths and population displacement that resulted from the famine will affect the same intercensal interval as those that resulted from Partition. Using census data alone, we cannot disentangle these effects. Sen (1983) arrives at a figure of around 3 million excess deaths associated with the famine, though others, for example Pfitzner (2004), quote substantially higher figures.

We emphasize that our focus in this paper is the impacts of Partition as manifested by 1951. Unlike the experience in the Punjab, where the bulk of Partition-related migration was over by the end of 1947, migration of Bengali Hindus to India and of Bengali Moslems to East Pakistan continued through 1951, and indeed continued episodically over at least the next two decades, so the full effects of Partition are not captured here.

II. DATA

³ As will be discussed in more detail, certain pre-Partition Princely States are excluded from the analysis.

Our analysis draws on population changes at the district level, comparing changes between 1931 and 1941 (a pre-Partition baseline) to changes between 1941 and 1951, the period spanning Partition. We focus on changes in the religious composition of the population (primarily Hindu and Moslem in Bengal), and use the sex and age composition of the population to draw inferences based on intercensal survival about population losses between censuses.

Censuses

Decennial censuses of India pre- and post-Partition were conducted at ten-year intervals from 1881 onwards; after Partition, Pakistan conducted censuses in 1951 and 1961. Around the period of Partition, tabulation was carried out manually, by sorting slips into pigeon holes, a process that limited the tabulation (and particularly cross-tabulation) detail. However, the censuses provide extensive information about population size and certain important characteristics that are invaluable for this study, such as birthplace and religion for subprovincial areas. Of particular interest to this research are the Censuses of India of 1931 and 1941, and (for India and Pakistan separately) 1951.

The 1931 Census provides population counts at the district level by (among other characteristics) sex, age group, religion and sect, “race, tribe or caste,” and district of birth. The 1941 Census collected information on much the same set of topics. However, as a result of economies associated with the Second World War, the 1941 Census was never fully tabulated. Population totals by district, sex and religion are available, but information by age is available only on the basis of a 2 percent sample at the district level. In 1951, both India and Pakistan carried out population censuses, but

tabulation procedures varied, though both the India and Pakistan censuses of 1951 collected information on displaced persons resulting from Partition-related migration.

Data Problems

One problem faced by any analysis based on administrative entities is posed by boundary changes. Partition itself was a boundary change on a macro scale, but other less salient boundary changes of administrative units occur all the time. Prior to Partition, Bengal under direct British rule was divided into five divisions, which were further subdivided into a total of 28 districts. However, two districts, Jalpaiguri and Darjeeling, were not part of “Plains Bengal.” Further, two States, Cooch Behar and Tripura, were not under direct British rule. These two districts and two states, making up about five percent of the province’s total population, were not affected, either directly or indirectly, by Partition, and we have excluded them from this analysis. Of the remaining districts, some were split between India and Pakistan at the time of Partition, and East Pakistan gained Sylhet district, from Assam province, with the result that pre-Partition Bengali districts do not map exactly onto post-Partition districts. Fortunately, in line with prior practice for taking boundary changes into account, the 1951 India Census carefully recreated 1931 and 1941 district populations for areas comparable to the 1951 boundaries, thus indicating which districts were directly affected by boundary changes and the size of the effect of boundary changes on population totals. Sylhet has been excluded from 1951 data for East Pakistan.

A second problem facing this analysis is the lack of comparable age data across censuses. The 1931 Census tabulated age at the district level by single years up to five, then by five-year age groups up to the age group 15 to 19, and then by 10-year age

groups up to an open interval of 60 and over. The 1941 Census used the same age tabulation at the district level, but on the basis of a one-in-50 sample of “slips.” We have expanded the sample age distribution to represent the district total not by multiplying by the inverse of the sampling fraction, 50, but rather for males and females separately by the ratio of the recorded total to the sample total.

The Indian 1951 census data for Bengal were tabulated at the district level for the age groups 0, 1 to 4, and then for ten-year intervals up to an open interval 75+ on the basis of a 10 percent sample. We obtained district-level totals by multiplying by the ratio of the total population to the sample total. The 1951 Pakistan Census tabulated district population by sex and five-year age groups up to an open interval of 75+, but unfortunately for the purposes of this paper we do not have access to these data. The results of these differences in tabulating the population by age are twofold. For those districts that remained part of India, there is only one age cohort in 1931 (those aged 5 to 14) that can be identified directly in 1951 (at that time aged 25 to 34). For those districts that became part of Pakistan, we are at present unable to follow age cohorts from 1931 and 1941 through to the 1951 census, though we plan to rectify this shortcoming as soon as possible.

A key strategy of our analysis is to trace changes in population structure by religious affiliation, or religious “community” as it is generally referred to in census tables. In 1931, the religious communities identified were fairly straightforward: Hindu, Moslem, Tribal, Sikh, Christian, Buddhist and other. In 1941, the Census separated the Hindu community by caste (Scheduled Caste, Other Hindu, Caste not returned). The 1951 censuses of both India and Pakistan returned to a single category for Hindu. Almost

the whole population of pre-Partition Bengal was either Hindu or Moslem, apart from about 3 percent “Tribal”: 55 percent Moslem and 42 percent Hindu.

We make extensive use in our analysis of the 1941 census. This census was conducted under challenging circumstances: Britain at war and an intensifying and increasingly fractious independence movement in India. Despite the fact that the 1941 Census employed many improvements in the enumeration process compared to earlier censuses, the results have been widely regarded with suspicion based on charges that individual communities attempted to manipulate the enumeration process to increase their population total for political advantage (Chatterji 1999; Yeatts, 1942). On the other hand, the 1931 Census was affected to some extent by a census boycott effort sponsored by the Congress Party (Yeatts, 1941). The relative contribution of possible overcounts in 1941 or undercounts in 1931 to the high intercensal growth rates found for some Bengali districts is not known and requires further exploration. Our analysis of population changes between 1931 and 1941 provides some support for differences in data quality between the two censuses; in particular, for districts that were majority Hindu, the population change between 1931 and 1941 for young adult males suggests some possible inflation of the population of young adult males in 1941 or their omission in 1931.

The following section outlines the methods we apply to census data by age (where possible) and sex to identify the demographic effects of Partition. In section IV, we present results of the application of these methods to data for Bengal as a whole (both the Indian and Pakistani parts) and for individual districts not directly affected to a major extent by boundary changes associated with, or following shortly after, Partition. Finally,

we draw tentative conclusions about population changes in Bengal associated with Partition, and compare them to changes that occurred in the Punjab.

III. METHODS

Population Change

We first look at the magnitude of population change by religion over the period 1931 to 1951 for Bengal as a whole. Such change reflects the balance of all three components of population change – fertility, mortality and migration. It thus provides the broadest picture of the possible effects of Partition, but does not distinguish between the components.

Migration

We assess the likely magnitude of migration flows for Bengal as a whole by analyzing data on persons reported as displaced by both the India and Pakistan 1951 censuses (Seltzer et al., 2004). The 1951 Census of India collected data on the month and year of arrival in India and the district of origin in Pakistan for those persons displaced by Partition. The 1951 Census of Pakistan identified “muhajirs,” persons who “entered Pakistan as a result of Partition or fear of disturbances connected therewith.” The Census classified such displaced persons by broad region of origin in India.

We focus on those originating in the East region as approximating Bengal. We use these data for Pakistan and India in total to estimate: the number of Bengalis (in the sense of persons who lived in the Bengal prior to Partition) who moved from Indian Bengal to a non-Bengal destination in Pakistan; the number who moved from Pakistani Bengal to non-Bengal destinations in India; the number of non-Bengalis who moved from

other parts of India to Pakistani Bengal; and the number of non-Bengalis who moved from other parts of Pakistan to Indian Bengal.

Mortality

A variety of methods exist to estimate mortality levels. Conventionally, mortality rates by age, sex and other characteristics are calculated from deaths recorded by civil registration and measures of exposure time derived from census data. However, this direct method will not give good results for India because of errors known to be present in the data, most importantly omission of deaths from the vital records and age misreporting in both the censuses and the vital statistics {Bhat, 1990}. As a result, we use more robust, but less direct, methods of estimation.

The most direct of these indirect methods is the intercensal survival technique {United Nations; 1983 }. Data from successive censuses can be used to measure the survival of successive age cohorts from one census to the next. Thus, for example, the survivors of the male population aged 10 to 19 in 1931 will be aged 30 to 39 in 1951. Assuming that net migration is negligible, the ratio of the population 30 to 39 in 1951 to that aged 10 to 19 in 1931 measures the probability of survival from the one age group to the other over the intercensal period, approximating a standard life table function (${}_{10}L_{30}/{}_{10}L_{10}$ in life table notation). In a population affected by migration, the complement of this ratio can be described as a *net loss ratio*, capturing the net effects of mortality and migration. The major problem (other than the migration assumption) with this method for application to India and Pakistan is the change in age categorization between 1931 and 1951, compounded by the lack of age information for 1951 for the districts of Bengal that became part of Pakistan. Because of the switch to tabulating age

for 10-year groups centred on ages ending in zero used in the 1951 Indian census, there are directly-recorded population numbers for no common age cohort. In order to develop some common cohorts, the 10-year age groups (above age 5) available by Indian districts for 1951 have been split into 5-year groups on a 50-50 basis. The 5-year age groups are then re-combined to match cohorts defined for 1931 and 1941. This crude approximation relies on the errors arising from splitting one age group being balanced by compensating errors from splitting the next. The method is also sensitive to a common form of age misreporting, age exaggeration, and to changes in census coverage.

IV. RESULTS

Population Change for “All Plains Bengal”

Analyses of population change by district are complicated by both boundary changes and the confounding of mortality and net migration inherent in the estimation methodology we are using. The next section attempts to quantify the extent to which a substantial portion of the forced migration at the time of Partition took place within Bengal. Analyses by groups of districts that remained in India or became part of Pakistan (while not being directly affected geographically by Partition) also mitigate the boundary change problems, but do not greatly reduce the confounding of mortality and migration since the flows of migrants are unlikely to have offset one another.

Table 1 shows the population of Plains Bengal by sex and religious community as recorded by the 1931, 1941 and 1951 censuses, with growth rates for each population component. The Table also shows the 1951 population of males and females that would have resulted had the 1931 to 1941 growth rates continued in effect from 1941 to 1951.

TABLE 1: Population change 1931 to 1941 and 1941 to 1951 by sex and religious community: Bengal

Numbers in 1,000's

Population Group	1931 Population	Average Annual Growth Rate	1941 Population	Average Annual Growth rate	1951 Population	Expected 1951 Population Given 1931-41 Growth Rates	Difference Between Observed and Expected Population
		%		%		'000	
Males							
Total	25,338	2.00	30,954	0.52	32,583	37,815	-5,232
Hindu	10,813	1.82	12,970	0.72	13,941	15,557	-1,616
Moslem	14,060	1.92	17,039	0.69	18,263	20,649	-2,386
Females							
Total	23,473	1.72	27,884	0.43	29,070	33,124	-4,054
Hindu	9,857	1.34	11,274	0.78	12,187	12,894	-707
Moslem	13,185	1.75	15,706	0.51	16,526	18,709	-2,183

The population of Bengal as a whole for both males and females grew more than one percent more slowly between 1941 and 1951 than between 1931 and 1941. Both religious communities experienced reduced growth rates, but the reductions were larger for Moslems than for Hindus, and were least for Hindu females (though part of this effect is a result of changing the way religion was recorded between the 1941 and 1951

censuses; the population of “other” religions dropped sharply between 1941 and 1951). This analysis demonstrates that the observed total population (males and females) in 1951 was over 9 million smaller than would have been expected on the basis of the 1931 to 1941 growth rate.

Migration for “All Bengal”

The analysis of migration flows as they affected Bengal is made difficult by the limited categorization of place of origin in the displaced persons tables of the 1951 India and Pakistan censuses. To gain further insight into the overall changes affecting the population of Bengal as a whole, we examine the information available about Partition-related migration. Table 2 summarizes the 1951 Census data on “displaced persons” (India) and “Muhajirs” (Pakistan). The information for Pakistan is not available by sex, and no information is available by age.

Table 2: Major Flows of Displaced Persons and Muhajirs recorded in the 1951 Censuses of India and Pakistan by Area of Origin and Area of Destination

Numbers in ‘000

Destination	Origin	
	East Pakistan	India East Zone
India East Zone	2,523	--
Of which, West Bengal	2,061	--
Assam	173	--
East Pakistan	--	671

Source: Seltzer et al. (2004)

Table 2 focuses on moves between the East zone of India and East Pakistan; there was virtually no movement by the time of the 1951 censuses except in these areas. The total number of displaced persons or muhajirs in both India and East Pakistan amounts to rather more than three million. This number only approximates the total flow of migrants: some children of displaced persons were reported as displaced, and some persons who migrated but did not report themselves as “displaced” would not be included. In addition, particularly in the areas near the border between West Bengal and East Pakistan, substantial numbers of persons reportedly moved back and forth more than once between the two countries; it is important to note that in these estimates multiple moves are counted once only or not at all, if those who had moved were enumerated back in their area of origin at the time of the 1951 census. However, the figure is probably a reasonable lower bound on the total movement. From the point of view of our analysis, the key points are that Bengal as a whole was little affected by Partition-related moves: the movement from East Pakistan into Assam was probably largely from the district of Sylhet, that had not been part of Bengal prior to Partition. West (Indian) Bengal gained about 1.4 million migrants, whereas East Pakistan lost a similar number.

Mortality for “All Punjab”

As noted above, we have been unable to calculate survivorship ratios for 1941 to 1951 for Bengal as a whole because of the lack of age data for the population of East Pakistan for 1951.

District-level Results

Population Change by Religious Community, 1931-1941-1951

Although Partition cut right across Bengal, the majority of districts were not directly affected by the associated boundary changes. It is therefore possible to trace a substantial number of consistently-defined districts across the period 1931-1941-1951. However, because data availability is different in 1951 for those districts that remained in India than for those that became part of Pakistan, the analyses are slightly different also.

Both 1951 censuses provide information on the district level population by sex and religion, so it is possible to examine changes in religious composition for all districts not directly affected by Partition or boundary changes that occurred between 1947 and 1951 (notably the creation of a new district, Kushtia, and the adoption of Sylhet, in East Pakistan after Partition). Table 3 shows district populations for those districts that remained in India after Partition (West Bengal) by sex and religion (Hindu and Moslem only) for 1931, 1941 and 1951, together with the 10-year average growth rates. Table 4 shows the same information for those districts that became part of Pakistan after Partition (East Bengal).

Table 4: Population Change by District, Sex and Religion: West Bengal, 1931 to 1951

District	Sex	Religion	Population 1931	Growth Rate	Population 1941	Growth Rate	Population 1951
Burdwan	Male	Moslem	152	1.5	177	0.4	183
		Hindu	639	1.4	737	2.7	969
	Female	Moslem	140	1.3	160	-0.1	159
		Hindu	600	0.9	657	2.8	866
Birbhum	Male	Moslem	126	1.3	143	0.0	144
		Hindu	317	0.8	344	1.4	394
	Female	Moslem	127	1.3	144	-0.1	143
		Hindu	319	0.7	342	1.1	381

Bankura	Male	Moslem	26	0.9	29	0.8	31
		Hindu	506	0.8	546	1.0	605
	Female	Moslem	25	0.9	27	0.0	27
		Hindu	505	0.5	533	1.1	597
Midnapore	Male	Moslem	108	1.4	125	0.1	126
		Hindu	1,263	0.9	1,376	1.4	1,575
	Female	Moslem	105	1.5	122	-0.6	114
		Hindu	1,230	0.6	1,306	1.4	1,508
Hooghly	Male	Moslem	97	1.5	113	-0.7	106
		Hindu	489	1.8	587	2.0	716
	Female	Moslem	83	1.2	94	0.7	101
		Hindu	435	0.6	462	3.1	628
Howrah	Male	Moslem	137	1.6	162	-1.3	143
		Hindu	469	3.0	632	1.6	744
	Female	Moslem	107	1.5	134	-1.3	118
		Hindu	391	2.8	520	1.5	601
Murshidabad	Male	Moslem	379	1.2	465	0.3	477
		Hindu	295	1.6	346	2.0	391
	Female	Moslem	383	1.0	463	0.2	471
		Hindu	295	1.4	339	1.9	374

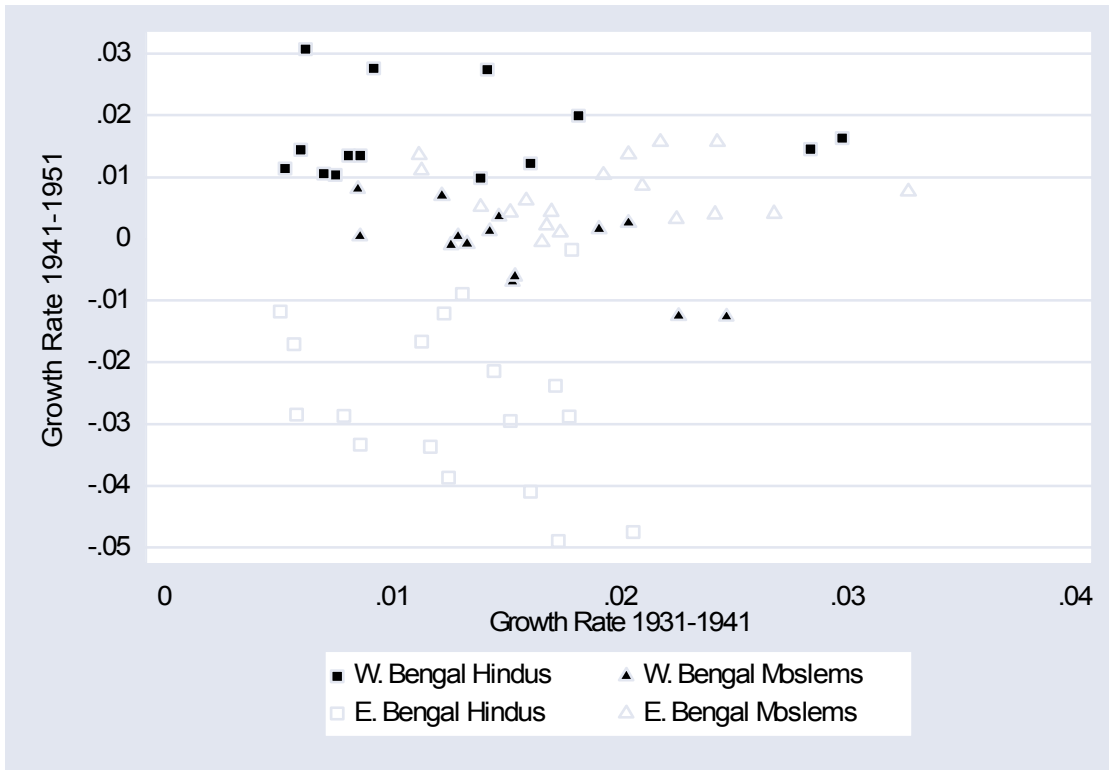
Table 5: Population Change by District, Sex and Religion: East Bengal, 1931 to 1951

District	Sex	Religion	Population 1931	Growth Rate	Population 1941	Growth Rate	Population 1951
Rangpur	Male	Moslem	955	1.1	1,068	1.4	1,224
		Hindu	395	0.9	430	-3.3	308
	Female	Moslem	140	1.1	160	1.1	159
		Hindu	600	0.6	657	-2.9	866
Bogra	Male	Moslem	461	1.6	540	0.6	575
		Hindu	95	0.6	100	-1.7	84
	Female	Moslem	445	1.5	518	0.4	540
		Hindu	83	0.5	87	-1.2	78
Pabna	Male	Moslem	570	1.7	674	0.2	689
		Hindu	168	1.6	197	-4.1	131
	Female	Moslem	542	1.7	640	-0.1	636
		Hindu	164	1.3	186	-3.9	127
Dacca	Male	Moslem	1,168	2.2	1,453	1.6	1,699
		Hindu	569	2.1	699	-4.8	435
	Female	Moslem	1,125	2.1	1,388	0.9	1,513
		Hindu	556	1.7	661	-4.9	405
Mymen- singh	Male	Moslem	2,034	1.7	2,410	0.4	2,518
		Hindu	619	1.2	696	-3.4	496
	Female	Moslem	1,894	1.7	2,255	0.1	2,277
		Hindu	555	0.8	601	-2.9	451
Baker- ganj	Male	Moslem	1,078	2.0	1,322	1.4	1,516
		Hindu	416	1.8	497	-2.9	373
	Female	Moslem	1,027	1.9	1,245	1.0	1,382
		Hindu	396	1.5	462	-3.0	344
Tippera	Male	Moslem	1,210	2.4	1,541	0.4	1,604
		Hindu	384	1.7	457	-2.4	360
	Female	Moslem	1,147	2.3	1,435	0.3	1,482
		Hindu	366	1.5	423	-2.1	342

Noakhali	Male	Moslem	671	3.3	931	0.8	1,006
		Hindu	187	1.2	212	-1.2	188
	Female	Moslem	668	2.7	873	0.4	909
		Hindu	179	1.1	201	-1.7	170
Chitta- gong	Male	Moslem	641	2.4	817	1.6	957
		Hindu	195	1.8	234	-0.2	230
	Female	Moslem	686	1.4	788	0.5	830
		Hindu	197	1.3	224	-0.9	205

Figure 1 summarizes the information in Tables 3 and 4; each district has two points, one for males and one for females, though there were no systematic differences evident by sex. Growth rates between 1931 and 1941 were in a fairly narrow band of about 0.5 percent to 3 percent, with the Moslem populations of East Bengal tending to grow faster than other subgroups. In the period 1941 to 1951, the Hindu populations of East Bengal districts all contract, though by very variable amounts, whereas the Hindu populations of West Bengal tend to grow somewhat faster than 1931 to 1941, as would be expected given the migration of over 2 million people, presumably predominantly Hindu, from East Bengal into West Bengal. The Moslem populations of East Bengal tend to grow more slowly between 1941 and 1951 than in the earlier period, as did the Moslem populations of West Bengal; Moslem populations of several West Bengal districts did actually grow, however, despite the migration to East Pakistan of two-thirds of a million persons. These patterns of growth suggest a more substantial relocation of the Hindu population about the time of Partition than of the Moslem population. The overall lower growth between 1941 and 1951 than over the previous decade is no doubt the result of the Bengal famine.

Figure 1: Average Annual District Growth Rates 1941-51 versus 1931-41 by Religion and Region



Although some religion-specific population mobility around the time of Partition is evident in Bengal, it is notable how much smaller such moves were than in the Punjab. In 1941, in only four Punjab districts was the population more than two-thirds Hindu; in 12 districts the population was more than two-thirds Moslem; no district was majority Sikh; in only three districts was the population less than 28 per cent Moslem. By 1951, eight districts were more than two-thirds Hindu; all 15 of the districts that became part of Pakistan were more than 90 per cent Moslem; three districts were majority Sikh; and only one district that remained in India had more than 2.5 per cent Moslem population. Nothing remotely similar happened in Bengal, where the biggest change at the district

level was the outflow of Hindus from Dacca district, reducing the proportion Hindu from 32 percent in 1941 to 21 percent in 1951.

Cohort Survival

Our objective is to compare population change at the district level (for districts with boundaries largely unchanged over the 20 year period) between 1941 and 1951 to that between 1931 and 1941, taking the latter to be a “base line” for comparison. Such comparisons of survivorship cannot be made for districts that became part of Pakistan. In order to proceed with survivorship comparisons, we have had to work with very broad age groups: ten-year age groups up to age 60. Even to achieve this modest goal we had to split ten-year age groups centred on ages ending in zero from the 1951 India census and recombine them into ten-year age groups starting with ages ending in zero, as described above. We have then used different summary measures based on the observed survivorship ratios.

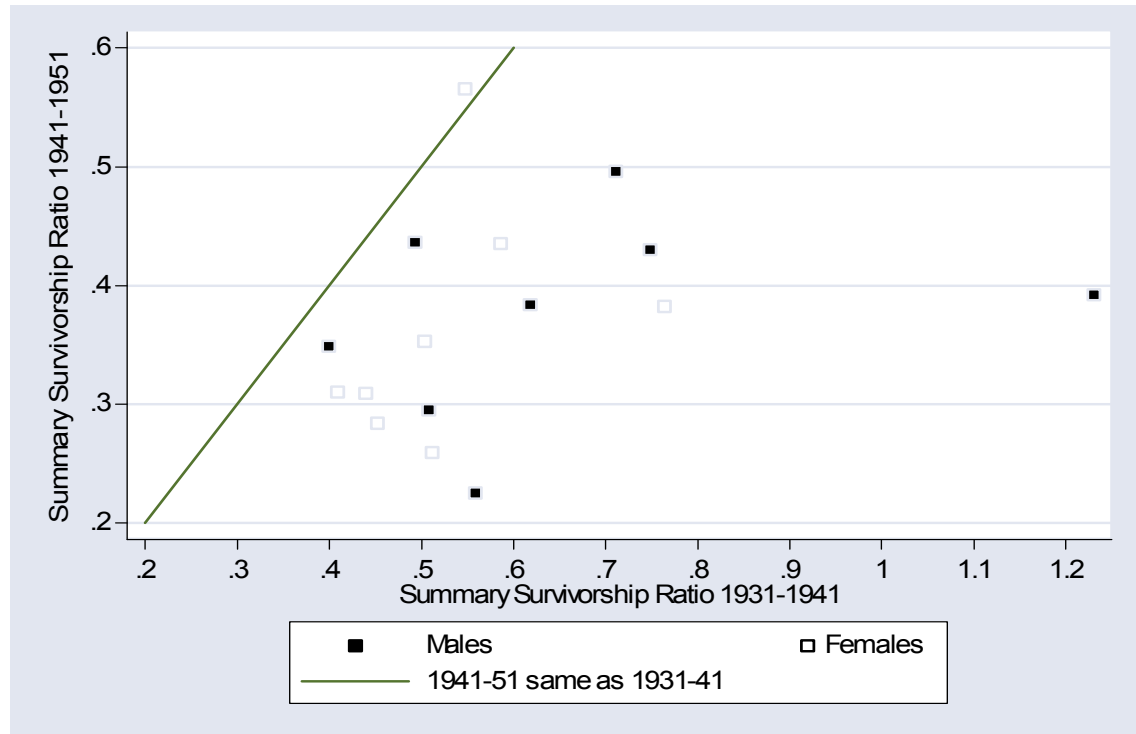
For districts that remained in India, we have approximate survivorship ratios of the form $N^{t+10}\{x+10,x+20\}/N^t\{x,x+10\}$ for five ages x from 0 to 40 by sex for $t=1931$ (for the period 1931-41) and $t=1941$ (for the period 1941-51). We have calculated a summary measure by multiplying these survivorship ratios together to estimate survivorship from the age group 0-9 to the age group 50-59. Table 5 shows these summary measures for the seven districts comparable across the period, and for the sum of those districts; Figure 2 summarizes the results graphically by plotting the 1941-51 summary measure against the corresponding 1931-41 measure. Several points are striking. First, in all cases except females in Burdwan district, survivorship 1931-41 is higher, often much higher, than survivorship 1941-51. This is despite the net migration

into West Bengal from East Pakistan. Second, the difference in male survivorship is much higher than the difference in female survivorship, the most notable case being Howrah district, with summary survivorship for males greater than 1.0 for the 1931-41 period, but roughly average survivorship 1941-51; the result for Howrah in particular, and the remaining districts to a lesser extent, raise a question about possible changes in population coverage in the 1931 and 1941 censuses in West Bengal. Third, the summary survival measures indicate (in the absence of net migration) very high mortality between 1941 and 1951: roughly speaking, an expectation of life at birth of 20 years is associated with a $_{10}L_{50} / _{10}L_0$ of 0.29, of 30 years with a value around 0.44, of 40 years with a value around 0.57, and of 50 years with a value around 0.69.

Table 5: Intercensal Survivorship Ratios $_{10}L_{50} / _{10}L_0$: Seven Districts of West Bengal, 1931-41 and 1941-51

District	1931-41		1941-51	
	Male	Female	Male	Female
Burdwan	0.711	0.548	0.496	0.566
Birbhum	0.399	0.409	0.349	0.310
Bankura	0.558	0.512	0.226	0.260
Midnapore	0.493	0.439	0.437	0.309
Hooghly	0.748	0.586	0.430	0.435
Howrah	1.230	0.764	0.392	0.382
Mushidabad	0.508	0.452	0.296	0.284
Total, 7 Districts	0.618	0.504	0.384	0.353

Figure 2: Summary Survivorship Statistics 1941-51 vs. 1931-41: Seven Districts of West Bengal



V. DISCUSSION AND CONCLUSIONS

This exploratory analysis of 1931, 1941 and 1951 census data for Bengal highlights two main features: that Partition in Eastern India, although accompanied by the displacement of over 3 million people, was associated with much less dramatic homogenization of the population by religion than occurred in the Punjab. Bengal remained quite heterogeneous in terms of religion in 1951. The second feature is the very low growth of the population of Bengal in the 1940s relative to its growth in the 1930s: had 1931-41 growth rates continued between 1941 and 1951, the population of Bengal as a whole would have been nearly 9 million larger than it actually was in 1951.

This excess loss cannot be explained by net out-migration, since our analysis suggests that Bengal as a whole was little affected by net migration in 1947 and thereafter. Given the relatively small scale of migration, it is unlikely that this population loss resulted from violence at the time of Partition; it is a grim reminder of the magnitude of the disastrous Bengal famine of 1943.

As discussed above, our results with regard to population loss rely to a large extent on the use of the 1941 census. If this census was indeed adversely affected by the dual context in which it was conducted, and the “over-enthusiasm” of the populous to be included, to use Census Commissioner Yeatts’ rather charming term, our conclusions will be incorrect. Similarly, if the 1931 Census was affected by a boycott, our estimates will be affected. Specifically, an overcount of population in 1941 will result in an overestimation of population loss around Partition (based on extrapolation of 1931 to 1941 growth rates and survivorship ratios to the 1941 to 1951 period), whereas an undercount in 1931 will result in underestimates. Further analysis, making full use of the 1951 age data for East Pakistan, will help to clarify this issue.

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