

**Economic Development and Social Change in the
Commonwealth of the Northern Mariana Islands, USA:
An Analysis of the Determinants of Poverty**

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October, 2000

DRAFT #1
NOT FOR CITATION

Abstract

The Commonwealth of the Northern Mariana Islands (CNMI) is a Pacific Rim United States insular area that has achieved dramatic economic growth since opening its economy to the world system in the 1980s. At that time, foreign investors aggressively recruited international immigrants to fill temporary positions in a bustling apparel industry that has been responsible for driving much of the macroeconomic growth. This study examines the determinants of income and poverty among the CNMI immigrant and indigenous population over the critical economic development period, 1990 and 1995. Micro-level data from two CNMI Censuses of Population and Housing are used to analyze economic and social changes over time among five distinct cohorts, indigenous adults and four groups of immigrants classified by their length of time in the CNMI and type of residence. Only the characteristics of individuals aged 16 and older are considered in this study although descriptive data on CNMI's total population are presented. Findings reveal strong cultural bias in recruitment and wage practices, suggesting that economic reform and immigration policies have exacerbated economic inequality in the region. Gender and nationality play a significant role in predicting poverty and evidence lends credence to structural theories about international migration and economic development. Results fail to support human capital theories on migration as education, age, and language proficiency explain little of the income variation across ethnic groups. The impact of temporary contract worker programs on economic development and income distribution is discussed.

Introduction

Until the 1980s, scholars generally overlooked the role of women in international migration in part because men were believed to dominate worldwide migration flows (DeLaut, 1999; Pedraza, 1991; Cheng and Hsiung, 1998). Recently, however, researchers have acknowledged the social and economic contributions of female migrants who often relocate as workers in their own right, rather than as dependents of males (Lee, 1996). Today women constitute an increasingly larger proportion of migrants in Latin America, the Caribbean and the Persian Gulf states, comprise more than half of all United States immigrants, and have higher intra-regional flows in East Asia than their male counterparts (Pedraza, 1991; Cheng and Hsiung, 1998). In the Pacific Rim region, the focus of this study, rates of female migration have increased steadily over the past three decades (Cheng and Hsiung, 1998) and their movement can inextricably be linked to a nation's economic development as well as the global economy.

Although some theorists associate women's migration with individual-level "push/pull" factors, migration flows have their historic roots in capitalist expansion, the shoring up of insufficient local labor supplies, and the desire among employers for low-wage labor (Harris, 1995). Women's migration, in particular, is largely attributed to the global feminization of labor and the growth of export-processing manufacturing in developing countries (Sassen-Koob, 1984; Cheng and Hsiung, 1998; Boyd, 1989; DeLaut, 1999). An international division of labor has long emerged whereby affluent nations such as the United States relocate de-skilled tasks to lower-wage regions in an effort to maximize profits (McMichael, 1996), a phenomenon that has invariably involved the use of women's labor. The expansion of export-manufacturing has had a profound effect on migration streams in areas where male migrants were once prevalent (Sassen-Koob, 1984). Ultimately, global restructuring restricts female migrants' employment

opportunities to traditionally low-paying sex-stereotyped occupations such as textile manufacturing or domestic services.

This study examines ^{income distribution among international} ~~the role and experiences of female~~ migrants in the newly industrialized Commonwealth of the Northern Mariana Islands (CNMI), a United States insular area that has experienced remarkable economic growth since policy reforms opened its economy to the world system in the mid-1980s. During this time, foreign investors eager to take advantage of the CNMI's unique political relationship with the United States developed an apparel industry that fueled much of the macroeconomic growth. Federal exemptions allowed manufacturers to recruit temporary Asian workers for available positions and to ship ^{unlimited} ~~quota-free~~ apparel to the United States. ^{Soon,} ~~Fortunes were soon~~ made and evidence of widespread labor and human rights abuses surfaced in the apparel industry, prompting US lawmakers to investigate the treatment of immigrants living in the CNMI. Political debates have stalled CNMI policy reform, however, a class-action lawsuit filed against US retailers may have motivated apparel owners to implement changes in their operations.

Specifically, this study examines the determinants of income and poverty among locally-born adults and immigrants over the critical economic development period, 1990 to 1995. Micro-level data from the 1990 and 1995 CNMI Censuses of Population and Housing are used to analyze economic and social changes among five distinct cohorts, indigenous adults and four groups of immigrants classified by their length of time in the CNMI and type of residence. Only the characteristics of individuals aged 16 and older are considered in this study although descriptive data on CNMI's total population are presented for clarity and context.

We pose the following theoretical questions: ~~Once industries operate in an area, how are individual earnings affected by these developments?~~ How does nationality affect the earnings in

a region that draws more than half its labor force from abroad? What are the determinants of poverty among immigrants who move to the CNMI for employment purposes? Finally, and most importantly, in what ways do gender and ethnicity ^{facilitate} ~~enter into~~ the processes of international migration and capital accumulation in a rapidly developing region? Addressing these questions will likely provide insight into the social impact of economic policies implemented in a region almost entirely overlooked by social scientists.

We investigate the factors influencing poverty status among indigenous and immigrant working-aged populations using data collected in two official censuses, the 1990 United States Census on CNMI's Population and Housing and the 1995 CNMI Census on Population and Housing conducted by the CNMI Department of Commerce. Household and Group Quarter information in these data sets is extensive since every CNMI housing unit received a Census "long" forms for both years.

History of CNMI

Situated in the northwest Pacific Ocean, the CNMI comprises fourteen small islands in Micronesia, a region whose populations were colonized by three world powers before the United States took control in 1946. World War II ravaged much of Micronesia, and American researchers sent to survey its impact recommended the immediate resettlement of citizens as a "first pre-requisite for the restoration of the economy" (Oliver, 1951). The United States pledged to "promote the economic advancement and self-sufficiency of the inhabitants of Micronesia" in exchange for military use of the land (Mayo, 1988; Leary, 1980). However, United States officials ^{initially} failed to live up to their promise by denying other nations entry to the region for three decades following the war, which ^{may have} impeded the development of a private sector (Mayo, 1988).

Scholars have termed the 1945-1960 years a period of "benign neglect," arguing that the United States created aid-dependent "welfare states" throughout Micronesia rather than economically viable ones (Overton, 1999). The United States increased aid to Micronesia after 1960 during a time when island leaders were re-negotiating their political status. The end result was the formation of new political entities with varying degrees of sovereignty throughout Micronesia. Only the CNMI opted to become an official United States Commonwealth, whereas neighboring Micronesian islands opted for Freely Associated Status (Mayo, 1988). Once the Northern Marianas ^{chose} opted for United States Commonwealth status in the mid-1970s, developers prepared an economic development model to guide their strategies. Laying the early groundwork for capital accumulation efforts, the report *Socioeconomic Development Plan for the Northern Mariana Islands, 1978-1985* stressed the need to quickly complete construction and to recruit "imported labor and skills," which one historian argues downgraded the efforts of Micronesians outside the CNMI to acquire skills (cite). Nevertheless, this development strategy proved successful at stimulating macro-level economic growth.

Within a few short years, the CNMI began experiencing rapid fiscal growth as a result of enacting reform policies. Throughout the mid-1980s, the CNMI abandoned restrictions on investment, cut income and capital gains taxes, eliminated import duties, provided rebates on personal and corporate taxes, and continued a free-entry immigration policy. Additionally, the government negotiated federal customs exemptions, waived property, inheritance and sales tax and expressed a desire to "streamline" its administration and to privatize services such as the public health and utility system. Foreign investors anxious to take advantage of these incentives migrated to the region to open manufacturing plants, hotels and small businesses. Tariff and trade loopholes legal under U.S. federal law contributed to CNMI's label as a "tax haven" (*Forbes*,

11/23/92) and "America's best kept secret" (CNMI Chamber of Commerce website, 1999). In less than ten years, the region experienced sharp increases in business revenues, permit applications, and the Gross Island Product equivalent (Miller, 1998; Bank of Hawaii, 1997). The CNMI was the only Pacific Island economy that actually grew in the mid-1990s, and this growth was unequivocally tied to its apparel, construction and tourism industries. The section below describes the changes in CNMI's population size, composition and overall structure as a result of recent economic development.

Descriptive Statistics on Total CNMI Population

Although Micronesia covers approximately the same distance as the continental United States (300,000 square miles) most of its 2,200 islands are too small for human habitation. The total land area of Micronesia is only 711 square miles and total population sizes across the region are very small relative to landlocked countries worldwide. Chuuk State, for example, had the highest population size across Micronesia second to Guam with approximately 105,000 residents in 1994 (US Department of Commerce, 1994). By contrast, only 19,000 persons currently live in the Republic of Palau, a collective of islands closest to Indonesia (US Department of Commerce, 2000).

CNMI data from 1995 indicate that over 90% of CNMI's total population lived in Saipan, the most industrialized island in the Mariana chain. As indicated in Table 1, CNMI's total population tripled in size from 16,780 in 1980 to 58,846 persons in 1995. Recent data published by the CNMI Department of Commerce estimated the total population at 71,790 persons (1999). Over the 1980-95 critical development period, the proportion of females in the CNMI changed from 47.5% in 1980 to 50.2% in 1995, due primarily to increases in female immigration rather than natural fertility increases.

[Table 1 about here]

Over time, CNMI's ethnic composition has shifted from an indigenous to immigrant majority. Nearly three-quarters of all CNMI residents (71.5%) were locally born in 1980 compared to just over one-third (37.8%) in 1995. The most dramatic change has been the immigration of Filipinos, whose proportions increased from 9.3% of the total 1980 population to 31.3% in 1990 and 30.4% of the population in 1995. Such heavy and rapid Filipino migration is not too surprising given the country's proximity to the CNMI and its status as one of the world's largest labor exporters, particularly of domestic service workers.

CNMI's second most notable demographic trend is the influx of Chinese immigrants between 1990 and 1995. The proportion of Chinese migrants in the total population has steadily increased from less than 1% in 1980 to 6.3% in 1990 and to 11.6% in 1995. Increases in Chinese immigration are largely attributed to recruitment for an apparel industry that has generated remarkable macroeconomic growth in the region. Data from 1999 indicate that Chinese now comprise 19%, Filipinos 30% and CNMI-born 22% of the total population due to accelerated migration from China (CNMI Department of Commerce, 2000).

Other immigration trends shown in Table 1 indicate that the proportion of US mainland/Guamanian migrants has changed little over time (6.4% in 1980 compared to 6.9% in 1995) as has the proportion of Japanese immigrants (1.1% in 1980 and 1.6% in 1995). The proportion of migrants from other areas of Micronesia increased between 1980 and 1990 from 9.3% to 11.9% but declined to 6% in 1995. Korean immigrants follow the same pattern as Micronesians as their proportions increased from 0.6% in 1980 to 5.9% in 1990 and then decreased to 3.2% in 1995.

In addition to changes in ethnic composition, ^{check} the median age of CNMI residents has increased from 19.7 years in 1980 to 28.0 (or is it 27?) years in 1995. The CNMI Department of Commerce attributes this change to the decline of indigenous mortality and fertility rates and to the older ages of CNMI immigrants.

The proportion of US citizens residing in the CNMI has decreased with the influx of other international immigrants. Citizenship is conceptually more ambiguous in the Micronesian context than in the mainland US, however citizens generally include individuals born in the CNMI (granted citizenship in 1986), those born or naturalized in mainland US/Guam and other US territories. Residents of the Republic of Palau and the Federated States of Micronesia had been US citizens until 1993 when they instead opted for Freely Associated Status. Table 1 shows that the proportion of US citizens in CNMI's total population decreased from 77.8% in 1980 to 46.7% in 1995.

The proportion of CNMI residents over age 5 years unable to speak at least a little English has risen over time from 1.6% in 1980 to 14.5% in 1995. This increase is attributed to the influx of temporary immigrants, many of whom remain in the CNMI for only two years.

Since the focus of this study is on uncovering the correlates of income and poverty status among CNMI adults, we have restricted all further analyses to CNMI residents aged 16 years and older. Presenting information on persons aged 16 and older allows us to maintain consistency with labor force participation data, which is requested from individuals aged 16 years and older on the Census. Age 16 was also chosen as a theoretical starting point since it is the legal age at which a person may be employed without special working papers in the United States. The following section presents descriptive findings on characteristics among CNMI adults for the years 1990 and 1995. Unfortunately, data collected in 1980 were dropped from further analysis

since the number of local and immigrant adults was too small to conduct reliable statistical tests. Initial analyses detected general trends in the population (for example, gender differences), however conclusions could not be drawn once cross-tabulated data included a third characteristic such as ethnicity/nativity, age, or educational level.

Description of Data Sets

Census data for this study were collected by the US Bureau of the Census and CNMI Department of Commerce. Data from 1990 were collected as part the decennial US Census of Population and Housing for the CNMI. In 1992, the CNMI government enacted legislation mandating a mid-decade census to provide timely demographic information during the decade between US decennial censuses. Collaborating with liaisons from the US Bureau of the Census, the CNMI Central Statistics Division conducted the quinquennial census and administered a "long form" to every household in the CNMI. Individuals living in institutional settings such as college dormitories, prisons or psychiatric facilities did not personally receive forms, however, CNMI enumerators collected information from these individuals. The 11,042 adults living in group quarters did, in fact, complete the long form, often with the assistance of Census enumerators and translators. The Census is thus a total count of each person at his or her "usual residence," following the same protocol as the 1990 census. Its questionnaire format and content closely resembles the 1990 long form, however additional questions appropriate to the uniqueness of insular areas are included.

Data derived from this Census represent the most comprehensive information collected from Group Quarter migrants residing in the CNMI to date. On-going Labor Force Surveys elicit information from this population, however, data are limited to five socio-demographic characteristics. For the current study, a SAS data set was created using version 6.12 to read data

from raw ASCII text files. All variable column locations and labels in the data set were obtained from Census codebooks.

Descriptive Statistics for Independent and Control Variables

For the purpose of analysis, individuals aged 16 and older have been grouped into five adult cohorts: locally born, new group quarter residents (GQs), long-term GQs, new household migrants (HH) and long-term HH migrants. Information on month and year of arrival was used to categorize migrants into cohorts, however arrival data were not collected on individuals from Micronesian islands outside the CNMI in 1990. Characteristics of these individuals are thus included only in the total adult and total migrant populations but are excluded from specific time cohorts (n=1,351). Table 2 presents data for 1990 and Table 3 shows 1995 data.

As indicated in Table 2, the 1990 Census counted 32,522 adults residing in the CNMI (total population was 43,345 persons). Immigrants represented over three-quarters (78%) of the total adult population (N=25,490). As Table 3 shows, immigrant adults in 1995 accounted for 76.2% of the adult population as there were 33,413 migrants and 10,433 locals (total population was 43,846 adults). The total 1995 CNMI population including children was 58,846 persons. Although 1980 census figures provided too little statistical power to be used in this study, descriptive data from that year highlight how dramatic socio-demographic changes have been over the fifteen year period 1980 to 1995. Cultural change has been profound particularly given the tiny size of the islands and their indigenous population size. By 1995, immigrants represented over three-quarters (76.2%) of the CNMI adult population.

In 1990, there were 6,851 non-institutionalized immigrants who met our definition of "new GQ" which means they had arrived in the CNMI during or after January 1989. The 1990 Census was conducted in April of that year. As recent arrivals, many of these individuals lacked