Chapter Seven.

Census representations of selected occupations, 1903 and 1939.

In the preceding chapters, I have examined the criteria of measurement and classification that underpinned the Census occupation counts of 1903 and 1939. Most likely, U.S. Census Bureau thinking prevailed, despite varying Filipino interpretations of the structures according to local conditions and perceptions. Probable general effects of the Census management appeared to be that the measurement and classification processes disadvantaged women in the recording of their work and the documentary tabulations of women's employment were perhaps misleading. The examination in this chapter asks to what extent such regulation affected the portrayal of women's employment in individual occupations. By what other means did the authorities regulate the statistics for particular women's occupations? For each surveyed occupation, the investigation therefore considers the effects of the management on the representation and its consequences.

While the effects and implications of the data management remain my focus, the inquiry additionally considers these in relation to the reported change in women's occupations over the period. By 1939, the Census recorded a substantial decline in manufacturing occupations that partly reflected falling employment in spinning and weaving. Although more women apparently engaged in export production of embroidery and hats, this was insufficient to offset the decrease in the previously predominant manufacture of textiles and other household goods for the domestic market. According to the Census data, increasing proportions of women became farm workers and domestic servants, once considered male preserves. If this transformation was an accurate picture, did it occur equally throughout the provinces, or were there spatial variations in the type and rate of change in women's employment?

For each occupation, I therefore ask the following questions. What does the data tell us about geographical change in the occupation? What evidence is there to suggest that Census officials presented a false picture of change? Is there any literature that supports a revised interpretation, and if not, why is my submission contrary to accepted opinion? A brief description of likely methods of working with the data and a rationale for the selected arrangement makes up Section 1. Section 2 investigates

specific manufacturing and domestic service occupations. The inquiry concludes with a summary of the form and effects of possible distortion found in the occupation data and their implications (Section 3). Although it is limited in scope, I suggest that the types of managerial interference and consequent distortion exhibited in these examples did not necessarily prove deliberate misrepresentation.

1. Method and limitations.

Scholars approach geographical change in occupations in different ways, depending upon their inquiry. Some researchers focus on the distribution patterns of occupations or the concentration of employment in primate cities. Here, a useful index is the coefficient of geographical association, which can indicate the association between, for example, employment in one occupation and total economic sector employment. Providing the base unit remains stable, the index is a suitable tool with which to compare spatial distribution of one or more occupations within or across provinces. Doeppers (1984), for example, uses a variant of the index, a location quotient, to describe the concentration in Manila of the Filipino male workforce in 1939.

Construction of separate indices for 1903 and 1939 however, while proper for each year, would not allow valid description of change over time in women's industrial sector concentration, owing to dissimilar base units. Apart from the different employment totals in sectors for each of the years, there were substantial changes in the sectors' occupational composition (see Chapter 4). Even if we were to use a base unit of total female population aged 10 years and over, which allows comparison of occupations in different sectors for the one year, the divergent base data would invalidate any comparison across years. Other problems in constructing the indices include the unequal areal units following provincial boundary changes between the Censuses and considerable deficiencies in the tabulated data (see Chapters 4 to 6). As well, these indices by themselves would not describe differences in the rate of change between the variables. A further index of change would be necessary. Last, some scholars may consider that any extra data manipulation incorporating a national scale worsens any misrepresentation already existing in the local and aggregated provincial enumeration.

Another focus of inquiry might be variations in the direction and rate of women's occupational change amongst provinces. This would contribute in part to the testing of an assumption that the deterioration of women's economic well-being was similar in character, timing and rate across the Philippines. My investigation is located in this context. A detailed study of these aspects, however, is beyond this inquiry. I do not attempt to construct a statistical measure, for example by index and a measurement of change in the index, to show such variations.

Instead, I restrict data organisation to proportions of the adult female population of each province, the percentage of women aged 10 years and over. This simple manoeuvre does not intensify any possible misrepresentation of Filipino women but is useful to point to possible transformation of the occupational distribution within and across provinces. Such proportions indicate the importance of the occupation to women in each province and might suggest if women in all provinces changed their occupations with a similar bias. Proportional statistics, however, cannot illustrate the rate of change.

To avoid repetition in each table, Table 7A therefore gives the base female population aged 10 years and over by province for each Census. Note that the 1903 data are from Schedule 1, for the so-called Christian population only. The provinces and *comandancias* (military districts) where non-Christian persons, estimated in Schedule 7, made up more than half the female population were Cotabato, Davao, Sulu (comprising Jolo, Siassi, Tawi-Tawi), Basilan, Zamboanga, Benguet, Lepanto-Bontoc and Nueva Vizcaya (1903 Census, Volume 2, Table 23, pp. 418-419)[1]. Census Table 23 recorded the estimation of non-Christian peoples by sex and a division into children (of less than 15 years) and adults (15 years and over). This age cut-off was inconsistent with statistics from Schedule 1, where adult age for occupation accounts was 10 years and over. I therefore omit the estimated population from all tables in this inquiry. Accordingly, the occupation data for the abovenamed frontier provinces in all tables represent only the adult women enumerated in Schedule 1, not the estimated total female population in each unit. Data for those provinces are not comparable to the 1939 Census data. It should also be noted that the population estimated in Schedule 7 possibly constituted notable proportions in Abra (approximately 27 per cent of the province's total female population), Isabela (10 per cent), Mindoro (17 per cent), Palawan (combining Paragua and Paragua Sur, 18 per cent), Misamis (23 per cent),

TABLE 7A
FEMALES, AGED 10 YEARS AND OVER, PHILIPPINES 1903,1939.

	1903	1939		1903	1939
PHILIPPINES	**2499749**	**5446514**			
Abra	13456	31781	Antique	48178	72337
Ilocos Norte	65459	95573	Capiz	89118	142391
Ilocos Sur	65262	109316	Iloilo	151752	264191
La Union	45726	79575	Negros Occidental	99876	253378
			Romblon	17782	33074
Cagayan	49347	100122			
Batanes		3760	Bohol	99080	180153
Isabela	23632	72963	Cebu	224076	378271
			Leyte	133580	303024
Bataan	16290	29238	Negros Oriental	64139	131821
Bulacan	83782	121237	Samar	91899	177888
Nueva Ecija	47234	139412			
Pampanga	80904	129406	Misamis Oriental	44805	68747
Pangasinan	134899	265755	Misamis Occidental		66670
Tarlac	45724	88734	Surigao	33834	74579
Zambales	35038	35845	Agusan		30921
			Cotabato	703	92249
Manila	71729	218746	Lanao		74198
			Bukidnon		17719
Batangas	101754	160029	Davao	7231	82110
Cavite	51971	83207	Sulu[b]	386	80180
Laguna	57685	99213	Dapitan	5758	
Marinduque	18737	28218	Basilan	433	
Mindoro	11349	42384	Zamboanga	6826	108102
Rizal	56501	156986			
Tayabas	54872	121086	Mountain Province		101891
Palawan[a]	10622	31058	Benguet	221	
			Lepanto-Bontoc	799	
Albay	89031	146018	Nueva Vizcaya	6013	26477
Camarines Norte	86634	29700			
Camarines Sur		131230			
Masbate	13929	55148			
Sorsogon	41693	80403			

Source: 1903 Census, Vol. 2, Table 57; 1939 Census, Vol. 2, Table 3.

Note: 1903 data excludes non-Christian population estimated in Schedule 7

[a] Palawan, 1903, includes Paragua and Paragua Sur

[b] Suly 1903, includes Jolo, Siassi, Tawi-Tawi.

Surigao (14 per cent) and Dapitan (27 per cent). Occupation data and proportions of the adult female population (from Schedule 1) for these provinces in 1903 are therefore unrepresentativeto that extent.

It might be argued that proportions of the workforce (the Census category of gainful employment or usual occupation) would be a better illustrative measure than proportions of adult women. I have suggested in Chapters 5 and 6 that the gainful

employment measurement probably discriminated against Filipino women, particularly in 1939 when there were perhaps organisational changes to the Census. Part of my argument is that Census officials perhaps omitted over 700,000 women from the 1939 occupation count, by categorising them as housewives with additional occupations. If we accept that these women should rightly be included in any study of occupations, then the official gainfully employed count is not suitable as a base unit. In addition, proportions of gainfully employed are of little use when comparing with data from Censuses beyond 1939, when the labour force measurement became the standard.

Tabulation of the data by provinces instead of by occupation would perhaps facilitate examination of change in women's occupations in each province. Both Censuses used a provincial format in their tables. I do not do so because of the inadequate 1903 provincial accounts. The only complete accounting of each occupation in 1903, given the qualifications noted in Chapters 4 and 5, was at a national scale. Appendix 1 outlines possible discrepancies in the provincial occupation details for that year. By choosing to examine occupations rather than provinces, I can more easily draw attention to the deficiencies and possible distortion present in the occupation data.

Since I have argued that sector data for 1903 and 1939 are not comparable, this inquiry surveys occupations rather than economic sectors. Although I examine selected manufacturing occupations consecutively, they do not portray the whole sector, being just samples. Similarly, the domestic service occupations chosen do not represent the entire sector data. In some cases, the construction and form of the Census data compel investigation of two or more occupations together. The classification of embroiderer in 1939 typifies this problem, where statisticians registered as embroiderers all persons working in the embroidery industry as well as dressmakers and milliners. Additionally, officials included an otherwise unlisted occupation (mosquito net maker) in the relevant extra category of housewives with additional occupations. Wherever possible, I attempt to separate the occupations. If the enumerators' schedules are still available, future researchers might more accurately identify the women engaged in these and other similarly combined occupations.

Last, secondary literature largely governs the choice of occupations, because of the need to compare interpretations and to cross-check data where possible. Beyond discussion of women's major occupations, the literature has few comments about

women's employment in other specific occupations before World War 2. Limited primary evidence is available. I have not found any documents written by Filipino women of the time describing their occupational experience, for example. Other contemporaneous documents to which I refer raise issues about the historical context, bias and legitimacy of the reports. It might be argued that the use of information from them reproduces the inherent colonialism and gender bias of the texts. The studies by Hugo Miller of mat weaving and hat making in the early 1900s, carried out under government auspices, illustrate these concerns (Bureau of Education 1913; H. Miller 1910)[2]. Certainly, his studies appear to provide evidence of American intent to exploit the economic production of Filipinos. The reports represented women's manufacturing activity in a categorical manner and the knowledge gained from their assemblage might have aided the spread of government control. But should we discard their geographical information because of those biases? Was the information accurate? From a different angle, would the colonial government or potential U.S. investors gain any benefit by inaccurate locational or spatial descriptions? These reports, I would argue, provide a useful source for testing the occupation distribution patterns if used cautiously.

2. Data survey of selected occupations.

Spinning and weaving.

Spinning and weaving engaged more women aged 10 years or over (1 in every 4.4) than did any other paid occupation according to the 1903 Census. Textile producers therefore made up the greatest proportion of women's gainful employment (55.2 per cent) and of women's manufacturing occupations (79 per cent). They were economically, socially and culturally important occupations to women, Owen (1978, 1984) asserts. The occupations expressed women's identity and implied their worth, and he suggests that those nineteenth and early twentieth century Filipino women considered them customary. By 1939, the Census recorded a remarkable reduction in absolute and proportional terms in these occupations (see Table 7B). The data suggested that just 1 per cent of women 10 years of age or over spun or wove, amounting to 1 in 20 of the recorded gainfully employed females. The Census thus

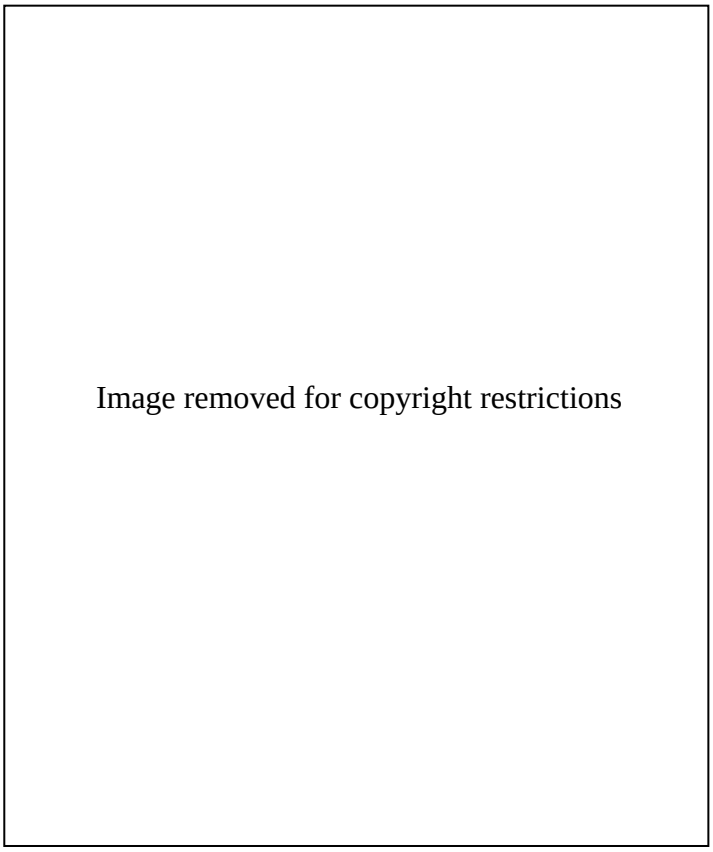

Figure 7.1
Piña spinning and weaving

documented a shift in the position of spinning and weaving relative to all other occupations that reflected a world-wide trend. But as Owen (1978) points out, although the accounts demonstrated the decline of the occupations, they cannot be used to establish long-run or short-term effects on women. He nevertheless concludes that the displacement of the household textile industry weakened the comparative economic position and sociocultural definition of women, so that their dependency on men increased. Eviota (1992) concurs with his conclusions.

Writers variously attribute the Philippines decline to import substitution (but see Owen 1976, 1984), abuses of colonial traders and administrators (McCoy 1982b), expanding capitalism and increasing commercialisation of agriculture (Eviota 1992), and to the spread of international trade (Resnick 1970; Stifel 1963). Stifel argued that household production was unable to satisfy demand for cotton cloth by the nineteenth century. In addition, clear cost differences distinguished the highly organised manufactured textile industries of Europe and later, of twentieth century Japan, from the non-competitive Philippines household industry. Financial insecurity, low productivity, low technology, high prices and a product deficient in quality, design and width depicted the household industry in his opinion. Production of costly, fine fabric from pineapple fibre (*piña*) as seen in Figure 7.1, or silk (*jusi*) was perhaps becoming uneconomic. Preference for imported cotton yarn and cloth and for Chinese silk was apparent even in previous centuries in some parts of Bicol, Mindanao and central and southern Luzon. It was also most likely that women were leaving the occupations before 1900 (Asimot n.d.; Beyer 1917; Mallat 1983; McCoy 1982b; Owen 1976, 1984).

Furthermore, spinning and weaving as women's occupations tend to be romanticised and generalised (Bowie 1992; Owen 1984). Comments such as 'a loom in every household' (Clark 1905; Forbes-Lindsay 1906; Jagor 1925), 'independent production' and 'self sufficiency' (Eviota 1992) mask existing circumstances. McLennan (1980) notes that Ilocano principalia, not the women weavers, controlled weaving in Ilocos even before the nineteenth century. Scholars acknowledge areal specialisation (Aldecoa-Rodriguez 1989; Beyer 1917; Jagor 1925; McCoy 1982b; Owen 1984; Reyes 1992; Sawyer 1900). Figures 7.2 and 7.3 illustrate variations of sinamay (from abaca) and cotton fabric woven in different provinces, for example. Other existing conditions included the links between yarn imports and production and

between those factors and fluctuations in demand, supply and price over time; the dynamic and non-homogeneous nature of society; the significance of seasonal unemployment and poverty; connections linking households, trading markets and labour markets; and regional activities, customs and cultures (Jagor 1925; McCoy 1982a, 1982b; Owen 1978, 1984; Stifel 1963). Such circumstances were not peculiar to the Philippines. Bowie (1992) and Butlin (1986) outline similar conditions that affected textile spinning and weaving from the eighteenth century in Thailand and particular European areas respectively. Demographic statistics cannot reveal the circumstances or the active processes that influenced spinning and weaving. Besides, it is not certain that Census statistics accurately represented the occupations during the American period.

Table 7B lists the 1903 and 1939 Census data by province and records the reliance of women within each province on spinning and weaving – the proportion of women aged 10 years or over so employed. The table also includes information about housewives who produced textiles in 1939. Different forms of regulation affected the records in each Census, but in both years the controls effectively reduced the count and possibly altered the proportional representation of the occupations in some provinces. The 1903 account missed spinners and weavers because of the incomplete and inaccurate nature of the enumeration. The first form of omission, which affected all occupations, resulted from a deliberate management decision linked to particular political circumstances. Inaccuracy arose from enumeration error that was perhaps dependent on ambiguous instructions about gainful labour (see Chapter 5), an indirect form of regulation in this particular example. Where relevant, I cite examples of spinning and weaving given in the literature to establish textile production in particular areas. Although it is possible to speculate on the numbers omitted, there are no means of testing the conjecture.

First, the 1903 Census excluded non-Christian inhabitants from the occupational account (see Chapter 2). We do not know how many of the non-enumerated women might have been spinners and weavers, but Beyer's (1917) ethnographic account reported women's textile production in the frontier zones, later confirmed for some groups by other studies. For example, Beyer recorded abaca weaving by the Bukidnon (in Surigao), Bagobo (Davao), Bilaan (Davao and Cotabato),

TABLE 7B

CENSUS DISTRIBUTION OF WOMEN'S SPINNING AND WEAVING OCCUPATIONS, PHILIPPINES, 1903 and 1939.

	1903		1939				
	Census	% of age 10+	Census	% of age 10+	House-wives	Total	% of age 10+
PHILIPPINES	**566305**[a]	**22.6**	**54787**	**1.0**	**75154**	**129941**	**2.4**
Abra	4684	34.8	110	0.4	1001	1111	3.5
Ilocos N.	28691	43.8	3851	4.0	11832	15683	16.4
Ilocos S.	19264	29.5	8984	8.2	9324	18308	16.7
La Union	19307	42.2	2247	2.8	2672	4919	6.2
Cagayan	1695	3.4	243	0.2	404	647	0.6
Batanes			…	…	…	…	…
Isabela	…	…	13	< 0.1	146	159	0.2
Bataan	…	…	14	< 0.1	2	16	< 0.1
Bulacan	1801	2.2	353	0.3	86	439	0.4
Nueva Ecija	1645	3.5	22	< 0.1	32	54	< 0.1
Pampanga	710	0.9	71	< 0.1	9	80	< 0.1
Pangasinan	23188	17.2	178	< 0.1	459	637	0.2
Tarlac	2241	4.9	27	< 0.1	286	313	0.4
Zambales	4501	12.8	12	< 0.1	32	44	0.1
Manila	154	0.2	141[b]	< 0.1	13	154	< 0.1
Batangas	37914	37.3	2471	1.5	1488	3959	2.5
Cavite	10836	20.8	162	0.2	102	264	0.3
Laguna	343	< 0.1	…	…	1	1	< 0.1
Marinduque	5458	29.1	199	0.7	686	885	3.1
Mindoro	126	1.1	638	1.5	686	1324	3.1
Rizal	1306	2.3	1128	0.7	91	1219	0.8
Tayabas	13796	25.1	10	< 0.1	28	38	< 0.1
Palawan	1500	14.1	68	0.2	229	297	1.0
Albay	20215	22.7	1591	1.1	2812	4403	3.0
Camarines N.	20803	24.0	15	< 0.1	39	54	0.2
Camarines S.			769	0.6	1569	2338	1.8
Masbate	3574	25.7	11	< 0.1	354	365	0.7
Sorsogon	11115	26.7	278	0.4	1564	1842	2.3

Table 7B Cont. Census distribution of women's spinning and weaving, Philippines, 1903, 1939.

	1903		1939				
	Census	% of age 10+	Census	% of age 10+	House-wives	Total	% of age 10+
Antique	18902	39.21	1587	2.2	2814	4401	6.1
Capiz	29458	33.1	3306	2.3	2659	5965	4.2
Iloilo	52879	34.8	6922	2.6	5155	12077	4.6
Negros Occ.	25180	25.2	700	0.3	860	1560	0.6
Romblon	5391	30.3	98	0.3	188	286	0.9
Bohol	5244	5.3	2936	1.6	3102	6038	3.4
Cebu	71810	32.0	3015	0.8	6810	9825	2.6
Leyte	38781	29.0	1382	0.5	855	2237	0.7
Negros Or.	22964	35.8	1338	1.0	3049	4387	3.3
Samar	40565	44.1	474	0.3	1927	2401	1.4
Misamis (Or.)	8473	18.9	11	< 0.1	124	135	0.2
Misamis Occ.	…	…	31	< 0.1	180	211	0.3
Surigao	5837	17.2	48	< 0.1	122	170	0.2
Agusan			28	< 0.1	345	373	1.2
Cotabato			125	0.1	190	315	0.3
Lanao			6610	8.9	5607	12217	16.5
Bukidnon	…	…	40	0.2	47	87	0.5
Davao	457	6.3	184	0.2	1219	1403	1.7
Sulu	…	…	2051	2.6	1875	3926	4.9
Dapitan	951	16.5					
Basilan							
Zamboanga			239	0.2	1254	1493	1.4
Mountain Prov.			31	< 0.1	805	836	0.8
Benguet	…	…					
Lep-Bontoc	285	35.7					
Nueva Vizcaya	227	3.8	25	0.1	20	45	0.2

Source: 1903 Census, Vol. 2, Table 60. 1939 Census, Vol. 1, Table 15

[a] The total includes 4034 women missing from the distribution in Census Table 60.

[b] The Census recorded 183 additional women working in textile factories.

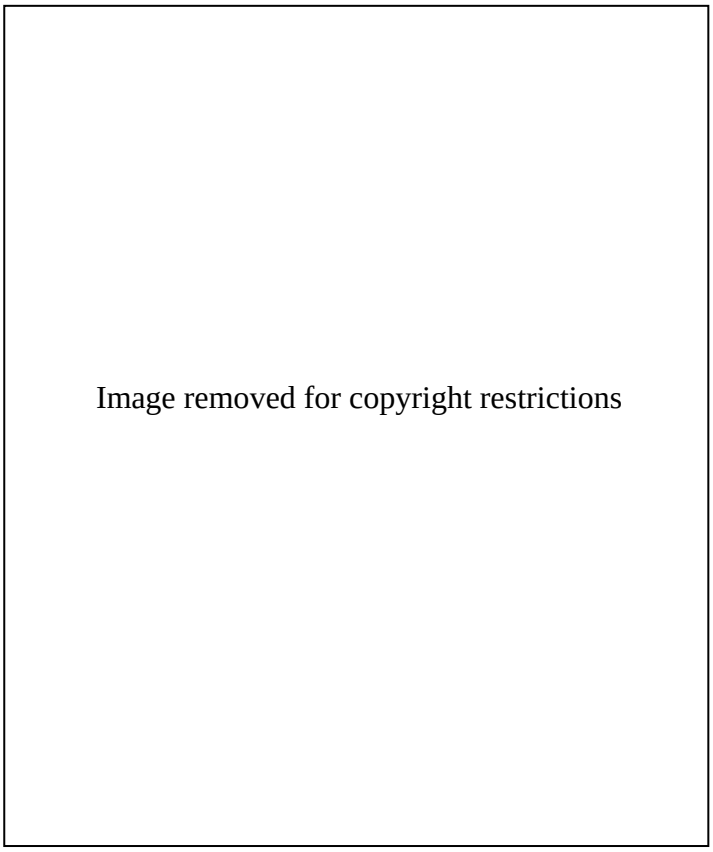

Figure 7.2. Stiff abaca cloth (sinamay) in blouses (barong) and skirts (saya), common to Central and Southern Luzon. The overskirts (tapiz) and scarf (paño), specialities of Batangas province and of Baliuag in Bulacan, were a combination of sinamay, cotton and perhaps silk.

Subanuns traded raw cotton for spinning, cotton yarn and cloth from Moros. L. Reyes (1992) describes the economic, social and religious significance of textile weaving to Bagobo, Mandaya and Bilaan women in the late 1800s and early 1900s. In addition, Beyer commented that Sulu women wove silk and cotton and Lanao Muslim women wove some abaca cloth. He also observed that in Luzon's Central Cordillera, Tinggian, Gaddang. Igorot and Isinai women wove cloth from native grown cotton in Abra, Isabela, the mountain provinces and Nueva Vizcaya.

Any suggestion, however, of the numbers of non-Christian spinners and weavers is extremely speculative. Census enumerators only estimated the non-Christian population, and the statisticians combined different peoples under one heading, such as all Luzon Cordillera inhabitants as Igorot (Volume 2, Table 20, p. 410). If we assume that 15 per cent of half those identified as Igorot, Bagobo, Bilaan, Bukidnon, Mandaya, Manobo and Subana (325,961 males and females in total) were females who spun and wove, then the occupation count missed about 24,450 women. The proportion compares with the proportion of enumerated (Schedule 1) females of all ages counted as spinners and weavers (16.2 per cent). It may be an over-estimation, however, as there are particular problems with the Igorot classification. It is likely that not all the so-called Igorot women wove. Before World War 2, Benguet people for example did not weave, but traded with lowland Ilocanos for funeral blankets, loincloths, skirts, jackets and plain white fabric (M. Lewis 1989). It is tempting to speculate about women aged 10 years or more who might have made textiles, but an assumption about age perhaps cannot be supported. Moreover, the calculation does not include any Moro women[3], nor does it mean that all the women wove textiles as paid work. Yet, the crude guess suggests that there might have been a sufficient number of non-enumerated spinners and weavers to alter slightly the Census record of the occupation's distribution.

Second, we know that in 1903, enumeration errors occurred in Bohol (see Chapter 5). The Census Report justified the error claim by drawing attention to the unexpectedly low proportion of women recorded as spinners and weavers (0.9 per cent of women aged 10 years or more). Sanciano (1975), writing in the early 1880s, noted the weaving of cotton and abaca in Bohol. Forbes-Lindsay (1906) recorded Bohol women weaving textiles from cotton and pineapple fibre. The Bureau of Insular Affairs listed in their description of Bohol the production of silk, cotton and piña fabrics, good quality sinamay, specialities of blankets and napkins, and on Siquijor island, coarse sinamay for export (U.S. War Dept. 1902). In view of these portraits, although unverified, the Census comment was perhaps appropriate. Additionally, with the exception of Mindoro and the frontier zone, Bohol was the only province in which the recorded number of spinners and weavers increased from 1903 to 1939. It does not fit the general pattern. In the other East Visayan provinces, 33.8 per cent of adult women engaged in spinning and weaving on average. If there were a similar

proportion in Bohol, then the Census misrepresented about 27,450 women in that province. It is impossible to test the calculation, however.

Together with the non-Christian omissions, it was therefore likely that the 1903 Census under-counted the spinning and weaving occupations by perhaps 50,000 women. If there were such an increase in the total number of spinners and weavers in 1903, then the extent of the reduction by 1939 was perhaps different from that depicted in the Census accounts. This is speculation, however, since it is not possible to establish the likely difference using the 1903 Census document alone, or to make satisfactory adjustments for the missing women. In addition, the management of the 1939 Census also affected that year's count of textile producers.

Chapter 6 examined the problematic count of the gainful employment in 1939, particularly the treatment of housewives who had paid employment and the associated factor of chance. The decision to exclude those women from the principal record in all likelihood distorted the account of spinners and weavers. As Table 7B shows, more housewives spun and wove as an additional occupation (75,154) than the number of spinners and weavers recorded as being gainfully employed (54,787). Perhaps a more accurate count of textile producers was more than double the recorded total, so that the national proportion of women so engaged was 1.4 percentage points higher than indicated. This does not alter the fact that the occupations declined substantially, but instead points to a possible variation in the national rate of decline.

By excluding the housewives in 1939, Census officials also perhaps misrepresented the significance of the occupations to women in particular provinces. Consequently, the official record perhaps misrepresented the uneven nature of the fall amongst provinces. If we consider the housewives together with the gainfully employed women, the primary records probably under-represented the importance of the occupations for Ilocano women more than for any other women. In Ilocos Sur, the proportion of adult women who wove perhaps fell by less than half compared with the official record and the reported decline in Ilocos Norte was greatly over-represented (Table 7B). It was possible that by 1939, weaving was still more important for women in Ilocos Sur than in Lanao, in contrast to the gainful employment record. As well, outside Ilocos, perhaps the occupations declined less in Albay and on Panay than elsewhere. On the other hand, the addition of the housewives had much less effect on

proportions in other provinces where textile production had once been of significance to women, such as in Batangas and Samar.

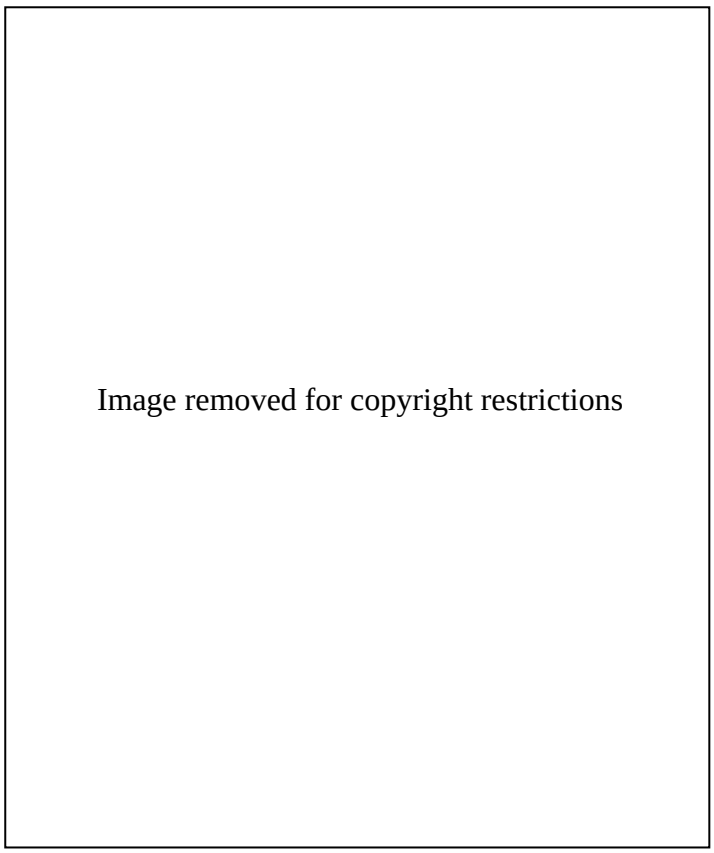

Figure 7.3. Clothing made from cotton fabric probably produced in the Ilocos region

This likely distortion had implications for any comparison with the 1903 data, already shown as inadequate. Nevertheless, despite the deficiencies of 1903, the Census accounts most likely over-represented the change in Ilocos, and in Panay and Albay to a lesser degree. Thus, the official accounts perhaps presented a false picture, compared with other provinces, of the significance of the occupations' decline in the East Visayas, Batangas and other provinces such as Tayabas. The national data tended to hide such provincial variations in the rate of change. It is therefore reasonable to suggest that regulation of Census spinning and weaving accounts might have misrepresented the significance of the occupations to women at national and provincial scales, in both years. The general assessment in the literature that the occupations declined significantly during the American period is correct, but the exact degree and

rate of fall in each province remains in dispute. Nor does examination of the data begin to solve Owen's (1984) question of did women lose the occupations to imported competition, or did they willingly leave them for other income earning opportunities?

There is indirect support in the literature for this interpretation of variable change. H. Lewis (1977) asserts that the labour intensive cottage spinning and weaving was a matter of subsistence to Ilocanos during the period, particularly in Ilocos Norte. It perhaps goes some way to explain the large number of weavers counted as housewives in that province. Early commentators also noted the gradual changes to weaving and woven products in the Ilocos region away from the cotton cloth shown in Figure 7.3[4]. McCoy's (1982b) examination of the decline of textile weaving in Iloilo and Owen's (1984) study of Bicol might also support the claim of variable change. Both authors note the continuing presence of the occupations, although neither author suggests that weaving retained its previous importance for women in the respective provinces. Together, these accounts hint at the uneven nature of the decline in these three regions, but we cannot draw any conclusions about the decline in other provinces from this. Indeed, Owen pleads that because there probably were provincial variations of change in weaving, researchers should investigate local circumstances, as he does in Bicol.

The revised interpretation contrasts with readings in other literature, which tend to overlook interprovincial variations in the decline of spinning and weaving. I would argue that such neglect was a likely consequence of the misleading Census evidence. The Census data, managed by the Census Bureau, largely hid the differences. Scholars perhaps accept the view that the general decline in the occupations was fixed and equal amongst provinces. Insufficient analysis also might be linked in part to the generalised view of the occupations noted at the beginning of this sub-section. Furthermore, I suggest that associated with the lack of discussion, some scholars tend to make sweeping causal statements that may be inappropriate about the change in the occupations.

Cortes (1990) illustrates the problem in her history of Pangasinan. She states on page 58: "Before the advent of the free trade relationship with the United States, there was a flourishing cloth weaving industry. In nearly all parts of the province, fabrics of cotton and yam were woven. In western towns where maguey[5] was grown, fabrics as fine as sinamay were woven". Yet, Beyer (1917) noted that the Pangasinanes did very

little weaving and Sawyer (1900) made no mention of the occupation in the province, despite the 1903 Census record of 23,188 women spinners and weavers in Pangasinan. Here, I assume relative accuracy in the early ethnographic accounts. A study by H. Lewis (1977) of one stream of the Ilocano migrations indirectly hints at one possible factor that might have contributed to the demise of Pangasinan weaving. He argued that Ilocanos tended to shed their typical characteristics and occupations once they migrated into Isabela and the upper Cagayan valley. Did the spinners and weavers in Pangasinan in 1903 reflect contemporary Ilocano migration into the province (Sawyer 1900; McLennan 1980) and were they the weavers to whom Cortes refers? If so, had those migrants abandoned the traditional Ilocano occupation by 1939 and why did that occur? Aggregated Census data cannot answer such questions of ethnicity. In short, was the fall in Pangasinan weaving a result solely of U.S. commercial exploitation? What part, for example, did Japanese interests play in the decline of the Pangasinan industry and how was the fall linked to changes in the indigo dyeing industry (see Chapter 4)?

The point is that the experience of change for women textile producers in each province or group of provinces perhaps differed. We ought not ignore that possibility, or make generalised statements about separate provincial cases based on trends shown in national Census data. Management of the Census occupation data for spinning and weaving in 1939 was intrusive enough to render those data potentially misleading at the provincial level. It seems likely that the data concealed interprovincial variations in the rate and extent of change. It was also possible that those differences might have reflected different circumstances or resulted from different causal factors. For these reasons, the Census data are open to misinterpretation, leading to possibly incorrect conclusions.

To the extent that the same problems of omission in 1903 (that is, the incomplete enumeration) affected the data for other occupations, I shall not examine them in detail for each case.

Other textile craft occupations: sewing, embroidery and dressmaking.

Although these occupations encompassed different skills, it is difficult to investigate them independently. Three factors possibly contributed to the problem. Compared with 1903, there was greater emphasis in the 1939 Census on the industrial location of work, reflecting the ideology of the Bureau. Change in the organisation of the occupations over the period might have contributed to that view. Second, although women who worked at home perhaps lacked specialisation, Census authorities appeared unwilling to recognise the differences among the crafts. Statisticians therefore tended to amalgamate the occupations of women who worked with fabrics. This probably traced back to U.S. Census Office confusion over the purpose of occupational statistics and the decision to depict occupations by the goods made or services provided (see Chapter 4). Distinctions that the Bureau used in the 1939 Census, of 'owners, agents and officials', 'skilled operatives' and 'labourers' only served to separate social classes, not to distinguish the technical characteristics of the occupations (Scoville 1965). These two factors imply interference in the enumeration that was perhaps sufficient to distort the data. The third factor, chance, might have affected the count of each occupation.

At first glance, Census data given in Table 7C indicate considerable change in the occupations of seamstress and embroiderer between 1903 and 1939. The seamstress occupation was widespread throughout the archipelago in 1903 and relatively common in Manila, where enumerators reported 10 per cent of adult women as seamstresses. But the classification disappeared from the later count. Why was it withdrawn from the usual occupation record and where did seamstresses go? Unfortunately, there is little in the literature about the role or place of seamstresses for either 1903 or 1939. Embroiderers, in contrast, appeared to expand their numbers from about 7,000 to over 111,100, spread to all provinces and moved their core distribution from Rizal and Manila to Batangas and Bulacan. Did these observed changes reflect a reversal in the relative importance of the two occupations, or were they partly the result of occupational regulation by the statisticians? Furthermore, were Filipino women of 1939 more likely to be embroiderers than spinners and weavers, as the Census data portrayed?

a) Seamstress

When early writers listed the products made in the household sewing crafts (clothing, household linen and furnishings for domestic consumption or interprovincial trade), few gave any recognition to the women who made those goods. Authors generally ignored the necessity for households to produce clothing at a time when mass-produced, standardised garments were not available. In contrast to the general acknowledgement of women weavers and embroiderers, Sawyer's (1900, p. 244) report that Pampanga women were "excellent sempstresses" was an exception. But the seamstress occupation in the Census appeared to be vague, a catch-all classification. It perhaps catered for the lack of specialisation by women noted by Census authors (see Chapter 5, Note 14) and it illustrated the indecisive nature of the enumerators' instructions. There is also a question about the placement of the occupation in the Manufacturing sector.

Table 60 in the 1903 Census reported seamstresses in all provinces and districts except Sulu and Cotabato (see Table 7C). (Note that Batanes, Misamis Occidental, Lanao and Bukidnon were not yet declared separate units, see Maps 1 and 2.) We do not know the origins of the seamstresses or who employed them, but it is likely that many worked in domestic service, either as part of the household or as day employees. Contemporary writers such as Fee (1912) and Sawyer (1900) listed seamstresses in their descriptions of domestic servants. Foreman (1980 p. 181) remarked in 1906 that girls offered to expatriates by poor parents in exchange for loans "were admitted under the pseudonym of sempstress or housekeeper". As well, Hugo Miller (1913) described the making of household linen to furnish homes as housework, which might or might not have been a masculine view. It implied that many women sewed at home for their own household. He might also have implied a condition of domestic service in well-to-do households. Camagay (1995) supports this view when she notes that servants in the late nineteenth century often did household sewing tasks. If indeed seamstresses worked for households or as part of household staff, then it should be asked if a more appropriate classification for the occupation was under Domestic and Personal Service, as were launderers (see also Clark's (1905) description of the difficulty in

TABLE 7C

CENSUS DISTRIBUTIONS OF WOMEN'S SEAMSTRESS, EMBROIDERY and DRESSMAKING OCCUPATIONS, PHILIPPINES, 1903 and 1939

	1903			1939			
	Seamstress	% of age 10+	Embroidery	Tailor Shops	Shirts	Embroidery, Dressmaking	Housewives
PHILIPPINES	**65278[a]**	**2.6**	**6928[b]**	**7994**	**2059**	**111180**	**59571**
Abra	250	1.8	...	21	1	75	183
Ilocos N.	2466	3.8	177	35	...	593	1594
Ilocos S.	1054	1.6	242	108	4	1204	1295
La Union	1668	3.6	64	136	...	689	890
Cagayan	1905	3.9	...	56	...	382	343
Batanes				2	...	3	52
Isabela	171	0.7	...	34	...	143	285
Bataan	380	2.3	...	77	2	1494	987
Bulacan	1919	2.3	254	181	12	13812	5950
Nueva Ecija	1791	3.8	...	289	4	1658	1000
Pampanga	3053	3.8	379	295	7	9180	3022
Pangasinan	5479	4.1	48	354	3	1688	2150
Tarlac	1947	4.2	...	113	...	789	585
Zambales	1035	3.0	...	22	...	161	220
Manila	7093	9.9	900	612	911	7682	721
Batangas	2281	2.2	396	282	40	30911	11585
Cavite	2075	4.0	...	134	6	2411	1280
Laguna	2106	3.6	92	99	3	2335	721
Marinduque	162	0.9	...	16	...	129	229
Mindoro	721	6.3	...	31	...	697	646
Rizal	3586	6.3	1839	118	290	11488	3831
Tayabas	1575	2.9	50	51	2	1674	1071
Palawan	271	2.6	...	15	...	80	146
Albay	2322	2.6	96	213	1	696	1173
Camarines N.	1463	1.7	83	123	...	213	167
Camarines S.				264	...	921	913
Masbate	256	1.8	...	74	...	207	563
Sorsogon	480	1.2	...	127	...	498	1111

Table 7C Cont. Census distribution of women's seamstress, embroidery and dressmaking occupations.

	1903			1939			
	Seamstress	% of age 10+	Embroidery	Tailor Shops	Shirts	Embroidery, Dressmaking	Housewives
Antique	342	0.7	367	46	…	464	307
Capiz	1042	1.2	186	125	…	962	402
Iloilo	3092	2.0	555	840	…	4904	2111
Negros Occ.	1976	2.0	144	540	…	3287	1390
Romblon	1306	7.3	…	25	…	145	218
Bohol	217	0.2	…	163	…	776	1364
Cebu	2988	1.3	235	790	773	3364	1681
Leyte	2543	1.9	465	543	…	1638	2660
Negros Or.	555	0.9	46	152	…	528	624
Samar	921	1.0	57	149	…	504	1829
Misamis (Or.)	936	2.1	…	128	…	409	727
Misamis Occ.	…	...	…	134	…	386	489
Surigao	865	2.6	…	112	…	215	600
Agusan				61	…	114	268
Cotabato	…	…	…	5	…	71	86
Lanao	…	…	…	63	…	254	336
Bukidnon	…	…	…	5	…	18	126
Davao	241	3.3	…	62	…	223	489
Sulu	…	…	…	12	…	215	440
Dapitan	246	4.3	…				
Basilan	71	16.4	...				
Zamboanga	279	4.1	…	47	…	489	520
Mountain Prov.				101	…	312	142
Benguet	71	32.1	…				
Lep-Bontoc	38	4.8	…				
Nueva Vizcaya	35	0.6	…	9	…	89	49

Source: 1903 Census, Vol. 2, Table 60. 1939 Census, Vol. 1, Table 15

[a] The total includes 5 women missing from the distribution in Census Table 60.

[b] The total includes 253 women missing from the distribution in Census Table 60.

distinguishing domestic service from manufacturing and trade occupations, Chapter 4).

On the other hand, expatriate comments perhaps illustrated change in the organisation and conditions of work for seamstresses (and domestic servants), changes already under way but possibly accelerated by the Americans. Camagay (1995), for example, infers from Fee's commentary that seamstresses were no longer part of household retinues, instead being paid as contracted wage earners. I tend to think that Fee's remarks about contract work perhaps applied to American establishments only, and that her description referred to all domestic servants, not just the seamstresses. She noted that local families still supported many service workers including seamstresses as 'clientele', in contrast to the American practice of employing fewer servants on a contractual basis[6]. Nevertheless, there is other evidence to suggest that conditions of employment for seamstresses were changing, particularly in urban areas. For example, the Department of Labor (cited in U.S. War Dept. 1902) reported women, some of whom probably were seamstresses, employed in Manila's 97 tailoring establishments in 1900 (see also Clark 1905). The 1903 Census recorded no female tailors amongst the 14,201 men so counted, although it did identify 7 male seamstresses, 2 in Cagayan and 5 in Manila.

It appears likely then, that in 1903 an unknown proportion of seamstresses was employed as wage earners, manufacturing goods in non-domestic places of work and under different conditions of employment. That perhaps justified in part the Census Bureau decision to count seamstresses as part of the Manufacturing and Mechanical sector. It also supports Margo Anderson's contention that the Bureau emphasised productive occupations over service occupations (see Chapter 4). In regulating the account so, however, the statisticians perhaps inaccurately represented the seamstresses working in domestic service.

In the 1939 gainful employment account, Census authorities divided and blurred the seamstress classification. Their statistical management resulted in concealed information and a distorted record. First, seamstresses working in commercial establishments lost their identity. By 1939, the Census Bureau had scrapped the distinction between productive and non-productive occupations, instead classifying occupations according to industry (Conk 1978). Following instructions, enumerators placed clothing workers according to the relevant industry, in an attempt to count factory workers. Tailor shops and necktie manufacturing, shirt manufacturing,

and dressmaking establishments came under this umbrella. Shirt making, for example, combined 17 occupations in factories[7] and 6 at home, including seamstress, sewing machine operator[S] and seamer (1939 Census, Volume 2, Chapter 10, p. 477). As well, seamstresses assembled ready to wear garments in the embroidery industry (see next section). We therefore cannot tell how many women were seamstresses in these industries, or indeed how many women were pattern makers, cutters, button holers or fitters. Although Table 7C shows the distribution of shirt makers and tailors for 1939, the data obviously do not accurately represent the number of seamstresses. Instead, they only hint at the movement of seamstresses into retail trade-based production, centred in the larger population centres of Manila and its surrounds, Cebu and Iloilo.

Household linen, bedding and furnishings on the other hand, did not fit this clothing industry classification and it is unclear where statisticians placed home-based women who sewed household items or indeed other clothing[9]. The Echevarria family in Manila, for example, employed their seamstress, Anching, once a week to sew curtains, clothes for the children, casual frocks for the mother and to do the mending (De Gonzalez 2000). The gainful employment record of the 1939 Census has no trace of home-based seamstresses or of those working for other households. Enumerators might have counted such women as servants, embroiderers, housewives, or perhaps as housewives with additional occupations. Yet, the last two alternatives might have been women's choice, a matter of chance in statistical terms. We therefore cannot attribute the entire apparent decline in the occupation to direct regulation of home-based seamstresses. Instead, I suggest that in part it was probably an indirect consequence of the Bureau's contradictory approach to women's gainful employment, itself perhaps dependent upon the organisation of the 1939 Census (see Chapter 6). The seamstress example does little to help explain the approach of the Bureau.

Furthermore, statisticians generalised sewing occupations when they named the relevant group of the additional occupations for housewives as "embroidery work, including the making of dresses, clothes and mosquito nets" (1939 Census, Volume 2, Chapter 12, p. 766). We cannot tell what proportion of the housewives were seamstresses, or in which provinces they were to be found. Unless it is possible to examine the enumerators' returns, the statistical disappearance of home-based seamstresses will remain a mystery.

The apparent reduction in number and any change in the spatial distribution of seamstresses are therefore difficult to investigate. The direct instruction to concentrate on the place of work obscured the particular sewing skills of seamstresses amongst other industry-related occupations, and it appeared to exclude home-based sewing. Home-based seamstresses were most probably combined with other occupations in both the official gainful employment record and the count of additional occupations. Census statisticians of 1939 thus controlled and perhaps manipulated the record of women's work for this occupation. In all likelihood, the recorded demise of the seamstress occupation was misleading, perhaps even untenable. Moreover, the example of the seamstresses provides further evidence to support the idea that 1939 Census authorities still premised gainful labour on women's household dependency.

That there is little comment in the literature with which to compare my interpretation seems to suggest that authors have considered the occupation unimportant, or that they have looked upon the Census findings as the truth. Both cases imply gender biased value judgements and in the second case, a verdict tainted by colonial authority as well. But comparison cannot be made with or judgement passed on non-existent commentary. It is easy but wrong to condemn unknown attitudes from a distance, although authors nevertheless have perpetuated the bias, even if unwittingly, by their acquiescence with the Bureau's ideology.

b) Embroiderers, dressmakers and milliners.

Fine, elaborate, personalised embroidery was stitched to decorate piña and jusi clothing of the upper classes at the end of the nineteenth century (Tiongsan 1978) (see Figure 7.4). Women stitched in white and coloured silks and in gold and silver thread, although Sawyer (1900) noted that men sometimes did the metallic work. Reports also described the needlework of women in Antique and of designs worked in white sewing cotton by women in other parts of Panay and Negros (for example, Dauncey 1906). It was the only way to alleviate the stripes and plaids possible on the simple weaving looms (G. Miller 1912), and women handed down local designs and stitches through the generations. Embroidery had been a pastime rather than a source of income for the genteel, convent educated and Spanish speaking women of Ermita, Malate and Sta. Ana in Spanish Manila (Agoncilla 1978; Ira 1977; but see Camagay (1995) on the

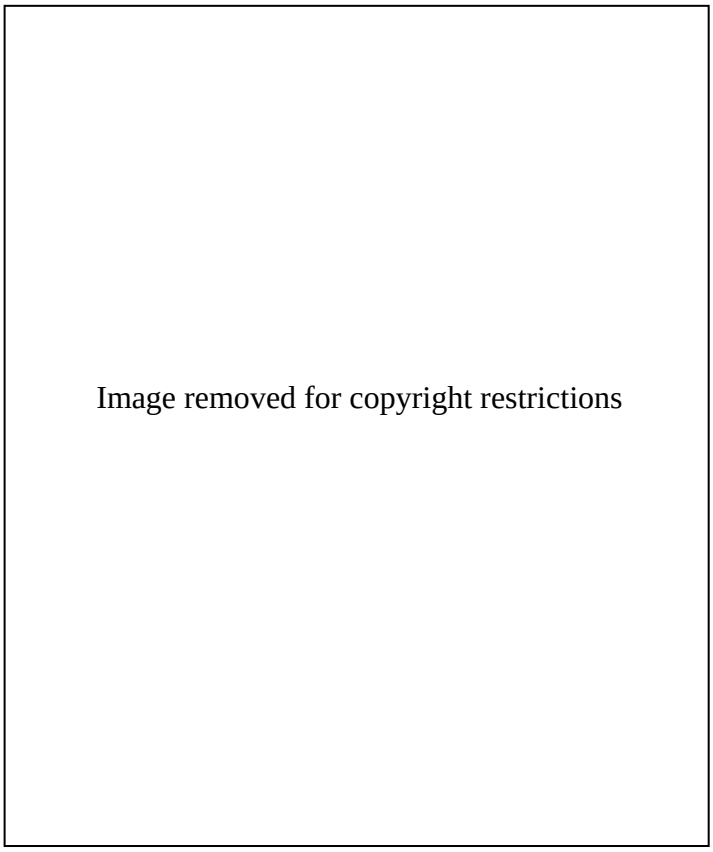

Figure 7.4. Richly embroidered piña baros and pañuelas (blouses and scarves) from the nineteenth century. By the 1910s, pañuelas were stiffened and sat wide on the shoulders. The detailed design and construction of these costumes would have been the work of dressmakers. not seamstresses.

possibility that nuns acted as entrepreneurs). Although the literature is imprecise, embroidery was by 1903 a marketable skill and it is a reasonable assumption that the women earned some income from the occupation. The Manila Directory (Corders-Fernando and Ricio 1978)[10], for example, listed Victoria Ruiz of 134 Madrid St, San Nicolas, as an embroiderer. Other roaming traders sold embroidered items in Manila

streets (L. Brown 1919). The Census recorded 6,928 embroiderers from the Schedule 1 count, one in every 2.5 of whom lived in Rizal or Manila (see Table 7C). It is unlikely that the 253 missing embroiderers from Census Table 60 affected this distribution either way to any extent. Embroidery, like dressmaking, was therefore still a custom craft responsive to local demands.

Within 10 years of that Census, American authorities began to standardise and commercialise production in order that Philippine embroidery might supply the U.S. market. By the 1920s, U.S. investors and the authorities had created an export industry producing mass consumption, ready to wear garments[11] (Figure 7.5) (L. Brown 1919; Crow 1914; Doeppers 1984; Gleeck 1975; Philippine Commission of Independence 1923; Shepherd 1941). American firms at first established factories in Manila where local women stitched while sitting at long tables, but changes occurred in those arrangements over time[12]. Owners then employed agents or contractors to deliver thread and pieces of imported cloth, cut and stamped with the design, to women first in Manila and Rizal, then in Cavite, Laguna, Bulacan, Batangas and more distant provinces[13]. The photograph in Figure 7.6, which was used in another company advertisement and was composed to show idyllic working conditions for the women, probably misled readers. The women were paid by the piece on pick-up. Because of specialisation in stitches or style of embroidery, agents or contractors sometimes transferred one piece between embroiderers in two or three locations before its completion. Women in Taal (Batangas), Lumban (Laguna), and Parañaque and Las Piñas (then in Rizal), for example, embroidered different traditional patterns and styles (E. Reyes 1990).

Factory workers then graded, sewed, laundered, prepared for sale and packed the lingerie, blouses, infants' wear and table linen for export. A 1928 Bureau of Labor Report recorded that average daily wages for Manila embroidery factory workers varied from 0.87 pesos for embroiderers (having fallen from 1.12 pesos in 1927) to 1.05 pesos for ironers and 1.27 pesos for designers (U.S. Bureau of Labor Statistics 1930). Gleeck (1975) asserted that many early entrepreneurs who established embroidery firms in the provinces were Filipino women graduates from the School of Household Industries[14], but that in later years, the agents were all males. The 1939 Census evidence that 97.5 per cent of owners, agents and officials were women suggests that before World War 2, men had not yet taken over all those functions. In

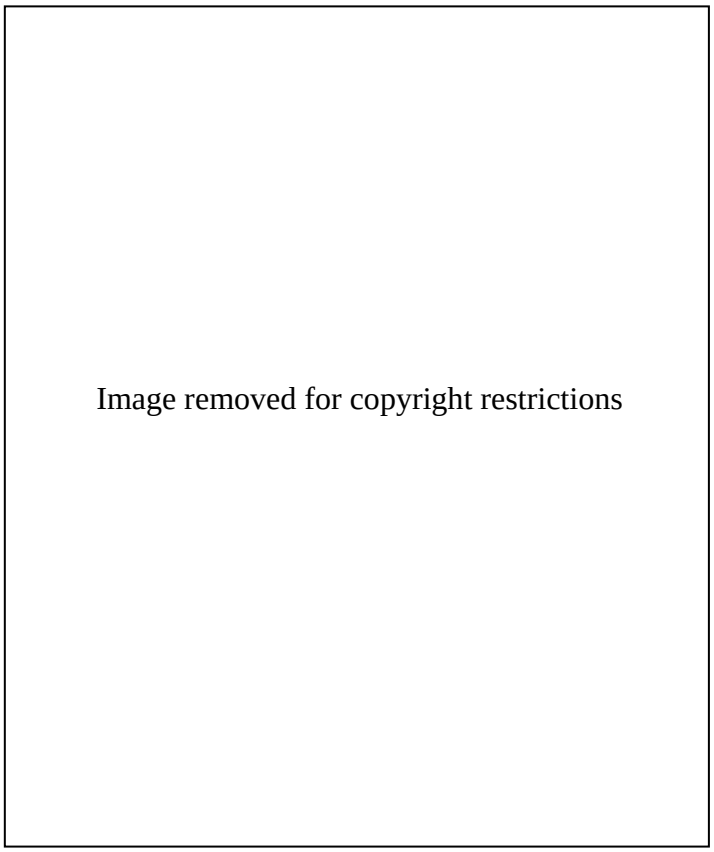

Figure 7.5 One of the full-page advertisements in the Manila press for New York companies, soliciting U.S. buyers of Philippines embroidery.

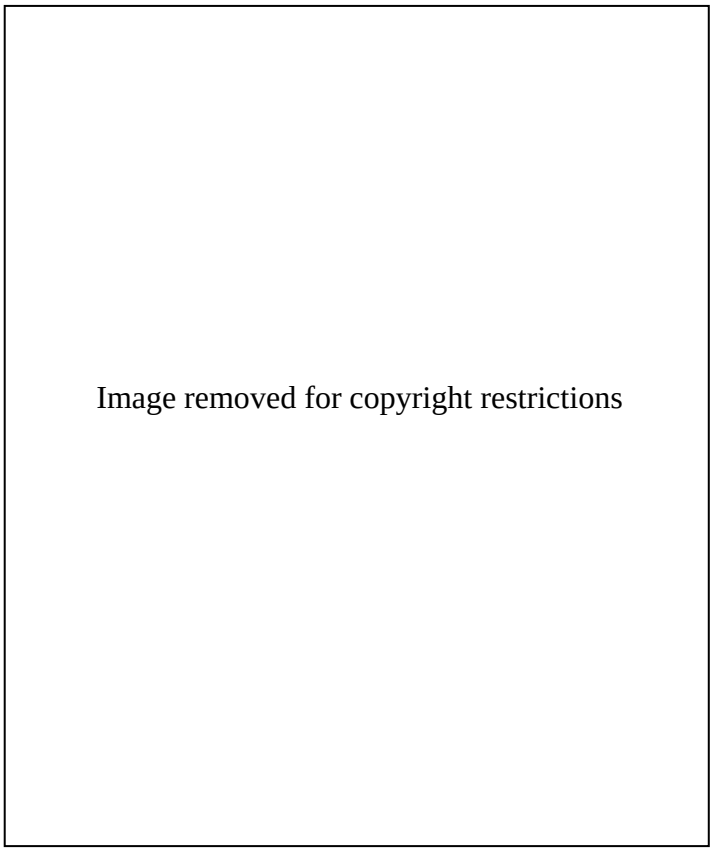

Figure 7.6. Labelled "Home embroidery workers" in the 1920 Philippines Yearbook, the photograph was perhaps an inaccurate representation of the industry, its workers and their conditions of work.

short, embroiderers were no longer urban, upper class women but mostly rural and poorer women on piece rates, working to fulfil uniform foreign orders.

There is no doubt therefore, that the national and provincial proportions of women engaged in embroidery increased and that the provincial distribution of the occupation changed by 1939 (but see Note 12 on the rise and decline of the industry over the interim). Vet, we should treat the 1939 Census gainful employment record with caution. The national and provincial counts of embroiderers are not at all clear, even if the provincial spread of the occupation perhaps tended to be as the data showed. Because of the uncertainty, I have not entered proportions of adult women for either seamstresses or embroiderers for 1939 in Table 7C.

First, the classification by industry in all likelihood inflated the data. The Census identified 10,759 of the women embroiderers as owners, agents or officials, 99,829 as operatives and 592 as labourers. Agents probably did not engage in embroidery, but without archival research, their number and distribution are unknown. The owner and official classes perhaps hid information about possible multiple occupations (1939 Census, Volume 2, Chapter 10, p. 473). Provincial records showing the ratio of female owners, agents and officials to female operatives were erratic so provide little guide. Varying from 1:0.8 in Ilocos Sur to 1:92 in Batangas, the ratios perhaps reflected inconsistent enumeration practice rather than any accurate description. There must be doubt that all the 10,000 women identified as owners, agents or officials were in fact embroiderers.

Uncertainty about the operative class also makes it difficult to estimate by how much Census statisticians bulked the embroiderer classification. Operatives covered 21 factory and home operations including foreman, designer, cutter, stamper, mender, launderer, ironer, ticketer, packer, inspector and shipper as well as embroiderer – and seamer or seamstress (1939 Census, Volume 2, Chapter 10, p. 477). One report, for example, stated that because the industry produced whole garments, "sewing is just as important as embroidery, and occupies about as many needleworkers...the term 'embroidery' is used to include all needlework" (Winship 1938, p. 716). Winship's declaration suggested conspicuous over-statement of the embroiderer occupation by Census statisticians and might have partly explained the missing seamstresses. If that were so, then perhaps only 40,000 to 50,000 women were embroiderers.

But Winship's statement is the only available estimate of the ratio of seamstresses to embroiderers and there is no evidence on which to assess its validity. I suspect that the suggested ratio overestimated the proportion of seamstresses directly connected with the embroidery industry. By all accounts, it took between 3 and 12 months for a piece of embroidery to be completed, given the specialisation in the occupation. There simply would not have been enough sewing to keep one seamstress occupied per embroiderer, even if the sewing were done by hand. That leaves the question, exactly how many of the reported embroiderers were seamstresses? On the other hand, if the embroidery data included the count of seamstresses who worked outside the embroidery industry (that is, making clothing and household linen), then the ratio suggested by Winship might have been relatively correct.

Second, the classification included dressmakers and milliners (see Chapter 4 for the ambiguity surrounding millinery and dressmaking). In their list of first events in Manila, Ira and Medina (1978) noted that 1910 saw the birth of dressmaking as a craft and business, when the first fashion arbiters and couturiers were established. The comment is confusing and perhaps Ira and Medina were referring to western style fashion introduced by the Americans (see also Figure 7.4). I have found few other references to these two occupations in the literature[15]. The Census combination of dressmaking with embroidery certainly clouded and increased the classification in 1939, but the count and distribution of dressmakers (as for each separate occupation) is perhaps untraceable. The Census therefore contained few clues that might support any conjecture about the proportion of women who were not embroiderers, but whom officials counted as such.

Conversely, chance possibly reduced the count of gainfully employed embroiderers if the women were reported as housewives with an additional occupation. Did the women so excluded counterbalance the excess included in the official account? Census statisticians confounded any reassessment of the record, when they apparently combined all textile craft occupations (embroiderer, dressmaker, mosquito net maker and presumably seamstress) into the one category for housewives with additional occupations (see the previous section). Furthermore, perhaps another inconsistency appeared between the primary and supplementary occupation accounts. It is not clear, but it was possible that statisticians counted housewives who worked part-time as agents or brokers for the embroiderers not in that craft classification, but as dealers. The latter classification included "market vendors, salesmen, agents, etc" (1939 Census, Volume 2, Chapter 12, p. 766). These questions of tabulation need clarification. If it were the case, then the irregularity additionally confuses any reassessment and points to another form of interference in the accounts.

Table 7C indicates that there were nearly twice as many housewives with embroidery group occupations in Batangas than elsewhere. According to the 1939 Census, the embroidery industry provided employment for 64.7 per cent of all adult gainfully employed women in Batangas, excluding the housewives. That did not mean all were embroiderers. It was possible that statisticians counted mosquito net weavers in towns such as Alitagtag, Bauan and Ibaan (Area Handbook 1956) as embroiderers in the official record, for example. Nevertheless, we might reasonably assume that a large

proportion of the Batangas housewives with additional occupations were also embroiderers. Perhaps too, similar proportions of the housewives in Bulacan, Rizal and possibly Pampanga were embroiderers, but the evidence is less compelling. For one thing, if Pampangan women were 'excellent sempstresses' in 1903 (see the previous section), did the 1939 count of housewives there hide a continuing specialisation in sewing? We cannot make the same inference about the mix of housewives' additional occupations in other provinces. There is, therefore, little evidence on which to base an estimate of the housewife embroiderers excluded from the record.

It is most likely then that the Census record of embroiderers was inaccurate. Because of management decisions regulating the enumeration and tabulation, other occupations inflated the official record. The overstatement might have been by as much as one half, with seamstress probably being the occupation most affecting the count of embroiderers. Second, chance possibly lowered the reported number of embroiderers, but it is impossible to know to what extent. It should be remembered, however, that even if women chose to be enumerated as housewives, the decision to exclude housewives with paid work from the main record was not chance, but a likely consequence of the Census organisation. Yet, there is no sound evidence presently available to test possible statistical interference in the embroidery occupation. We are therefore left with uncertainty. Similar hesitancy also appeared in the literature about numbers of embroiderers in the post 1945 period[16].

On the other hand, we must assume that the reported provincial dispersal of embroiderers was reasonably accurate. Scattered reports in the literature of embroiderers in particular provinces confirmed the broad Census evidence. The occupation, however, did not expand evenly across provinces over the period. The literature contains no explanation why women in Batangas and Bulacan took up embroidery to such a degree compared with women in other provinces[17] (see also Note 13). Why was there not the same rate of growth in Cavite or Laguna or even in Manila? Any attempted explanation for the uneven rate of expansion across provinces would be unreliable until there is further study.

Census data in 1939 conveyed an image that, of the two occupations seamstress and embroiderer, the former was no longer significant to Filipino women and the latter was dominant. Examination of the context suggests that the representation might have been false. Although statisticians regulated the count of both occupations in the same

way, their action produced opposite outcomes in the gainful labour record. Emphasis on an industrial classification of occupations and perhaps a measurement of the labour force had serious repercussions for seamstresses especially. The women, now considered part of various textile and clothing industries, lost their categorisation as independent labour and consequently, their occupational identity. The loss particularly affected women who sewed at home. Embroidery, on the other hand, through American investment and considerable government intervention, became an industry in its own right incorporating many occupations, including seamstress. Perhaps there were as many or more seamstresses as embroiderers and maybe the Census exaggerated the count of embroiderers. The Census account of women's fabric craft occupations was therefore deceptive. That situation arose directly from the statistical management of the occupations, but the conclusion is tentative because the proposition cannot be tested from either the data or the literature.

If statisticians did overestimate embroiderers in 1939, then there were other consequences as well. By amalgamating the embroidery industry occupations, Census officials perhaps also misled readers about the relative importance of other occupations. It was possible, for example, that spinners and weavers out-numbered embroiderers, especially if one takes into account the housewives with additional occupations. Yet, the Census presented an unequivocal view that within women's occupations, spinning and weaving was of less importance than embroidery. Although uncertainty about the data ensures that my suggestion is only conjecture, the possibility introduces doubt about the Census portrayal of the place of embroidery as an occupation in 1939. The interpretation differs from the views presented in the literature, which adopt the Census picture of embroidery at face value.

Two opposing interpretations of the embroidery industry appear in the limited literature, and each presents in passing a different ideological view of the presumed occupational change. Even if for contrasting ends, both scholars emphasise the idea of development and each relies upon primary Census data, drawing attention to the embroiderers in support of his argument. First, a contemporary commentator, Shepherd (1941), asserted that the Census showed women's movement from household handicraft production into what he described as an elaborate adaptation to modern conditions, that is, export and factory production. Structural occupational change had occurred in the Philippines, he suggested. Yet, in his attempt to illustrate

improvement in the nation's industrialisation and progress, he appeared to ignore the provincial and home-based location of women embroiderers. Moreover, by ignoring the provinces and down-playing household craft production, he also implied that other occupations of provincial women were of lesser importance. Census data appeared to support the implication.

Ofreneo (1982), on the other hand, contends that the expanded embroidery industry represented handicraft production not manufacturing and was yet another example of U.S. colonial exploitation. This tends to rely upon a notion of manufacturing as being a factory-based male preserve. His interpretation, grounded in dependency theory, tends to be politico-economic in nature and fails to acknowledge life for Filipino women in the local society (Larkin 1982). In Ofreneo's view therefore, the occupational change was nominal only. Despite the divergent positions of Shepherd and Ofreneo, I would argue that their propositions illustrate the potential misinterpretation made possible by Census Commission management of the embroidery occupation. The Commission regulated the data to emphasise the embroidery industry, to the detriment of other occupations. Scholars therefore tend to undervalue the continuing significance of women's other household textile/fabric occupations to the national and family economies and to women themselves.

As it was for the textile crafts, so it was likely that the Census gainful employment accounts of women's other home-based occupations were perhaps misleading. The following section examines the occupations of weaving mats and sacks and hat making.

Mat and sack weaving and hat making.

TABLE 7D.
CENSUS RECORDS OF WOMEN'S GAINFUL EMPLOYMENT IN THREE OCCUPATIONS, PHILIPPINES, 1903 AND 1939

	1903		1939	
	Total	**% of age 10+**	**Total**	**% of age 10+**
Mats	21749	0.87	26198	0.48
Sacks	11109	0.44	368	< 0.1
Hats	11993	0.48	20448	0.38

According to the summary of Census data (Table 7D), the proportional distribution of women's hat, mat and sack making changed during the four decades before World War 2. Although the number of women making mats and hats grew, in

each case the proportion of adult women so engaged apparently fell. It might be inferred from the data that in proportional terms mat weaving declined at a faster rate than did hat making, while making sacks as an occupation appeared to cease. But the statistical management of housewives in 1939 affected these data and such conclusions may be invalid. Investigation of the Census indicates that the proportion of adult women engaged in these occupations in all likelihood increased, with mat or sack weaving remaining as the most likely options for two-thirds of the women. In addition, I suggest that the official provincial records tended to misrepresent change over time in some provinces.

a) Mat and sack weaving.

Early twentieth century authors either noted that women "to some extent in all parts of the Philippines" (Clark 1905, p. 810) wove mats or sacks, or commented upon the products of certain towns (Beyer 1917; Sawyer 1900). Perhaps with a view to standardising production preceding establishment of a proposed export industry, mat manufacturing was surveyed during the early years of U.S. rule (Bureau of Education 1913)[18]. That study described specialisation in different locations, in raw materials, methods of preparation, types of weaving and products, but was not in any sense an economic account. Although we cannot verify its geographical information, there is little reason to doubt the descriptions. The report provided a source with which to compare the 1903 Census provincial record given in Table 7E.

Assuming the 1913 industry study descriptions to be reasonably correct, we might regard the 1903 Census as under-enumerating women who wove mats and sacks. The industry report noted scattered mat weaving in Abra, La Union, Isabela (at Palanan), Mindoro, Albay (in the Tabaco area), Sorsogon (at Bulusan), Dinagat Island (mats exported through Bohol traders) and Talacogon in Surigao, Palawan (Cuyo Islands, the mats exported to Antique), Lanao, Cotabato and Bukidnon. Miller (1910) also noted mat weaving in Marinduque. Census Table 60, however, recorded not a single woman weaving mats in those provinces or districts (see Table 7E). As well, women who evidently plaited buri *bayones* (sugar and rice sacks from the *Corypha umbraculifera* palm) on the Bondoc Peninsula in Tayabas were similarly unreported in the official count.

TABLE 7E.

CENSUS DISTRIBUTION OF WOMEN'S MAT and SACK WEAVING OCCUPATIONS.

PHILIPPINES. 1903 AND 1939.

	1903				1939					
	Mats	% of age 10+	Sacks	% of age 10+	Mats	% of age 10+	Sacks	House-wives	Total	% of age 10+
PHILIPPINES	**21749[a]**	**0.9**	**11109[b]**	**0.4**	**26198**	**0.5**	**368**	**115017**	**141583**	**2.6**
Abra	…		…	…	1	< 0.1	…	139	140	0.4
Ilocos N.	402	0.6	…	…	143	0.1	…	875	1018	1.1
Ilocos S.	1	< 0.1	…	…	302	0.3	…	1322	1624	1.5
La Union	…	…	…	…	1	< 0.1	…	72	73	0.1
Cagayan	288	0.6	…	…	166	0.2	…	574	740	0.7
Batanes	…	…	…	…	…	…	…	…	…	…
Isabela	…	…	…	…	…	…	…	364	364	0.7
Bataan	38	0.2	…	…	99	0.3	1	117	217	0.7
Bulacan	805	1.0	…	…	224	0.2	…	231	455	0.4
Nueva Ecija	473	1.0	…	…	88	<0.1	1	383	472	0.3
Pampanga	7566	9.4	367	0.4	1381	1.1	22	1725	3128	2.4
Pangasinan	3116	2.3	904	0.7	1050	0.4	188	15114	16352	6.2
Tarlac	…	…	…	…	17	< 0.1	3	150	170	0.2
Zambales	1949	5.6	…	…	28	<0.1	…	511	539	1.5
Manila	…	…	…	…	9	< 0.1	52	2	63	< 0.1
Batangas	855	0.8	621	0.6	622	0.4	…	1228	1850	1.2
Cavite	…	…	…	…	…	…	…	10	10	< 0.1
Laguna	1168	2.0	…	…	555	0.6	2	816	1373	1.4
Marinduque	…	…	…	…	4	< 0.1	…	122	126	0.4
Mindoro	…	…	…	…	338	0.8	2	1429	1769	4.2
Rizal	1617	2.9	…	…	67	< 0.1	9	169	245	0.2
Tayabas	360	0.6	…	…	198	0.2	71	1772	2041	1.7
Palawan	…	…	…	…	135	0.4	…	2565	2700	8.7
Albay	…	…	…	…	1309	0.9	…	3155	4464	3.1
Camarines N.	…	…	…	…	6	< 0.1	…	98	104	0.4
Camarines S.	...	...	...	...	123	0.1	1	1206	1330	1.0
Masbate	…	…	284	2.0	225	0.4	…	3041	3266	5.9
Sorsogon	…	…	…	…	106	0.1	…	1809	1915	2.4

Table 7E Cont. Census distribution of women's mat and sack weaving occupations. Philippines. 1903.1939.

	1903				1939					
	Mats	% of age 10+	Sacks	% of age 10+	Mats	% of age 10+	Sacks	House-wives	Total	% of age 10+
Antique	69	0.1	...	...	385	0.5	...	1299	1684	2.3
Capiz	167	0.2	7357	8.2	882	0.6	...	2324	3206	2.2
Iloilo	650	0.4	...	...	1026	0.4	4	3052	4082	1.5
Negros Occ.	56	< 0.1	...	...	405	0.2	...	1806	2211	0.9
Romblon	519	2.9	106	0.6	784	2.4	...	1832	2616	7.9
Bohol	635	0.6	...	...	2959	1.6	...	6462	9421	5.2
Cebu	132	< 0.1	779	0.3	1182	0.3	...	5452	6634	1.8
Leyte	151	0.1	...	...	1707	0.6	3	11494	13204	4.4
Negros Or.	62	0.1	630	1.0	244	0.2	...	2015	2259	1.7
Samar	244	0.3	...	...	3472	2.0	...	12166	15638	8.8
Misamis (Or.)	196	0.4	...	...	122	0.2	...	1559	1681	2.4
Misamis Occ.	...	...	...	...	42	<0.1	...	1090	1132	1.7
Surigao	...	...	...	....	152	0.2	...	3052	3204	4.3
Agusan	...	...	...	...	15	< 0.1	...	1332	1347	4.4
Cotabato	...	...	...	...	278	0.3	...	553	831	0.9
Lanao	...	...	...	...	2134	2.9	9	5427	7570	10.2
Bukidnon	...	...	...	...	18	<0.1	...	1835	1853	10.4
Davao	...	...			71	<0.1	...	1398	1469	1.8
Sulu	...	...	...	...	2203	2.7	...	7698	9901	12.3
Dapitan	...	...	...	...						
Basilan	...	...	...	...						
Zamboanga	...	...	...	...	915	0.8	...	3594	4509	4.2
Mountain Prov.					...	...	...	567	567	0.6
Benguet	...	...	...	...						
Lep-Bontoc	...	...	...	...						
Nueva Vizcaya	...	...	...	...	5	<0.1	...	11	16	<0.1

Source: 1903 Census, Vol. 2, Table 60. 1939 Census. Vol. 1. Table 15

[a] The total includes 230 women missing from the provincial distribution in Census Table 60

[b] The total includes 61 women missing from the provincial distribution in Census Table 60.

Such information raises questions about whom decided to ignore the women's work and on what basis they made those decisions. Did the women perhaps identify themselves as housewives without gainful employment? On the other hand, perhaps women in those provinces did not weave mats in 1903, but instead took up the occupation after the Census enumeration. It was therefore possible that the enumeration might have been relatively accurate. Moreover, Census Table 60 omitted 230 women mat weavers and 61 sack makers from the provincial distribution, but we cannot tell from the Census document where the women lived. We therefore cannot accuse the 1903 Census of being incomplete, although the provincial distribution was perhaps imprecise.

In contrast, the decision to exclude housewives with additional occupations from the 1939 gainful employment record seriously distorted Census accounts of mat and sack weaving. It should be noted first that statisticians combined the two occupations (along with making raincoats from local vegetation) into the one housewives' group. For consideration of long-term spatial change, this means it is necessary to discuss the occupations together, an unfortunate but unavoidable reduction. The official record perhaps accounted for slightly less than one quarter of the women who wove mats and sacks if we include the relevant housewives as gainfully employed (Table 7E). Consequently, the proportion of women aged 10 years or over making these goods, instead of falling to 0.5 per cent in 1939 as the Census reported, perhaps doubled from the 1903 share to 2.6 per cent.

It might be thought that statisticians in 1939 under-estimated the proportions of women engaged in mat/sack weaving across provinces evenly. The probable provincial under-representation was not uniform, however, varying from the 1 in 9.6 women omitted in Bukidnon to more than 1 in 1000 women excluded in four provinces (La Union, Nueva Vizcaya, Laguna and Manila). These variations altered the reported change in the provincial proportions of mat weavers between 1903 and 1939. First, although the gainful employment accounts reported a fall in the proportions of adult women engaged in the occupations in 14 provinces, in 7 of those the proportions instead probably rose, especially Pangasinan and Romblon. For the other 7, (Bulacan, Nueva Ecija, Pampanga, Zambales, Batangas, Laguna, Rizal), all in central and southern Luzon, the Census records perhaps over-estimated the fall in proportions, but note the still significant decline in Pampanga. In short, the official records appeared to

exaggerate the occupations' decline on Luzon. Second, statisticians probably under-represented the rise in proportions in the Visayan provinces, particularly Samar. The data thus appeared to understate the importance of the occupations to women in the Visayas and Mindanao. The distortions therefore masked a regional shift in the relative importance to women of mat weaving, from Luzon (excepting Pangasinan province) to the central and southern islands.

Other consequences of the occupations' growth also emerged. In the next section, I suggest that mat and sack weaving continued to outweigh hat making in relative importance for women. A higher proportion of adult women in 1939 probably engaged in mat and sack weaving than in spinning and weaving, and most likely, than in embroidery or seamstressing as separate occupations as well. Hence, mats and sacks represented a shift since 1903 in the type of goods produced by women. The occupations represented a continuity in home-based manufacturing for the domestic market that the statisticians perhaps negated or ignored by categorising gainful employment into a factory-based labour force. Perhaps more importantly for the women, it might have represented change in economic returns, although it is not possible to decide this from the limited Census data.

If the proposition of expanded mat/sack weaving activity is accepted, reasons for the growth are unclear. As the increase was not obvious in the principal Census data, the literature did not consider the issue, except perhaps for Samar (see next paragraph). Shepherd (1941), commenting upon the persistence of household manufacturing, asserted that there was a link between the seasonal and spatial variations in agriculture and handicraft production. His observation, however, did not detail the changes in any specific occupations (see also Boserup 1970). Were women forced into mat weaving to earn some income because of declining farm standards of living (I. Brown 1992; Larkin 1982), or perhaps because of the fall in textile production? Or was mat/sack weaving a means by which women could retain some independence from seasonal agriculture or the foreign control of other manufacturing such as embroidery? The Philippines literature has scarcely investigated the connections linking agriculture, textile production and other household manufacturing, perhaps precisely because women performed the manufacturing work. Furthermore, there is little discussion in the secondary literature of the change in the occupation's distribution, except for Samar and Rizal.

The early government survey detailed tikug (Fimbristylus utilis, a grass) mat weaving in Samar. Samar women in all districts apparently wove coarse mats for domestic purposes[19], but after the U.S. occupation of the island, the type and range of woven tikug products increased. Women began to produce marketable quantities of mats and other items in Dolores, Oras, Santa Rita and Balangiga after 1907, for example (Bureau of Education 1913). The report suggested that Sulat and Basey were traditional centres of the best tikug mats, exported for provincial and interprovincial trade through Tacloban, Leyte and thence to Manila. Some division of labour in mat production was evident in Basey, where local families gathered, sorted, graded, trimmed, bleached in the sun, dyed and flattened the stalks, then sold them in bundles to the women weavers[20].

In that town, the report noted, mat weaving was the chief source of income after typhoons in 1908 destroyed abaca and coconut crops and reduced the rice harvest. The writer asserted that in most Basey houses, women worked every night at the weaving after flattening the straw in the early morning and evening dampness, although he did not quantify the claim. Later, Miller (1932) referred to the expanded Basey production as an indirect effect of the disaster, so that it is difficult to trace the immediate effect on mat weaving[21]. His statement implied that women perhaps moved to mat weaving in response to factors other than the typhoons alone. Various factors might have contributed to the increased production on Samar, including school curriculum changes, other American efforts to expand and standardise the industry, the influence of Chinese merchants and better communications linking towns (Cruikshank 1982), or women's own decisions, as well as natural disasters. To what extent the early factors brought about the longer term, seven-fold provincial increase in the occupation by 1939 is, however, uncertain and not commented upon in the literature.

Women mat weavers in Rizal and Tayabas perhaps illustrate what McCoy (1982a) sees as longstanding peasant and merchant rationality in an active Philippine society. By the early government account, makers of sabutan pandan[22] mats in Pililla, Rizal, were already changing to sabutan hat production, introduced from Mabitac, Laguna. The report noted that the younger generation made only hats, while older women who had not learned the new craft produced a smaller quantity of the "finest examples" of Philippine mats (p. 66). The published 1903 Census accounts did not disclose the age of workers in individual occupations, so that we cannot test this claim.

The writer lamented the impending disappearance of sabutan mat weaving, suggesting that women in Tanay, the other Rizal centre known for its mats (see Figure I.1 on p. 9), would also soon convert to hat making for better financial returns[23]. Although we cannot tell from Census accounts the course adopted by women in Tanay, the 1939 Census data confirm the decline of Rizal's mat weaving. Perhaps the circumstances of that demise demonstrate support for McCoy's assertion, although the explanation in the 1913 study is not corroborated elsewhere in the literature. At the same time, there was little indication that the incipient hat industry grew to any extent in Pililla (see Table 7F).

Other possible evidence for women's adaptability can perhaps be inferred from differences between Mallat's mid-nineteenth century descriptions (Mallat 1983) and the 1913 Bureau of Education study of mat weaving in Tayabas province. Mallat noted the production of *nipis* and *guinaras* (fine and coarse abaca) cloth in Mauban, whereas by the 1900s, women in the town were recognised for their buri mats. Mallat also recorded fine mat weaving in Altimonan and Gumaca, coastal towns south of Mauban, although the 1913 report made no mention of those centres. The difference in the reports suggest that women had been adjusting their paid work according to circumstances over historical time. Yet Census data failed to show that fully after 1903. The cessation of spinning and weaving in Tayabas was apparent by 1939 (Table 7B), but the organisation of the Census data hid reported concurrent movement into mat weaving. Besides, we cannot tell from the Census document for what reason women moved into or out of the occupations.

Additionally, the early survey helps to explain at least some of the reported mat weaving decline in Zambales. Bolinao, a centre of pandan mat makers who exported their products to coastal towns from Zambales to Ilocos Norte, was the only Pangasinan municipality in the opinion of the author where mats were of provincial or interprovincial importance[24]. At the time of the 1903 Census however, Bolinao was in the neighbouring province of Zarnbales. A provincial boundary re-alignment in December 1903 transferred 10 northern Zambales municipalities including Bolinao and Bani, to Pangasinan (1939 Census, Vol. 2, pp. 98-99). The reported decrease in Zambales mat weaving by 1939 probably reflected that administrative change more than any decrease in production elsewhere in the province. The boundary change also possibly contributed to the occupation's recorded growth in Pangasinan by 1939.

Census statistics can demonstrate the growth or decline of an occupation, but not the cause or effect of that change. When data show a false trail however, they confuse the task of interpretation and explanation. I suggest that the statistical regulation of women's gainful employment in the 1939 Philippines Census resulted in a misleading record of change in mat and sack weaving. Instead of the reported decline in the combined occupations, in all likelihood proportionally more women engaged in them by the end of the period. There is little relevant literature with which to compare my findings. Commentators, perhaps deceived by the Census record, failed to investigate the overall expansion in mat weaving, its cause, its geographical character and its implications. It was another example of the possibility for misinterpretation made likely by the statistical management of occupations. Furthermore, it perhaps allowed misunderstanding of the relative importance of hat making to women.

b) Hat makers.

The hat maker (sombrerera) classification, in contrast to the *modista*/milliner classification (see Chapter 4), counted women who manufactured local hats, which were generally of two basic types. Stiff, conical salacots, worn by the women in Figure 7.2, were made from a variety of locally available materials, from rice straw braids to turtle shell. Simple, coarse salacots were very cheap, but Hugo Miller (1910), in his detailed description of hat making, suggested that blocked hats (that is, with a crown) were replacing ornamented salacots. Women in different regions and towns specialised in weaving different forms of blocked hats from different raw materials[25]. Production times varied according to the quality. Women wove common Calasiao straw hats (see Note 25), for example, in about a week, although finer grades required 6 weeks to 3 months for completion. Some division of labour was evident in the industry, Miller noted.

Just under one half of one per cent (11,993) of adult women worked as hat makers in 1903, but the 1939 Census indicated that despite the increase in absolute numbers to 20,448, the national proportion had fallen to 0.4 percent of all adult women (Table 7D). Women in Bulacan accounted for one in every 1.8 female hat makers in

TABLE 7F.

CENSUS DISTRIBUTION OF WOMEN'S HAT MAKING OCCUPATION, PHILIPPINES, 1903 and 1939

	1903		1939				
	Hats	% of age 10+	Hats	% of age 10+	House-wives	Total	% of age 10+
PHILIPPINES	**11993"**	**0.5**	**20448**	**0.4**	**30624**	**51072**	**0.9**
Abra	...	...	...	...	7	7	< 0.1
Ilocos N.	...	...	...	...	8	8	< 0.1
Ilocos S.	...	...	82	< 0.1	46	128	0.1
La Union	...	...	...	...	10	10	< 0.1
Cagayan		..	96	0.1	152	248	0.3
Batanes			...	...	16	16	0.4
Isabela		..	...	...	439	439	0.6
Bataan	...	...	2	< 0.1	4	6	< 0.1
Bulacan	6604	7.9	7456	6.2	5449	12905	10.6
Nueva Ecija	77	0.2	280	0.2	305	585	0.4
Pampanga	328	0.4	1355	1.0	2327	3682	2.8
Pangasinan	1974	1.5	223	< 0.1	1473	1696	0.6
Tarlac	...	...	1	< 0.1	15	16	< 0.1
Zambales	...	...	...	...	33	33	< 0.1
Manila	32	< 0.1	78	< 0.1	23	101	< 0.1
Batangas	...	...	46	< 0.1	57	103	< 0.1
Cavite	...	...	12	< 0.1	200	212	0.2
Laguna	634	1.1	1480	1.5	2158	3638	3.7
Marinduque	...	...	4	< 0.1	20	24	< 0.1
Mindoro	...	...	1	< 0.1	61	62	0.2
Rizal	37	< 0.1	106	< 0.1	30	136	0.1
Tayabas	1346	2.4	3811	3.2	7201	11012	9.1
Palawan	...	...	...	...	40	40	0.1
Albay	...	...	634	0.4	841	1475	1.0
Camarines N.	282	0.3	63	< 0.1	216	279	0.2
Camarines S.			1	< 0.1	7	8	< 0.1
Masbate	...	...	9	< 0.1	231	240	0.4
Sorsogon	...	...	223	0.3	1113	1336	1.7

Table 7F Cont. Census distribution of women's hat making, Philippines, 1903,1939.

	1903		1939				
	Hats	% of age 10+	Hats	% of age 10+	House-wives	Total	% of age 10+
Antique	…	…	647	0.9	1031	1678	2.3
Capiz	410	0.5	140	0.1	120	260	0.2
Iloilo	30	< 0.1	286	0.1	177	463	0.2
Negros Occ.	…	…	47	< 0.1	190	237	0.1
Romblon	…	…	22	< 0.1	30	52	0.2
Bohol	159	0.2	2353	1.3	2250	4603	2.6
Cebu	48	< 0.1	350	< 0.1	977	1327	0.4
Leyte	…	…	173	< 0.1	818	991	0.3
Negros Or.	…	…	18	< 0.1	73	91	< 0.1
Samar	…	…	221	0.1	1827	2048	1.2
Misamis (Or.)	…	…			17	17	< 0.1
Misamis Occ.			…	…	7	7	< 0.1
Surigao	…	…	2	< 0.1	93	95	0.1
Agusan			…	…	113	113	0.4
Cotabato			7	< 0.1	12	19	< 0.1
Lanao					68	68	< 0.1
Bukidnon					2	2	< 0.1
Davao	…	…	…	…	11	11	< 0.1
Sulu	…	…	206	0.2	240	446	0.6
Basilan	…	…					
Dapitan	…	…					
Zamboanga	…	…	13	< 0.1	79	92	< 0.1
Mountain Prov.			…	…	6	6	< 0.1
Benguet	…	…					
Lep-Bontoc	…	…					
Nueva Vizcaya	…	…	…	…	1	1	< 0.1

Source: 1903 Census, Vol. 2, Table 60. 1939 Census, Vol. 1, Table 15

[a] The total includes 32 missing from the provincial distribution in Census Table 60.

1903. The 1939 account reported that the occupation was less important to women in Bulacan than in 1903, while proportions had increased in Pampanga, Laguna, Tayabas and Bohol (Table 7F). These counts probably underestimated the numbers of hat makers and incorrectly reported the provincial occupation proportions, perhaps in 1903 but more evidently in 1939.

There must be some uncertainty about the 1903 count of hat makers. Miller (1910, p. 9) stated: "The making of salakots is carried on in nearly every town in the Islands, although some localities, such as the Ilokos Provinces, are noted for their manufacture more than others". He also recognised salacot making in Cagayan and the "mountain towns of Cavite Province" (p. 10). Furthermore, he reported limited production of buntal hats in Negros and Ilocos and of nito hats in the Daraga district of Albay (see Note 25). Census enumerators recorded no hat makers in those provinces or in any of the frontier provinces, although Table 60 omitted 32 women from the provincial distribution (Table 7F). If Miller's descriptions were accurate, then the Census probably under-reported the occupation, but any attempt to estimate the numbers of overlooked women is speculative.

Enumerators perhaps undercounted hat makers as well as spinners and weavers in Bohol, for example. "Considerable quantities" of Bohol hats were exported to other Visayan islands and to Mindanao, Miller stated (pp. 9, 53). It implied that the women produced enough salacots and blocked tikug hats to supply local demand as well as the interprovincial trade. It is impossible to assess demand, but it seems likely that the relatively few hat makers reported in the province would have been unable to supply adequate quantities. If we suppose that each woman produced on average 3 hats every week, then the 159 enumerated women manufactured approximately 24,800 hats per year for the adult Bohol population of 188,074 men and women. The quantity appears insufficient to satisfy presumed local demand (the supposed rate of production means in effect a new hat for each adult once every 7 years), much less exports. Although this is conjecture, it points to the possibility that enumerators undercounted the hat makers. Unfortunately, there is little guide to the extent of this possible misrepresentation. The Census records for other East Visayan provinces do not offer any help. If we guess that 1 per cent of adult Bohol women in 1903 were hat makers (that is, slightly less than the 1939 proportion), then enumerators missed about 830 women. It is only a guess, however, as 1939 proportions were not accurate indicators of the situation in 1903.

Chance also impinged on the 1903 enumeration of hat making and other occupations. As it was for housewives in 1939, the factor of chance was dependent upon the regulation and interpretation of gainful employment, but the enabling circumstances differed in 1903. Filipino communities in clustered settlements often completed economic and social activities on a reciprocal basis amongst local village members[26]. Hugo Miller (1913) referred to it as turnuhan labour or labour in common and illustrated the concept with an example of women's pandan hat making in Cavinti, Laguna. Women would help their neighbours by making hats for them once a week, he claimed. Sometimes the worker supplied the materials, and in other cases, the agent provided the straw and equipment. Always, Miller asserted, there was a minimum number of hats to be woven, although he gave no indication of the extent of the custom, or its effect on numbers of hat makers. Reciprocal labour tended not to fit in with the concept of gainful employment. We cannot tell from aggregated provincial data whether enumerators counted such hat makers of Cavinti and other settlements or not, nor can we know if the women thought of this labour as gainful employment.

Inconsistency between the Census count and the literature of the time in relation to hat making in Manila is difficult to rationalise. The Pronouncing Gazetteer reported 8 hat making establishments in Manila. One of the hat factories also manufactured parasols or umbrellas, where women earned from 7.50 to 22.50 Pesos per month compared with 4 Pesos per month earned in the other 7 establishments (U.S. War Dept 1902). The different wage rates probably reflected different manufacturing. Clark (1905) recorded that the German owned hat and umbrella factory manufactured felt and straw braid hats, using taxed materials – braid, wool, gum, leather and ribbons. The same company operated a wooden match factory in Pasig. Together, the factories reportedly employed about 520 people, about half of whom were women according to Clark. The manager of the company reported that:

> "Our hands work very irregularly...from 7 to 12am. and from lpm. to 5 or 6pm. according to the season...We are introducing women in all machine work in both factories where possible, because we find them steadier and more intelligent that the men...Nearly all our employees are on a piecework system" (Clark 1905, p. 823)

What proportion of the women worked in the hat/umbrella factory? Assuming they were hat makers, did Census officials classify them as modistalmilliner or as hat

makers? Neither count in the Census (110 modistas, 32 hat makers) catered for many of the suggested women. Perhaps there were very few making hats and the company report was illusory or false, or perhaps such employment changes occurred towards the end of 1903 when Clark made his visit to the Philippines. Conversely, perhaps the Census mis-classified the women. The 1903 Census listed neither match manufacturing nor umbrella making as separate occupations, so that I assume it recorded those women under "All Other Occupations". In summary, while under-reporting of hat makers therefore seemed probable in the 1903 Census record, any revised count would be unsound.

In contrast, we can be reasonably confident that the 1939 Census omitted more housewives who made hats than the gainful employment count recorded (Table 7F). An adjusted sum of hat makers in all likelihood was more than double (51,072) the recorded total (20,448) so that the revised proportion of adult women engaged in the occupation perhaps rose to 0.9 per cent. Again, the likely distortion reflected management of the gainful employment count and perhaps the labour force, with familiar consequences.

The official employment record probably under-reported the importance of the occupation to women by more than half in 22 out of 50 provinces. Statisticians perhaps omitted 1 in 11 Tayabas adult women from the employment account of hat makers for that province, so that possibly 9.1 per cent of women there engaged in the occupation. Instead of a fall to 6.2 per cent in Bulacan, perhaps 10.6 per cent of women in that province made hats. The Census record thus concealed a possible greater rate of expansion in Tayabas than in Bulacan, a change that might have indicated a shift in the occupation's core location. At the very least, the official record hid the widening base of provinces (Laguna, Pampanga, Antique and perhaps Bohol) where hat making was becoming more important to women. The establishment of an American financed hat industry in Apalit, Pampanga for export to the U.S. (Miller 1913), raises questions about links between U.S. intervention and the growth in women's hat making employment in that province. On the other hand, even with the addition of the housewives in Pangasinan, the proportion of adult women who made hats there did fall compared with 1903.

As the Census gainful employment data stood, they tended to be misleading and misinterpretation was therefore possible. The data appeared to understate the

continuing importance of the craft to women in Bulacan, and they probably misrepresented the growing share of adult women in Tayabas who were hat makers. As well, the data probably distorted the growth of the occupation compared with the expansion of mat weaving. Contrary to 1939 Census records, which indicated that there was one woman hat maker to every 1.3 women mat or sack weavers, the ratio perhaps was closer to 1:2.8. Both occupations were increasing their share of women's employment, but the importance of the occupations relative to each other probably changed little. These conclusions are tentative and unverified. There is little in the literature to support or refute the revised view.

For the early U.S. writers, it might be argued that the colonial context directed the content of their reports. Perceived economic opportunities probably coloured their assessments of colonial industry. Although we might evaluate the texts as politically unacceptable now, my intent is rather to use them here if possible to test my conclusion about the particular Census representation. Hugo Miller's (1932) account of the Philippine economy was contemporaneous with the 1903-1939 period but written before the 1939 Census. He stated that consequent upon U.S. organisation of the hat making industry under a commission system, employment rose. He attributed the overall rise to the influence of the school curriculum and to rational decision making by women, with no reference to colonial exploitation. But Miller was keen to encourage further U.S. investment in Philippine hat making and implied that the industry was expanding at the expense of mat weaving and other home-based handcraft production. The 1939 gainful employment record then appeared to endorse his view. Detailed examination of the Census accounts suggests that this part of his prediction was incorrect, yet the interpretation became fixed.

Shepherd (1941), for example, concentrated his discussion on the industry's export production. He claimed that the hat industry was another example, like embroidery, of Filipinos' adaptation to modern conditions (for comment on this interpretation of the Census representation, see the embroidery section). Shepherd confined his description to the approximate 16 Manila hat finishing and packing plants. Employment in the Manila hat factories appeared to be male dominated, even in 1903. According to the 1903 Census, 80.6 per cent of Manila's hat making workforce was male, although by 1939, that proportion had fallen to 77.1 per cent. Between 1903 and 1939, the number of factories rose and fell (Alzona 1937), but the sex segregation

was perhaps supported by an increasing use of female outworkers. One might speculate if the male predominance in the factories partly influenced Shepherd's decision to restrict his discussion to the industry's export component, that is, the factories. Although he failed to indicate his source of information, he asserted that the industry employed more than 40,000 people nationally, mostly home-based, implying that they were export industry employees. The emphasis of this report illustrates, I suggest, that Miller's construction was established. On the other hand, Shepherd's claim of 40,000 hat makers does not provide evidence supporting my revised estimate of women hat makers, owing to his generalisation of industry-wide employment.

Current literature says very little about hat making. Valdepenas and Bautista (1977), in their survey of Philippines manufacturing during the American period, argued that export trade stimulated production in export processing industries generally, whereas the domestic market limited expansion in other manufacturing. Their study, at industry and national scale, did not query the 1903, 1918 or 1939 Census data from which the authors developed their argument[27]. They claimed that the rise in employment in hat making, tailoring, mat making and inexplicably, 'native textiles', fell into the domestic market category. Although Valdepenas and Bautista differentiated those industries by place of manufacture (that is, home or factory-based), they equated occupations to the Census industry categories and their study lacked detailed examination of change in any specific industry. It therefore did not provide sufficient information to test my reading of changes in the hat making occupation.

That there was little discussion of the hat making occupation was possibly another consequence of the Census representation. Following the official depiction of relatively few women hat makers compared with other notable occupations, commentators perhaps considered that the occupation lacked significance. The dearth of photographic records appears to support that interpretation. My reading agrees with Miller's assessment that employment in the occupation was rising, but I disagree with his interpretation of its relative importance. I have suggested that he had a specific purpose and that when the Census account appeared to support him, his interpretation became fixed. It might be argued that the prevailing view illustrates my proposition that the data were misleading, but the point is dependent upon acceptance of the proposition. Although I indicate that misrepresentation was likely because of statistical

management, it is not possible to test or verify distortion from Census data alone. My conclusions therefore remain hesitant.

Household help: cook, lavandera, maid, servant.

According to the literature, long-term trends of change in domestic service emerged by the late 1930s and were clearly visible after the 1940s. Scholars agree that an increasing proportion of mainly young women entered domestic service and that domestic service became feminised. It is also agreed that servants and housemaids formed a higher proportion of the Domestic and Personal Service sector in 1939 compared with 1903 (Brandewie 1973; Castillo 1977; Engracia and Herrin 1984; Eviota 1992; Eviota and Smith 1984; Palabrica-Costello 1984). These scholars base their interpretations on Domestic and Personal Service (DPS) sector data from the 1903, 1939 and 1948 Censuses. For example, from 1903 to 1939 the data indicated that proportions of gainfully employed women working in the sector rose from 13.7 per cent to 19.0 per cent. The female share of the DPS workforce (excluding housewives and housekeepers in 1939) increased from 24.6 per cent to 63.1 per cent. As well, the data showed that servants/housemaids constituted 59.6 per cent of the DPS sector in 1939 compared with 16.5 per cent in 1903. The changes appeared unambiguous. I suggest in this section, however, that we cannot be so sure of the data. My interpretation will necessarily differ from those in the literature, however, because I restrict my examination to just four of the DPS occupations in the 1903 and 1939 accounts.

Close inspection of the 1903-1939 occupation accounts reveals problems with the domestic service data at sector level and for individual occupations. In relation to sector data first, I tentatively suggest in Chapter 4 that the 1903 and 1939 DPS sector data are not comparable without considerable manipulation, which may be unverifiable. Inadequate conceptualisation of the classification scheme in 1903 led to the peculiar placement of occupations (unskilled labourers, emergency and security personnel, stevedores) in the sector, which consequently skewed the data. The irregularities particularly affected interpretation of the feminisation of domestic service. Accordingly, I tentatively suggest in Chapter 4 that the proportion of women in the low-paying domestic work was perhaps consistently higher than that for men in

1903 and 1939. In addition, the inclusion of housewives in the 1939 DPS sector distorted those data and an arbitrary decision to exclude the women without other adjustments may be unjustified (see Chapter 6).

TABLE 7G
AGE DISTRIBUTIONS OF THE FEMALE DOMESTIC AND PERSONAL SERVICE SECTOR, PHILIPPINES, 1903 AND 1939 (%).

	10-14yrs	15-24yrs	25-34yrs	35-44yrs	45-54yrs	55+yrs
Proportion of female population aged 10 years and over in DPS sector						
1903	0.6	2.0	1.3	0.8	0.5	0.4
1939	0.6	2.0	0.6	0.3	0.2	0.2
Proportion of age group in DPS sector						
1903	4.1	7.3	5.4	5.6	5.6	3.9
1939	3.7	6.6	2.7	2.4	2.5	1.6
Proportional distribution of the DPS sector						
1903 (100%)	10.6	35.4	22.4	14.3	9.4	7.8
1939 (100%)	15.4	51.2	14.8	8.4	5.8	4.4

Sources: 1903 Census, Volume 2, Table 56, p. 904; 1939 Census, Volume 2, Chapter 10, Table 28, p. 530.

Besides, if we were to accept the sector data as published (see Table 7G), they tend to refute the suggestion that increasing proportions of young women were entering domestic service. The table excludes housewives from the 1939 calculations. According to the published data, the same (until age 24 years) or lower proportions of the total adult female population were domestic workers in 1939 compared with proportions in 1903. As well, apparently lower proportions of each age group worked in the DPS sector in 1939 than in 1903. On the other hand, a higher proportion of women in the DPS sector was under 25 years of age by 1939. One explanation might be that attrition of older age women, not a growing flow of young entrants, altered the sector age structure. I do not think, however, that these data reliably indicated the changes in domestic service. Published DPS sector data tended to be misleading, and there were other data problems to which I now turn.

Acknowledged non-specialisation of tasks and occupations, imprecise pay and working conditions and indecisive criteria in the instructions made enumeration of domestic service workers troublesome in 1903. Kin relationships within households might also have blurred employer-employee boundaries and therefore the enumeration. These circumstances underlined the inadequate consideration given by the Bureau to service occupations and the probable unsuitability of gainful labour as a measurement tool in the Philippines (see Chapters 4-6). Consequently, accuracy of the data is uncertain. Moreover, the single occupations perhaps were inconsistently defined across the Censuses. Accordingly, it is appropriate to examine the data for the individual

occupations of *lavandera* (washerwoman), cook, housemaid and servant. Where necessary, I refer collectively to the four occupations as household help in the following discussion.

My examination begins with an account of the data as published. Different sections of the data contradict or confirm readings in the literature. Defects and distortion confound the 1903 representations, however, which suggest that the data were possibly inaccurate. Some discussion of the problem of testing any interpretation from contemporary literature follows before investigation of the 1939 data. I tentatively conclude that any reading of the data must be qualified and conditional. At the very least, the records suggest inconsistent enumeration practice. Furthermore, there might have been greater complexity in the occupational changes over time than the literature assumes.

Table 7H shows the Census distributions for each of the occupations while Table 7J gives the proportional distributions for the main classifications. First, data for the household help as a whole tend to contradict the literature. The data revealed a slight fall in the total national proportion of adult women who worked as household helpers (from 3.8 to 3.6 per cent) by 1939, despite an absolute increase in the total for the occupations. This differs from previous understanding in the Philippines, although the base unit that I use of all adult females, compared with the base unit of gainfully employed women used in the literature, might partly contribute to the difference. The likely fall follows possible trends in the U.S. and other countries[28]. The proportional decline was particularly notable in Manila and the Central Luzon provinces, but also occurred in mainland Southern Luzon, Albay and Isabela.

Second, individual occupation data as recorded tend to support the assessment that movement of women into domestic service as housemaids/servants began before 1939. The national proportion of adult women who were servants and maids apparently grew from 0.9 per cent to 2.3 per cent by 1939. At the same time, national proportions of cooks and lavanderas dropped from a combined 2.9 per cent of adult women in 1903 to 1.3 per cent in 1939. Third, occupational changes were probably not uniform amongst provinces. The data indicated that compared with the Ilocos region, Bicol and the Visayas, in Manila and central and southern Luzon there were perhaps a slower rise in the proportions of women working as servants/maids and a faster rate of fall in the proportions of women working as lavanderas and cooks[29].

TABLE 7H

CENSUS DISTRIBUTION OF WOMEN'S HOUSEHOLD HELP OCCUPATIONS, PHILIPPINES, 1903 and 1939.

	1903					1939					
	Cooks	Washer-women	House-keepers	Servants	Total	Cooks	Washer-women	Amahs	House-maids	Servants	Total
PHILIPPINES	**10816'**	**61768'**	**174[a]**	**23005'**	**95763[a]**	**11221**	**60567**	**587**	**37683**	**86163**	**196221**
Abra	82	122	...	31	235	23	132	1	136	331	623
Ilocos N.	130	493	...	270	893	116	541	2	531	582	1772
Ilocos S.	106	499	...	524	1129	126	872	3	647	948	2596
La Union	147	536	...	287	970	81	815	3	416	690	2005
Cagayan	104	876	...	248	1228	111	706	5	580	738	2140
Batanes						...	12	4	11	120	147
Isabela	23	241		101	365	71	203	3	344	292	913
Bataan	66	624	...	125	815	11	289	8	138	251	697
Bulacan	249	2183	...	585	3017	181	1138	4	336	1373	3032
Nueva Ecija	222	2162	...	407	2791	208	1141	...	565	1382	3296
Pampanga	744	5513	...	825	7082	371	1803	32	680	2281	5167
Pangasinan	263	3279	...	350	3892	185	1460	5	1197	3245	6092
Tarlac	231	1850	...	219	2300	192	953	2	579	1222	2948
Zambales	150	1043	...	275	1468	11	256	1	314	488	1070
Manila	383	6723	6	3785	10897	821	4068	170	4425	12987	22471
Batangas	393	1566	..	1023	2982	107	993	4	463	1335	2902
Cavite	104	1451	..	193	1748	167	1339	18	526	712	2762
Laguna	296	2575	..	459	3330	85	1578	6	436	1045	3150
Marinduque	23	118	..	139	280	6	310	...	89	171	576
Mindoro	40	362	..	82	484	66	497	...	260	224	1047
Rizal	94	3881	..	430	4405	419	5132	138	2012	3233	10934
Tayabas	195	1824	..	306	2325	145	1569	3	446	912	3075
Palawan	37	119	..	116	272	72	243	...	240	254	809
Albay	306	2008		595	2909	288	1768	5	865	1592	4518
Camarines N.	344	2268	13	745	3370	56	619	4	147	436	1262
Camarines S.						224	2177	31	917	1289	4638
Masbate	35	330	...	115	480	371	1166	2	388	441	2368
Sorsogon	31	554	...	278	863	111	1118	2	549	772	2552

Table 7H Cont. Census distribution of women's household help occupations, Philippines, 1903,1939.

	1903					1939					
	Coob	Washer-women	House-keepers	Servants	Total	Cooks	Washer-women	Amahs	House-maids	Servants	Total
Antique	92	266	...	344	702	36	351	2	207	728	1324
Capiz	446	774	46	1602	2868	165	665	2	936	3123	4891
Iloilo	1040	2462	...	1837	5339	292	2792	30	1570	4599	9283
Negros Occ.	443	1674	...	1903	4020	340	3141	18	1826	6571	11896
Romblon	14	336	...	107	457	15	284	1	323	561	1184
Bohol	194	353	...	284	831	1301	3012	8	1001	2578	7900
Cebu	1449	3348	7	1509	6313	674	4349	16	2699	9172	16910
Leyte	892	4034	...	481	5407	860	3661	17	3320	4921	12779
Negros Or.	600	1055	...	917	2572	377	1370	2	785	3201	5735
Samar	221	988	...	360	1569	361	2035		768	2358	5522
Misamis (Or.)	370	1432	...	434	2236	183	973	11	637	1424	3228
Misamis Occ.	...	...	...	...	...	146	815	...	514	1010	2485
Surigao	146	925	...	194	1265	132	969	3	559	1195	2858
Agusan						29	275	1	314	353	972
Cotabato	14	28	...	14	56	88	319	...	588	336	1331
Lanao	...	...	...	...	...	305	256	1	568	1001	2131
Bukidnon	...	...	...	...	...	29	97	...	158	100	384
Davao	57	295	1	372	725	354	664	1	825	1154	2998
Sulu	3	1	...	16	20	119	144	...	237	241	741
Basilan	1	79	...	...	80						
Dapitan	12	66	...	23	101						
Zamboanga	5	296	...	60	361	212	951	2	503	873	2541
Mountain Prov.						561	414	16	1024	1110	3125
Benguet	...	44	...	8	52						
Lep-Bontoc	...	47	...	13	60						
Nueva Vizcaya	15	62	...	7	84	17	132	...	84	208	441

Source: 1903 Census, Vol. 2, Table 60. 1939 Census, Vol. 1, Table 15

[a] The totals include 4 cooks, 3 washerwomen, 101 housekeepers, and 7 servants, ie. 115 in total, missing from the provincial distribution in Census Table 60.

TABLE 7J

PROPORTIONAL DISTRIBUTION OF WOMEN AGED 10 YEARS AND OVER IN HOUSEHOLD HELP OCCUPATIONS, PHILIPPINES, 1903 and 1939 (%).

	1903				1939				
	Cooks	Washer-women	Servants	Total	Cooks	Washer-women	House-maids	Servants	Total
PHILIPPINES	**0.4**	**2.5**	**0.9**	**3.8**	**0.2**	**1.1**	**0.7**	**1.6**	**3.6**
Abra	5.6	8.4	2.1	16.1	0.1	0.4	0.4	1.0	2.0
Ilocos N.	0.2	0.8	0.4	1.4	0.1	0.6	0 6	0.6	1.8
Ilocos S.	0.2	0.8	0.8	1.7	0.1	0.8	0.6	0.9	2.4
La Union	0.3	1.2	0.6	2.1	0.1	1.0	0.5	0.9	2.5
Cagayan	0.2	1.8	0.5	2.5	0.1	0.7	0.6	0.7	2.1
Batanes					...	0.3	0.3	3.2	3.9
Isabela	0.1	1.0	0.4	1.5	0.1	0.3	0.5	0.4	1.2
Bataan	0.4	3.8	0.8	5.0	<0.1	1.0	0 5	0.9	2.4
Bulacan	0.3	2.6	0.7	3.6	0.2	0.9	0.3	1.1	2.5
Nueva Ecija	0.5	4.6	0.9	5.9	0.2	0.8	0.4	1.0	2.4
Pampanga	0.9	6.8	1.0	8.8	0.3	1.4	0.5	0.8	4.0
Pangasinan	0.2	2.4	0.2	2.9	<0.1	0.5	0.4	1.2	2.3
Tarlac	0.5	4.0	0.5	5.0	0.2	1.1	0.6	1.4	3.3
Zambales	0.4	3.0	0.8	4.2	<0.1	0.7	0.9	1.4	3.0
Manila	0.5	9.4	5.3	15.2	0.4	1.8	2.0	5.9	10.3
Batangas	0.4	1.5	1.0	2.9	<0.1	0.6	0.3	0.8	1.8
Cavite	0.2	2.8	0.4	3.4	0.2	1.6	0.6	0.8	3.3
Laguna	0.5	4.5	0.8	5.8	<0.1	1.6	0.4	1.0	3.2
Marinduque	0.1	0.6	0.7	1.5	<0.1	1.1	0.3	0.6	2.0
Mindoro	0.4	3.2	0.7	4.3	0.2	1.2	0.6	0.5	2.5
Rizal	0.2	6.9	0.8	7.8	0.3	3.3	1.3	2.1	7.0
Tayabas	0.4	3.3	0.6	4.2	0.1	1.3	0.4	0.8	2.5
Palawan	0.3	1.1	1.1	2.6	0.2	0.8	0.8	0.8	2.6
Albay	0.3	2.2	0.7	3.3	0.2	1.2	0.6	1.1	3.1
Camarines N.	0.4	2.6	0.9	3.9	0.2	2.1	0.5	1.5	4.2
Camarines S.					0.2	1.6	0.7	1.0	3.5
Masbate	0.2	2.4	0.8	3.4	0.7	2.1	0.7	0.8	4.3
Sorsogon	0.1	1.3	0.7	2.1	0.1	1.4	0.7	1.0	3.2

Table 7J Cont. Proportional distribution of women aged 10 years and over, household help occupations, Philippines, 1903 and 1939.

	1903				1939				
	Cooks	Washer-women	Servants	Total	Cooks	Washer-women	House-maids	Servants	Total
Antique	0.2	0.5	0.7	1.4	<0.1	1.8	0.3	1.0	1.8
Capiz	0.5	0.9	1.8	3.2	0.1	0.5	0.7	2.2	3.4
Iloilo	0.7	1.6	1.2	3.5	0.1	1.1	0.6	1.7	3.5
Negros Occ.	0.4	1.7	1.9	4.0	0.1	1.2	0.7	2.6	4.7
Romblon	0.1	1.9	0.6	2.6	<0.1	0.9	1.0	1.7	3.6
Bohol	0.2	0.4	0.3	0.8	0.7	1.7	0.6	1.4	4.4
Cebu	0.6	1.5	0.7	2.8	0.2	1.2	0.7	2.4	4.5
Leyte	0.7	3.0	0.4	4.0	0.3	1.2	1.1	1.6	4.2
Negros Or	0.9	1.6	1.4	4.0	0.3	1.0	0.6	2.4	4.4
Samar	0.2	1.1	0.4	1.7	0.2	1.1	0.4	1.3	3.1
Misamis (Or)	0.8	3.2	1.0	5.0	0.3	1.4	0.9	2.1	4.7
Misamis Occ.	...	...	...	...	0.2	1.2	0.8	1.5	3.7
Surigao	0.4	2.7	0.6	3.7	0.2	1.3	0.7	1.6	3.8
Agusan					0.1	1.0	1.0	1.1	3.1
Cotabato	2.0	4.0	2.0	8.0	0.1	0.3	0.6	0.4	1.4
Lanao	...	...	...	...	0.4	0.3	0.8	1.3	2.9
Bukidnon	...	...	...	...	0.2	0.5	0.9	0.6	2.2
Davao	0.8	4.1	5.1	10.0	0.4	0.8	1.0	1.4	3.6
Sulu	0.8	0.2	4.1	5.2	0.2	0.2	0.3	0.3	0.9
Basilan	0.2	18.2	...	18.5					
Dapitan	0.2	1.2	0.4	1.8					
Zamboanga	0.1	4.3	0.9	5.3	0.2	0.9	0.5	0.8	2.4
Mountain Prov.					0.6	0.4	1.0	1.1	3.1
Benguet	...	19.9	3.6	23.5					
Lep-Bontoc	...	5.9	1.6	7.5					
Nueva Vizcaya	0.2	1.0	0.1	1.4	0.1	0.5	0.3	0.8	1.7

On average, 2.5 per cent of all adult women in 1903 were lavanderas (Table 7J). If we exclude the frontier provinces, the proportion of women was highest in Manila (9.4 per cent) and Rizal(6.9 per cent), as would be expected. But why were 6.8 per cent of women in Pampanga identified as lavanderas, and at the other extreme, just 0.4 per cent of women in Bohol and 0.5 per cent of women in Antique? Perhaps the Bohol data reflected the enumeration error in that province (see Chapter 5). If that were so, then enumerators perhaps mis-classified about 1,460 washerwomen there. The calculation assumes that an approximate proportion of 1.8 per cent of Bohol women were lavanderas, in line with the average proportion in the other East Visayan provinces. Neither the assumption nor the calculation is verifiable.

I suspect that elsewhere, some confusion occurred between the classifications of washerwoman and day labourer (see Chapter 4 on the problems associated with the identification and classification of the unskilled day labourers). In Pampanga, for example, enumerators might have recorded some unskilled labourers as lavanderas. The Census recorded just 0.2 per cent (122) of Pampangan women as day labourers, well below the national average of 1.6 per cent (see Appendix 1 Table G for the provincial distribution of unskilled labourers). On the other hand, in Antique, where the Census reported 5.8 per cent (2,789) of women as day labourers, it was possible that enumerators perhaps recorded some lavanderas under that classification. In addition, Bohol and Antique were two of only four provinces in which there was a reported proportional increase in lavanderas by 1939. Although it is impossible to test such conjecture from the Census, it does point to possible inaccurate identification and inconsistency in the 1903 Census account of washerwomen.

There is perhaps another side to this speculation. The caption in Figure 7.7 suggests that confusion between these classification distinctions might also have been present in the United States. Use of the description, "scrub women", perhaps was intended to represent realistically the inferiority of the Filipino woman, as part of the colonial narrative (Vergara 1995). At the same time, however, the term indicates a masculine generalisation of women's manual cleaning work and other labour that might have been prevalent in U.S. thought, if not in reality. Was it a colloquial, derogatory term, to represent the bottom of the occupation hierarchy? Was it possible that some U.S. Census officials in the Philippines thought that way and therefore found it difficult to distinguish a day labourer from a washerwoman? To what extent did

male American attitudes towards particular women's occupations affect the poor records for women in the Philippines?

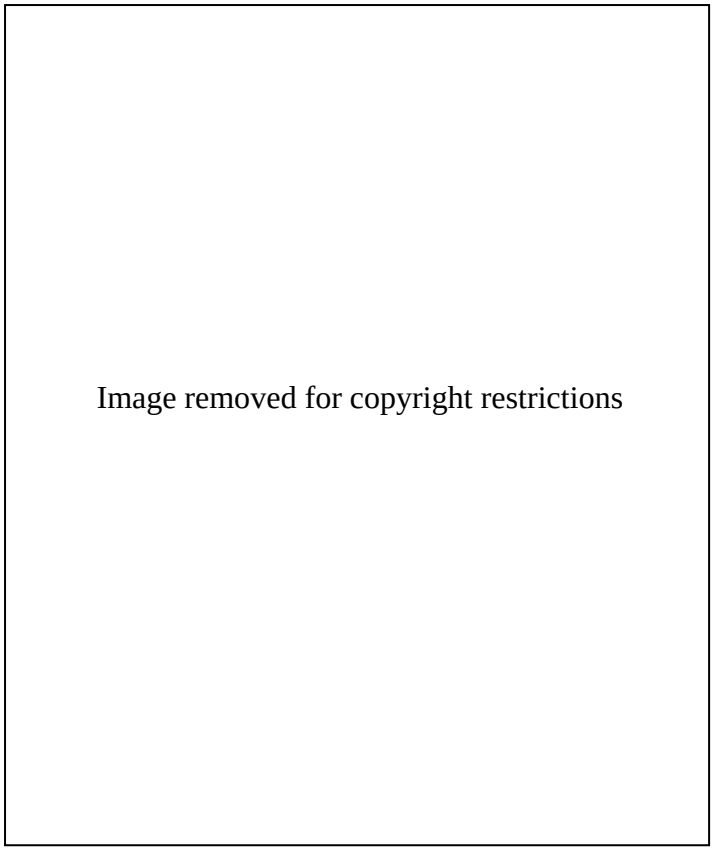

Figure 7.7. An unskilled day labourer or a *lavandera*?

Similar deficiencies of identification perhaps affected the enumeration of servants also, resulting in an under-estimation of the occupation. The proposition is again speculative. Women working as servants were involved in the daily maintenance and running of households, colleges, convents and business establishments. Their tasks might have included child care, tending a sari-sari store, running messages, escorting children to and from school, carrying goods, trading at the market, household sewing, helping with weaving, cleaning and scrubbing, as well as being maid to the mistress. In addition, Bankoff (1991) and Camagay (1995) record cases of young girls employed as servants but made to work as prostitutes. From the accounts of the day (for example, Fee 1912), there was often little distinction between the work of servant and

Fee 1912), there was often little distinction between the work of servant and seamstress, nursemaid or practical nurse (see Chapter 4 on the enumeration of nurses). Equally indistinct was the boundary between servant and unskilled day labourer (Clark 1905). It was therefore possible that Census enumerators classified some women as seamstresses, nurses or unskilled labourers instead of as servants, although there is no substantive evidence to support the idea.

Whereas that conjecture involves the enumeration and reporting of particular occupations, it is also possible to speculate about the effect of the classification scheme on the household help records. Perhaps the most confounding aspect of the 1903 women's occupational account was the classification of seamstresses outside the Domestic Service sector. Seamstresses, at a time when conditions of employment, specialisation and places of work were changing, epitomised the problems faced by statisticians in managing occupational data. Even though Census statisticians might have justified their placement of the occupation within the Manufacturing sector (see the preceding section on seamstresses), I tend to think that the decision left the records open to misinterpretation. It is easy to assume from the classification that all seamstresses worked in public production, whereas the limited evidence suggests otherwise. Camagay (1995), for example, indicates that a proportion of seamstresses instead worked solely within the domestic service sphere. Nevertheless, until there is further research into where seamstresses lived and who employed them, we cannot quantify that proportion.

Yet, despite the assumed unreliability of the 1903 Census record, it is difficult to substantiate any misrepresentation for these occupations from contemporary sources. None provided information we might use to check the Census record or test a new interpretation. As well, there was apparent contradiction between the Census text and the accounts written by other foreigners. Henry Gannett, author of the Census Report on occupations, noted only that it was unusual for women to work in domestic service outside their own home (1903 Census, Vol. 2, p. 110). Each of the accounts by Mrs. Dauncey (1906), an English visitor in Iloilo, by Frederick Sawyer (1900), the Englishman long resident in Manila, and by Mary Fee (1912), an American teacher in Capiz tells of employing Filipino women as domestic help. It would appear to indicate willingness by Filipino women to work outside their own home, but we cannot tell how widespread the practice was from these narratives alone.

It is debatable if descriptions by the American and British employers, who penned the only accounts of domestic service left to us from the time, were an accurate picture of household help in the Philippines. First, their employment practice might have differed from that of local families. They might have employed ***pro rata*** fewer domestic servants than did local households. In the case of American employers, this was perhaps because they had different expectations of household help compared with the local perspective (Fee 1912). Perhaps they saw the employment of the women (and men) as a contractual business instead of as a mutual obligation (see the section on seamstresses). To that extent, their comments therefore might not have been representative of local perceptions.

Second, other writers perhaps intended to highlight perceived backwardness in the Philippines by concentrating on just one aspect of the domestic employer-employee relationship. Clark (1905) described in detail what he defined as the ***criado*** system, of debt peonage to wealthier households paid by placing young children in service (see also H. Miller 1913; Worcester 1914). Each of these writers asserted that the children grew old as servants, with the debt never paid, so forcing the next generation into servitude. While these reports indicated that the system was still widespread but decreasing at the turn of the century, they provided no quantitative details on this issue or on domestic service in general.

The descriptive accounts of domestic service therefore contained little geographic or labour market information. Although the portraits have shaped our views of domestic service in the Philippines, perhaps we should question their representative value when they exhibited class and colonial bias so clearly. On the other hand, they tended to confirm the circumstances that made counting household helpers so difficult.

One other point arises from this early literature. What part did the factor of chance play in the 1903 count? Dauncey (1906), to take one case, listed four servants in her employ (butler/head servant, 'boy', cook and the only woman, a laundress), but her photograph of servants showed 7 men, 2 women and 2 young girls (see figure 7.8). It is impossible to know the circumstances, but did Mrs. Dauncey employ all eleven, if only occasionally? If that were so, then it suggests that Filipinos successfully maintained local custom, resisting the imported practice of contractual employment. Fee (1912) also noted that she confronted this problem on her arrival in Capiz and

eventually succumbed to local practice. This raises the question, did the women and girls who helped only ozcasionally, whether in local or foreign households, see that work as employment or as a reciprocal obligation? It might have affected responses to Census enumerators and ultimately, the gainful occupation records, but we cannot discern such information from impersonal. aggregated data.

Figure 7.8. Domestic service employees of the Dauncey household

My interpretation therefore suggests that the Census Bureau might have underestimated an unknown proportion of servants in 1903 by classifying them under other occupations located both within and outside the Domestic and Personal Service sector. As well. the enumeration of lavanderas might have been unreliable. Possible flaws of this sort meant the Census accounts perhaps tended to be inaccurate, perhaps misleading and liable to misinterpretation. Cursory surveys of the 1903 data might therefore underestimate the relative importance to women of the household help occupations as a whole, and particularly servants. Nevertheless, the interpretation is untested and tentative. If we accept the possibility of misrepresentation and underestimation. however, one likely consequence may be a misreading of the observed proportional rise in servants-housemaids by 1939.

Distortion of the 1939 accounts arose partly from the ordering of the 1939 occupational count into an industrial description, partly because of vague instructions and partly because of the regulation of housewives. The effects were similar to those on the counts of other occupations, but here, it is difficult to separate consequences for individual occupations. I first consider the lavanderas, who apparently saw their occupation decline significantly by 1939 (Table 7J). The industrial emphasis of the classification scheme most likely resulted in a reduced count of those women. At the same time, the independence of the washerwomen was possibly changing as they moved into commercial enterprises as wage-earners. It is therefore very difficult to be precise.

'Washers' and ironers worked within the embroidery industry, for example, where statisticians counted them as embroiderers (see the embroidery section). We simply do not know how many women washers or ironers this loss of an independent identification might have affected. Nor can we tell how many lavanderas might have lost their independent work through the expansion of the industry. Furthermore, it is an assumption that the embroidery washers were women. It seems a fair assumption perhaps, given that men comprised only 2.2 per cent of operatives in the industry. On the other hand, men had moved into washing in commercial laundries[3], so that the assumption might be unjustified.

Inconsistent enumeration probably linked to the vague instructions, however, possibly contributed more to the defects of the lavandera count and perhaps to the count of cooks. The classification of servant affected the lavandera and cook records to an unknown degree. Statisticians recorded the servant classification as "Servants (nature of work not stated)", and the author of the written summary noted that many performed general duties, "thus making it impossible to classify them as cooks, houseboys, lavanderas, etc." (1939 Census, Volume 2, Chapter 10, p. 487). Although there is no other evidence from that time in support of the Census statement, Tables 7H and 7J indicate a distinct regional variation in the reporting of lavanderas and servants that might suggest confusion or inconsistency during enumeration. In Southern Luzon excepting Batangas and Palawan provinces and in Bicol, the proportions of women recorded as lavanderas exceeded the proportions of women recorded as servants. That is, in all other regions, except in the provinces of La Union, Bataan, Bohol and

Zamboanga, the proportions of provincial women identified as servants (nature of work unstated) might have been boosted by the inclusion of some lavanderas.

Apart from the commercial laundries and the incorporation of washerwomen within specific industry data, there is little other evidence to suggest why the proportions of women working as lavanderas declined so dramatically after 1903 while proportions of servants apparently increased''. For example, it has been suggested that withdrawal of U.S. Army personnel after the Philippines-U.S. War reduced the demand for lavanderas. This is difficult to check from the irregular Census data and the reason is not necessarily consistent with a concurrent increase in servants. At best, the data for the occupations are doubtful. The Census therefore might have overstated the proportional decline of washerwomen and perhaps that of cooks. I further suspect that the recorded waning of the lavandera occupation might have consequently affected the perceived rise (as the literature asserts) in the proportions of servants/housemaids in DPS sector data.

Census officials also possibly clouded the servant classification through inclusion of other occupations previously recorded separately. As noted in the section on seamstresses, the 1939 Census data failed to identify household seamstresses at all, instead possibly counting the women within the general servant classification, as housewives or in the industry counts. As well, it was likely that the 1939 servant classification included some women whom the 1903 Census reported and counted as unskilled labourers. It is impossible to make any tentative adjustments for these women. If we accept that the servant classification did include the extra women, then the classification is dissimilar to that of 1903 and therefore difficult to compare.

On the other hand, because the official record excluded housewives who worked part-time as paid household help, the servant/housemaid record of 1939 was an underestimation. We know that the official account excluded 23,481 housewives with an additional occupation of domestic service (1939 Census, Volume 2, Chapter 12, Table 13, pp. 778-779). I have not included this data in my tables because statisticians amalgamated all domestic and personal service under the one category of ''Barbers, waiters, cooks and other personal and domestic service work" (1939 Census, Volume 2, p. 766). There is no information given in the Census about these women, except for their provincial distribution (see Appendix 2). We might assume that household helpers constituted a proportion of these housewives similar to that of the identified

DPS occupations (excluding housewives), that is, 93.7 per cent, but that is presently unverifiable. We might also assume that because of their marital status, they were less likely to be housemaids and waitresses than lavanderas or cooks, but we can only infer that assumption from the data[32]. The number of adult women who were household helpers was therefore probably higher than the official account recorded in 1939, by perhaps 20,000. Along with the likely under-recording of servants in 1903 and the possible augmenting of the classification in 1939, the exclusion of the housewives makes any estimation of change over the period difficult to establish.

To summarise, the slight fall recorded by the Census in the national proportional data for household helpers might or might not have been correct, but it is difficult to be any more definite. Nor can we be certain about the direction or degree of change in the separate occupations of the women. Faulty and perhaps misleading data in 1903 and changed conditions of enumeration in 1939 confuse interpretation. The classifications of seamstress, practical nurse and unskilled labourer possibly lowered the count of servants in 1903. Some of the apparent increase in servants by 1939 was in all likelihood a replacement of the unskilled labourers of 1903 as well as reflecting inclusion of cooks, lavanderas and perhaps, home-based seamstresses. In addition, the exclusion of housewives with part-time work as household help might also have affected the reported change by 1939. Moreover, the rate of change perhaps differed across provinces, although that is uncertain as well. It seems possible that although there were proportionally more servants and housemaids in Manila than elsewhere, faster growth in these occupations occurred in provinces away from Manila and central Luzon. There has been no investigation in the literature of this occurrence, and it indicates that we should not just assume the reliability and generalisation of the trend shown in the Census sector data. As well, further research is necessary to ascertain other changes affecting the occupations, particularly a move to live-out contractual employment in place of the dependent kin-work relationship that possibly prevailed in 1903.

Uncertainty of the 1903 data affects interpretation of the third trend noted in the literature, that the ratio of housemaids and servants to the total Domestic Service sector increased by 1939. If we accept that the 1903 Census underestimated servants, the data perhaps overstated the proportional change. Simultaneous contraction of the lavandera and cook occupations by 1939 also tended to boost the rise in the ratio. Without

consideration of these factors, it is easy to overestimate the rise of the housemaid/servant proportion in the sector data. Besides, I would argue that this ratio is meaningless in any survey of changing domestic service in the Philippines. Part of my general argument is that sector data across time are not comparable because of dissimilarity in the classification schemes of 1903 and 1939, especially for the Domestic and Personal Service sector (see Chapter 4). That there was uncertainty in the enumeration of women's household help occupations in 1903 and 1939 appears to support the proposition.

This investigation indicates that possible change in women's household help occupations was less clear and more complex than previously considered. Although my interpretation is different from that in the literature, it does not mean that previous readings are incorrect. Most of my argument is conjectural and untested and some may dismiss it because of that. I would argue, however, that such doubt is a consequence of the statistical management instituted by the Census authorities, in both 1903 and 1939. Statisticians perhaps directly misrepresented some of the women who worked as lavanderas or servants, but with greater potential for future distortion, they left the Domestic Service data of 1903 open to misinterpretation by leaving out seamstresses. Regulation of the classification of occupations by industry, perhaps a covert labour force count and vague definitions probably affected the 1939 data. Difficulties with the household help data trace back to the inadequate conceptualisation by the U.S. Census Office of service occupations in general and an over-riding interest in productive occupations. The lack of detailed quantitative commentary on domestic service in the early literature perhaps also reflected that emphasis. Domestic and Personal Service tended to be a class of residual and other ill-defined occupations. Without care by researchers, it is easy to misconstrue the given data and any trends of change that were visible before 1939. Until future researchers complete further studies of other evidence, I suggest that we can draw only uncertain and conditional conclusions about change in women's household help occupations between 1903 and 1939.

3. Summary and conclusion.

Evidence presented in this limited examination of the occupation data conditionally supports the long-held belief that early twentieth century statistical surveys tended to misrepresent the occupations of Filipino women. Some defects and deficiencies in the data were common to all occupations. Chance also perhaps influenced the representation in each Census, although the element was multi-faceted and unable to be quantified. Within the framework of gainful labour and the classification scheme first instituted in the 1903 Census, further regulation marred the picture of individual occupations in both Censuses. The investigation reveals that the records consequently tended to devalue the continuity and importance of home-based economic activity to women. The distortions also masked and perhaps falsified geographical changes that were occurring within and amongst women's occupations.

Defects in the Census process contributed mostly to inaccurate recording of occupations by enumerators. Such enumeration errors, a consequence of insufficient training, vague instructions and ill-defined occupations, meant inconsistency in the records. The mistakes impaired the 1903 records of spinning and weaving, mat and hat making and possibly, the household help occupations. Although Census officials confirmed the example of inaccurate records for women's spinning and weaving in Bohol, we nevertheless can only make crude adjustments for the error there. For other occupations in Bohol and elsewhere, however, it is only possible to infer the likelihood of inconsistent enumeration. Regional and provincial proportions of servants and lavanderas, for example, might have shown irregularity, but we cannot test that possibility from the given data.

Omission of the so-called non-Christian population from the 1903 occupational account, an extensive Census deficiency, resulted in under-representation of women's paid work in the records for one quarter of the provinces. It distorted data at both national and provincial scales and effectively, we have to exclude the frontier provinces from further consideration. Inclusion of Schedule 7 women might have varied the direction and rate of change in occupations such as spinning and weaving, for example. The problem perhaps affected other occupations as well, although a lack of alternative sources of information limits any supposition.

The factor of chance clouded the records of the examined occupations and points to the unsuitability of gainful labour for measuring Filipino women's employment at the turn of the century. Two variants of the factor emerged in the investigation. First, statisticians regarded identification as housewife for a married woman with paid work a matter of statistical chance, disregarding the possible social element of the identification. As it bore upon the records of women's occupations only, we should not disregard the possible bias. The quantitative effect on the 1903 Census occupation data is impossible to discern, except to suppose general under-representation in most occupations. In 1939, the Census Commission transformed the records by stretching the usual occupation category to include housewives, but reported the part-time paid occupations of the housewives in a secondary list. It is therefore hypothetically possible to include that data when considering individual occupations. Nonetheless, the supplementary nature of the listing was not chance but a management decision and I return to this problem below. Second, the factor of chance might have operated in settlements where communal labour prevailed. Anecdotal evidence emerged of women working as hat makers under the system in Laguna. It is impossible to estimate the effect on the occupation statistics, since we do not know whether respondents regarded the work as gainful employment or as a reciprocal obligation. The notion of gainful labour did not cater for the social requirements of Filipino women's lives or work.

Chapter 4 discussed the likely general distorting effects of the classification scheme on the 1903 Census statistics and I argue that economic sector data for 1903 and 1939 are probably incommensurable. Detailed investigation of specific women's occupations further supports that proposition. The location of home-based seamstresses in the Manufacturing sector, for example, perhaps reduced the 1903 count of the servant occupation and therefore, the Domestic and Personal Service sector record. It also perhaps meant overestimation of women in the Manufacturing sector. A concentration in 1939 on the classification of occupations by industry also varied sector data in that Census. Seamstresses, because they were not an industry in their own right, lost their identity and were therefore difficult to trace without archival resources. The Manufacturing or the DPS sector records therefore might have been augmented. There was evidence that the Manufacturing sector records excluded some regular occupations, such as basket maker, which perhaps did not fit a recognised

industry category. The corollary was that different occupations padded the data for each industry. Perhaps "embroiderers" included seamstresses, as well as ironers, washerwomen, or even agents. In each case, it is very difficult to make suitable, justifiable adjustments to the data. In short, the 1939 sector boundaries were not wholly consistent with those of 1903, so that consequently, sector data should be interpreted cautiously.

Census officials in 1939 seemingly altered the records of women's occupations by categorising housewives with part-time paid work outside the primary account of gainful employment. The secondary location caused under-representation of women's total employment in each occupation. Mat weavers, for example, were probably under-counted by 80 per cent in the official account, spinners and weavers and hat makers by more than half and embroiderers by perhaps about half. The withholding of the employment record lowered the reported economic activity rate of women and the proportional sector data and changed the reported sexual division of labour. Moreover, the primary account suggested false notions of the relative importance of occupations, one to another. There were in all likelihood more spinners and weavers than embroiderers, but mat weaving was the most common of the studied occupations. Hat makers most likely retained their proportional position relative to mat weavers. The primary records therefore tended to be misleading. Consequently, commentators tended to draw wrong conclusions about the continuing importance to women of household craft occupations compared with the organised export industries. The distorted record of mat weaving in particular perhaps contributed to the limited discussion in the literature of the enduring household manufacturing.

Instead of the widespread, generalised decline of household manufacturing shown in the primary records, speculative inclusion of the housewives with part-time employment revealed possible variations in the direction and rate of change in different occupations. Spinning and weaving probably maintained its comparative importance in some provinces, although at a reduced level. This was noticeable in Ilocos Norte and Ilocos Sur, for example. In contrast, we perhaps have an understated impression of the occupations' decline in Batangas and Samar. The primary record most likely exaggerated the decline of mat weaving in Luzon provinces and under-estimated the importance of the occupation to women in the Visayas and Mindanao. The record therefore hid the emerging southern shift in the core location of the

occupation. Hat making was still a significant occupation in Bulacan, but to women in a widening band of provinces and especially Tayabas, the occupation was a source of paid work that the primary record registered inadequately. Apart from odd exceptions such as the rise of mat weaving in Samar, the literature barely mentions these likely variations in the direction, degree or rate of change in women's occupations.

Clues supporting a revised interpretation of change in the examined manufacturing occupations were present in the Census data, in early industrial studies and in other documents of the time. Nevertheless, we cannot test the proposed revised interpretations from the Census document, so that the readings remain conditional upon further research, preferably of enumerators' returns. In contrast, evidence supporting a suggested revised interpretation of the domestic service occupations was incidental and ambiguous. Any possible new reading is only conjecture. Sources of information were biased, perhaps unrepresentative and often contradictory, and Census commentary was unhelpful. The investigation indicates only that the data were uncertain and it is very difficult to establish possible changes amongst the individual occupations or in their geographical distribution. Current interpretations in the literature therefore are valid until further research suggests otherwise.

Few papers in the literature support the revised interpretations of occupational change that I submit. With the exception of spinning and weaving in particular provinces, there has been limited investigation of women's occupations across provinces. Interpretations tended to reinforce Census commentary. Explanation for that perhaps lies in gender and colonial bias in the secondary literature of the time. Scholars either considered women's occupations unimportant or looked upon the Census data and commentary as the truth. The disregard of women's occupations might have been a consequence of the misleading data and in that sense, it is fair to suggest that the management of the accounts affected future readings. In the second case, where there was faith in the Census objectivity, the investigation indicates that we should approach early interpretations in the literature with scepticism. By accepting them, we repeat their biases and those of the Census accounts. Furthermore, we should be wary of using aggregated data as a definitive description of change in separate occupations or in individual provinces. On the other hand, other scholars recognise the likelihood of different responses by women in different provinces to changing circumstances. Those

findings tend to support my conditional interpretation of likely change in the women's occupations.

Management of the data for the studied occupations varied from foundational decisions that originated in the U.S. Census Office to specific instructions in the Philippines. The decision in 1903 to divide the population into two Schedules and thus conduct an incomplete Census was exclusionary. An obscure and skewed classification scheme, poor conceptualisation of service occupations and the gender-biased notion of gainful labour underpinned the flawed counting, organising and tabulating of all the examined occupations in 1903 and 1939. By 1939, the clear industrial emphasis of the classification scheme led to a focus on industries at the expense of legitimate occupations that the data hid. Yet, the decision with the greatest influence on Filipino women's occupational data in 1939, I suggest, was the unusual ruling to tabulate part-time paid work by housewives in a supplementary list. It was an indication of close management of and even interference in the occupation data for which the Philippines Census Commission gave no explanation.

We might therefore conclude that the data for these few occupations to which the literature usually refers, were unreliable, being neither established facts nor value free. The judgement might also apply to the records of other women's occupations in the Philippines Census. It also tends to support an assessment that the form of the early Philippines occupational accounts was perhaps inappropriate. On the other hand, there is no proof of interference with intent to misrepresent or to distort the data deliberately. The Census recorded the occupations of the housewives in a peculiar way, but the fact remains that the data were available and accessible in the published Census. It implies that the Census Commission had assessed the consequences of the alternative action of non-publication as being undesirable. That suggests a value judgement, but Census officials did not control later interpretation of those data. Similarly, even if other data tended to be misleading and open to misinterpretation, we cannot verify intent to misrepresent the women.

[1] See Beyer (1917) for an early revised estimate of the non-Christian tribes.

[2] Miller also compiled reports about basket making, lace making and embroidery and perhaps of other home-based manufacturing that the U.S. authorities considered suitable for expansion, but I have not had access to those studies.

[3] In his brief history of the cotton industry in the Philippines, Houston (1955) wrote that in Muslim areas, men produced the cloth. He unfortunately gave no time-frame for this. The Census estimated 275,224 Moros in total, and the author noted in Volume 4, p. 493, that Moros "knew and practised weaving". Forbes-Lindsay (1906) referred to Moro women weaving, but he suggested that they did little spinning (that is, the yarn was imported or traded).

[4] Perhaps the increasing concentration of weaving in the Ilocos region was linked to its historical emphasis on cotton textiles rather than abaca based production. H. Miller (1932), Shepherd (1941) and Stifel (1963) claimed that by the 1930s, Japanese thread had replaced locally grown cotton. In Miller's opinion, that allowed women spinners to become weavers, able to increase the amount of manufactured product. Later importation of Japanese fabric meant that the women changed the form of product to niche articles for the domestic and export trade, that is, the women perhaps became seamstresses.

[5] Both ***Agave cantala*** (maguey) and ***A. americana*** (known as pita, from which the fine, light-weight batiste fabrics were partly woven) grew in the Ilocos area. Maguey fibre probably produced the "coyote" or buff coloured twilled nankeen cloth associated with the Ilocos provinces. It also appears possible that authors used "maguey" to describe both species.

[6] In his discussion on the mid 20th century demise of servants, Coser (1973) asserted that contractual conditions of employment applied in Northern USA since the 1820s and in Southern USA since the 1870s. He noted the contrast with the still feudal conditions of work for household staff in Great Britain and Europe. For a survey of interpretations of the historic changes in domestic service in USA, see Tinsman (1992). In a more recent paper, Salzinger (1997) assumes the change in the United States, from mutual obligation to contractual conditions, occurred in the 1920s when household helpers began to live-out.

[7] Alzona (1937), citing a 1930 Bureau of Labor report, noted 22 shirt factories in Manila employing 486 women. Not all of the women would have been seamstresses. By 1939, female employment in Manila's shirt factories had grown to 911 women.

[8] The description, sewing machine operator, perhaps referred to factory employment rather than to home-based seamstresses, although it is not clear when the latter began to own the mechanical aids. Camagay (1995) includes on p. 41 an undated photograph of women using an early machine while they sat on the floor. Sewing machines had been introduced to the Philippines prior to 1885, by which time the Singer Sewing Machine Co. had sold 602,392 machines in the Islands, on instalments of 10 reales a week (Cordero-Fernando 1978). That was about equivalent to the weekly wage of a Manila seamstress in the early 1900s. The cost probably meant initial use was confined to wealthy households and commercial enterprises. The ***Pronouncing Gazetteer*** related imports of sewing machines valued at US $127,737, two-thirds from Germany and one-third from the U.S., in the 12 months to the end of June 1901 (U.S. War Dept. 1902). By 1919, W. W. Marquadt, Director of Education, illustrated progress in schools with a photograph of girls using machines in a sewing lesson (Marquadt 1919).

[9] Nurge (1965) found in a study of a Leyte village in 1955 that although the craft of abaca weaving was dying out, women still made most clothing at home using imported cloth from Ilocos, Iloilo, Japan or the U.S. Doeppers (1984) states that clothing production was still primarily on a custom-made basis before World War 2. Contraction of abaca production and the reduction in locally woven cloth might or might not have affected seamstresses in other areas. See also Note 15,

[10] Cordero-Fernando and Ricio (1978) published a selection of the Directory of Manila, but did not date their choices. They listed just one example of each type of establishment in their partial register. The Directories perhaps named other embroiderers, but I have not had access to the more complete registers.

[11] Embroidery machines, introduced in the 1930s, were employed only for high-volume orders and did not curtail the hand embroidery, which was considered superior (E. Reyes 1990).

[12] Winship (1938), writing about 20 years after the establishment of the first factories, described them in the 1930s as largely distribution centres (see also Doeppers 1984, p. 23). The Philippines Year Book of 1920 reported about 40 embroidery factories in Manila (Chamber of Commerce 1920). That number fell in subsequent years after rationalisation of the industry, made necessary by unscrupulous commercial practices and then by economic depression and reclassification of the goods to luxury status, which cancelled their duty free entry to the United

States. As well, fashion had changed to simpler designs on mass-produced items (Doeppers 1984; Gleeck 1975; H. Miller 1932). There are conflicting reports about the number of U.S. firms engaged in the export embroidery industry before World War 2. Accounts suggested between 20 and 30 firms for 1935 and 1937 (Hartendorp 1958; U.S. Dept. of State 1938; Winship 1938). Some firms operated more than one factory. Crow (1914) accused the first New York dealers of introducing sweatshop conditions in Manila factories.

S. Davis Winship, an engineer by training, was the President and General Manager of the Eastern Isles Import Corporation. He began his Philippines career in the U.S. Coast and Geodetic Survey in 1914, captaining a survey boat from 1917 to 1920. In 1920, he took over as manager of the Eastern Isles Import Corp., which had been established in Manila in 1919 (Nellist 1931).

[13] The expansion of the embroiderers to more distant provinces is unexplained in the literature. Lever (1988) claims that in a similar occurrence in the twentieth century embroidery industry in Spain, entrepreneurs and agents employed rural women in order to reduce costs. Did the same condition apply in the Philippines? To what extent did the expansion in outer Philippine provinces reflect increased employment opportunities for women in Rizal and Manila and the teaching of embroidery in schools? See also Note 17.

[14] Established in 1912 in Manila within the Bureau of Education, specifically to systematise hat making and embroidery (design selection and style, quality control) and to train Filipino women in organising provincial needlework centres. It closed in November 1916 (Aldana 1949). Worcester (1914), Volume 1, page 362 included a photograph of women embroiderers at the School. Other means of standardising production included school classes and through the Insular Sales Agency set up by Governor General Forbes.

[15] Although there are articles about changing fashion styles, particularly from Filipino local dress to Western attire (see for example, Tiongsan 1978), there is no mention made whether the new style garments were hand made, mass produced, imported or locally manufactured. The greater presence of tailoring and shirt making shops indicated that the demand for men's clothes was being met by partial mechanisation, more mass production and a more highly organised division of labour (Doeppers 1984), but what of clothing for women and children? Houston (1955, p. 17) discussed the effect of the National Economic Protection Association campaign during the 1930s to reinstate home-based industries. He noted that many women turned to wearing the patadiong and *cambaya* (a skirt and blouse): "These garments, generally home-made, composed the dress of the rural women.... Known during the Commonwealth period as the 'Nepa' dress, this was increasingly worn by the socially 'elite'. Victoria L. de Araneta, a member of one of the most influential and industrious families in the Philippines, appealed to women to adopt the native dress...". Their concern was to resurrect sinamay, jusi and piña weaving, not necessarily the seamstress or dressmaker occupations (see also Doeppers 1984, p. 29).

[16] For example, the U.S. authored Area Handbook (1956), citing industry investigations, noted varying estimates of embroiderers from 40,000 to about 200,000 in the post war period.

[17] There is insufficient information in the Census to enable investigation of this. The following comments relate to women in Batangas. Reasons why young women in the province became embroiderers were probably complex. Batangas women traditionally were spinners and weavers (see Table 7B). By 1939, the age distribution of women weavers appeared to indicate the decline in those occupations. Women aged 45 years and over comprised 32.2 per cent of the provincial weaving workforce (i.e. those identified in gainful employment). This contrasts with the younger age distribution of women classified as embroiderers, shown in the following table (but note that the data exclude housewives with additional occupations, whose age distribution is unknown). Did the expansion of embroidery reflect supply or demand conditions? To what extent was it an economically rational decision by the young women? Were women in Batangas forced out of cloth production or did they leave for other reasons? Conversely, how did the export embroidery companies influence the women's decision? See also Note 13.

Age distribution of women engaged in cloth production and embroidery, Batangas, 1939.

	10-14yrs	15-19yrs	20-24yrs	25-34yrs	35-44yrs	45+yrs
Females, 10yrs & over	24791	24650	22928	34526	18282	34852
Spinning & weaving	163	372	319	454	364	799
Embroidery	5761	10168	6490	6165	1599	728

Source: 1939 Census, Volume 1, Batangas Province, Table 20.

[18] Hugo Miller probably wrote this report, as its style and layout conformed to his study on the hat industry (Miller 1910).

[19] Centres of unskilled production, "of no commercial importance", listed in the 1913 report included Palapag, Oras, Dolores, Taft, Balangiga, Sta. Rita, Gandara, Oquendo, and Catarman. In these locations, the same women who gathered and prepared the stalks then wove the mats, each plain article taking about 40 hours of work.

The women sold the mats for 1 to 3 pesos each. Loom weaving with an abaca warp, introduced towards the end of the nineteenth century, produced cheaper mats (Bureau of Education 1913, pp 91-92). In his history of 19th century Samar, Cruikshank (1982) notes the place of abaca cloth weaving, but does not refer at all to weaving of mats. Mallat (1983) had noted mat weaving in Basey in his 1846 survey.

[20] Better quality mats, including embroidered designs done by 'girls', required several months for completion and sold for 30-40 pesos, although plaid mats were cheaper and quicker to make (Bureau of Education 1913).

[21] Miller (1913) also stated that mat weaving expanded in Romblon after the 1908 typhoon reduced coconut yields there, but fell when agricultural returns were normal.

[22] Sabutan *Pandanus* was cultivated around the shores of Laguna de Bay, as was P. *utilissimus* in Majayjay and Luisiana, Laguna. That was in contrast to the harvesting elsewhere of other *Pandanus* species, buri and grass materials, which were collected from the wild. More complex and slower preparation of sabutan pandan yielded stronger, more durable and finer straws than other pandan fibres. About 75 per cent of mats made in Laguna province, roughly woven of coarse straw, were intended for drying padi (Bureau of Education 1913).

[23] At the same time, imports of cheaper pandan mats from Singapore (Bureau of Education 1913) also perhaps affected the market, although we should not assume their substitutability with the Rizal sabutan mats.

[24] The Philippine handbook later listed the nearby municipality of Bani also as a centre of mat weaving (Philippine Commission of Independence 1923). It is unknown if that were so in 1903.

[25] Miller described the following variations in blocked hat making at the time:

Material	Province	Main centres of production
Bamboo and rattan	Bulacan	Baliuag, Pulilan, Kingwa, Malolos.
	Nueva Ecija	San Isidro
	Pampanga	Apalit, San Luis
Buri palm (Corypha *umbraculifera)*		
a) Calasiao straw (midrib of unopened leaf)	Pangasinan	Calasiao.
	Iloilo – Capiz	Pototan to Dumarao area.
b) Buri straw (unopened leaf blade)	Tayabas	Mauban, Tayabas, Lucban.
	Pampanga	Ararat, San Luis.
	Laguna	Majayjay (introduced 1904).
c) Buntal straw (petiole of opened leaf blade)	Tayabas	Lucban.
	Buntal straw was exported to Baliuag from the Sariaya district, Tayabas province, although there is disagreement in the literature about when the trade began and its effect. See Ira and Medina (1978); McLennan (1980); H. Miller (1910).	
Pandanus (Sabutan pandan and P. *tectorius*)	Laguna	Mabitac (sabutan), Cavinti, Luisiana.
	Capiz	Dao.
	Manila	Miller noted 2 patches of sabutan pandanus especially for hats within the city's limits.
	Rizal	Pililla (after U.S. occupation).
Tikug (*Fimbristylus* utilis, a grass)	Leyte, Bohol and after U.S. occupation, Samar (Basey).	
Nito (stem of Lygodium *microphyllum* formerly L. *scandens*, a fern)	Pangasinan	Calasiao
	Hat makers also used nito to trim rattan and bamboo blocked hats and salacots.	

[26] Miller (1913) suggested that a change to linear settlement along roads, and scattered settlement within for example coconut plantations in Laguna, Tayabas and Bohol, would lead to a decline in communal labour. Was there any link between a reduction in communal labour and the reported increase in hat making in those three provinces?

[27] Their account appeared to have a male bias – they made no comment on women's place in manufacturing, instead concentrating on those industries with the greatest investment, capital equipment and export trade at the time. In Table 5.13, p. 128, for example, which ranked manufacturing industries by capital and employment for 1903, 1918 and 1939, the authors omitted textile production from the list of 1903 employment.

[28] See for example, Coser (1973); Dudden (1986); Higgs (1986); Tinsman (1992); U.S. Bureau of Labor Statistics (1927). Higgs suggests that because of defective data, it is impossible to tell if there was the overall

decrease that apparently began in the 1870s and accelerated in the period 1900 to 1910 in the U.S., Great Britain, France, Ireland and Australia.

[29] This does not mean that migration to Manila for domestic service did not occur (Eviota and Smith 1984; R. Jackson 1992). De Gonzalez (2000), for example, records that in her Manila family household before 1942, the two housemaids were from Iloilo, the nanny (yaya), of Ilocan stock, came from Pangasinan and the chauffeur and his family were Samarenos. In contrast, at least one servant in the employ of Mrs. Dauncey (1906) had moved from Luzon to Iloilo.

[30] American studies show that most women in U.S. laundries at the turn of the century were ironers and shakers (who untied and straightened sheets etc. after men had washed the goods) (Mohun 1996). Laundries in the Philippines probably followed U.S. patterns of work, given that there were more men (3,420) than women employed in the Philippine establishments. Relative numbers of women in the U.S. occupation fell after 1910 as mechanisation gradually replaced hand ironing, while domestic demand for commercial laundries began to decline in the 1930s as women bought washing machines to do household laundry. I have not found any reference to the diffusion of washing machines, or to the history of change in commercial laundries, in the Philippines.

Commercial laundries would have reduced the demand for lavanderas. According to the occupation data, by 1939 there were commercial laundries and dry-cleaning and dyeing shops in all but 10 provinces: Abra, Batanes, Marinduque, Palawan, Sorsogon, Antique, Romblon, Bohol, Bukidnon and Sulu. The Census recorded these occupations separately from the lavanderas, but still under Domestic and Personal Services. Laundries and dry-cleaning shops together employed 2,493 women as owners, officials, operators or labourers, with 2,032 of the women being operators and labourers, but 50.5 per cent (1,259) of the women were in Manila and Rizal.

[31] Pal and Polson (1973) in a survey of rural life in Dumaguete, Negros Oriental, noted that some households hired a housemaid instead of a washing woman to do the laundry. Pal and Polson suggested that lavanderas, who washed, starched and ironed, were unable to compete because of workmanship. Furthermore, housemaids were cheaper to employ than lavanderas. Although their survey covered the 1950s and 1960s, perhaps similar circumstances might have applied in the pre-war period in some provincial towns or cities or in Manila.

[32] The following table shows the proportional age distributions for selected Domestic and Personal Service occupations in 1939. It indicates that more than half (51.5 per cent) of the lavanderas were aged 25 years and over. That contrasted with the age distribution of waitresses and servants, of whom four-fifths were aged less than 25 years, and housemaids (74.5 per cent under 25 years). Because the Census did not correlate marital status with occupations, it is an assumption only that the gainfully employed women over the age of 25 years were more likely to be married. Of the identified housewives, 68.1 per cent were aged 25 years or more, but the housewives were not the only women who were married. The Census did not indicate the age distribution of housewives with part-time paid work.

Age distribution of selected occupations, Philippines, 1939 (%).

	10-14yrs	15-24yrs	25-34yrs	35-44yrs	45-54yrs	55+yrs
Lavandera (60,567)	8.4	40.1	20.1	15.3	10.3	5.8
Cook (11,221)	15.4	46.2	14.4	9.2	7.2	7.4
Waitress (2,188)	7.1	74.5	12.2	3.0	1.6	1.5
Housemaid (37,683)	17.9	56.6	12.9	5.2	3.8	3.5
Servant (86,163)	21.2	58.8	11.1	4.4	2.5	2.0
Hairdresser (2,479)	0.8	63.1	28.3	6.0	1.5	0.3
Housewives (3,145,763)	4.1	27.8	29.0	18.8	11.6	8.6

Source: **1939** Census, **Volume 2,** Chapter **10,** Table 28, p. **530.**