Assessing the Demographic and Spatial Characteristics of Migrant Workers in Selected Districts of Nineteenth Century Manila Using Archival Records and Geographic Information Systems

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Abstract

Cities and urban areas throughout history have long attracted and benefitted from the arrival of migrants. Accounts of foreign visitors of Manila and its surrounding areas in the nineteenth until the early twentieth century have taken note of the said region's status as an in-migration area. Historians who have done research on Philippine history have likewise noted the arrival of foreign and local migrants in Manila, particularly during the Spanish period.

While Manila's status in the 1800s as a magnet for outsiders cannot be disputed, the nature of migration in nineteenth century Manila may be better appreciated if this is studied from the scale of the said areas' different districts. Such district-level analysis of Manila's migration history is made possible by the availability of village-based annual civil register records at the National Archives of the Philippines (NAP) called the *General Padron de Vecindarios*. Moreover, a greater level of understanding and representation of such data can be attained because of new research technologies such as Geographic Information Systems (GIS).

Using selected *Vecindarios* records from several Manila districts such as Sampaloc, San Fernando de Dilao, Tondo and Quiapo and combining these with GIS methods, this paper seeks to determine probable tendencies in the characteristics of Filipinos who migrated to these particular places as well as the potential differences in the number and type of migrants that they attracted. Particular focus would be given in determining differences or similarities among these migrants with respect to: a) the provinces where they came from, b) their ages, c) gender as well as their d) listed occupations. Through this research, it is hoped that more social scientists who are interested in Philippine history would be encouraged to not only capitalize on readily available demographic records at the NAP but to also employ technologies, such as GIS, in order to maximize the utilization and representation of these sources.

Keywords: Manila, migration, *vecindarios*, Geographic Information Systems nineteenth century Philippines, urbanization, historical geography

1. Introduction

Historical geography is a discipline that deals with the geographies of past periods by creatively reconstructing observable facts and processes that have occurred in a particular place or society (Butlin 1993). One phenomena that historical geographers have shown interest in learning is the "variability of demographic phenomena" that could be observed in particular places, especially since it is very likely that there will be differences in the demographic characteristics of settlements that merits attention and analysis (Ogden 1987: 222).

In the case of the City of Manila and its nearby towns that made up the Province of Manila in the Philippines, the 1800s is considered a period wherein its settlements experienced significant economic and demographic change. This is particularly true for the districts that make up present-day Manila City (See Figure 1.) In the case of Manila Province (See Figure 2.), within roughly 75 years (1817-1895), its population is said to have increased more than three-fold from 83,000 to 275,000. This abrupt spike in the number of Manila residents becomes even more impressive since majority of this growth in population occurred after 1870 (Huetz de Lemps 1998), a contention that is supported by Bowring's (1963) account that Manila in the 1850's only had a population of 150,000. Clearly, such a rate of growth could not be solely attributed to natural increase. As such, migrants within the Philippines (Doeppers 1998a and Doeppers 1998b) and abroad (Huetz de Lemps 1998) undoubtedly contributed to the demographic transformation of what has been described by a foreign visitor as the Philippines' only human settlement that had some form of urban living (Le Roy 1968).
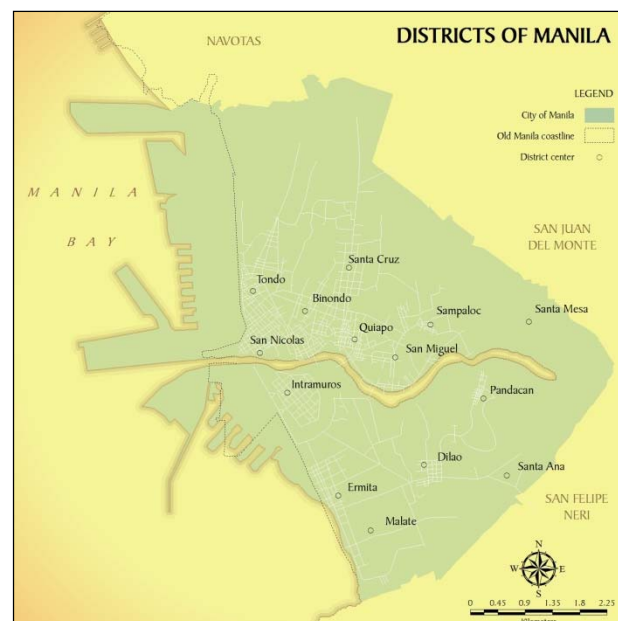

Figure 1. Districts of the City of Manila based on present-day boundaries.

Figure 2. Towns of Manila Province using the present-day boundaries of Metro Manila.

Fortunately, the Spanish colonial authorities during the latter part of the 19th century were able to record information about Manila's residents through its *General Padron de Vecindarios*. These annual civil register lists found at the National Archives of the Philippines (NAP) contain the names of residents of particular settlements who are aged 18 to 60 years old and have proven to be quite useful in providing information about the characteristics of migrants in Manila's different districts (Doeppers 1998a).

Among the Manila settlements that have recorded lists are the Quiapo, Sampaloc, Tondo, and San Fernando de Dilao. Tondo, Sampaloc and San Fernando de Dilao are known in-migration areas of locals who move to Manila (Dery 1991), while Quiapo, along with Sampaloc, were places that the Chinese moved into when the *Parian*, the only settlement where the Chinese in Manila were originally allowed to stay, was demolished (De Viana 2001). It is said that Tondo was primarily a working class district where fishermen, boatmen and laborers resided (De Viana 2001). In addition, the said settlement also specialized in the manufacture of milk-based commodities as well as cotton, silk and tobacco products (Bowring 1963). On the other hand, Sampaloc and Quiapo was where the *mestizo* and the native elite, the *principalia*, resided (Reed 1967).

In order to maximize the usefulness of these sources, however, it would be necessary to use tools that would allow

such data to be rendered in visual form which would, in turn, allow for more nuanced spatial analysis. Both of these conditions could be attained by using Geographic Information Systems, a now accepted field in historical geography whose adherents have focused on topics such as the historical development of urban areas (Gregory and Healey 2007).

2. Objectives

This paper builds on a previous unpublished study (Lagman, Villasper, Martinez not published) that sought to describe and compare the demographic and spatial characteristics of migrants who moved to the Manila districts of Pandacan, Malate and San Fernando de Dilao (Dilao), all of which are located along the right bank of the Walled City of Intramuros (Huetz de Lemps 2000). For this current study, one of the objectives is to review the civil register records from single year documents of selected districts on the left bank of Intramuros – Sampaloc, Quiapo, and Tondo. Such review would yield information on the migrants of these districts pertaining to their: a) province of origin (local, short-range, medium-range, long-range), b) gender, c) occupations and d) age range. These types of information would then be compared with the right bank settlement of Dilao which had the greatest presence of migrants among the communities that were previously studied.

3. Methods

Any research in historical GIS would require the collection of data and the development of a database. Similar to the previous paper, this study required the use and updating of an MS Excel database that was developed using information that was collected, translated from its original Spanish to English, tabulated and organized using *Vecindarios* documents from the archives. The present database already has roughly 65,000 entries from single year civil register lists from the 1880s to 1890s taken from seven Manila districts. Each entry in the database contains the following information pertaining to a unique individual: a) district of residence, b) name (title, first name and surname), c) age, d) occupation, and e) place of baptism. The last type of information serves as a proxy indicator of migration (Doeppers 1998a), since if a person was baptized in a parish other than his place of current residence then he or she should be considered a migrant/non-local. It should be underscored that the extraordinary amount of effort required to develop, update and continuously edit this database is considered by historical GIS practitioners as, in itself, serious scholarship (Gregory and Healey 2007).

The completion of the database for this current paper was soon followed by the generation and analysis of maps and graphs using ArcGIS 10.2 along with the shape files from PhilGIS.org that were utilized in a previous work by Lagman, Villasper and Martinez (not published). While the categorization of the age, gender and occupation of migrants within a district is quite straightforward, the grouping of migrants according to their place of origin needs some explaining. All identified migrants are categorized as local, short-range, medium-range or long-range migrants based on the relative distance of the place where a person was baptized to where he or she resided as a resident of a specific Manila district. Those who were baptized in one of Manila's districts other than his or her current place of residence is considered a local migrant, while one who received baptism in a town that is part of present-day Metropolitan Manila is tagged as a short-range migrant. Those who are listed as being baptized in a parish located in the Southern Tagalog and Central Luzon

provinces of Laguna, Morong (Rizal), Cavite, Batangas, Tayabas (Quezon), Bulacan, Pampanga, Zambales, and Bataan were considered as medium-range migrants, and anyone who was originally from provinces beyond the these two aforementioned regions were classified as long-range migrants.

4. Limitations

As has been emphasized by Gregory and Healey (2007), one of the main concerns in GIS-based historical studies is the completeness and accuracy of available data. In the case of this research, time and resource limitations as well as the quality of available *Vecindarios* data compelled the researcher to limit the analysis of migrant characteristics per district to a specific civil registry year in the middle 1880s to 1890s. In addition, while the lists available for the districts of San Fernando de Dilao, Quiapo and Sampaloc consistently provide baptismal data which serves as an indicator of migration, only a small percentage of the lists from Tondo provide such information. As such, the reader should be cautioned that the accuracy of the spatial and demographic data among Tondo migrants may not reflect the probable correctness or comprehensiveness of what has been observed in the other Manila suburbs.

5. Results

5.1.   *Share of Migrants to Total District Population.*

Among the three districts north of the Pasig that were studied, only Tondo yielded a relatively small number of migrants at 4.4% of its total civil register population. This, as has been explained above, is more a product of unreliable data and likely does not reflect the real share of migrants in the said district. On the other hand, Sampaloc (27%) and Quiapo (45%) had migrant populations that made more than a fourth and a little less than half of its total populations (See Figure 1.). Such a significant share of migrants to the total number of working-age members of Sampaloc's and Quiapo's communities becomes even more impressive as these rates are higher than the 24% share that was observed in Dilao as well as in other Manila districts as can be seen in Figure 3 below.
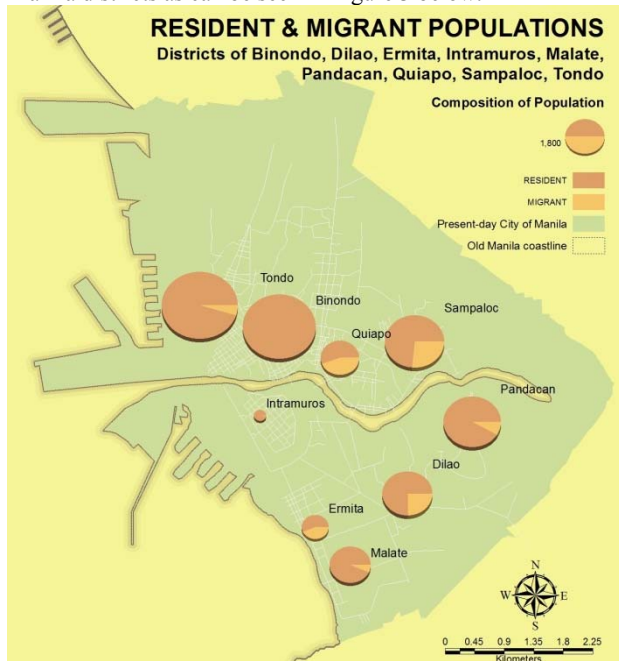

Figure 3. Share of Migrants and Locals to Total District Civil Register Population.

5.2.   *Long-Range and Medium-Range Migrants.*

Individuals who hail from far away localities who settled in the communities of San Fernando de Dilao, Quiapo and Sampaloc in the 1890s were usually from the Visayan province of Eastern Samar, the Ilocano-speaking provinces of Ilocos Sur and Ilocos Norte in Northern Mindanao. Quiapo likewise has migrants coming from the province of Albay, which is located in south eastern Luzon, while Pangasinan was a province that also contributed a significant number of long-range migrants in San Fernando de Dilao (See Figures 4, 5 and 6). Individuals from Eastern Samar represent the largest group of such type of migrants in both Quiapo (29 of 121) and Sampaloc (18 of 94), there is almost thrice the number people who hail from Ilocos Sur (31) than those who were born in Eastern Samar. It should be note that while its long-range migrants come from 24 provinces, 51% of them come from only 4 provinces: Eastern Samar of the Eastern Visayas Region and Albay of the Bicol Region, which both face the Pacific Ocean, and Ilocos Norte and Sur in Northern Luzon.

Incidentally, the pattern indicating that the Ilocos, Eastern Samar and Albay provinces were migrant-sending settlements in the late 1800s reflects observed contemporary migration trends in the Philippines noted by Hosada (2007). In the said study, it was stated that people from Ilocos, Eastern Visayas, and the Bicol Regions, from 1960s up to the present, had the greatest inclination to move out of their place of origin. Moreover, migrants from the latter regions had the tendency to move towards Metro Manila, whose territory is practically the same as the Province of Manila during the Spanish period.
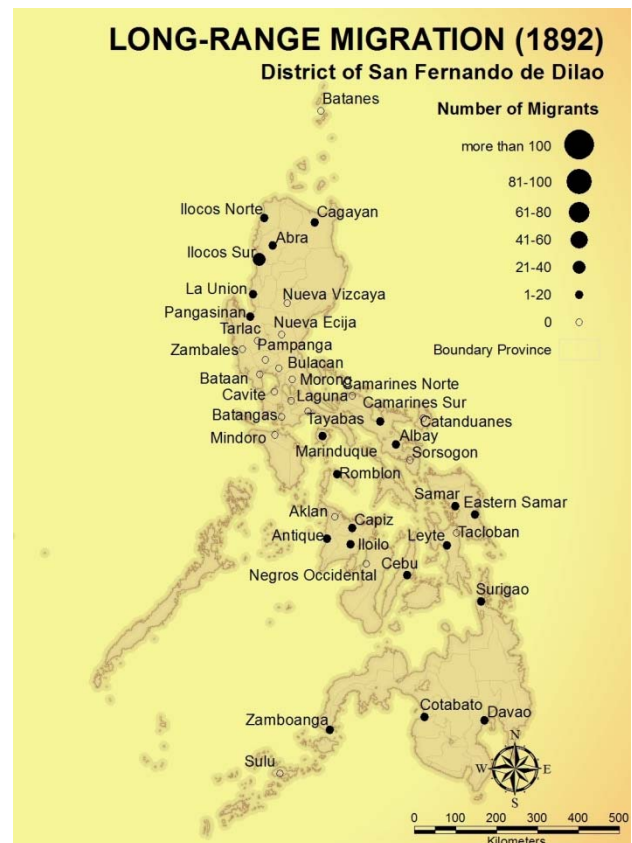

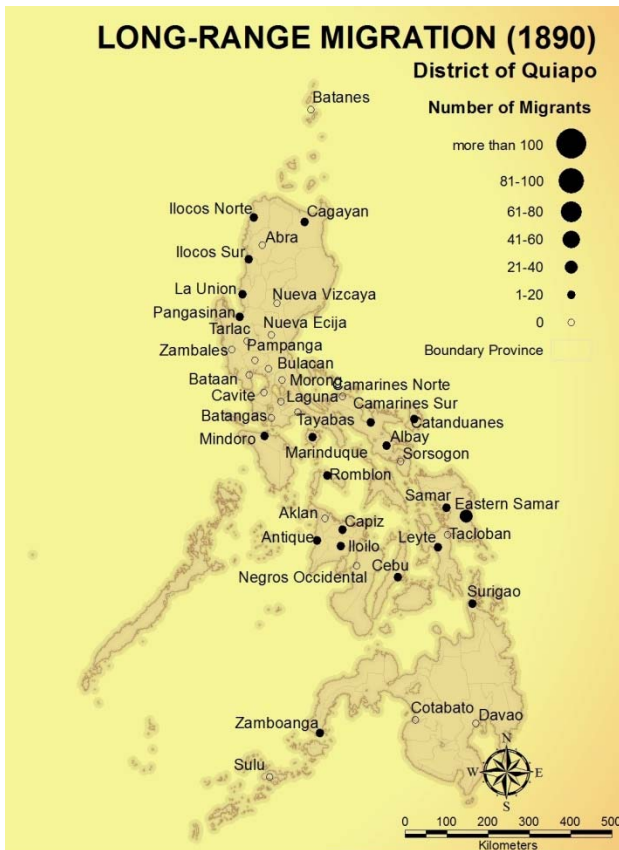Figure 4. Distribution of Long-Range Migrants, Dilao.

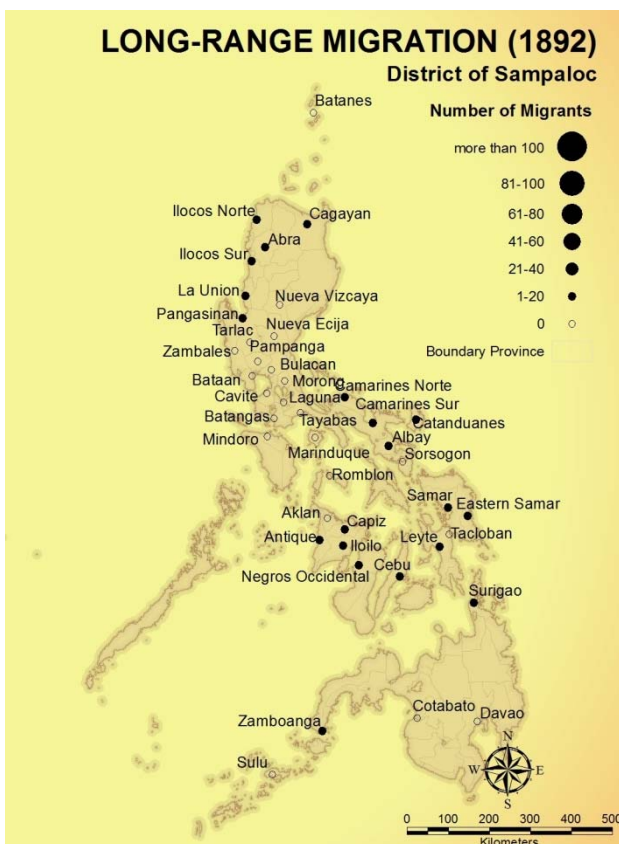Figure 5. Distribution of Long-Range Migrants, Quiapo.

Figure 6. Distribution of Long-Range Migrants, Sampaloc.

While the most common long-range migrants are either Eastern Samarenos or Ilocanos, the mid-range migrant population in Dilao, Quiapo, and Sampaloc are dominated by persons from the nearby province of Bulacan who speak the same language, Tagalog, as those who are natives of Manila (See Figures 7, 8 and 9.). Another consistent pattern that can be observed from the GIS-generated maps is that the second largest immigrant group in these three communities hail from Morong (present-day Rizal), another Tagalog-speaking province. All the top four sources of mid-range migrants for these three districts, in fact, speak the same mother language as that of the locals of Manila, with the exception of San Fernando de Dilao which has a significant native Kapampangan population.
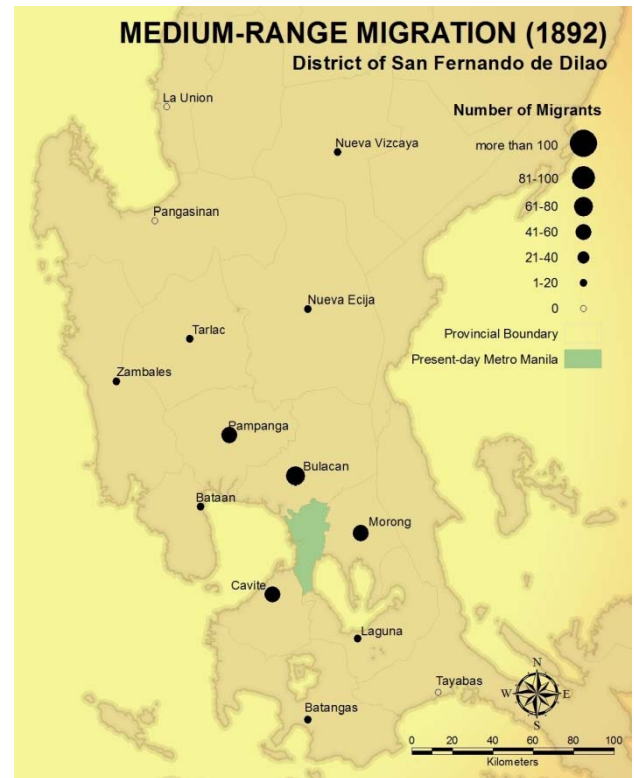
Figure 7. Distribution of Medium-Range Migrants, Dilao.

While those who were born and baptized in Bulacan are the most common mid-range migrant in the districts being studied, their numbers are, in terms of ratio, much larger in Sampaloc and Quiapo than in San Fernando de Dilao. The 70 Bulakenyos in the latter is only 1.25 times larger than 50 natives of Morong who were recorded to have stayed in the said district in 1892. In contrast, there are roughly 5 individuals who are from Bulacan for every native of Morong in both Quiapo (4.76:1) and Sampaloc (5.28:1).

Aside from sharing the same language, geography could partially explain why mid-range migrants in the Manila districts being studied are from Tagalog-speaking provinces. In an era wherein road transportation was very limited and quite localized, travelling from the borders of one's town would likely be through water transport. Aside from absolute proximity, Bulacan and Morong are connected to Manila via major rivers and its tributaries. This, however, does not explain why there are fewer migrants from Cavite and Laguna, which are also connected to Manila via navigable in-land and sea-based waterways.
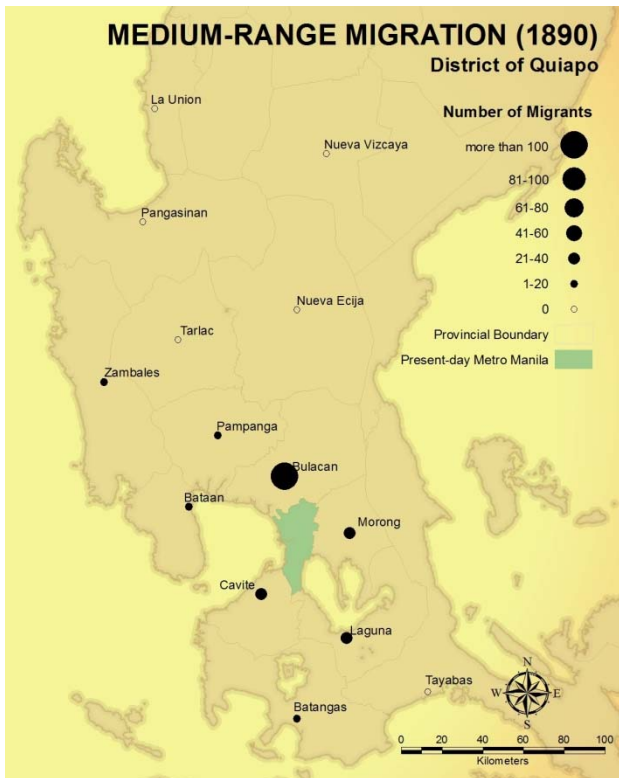
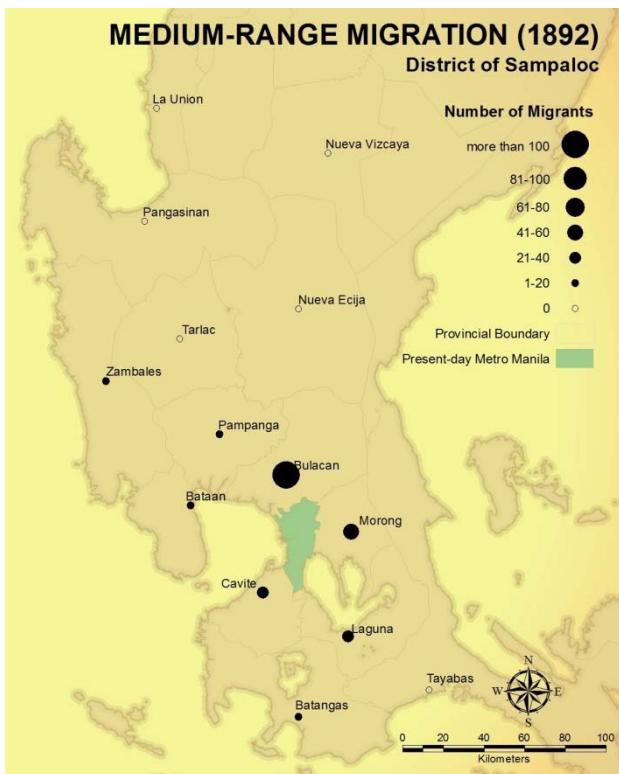Figure 8. Distribution of Medium Range Migrants, Quiapo.

Figure 9. Distribution of Medium-Range Migrants, Sampaloc.

5.3.   *Short-Range and Local Migrants.*

One of the advantages GIS lends to historical research is that when data gathered from archival sources can be geographically located, the researcher is provided with the

ability to easily describe at various the spatial patterns of what he or she intends to study. With respect to individuals who were based in Dilao, Quiapo and Sampaloc in the 1890s and who were born in towns and settlements that now make up present-day Metropolitan Manila, several spatial patterns with respect to their place of origins can be observed. As can be seen in Figures 10, 11 and 12, there are distinct differences as to where majority of migrants in the aforementioned districts come from. Nearly 6 out of every 10 short-range migrants (SRMs) in Quiapo are from towns that line the eastern portions of Manila province; these include Pasig (34%), Marikina (13%), and Taguig (10%). Similar to that of Quiapo, a significant percentage of SRMs in Sampaloc were also from Marikina (32%) and Pasig (13%), but 3 out of 10 of its SRMs also hail from the northern towns of Caloocan (17%) and Valenzuela (13%). As opposed to its district counterparts along the north of the Pasig River, Dilao SRMs have towns of origins that are most proximate to Manila. While 33% of Dilao-based SRMs are from Pasig, 19% are from the nearby town of Pineda which is south of Dilao.
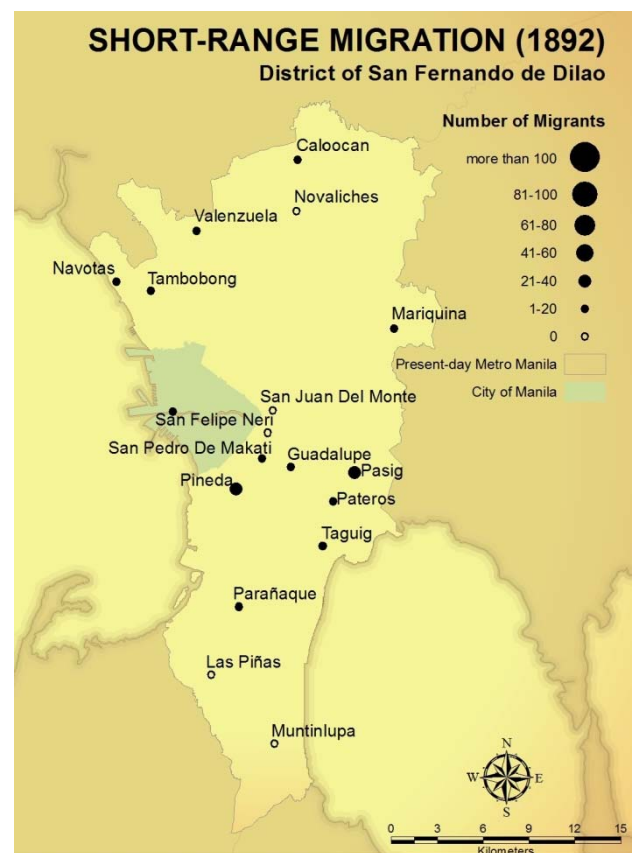

Figure 10. Distribution of Short-Range Migrants.

Proximity to the district of destination likewise seems to have played a significant factor in the movement of people within Manila's districts. Dilao, Quiapo and Sampaloc served as attractive destinations for individuals who come from nearby suburbs (See Figures 13, 14, and 15.). Majority of the Manila-based migrants in both Quiapo (53%) and Sampaloc (39%) were from neighboring Sta. Cruz and Binondo. And perhaps since they are geographically near each other, 10% of Quiapo's local migrants are from Sampaloc while 23% of Sampaloc's Manila-based migrants are from Quiapo. The same tendencies can also be observed with Dilao which had 28% of its migrants from the adjacent districts of Malate and Pandacan.
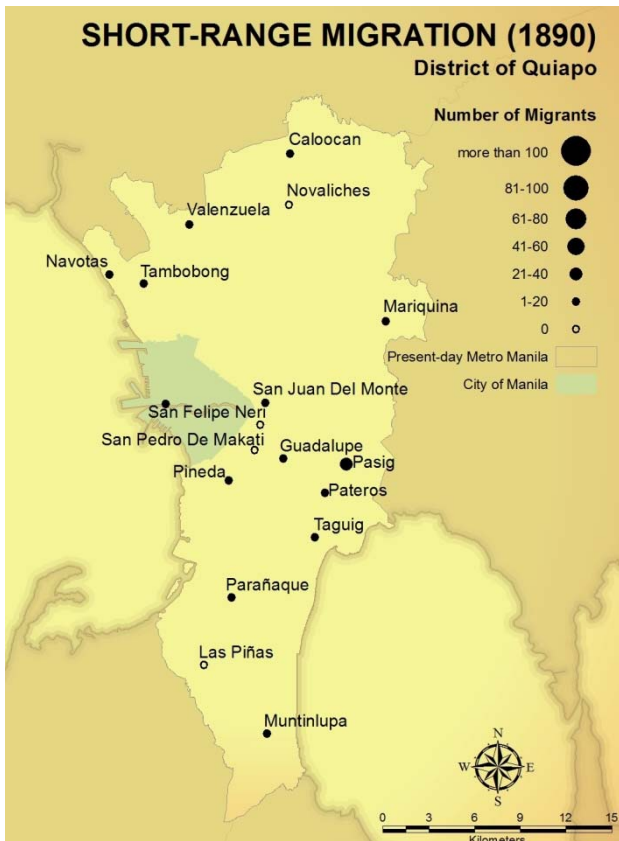
Figure 11. Distribution of Short-Range Migrants, Quiapo.
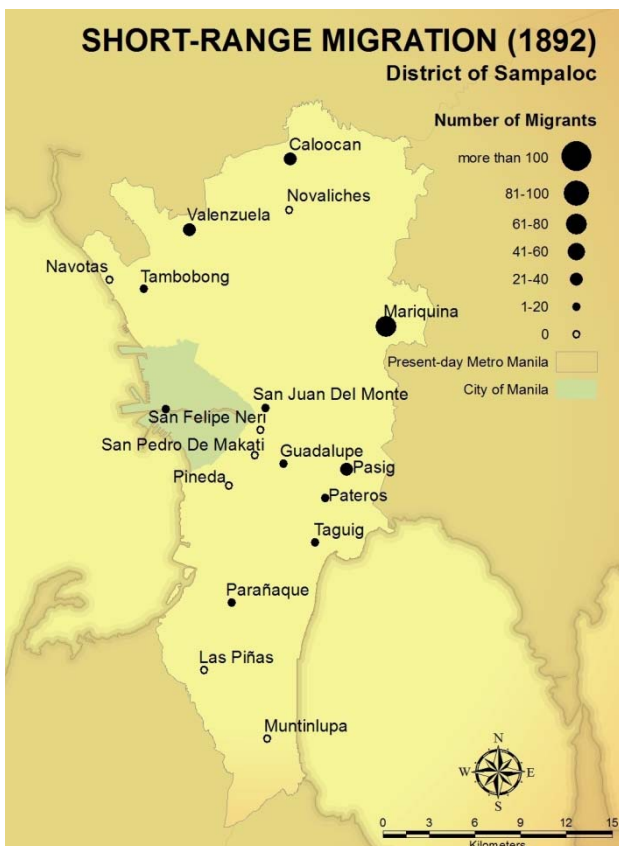

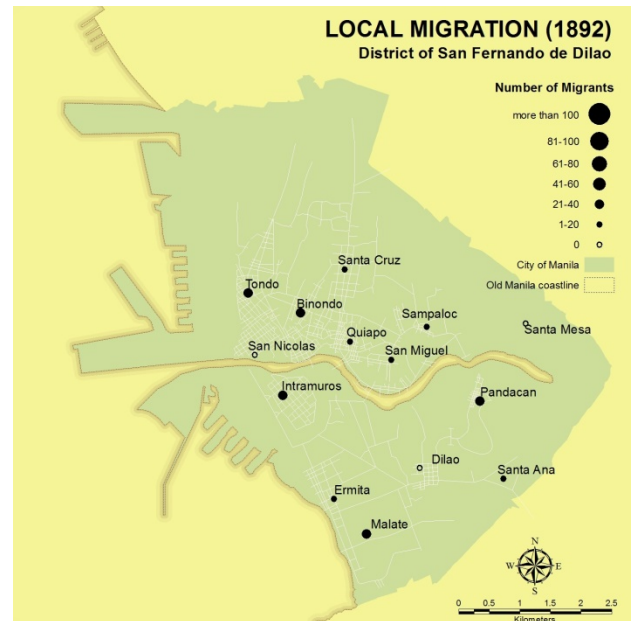Figure 12. Distribution of Short-Range Migrants, Sampaloc.

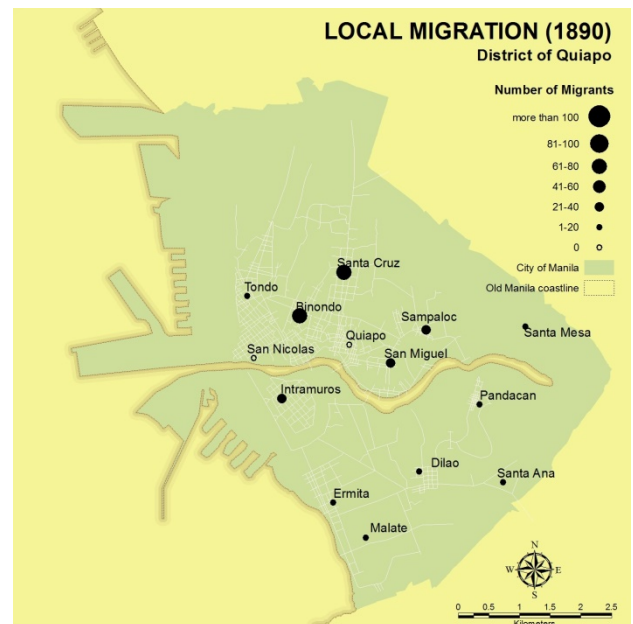

Figure 13. Distribution of Local Migrants, Dilao.

Figure 14. Distribution of Local Migrants, Quiapo.

5.4. Migrants by Gender.

It was shown in a previous study that, consistent by what has been argued by Doeppers (1998), a majority of migrants in Dilao and Malate, with the exception of Pandacan, were female (Lagman, Villasper, Martinez not published). The data gathered for Quiapo and Sampaloc does not go against this pattern (See Figure 16.). Women make up almost 55% of a probable 1,088 migrants in Sampaloc in 1892. The share of females to the total number of migrants in Quiapo is even much larger at 63%.
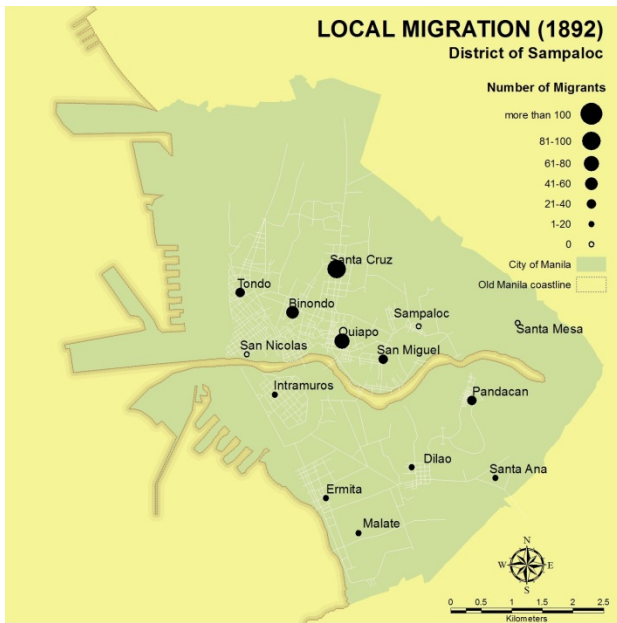
Figure 15. Distribution of Local Migrants, Sampaloc.

Figure 16. Migrant Gender Ratio in
Manila's Districts, 1890s.

It should be noted that this pattern of female dominance among Manila migrants also reflects a worldwide trend in migration as far back as the 1960s wherein there were more females than males who were moving out of their places of origin in search for better options (Caritas Internationalis, no date).

5.5. Top Migrant Occupations by District.

An examination of the data gathered for all categories of migrants in Dilao, Quiapo and Sampaloc (See Figures 17, 18, and 19.) indicate that four most frequently stated livelihoods are those traditionally assigned to females. Nearly a quarter of all migrants in Dilao and 1 out of every

5 non-locals in Quiapo have found work in these districts as seamstresses, a common, low-paying occupation among women in nineteenth century Manila (Camagay 1995). Seamstress was also the fourth most frequently indicated profession among migrants in Sampaloc in 1892.
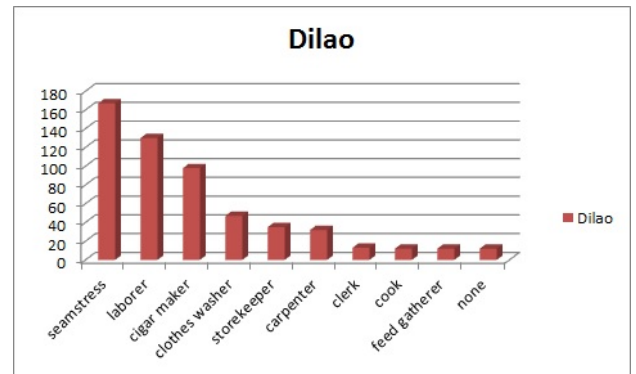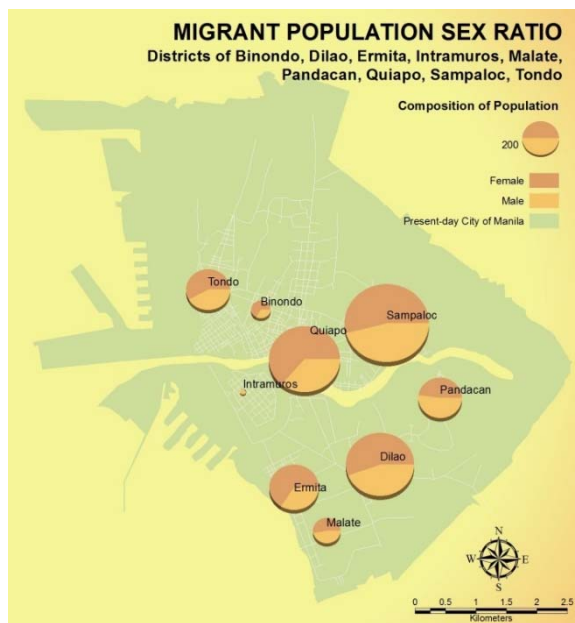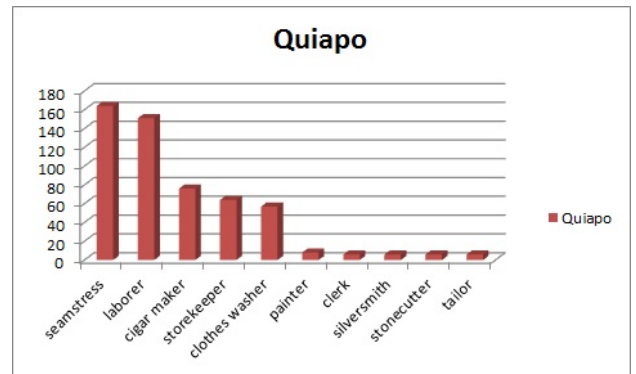

Figure 17. Top Migrant Occupations, Dilao.

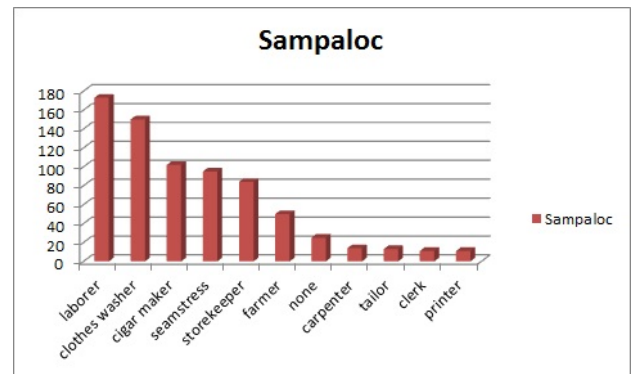

Figure 18. Top Migrant Occupations, Quiapo.

Figure 19. Top Migrant Occupations, Sampaloc.

Those who worked as clothes washers in the nineteenth century were usually women. Such an occupation yielded one of the lowest daily wages at .20 cents a day (Census of the Philippine Islands 1903). Fourteen percent of all migrants in Sampaloc and roughly 7 of every 100 non-locals in Dilao did laundry for other people.

Some female migrants, however, were fortunate enough to be employed in the various large and small establishments that produced cigars, cigarettes and other

tobacco-based products scattered throughout Manila (Camagay 1995; Lagman and Villasper, In-Press). Such women were able to earn around P 0.70 a day, around 2.5 times what a clothes washer would make and which was an occupation that had one of the highest pay rates per day at that time (Philippine Census of 1903).

Outside of washing clothes, working in cigar factories or helping make clothes as a seamstress, storekeeping was another type of livelihood that appealed to migrant workers in Quiapo and Sampaloc, where it ranked as the fourth and fifth most frequently stated occupation among migrants, respectively. In terms of percentages, more than around 8% of all non-locals in both districts tended stores for a living, an occupation that was also associated with women (Camagay 1995).

The only male-dominated occupation among the four most common types of employment for migrants was making a living as a laborer. Listed in Spanish as *jornalero* or day wage laborer, such an occupation provided one of the lowest compensations at P 0.37 a day (1903 Philippine Census), a little over half of what a *cigarrera* or a woman rolling cigars at a factory commonly made for a day's work. Work as a laborer was, in fact, the most repeatedly registered job in Sampaloc (16% of total) and was the second most recorded occupation in Quiapo (20%).

When the most frequent occupations of migrants in these settlements are compared with that of their local counterparts (See Figures 20, 21 and 22.), there seems to be very few variations with respect to the most commonly listed types of work. In the case of Dilao, seamstresses, laborers and cigar makers are the most usual occupations for both locals and migrants. What is notable is the fact that locals do not seem keen to do paid laundry work and carpentry may have been a trade commonly associated with males who were born in Dilao.

There seems to be no distinction between the kind jobs that locals and migrants in Quiapo are willing to take. In Sampaloc, on the other hand, work as a laborer, clothes washer and cigar factory worker were jobs that its inhabitants got into, whether local or migrant. The only difference is that migrants were more involved in storekeeping while farming was considered a more local occupation.
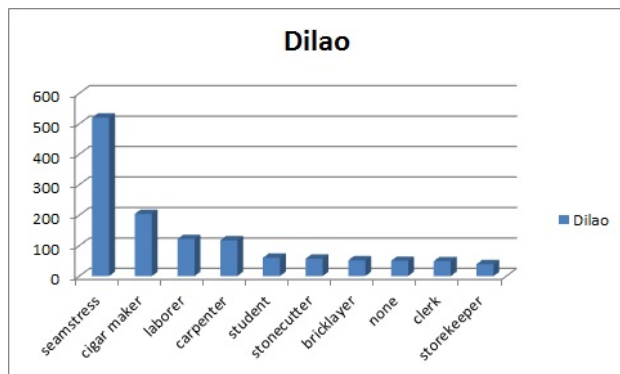

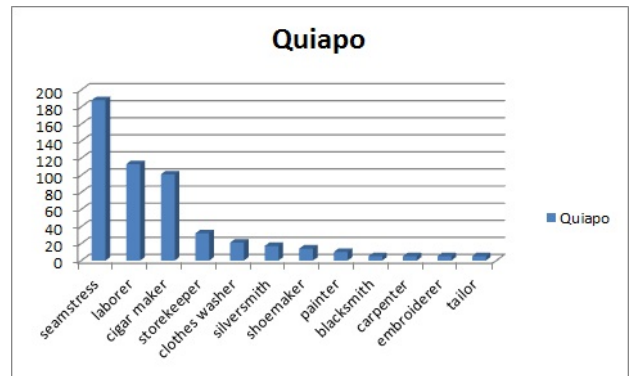Figure 20. Top Local Occupations, Dilao.

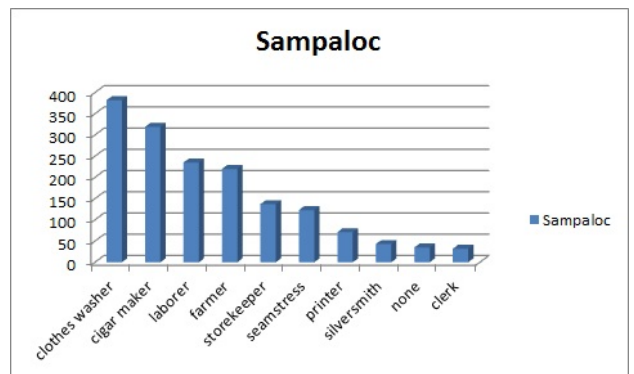Figure 21. Top Local Occupations, Quiapo.

Figure 22. Top Local Occupations, Sampaloc.

Comparing Quiapo and Sampaloc with respect to which range of migrants dominated which occupations reflects the reality that the nature of migration changes from place to place. If there is any common characteristic in the emerging migration story of the two Manila districts, it is that the migrants who ended up working in the most common occupations in both settlements tended to come from either the Manila area (local) or the Southern Tagalog Region and Central Luzon (mid-range) (See Figures 22 and 23.). Storekeeping in Quiapo was attractive to mid-range migrants, and this type of non-local also tended to gravitate towards clothes washing in Sampaloc. Migrant seamstresses also had a tendency to be of the local and mid-range type in both Quiapo and Sampaloc, with the share of local migrants slightly higher for the latter.
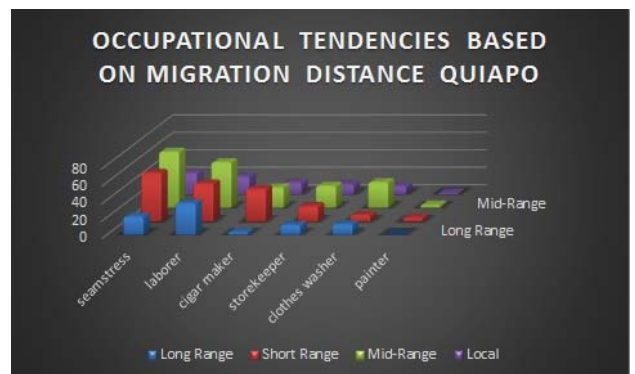

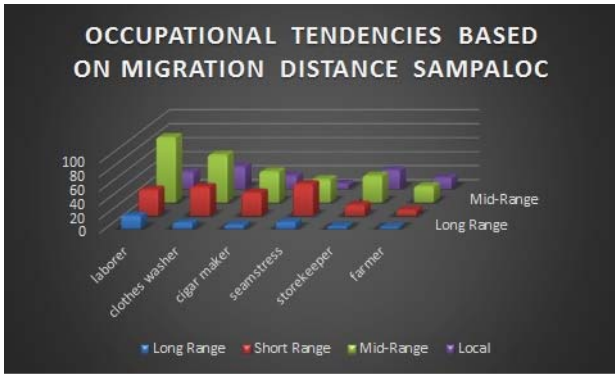Figure 22. Occupational Tendencies by Range, Quiapo.

Figure 23. Occupational Tendencies by Range, Sampaloc.

Figure 25. Migrant Distribution by
Age and Sex, Quiapo.

Figure 26. Migrant Distribution by
Age and Sex, Sampaloc.

Some migrant occupations in Quiapo and Sampaloc, on the other hand, are associated with different ranges. While laborers in Quiapo were generally from local and mid-range areas, migrant *jornaleros* (day wage laborers) in Sampaloc were clearly from Central Luzon and the Southern Tagalog. Also, non-locals who helped manufacture tobacco-based commodities in Quiapo were of the local and mid-range type, while those into cigar-making in Sampaloc were primarily of the mid-range variety.

5.6 Migrants by Age and Gender

The retirement of age of working individuals in the Philippines is 65 years of age, while persons beginning at age 15 are considered as part of an area's the working age population (PIDS 2011). As it would be difficult and cumbersome to study and represent the age distribution of the Manila migrants included in this study by five-year intervals, it was decided that such individuals be classified by age over ten-year age groupings (e.g. 21-30, 31-40, 41-50). Based on these age categories, it can be observed in Dilao, Quiapo, Sampaloc and Tondo that majority of the listed migrants in these places in the early 1890s fell within the 21-30 and 31-40 age range after which the population of individuals belonging to the 41-50 category drops significantly (See Figures 24, 25, 26, and 27.).
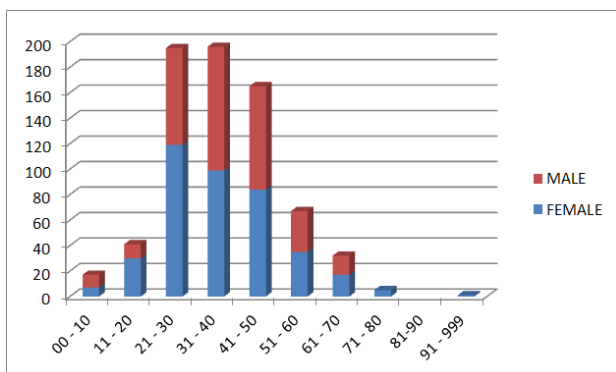

Figure 27. Migrant Distribution by Age and Sex, Tondo.

Figure 24. Migrant Distribution by Age and Sex, Dilao.

Nonetheless, it should be pointed out that those belonging to the middle to senior age brackets, 41-50 and 51-60, accounted for at least a third (33%) of all listed migrants in these aforementioned districts. Since it would be prudent to assume that most migrants move to their places of destination at a relatively early age when their productivity is at its peak, it is highly likely that these older migrants made their move to Manila years and

decades before the 1890s. As such, it can be argued that the age composition of these individuals simply reflect a migration trend that had been going on for an extended period of time.

As for the distribution of male and female migrants by age, the near dominance of women in terms of number in the 21-30, 31-40 and 41-50 age brackets is quite noticeable with the exception being the 31-40 age group in Dilao wherein there were slightly more males than females. Women also seem to migrate at a younger age, more often between 21-30 years of age.

6. Observations

This continuing study on the nature of migration to Manila in the late 1800s yields varied patterns in the characteristics of those locals who moved to the districts of Quiapo, Sampaloc and Dilao. While Dilao had a working population that had a significant share of migrants in districts south of the Pasig River, the percentage shares of non-locals in the civil register lists of Sampaloc and Quiapo were larger. Quiapo, in particular, could be considered a district peopled by outsiders as almost half of its workforce was non-native. Even Tondo, whose civil register lists has few information on migrants, still had a significant non-local population.

The places of origin of migrants in the aforementioned districts were quite similar, but the source of settlements that sent people into these districts has slight differences. The largest long-range migrant population in Dilao came from Northen Luzon, while the highest concentration of long-range migrants in Quiapo and Sampaloc were from Eastern Visayas. In the case of medium-range migrants, most individuals of this type who settled in these districts came from Bulacan. Yet it should be noted that Dilao had a significant Kapampangan population and a good number of migrants in Sampaloc were from Tagalog-speaking Morong Province.

Information gathered from shorter-range migration seems to indicate more distinct differences. Quiapo clearly received more people from the eastern towns of Manila Province, while nearby Sampaloc had a significant number of short-range migrants from the northern settlements of the *Provincia de Manila* as well as from the province's eastern communities. Dilao, on the other hand, primarily had non-locals of this type from towns that were near it such as Pasig and Pineda.

Local migrants tend to move to places that are near their places of origin. In the case of Quiapo and Sampaloc, many of its local migrants were from nearby Binondo and Sta. Cruz, while Dilao had migrants from the adjacent districts of Pandacan and Malate. Moreover, given their proximity to each other, people actually moved from Sampaloc to Quiapo and vice versa.

This study also demonstrates that migration into Manila has a significant female presence. Majority of the top occupations associated with migrants, save for work as a laborer, were usually associated with women. It should be underscored, however, that most of these migrant occupations were actually low-paying. In addition, save for a few differences, there is generally no difference between the kind of jobs that locals and migrants were involved in.

When migrant worker are categorized by where they came from, certain variations can be observed in the districts that were studied. For instance, migrant cigar workers and laborers in Quiapo were usually local and mid-range migrants, while Sampaloc's migrant labor was usually sourced from the provinces in Central Luzon and Southern Tagalog. Non-local storekeepers in both districts were mainly medium-range migrants, while seamstresses were usually from Manila City or from Central Luzon and Southern Tagalog.

Finally, most migrants were predominantly from the 21-30 and 31-40 age brackets. There is also a significant drop in non-locals who were in their 40s and 50s. This, however, indicates that Manila in the 1800s has long been a destination of people from different parts of the Philippines who were seeking a better life.

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