

## CHAPTER 16.

# SOCIOECONOMICS AND GENERAL SERVICES

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Because of the relatively small size of the Commonwealth of the Northern Mariana Islands (CNMI), most of the anticipated socioeconomic impacts of the proposed action are expected to affect the Commonwealth as a whole. This chapter summarizes a socioeconomic analysis performed in 2008-2009 and documented in the report, Socioeconomic Impact Analysis Study (SIAS), provided in its entirety in Appendix F. The magnitude of the proposed action on the CNMI is far less than for Guam so there would be limited discussion and fewer topics discussed in this Volume. The proposed action would occur on Tinian, one island in the CNMI. This analysis would present information on the CNMI as a whole, Tinian in particular, and Saipan and Rota in very brief detail.

This chapter begins with an affected environment section that provides a current and historical perspective on the current socioeconomic status of the CNMI, including economic characteristics, public services, and sociocultural issues, each discussed further in the environmental consequences sections.

### 16.1 AFFECTED ENVIRONMENT

#### 16.1.1 Historical and Economic Overview

##### 16.1.1.1 CNMI

The CNMI became part of the U.S. Trust Territories of the Pacific following World War II (WWII).

The Northern Marianas negotiated a Commonwealth Agreement with the U.S., approved in 1975. In 1986 the CNMI assumed control of its domestic affairs while the U.S. government retained responsibility over foreign affairs and defense. One of the most controversial economic aspects of the Commonwealth Agreement was the ability it gave the CNMI to control the minimum wages and immigration visas/work permits of foreign workers. Foreign workers included Chinese workers employed in the garment manufacturing industry (largely on Saipan) and Filipino or other Asian workers in the hotel and resort industry.

The CNMI's dependence on guest workers and tourism caused economic difficulties in the 1990s. Wage rates were maintained at substantially lower levels than in neighboring Guam or in Puerto Rico and the evolution of the General Agreement of Trade and Tariffs into the World Trade Organization. The accompanying liberalization of trade between the U.S. mainland and other Asian garment manufacturing countries caused the CNMI garment industry to go into decline. This decline coincided with a drop in Japanese tourist arrivals following the September 11, 2001 bombing of the World Trade Center. In 2005, Japan Airlines, the main airline between the CNMI and Japan, discontinued its Saipan service.

Currently, the economy of the CNMI is depressed with limited prospects for near-term recovery. Private-sector employment fell from 32,790 jobs in 2002 to 22,622 jobs in 2007, with the biggest drop in manufacturing (U.S. Census Bureau 2002 and 2007).

An evolving area of concern for the CNMI businesses involves Title VII, Section 702 of the 2008 Consolidated Natural Resources Act, now U.S. Public Law 110-229. The law re-federalizes the CNMI immigration policy and control. It becomes effective November 2009, followed by a transition period. Areas of concern are uncertainties about guest worker labor availability and about the continued ability of Chinese and Russians to invest in second homes or other real estate.

Resorts are particularly at risk because of their dependence on foreign workers who may be repatriated, and because tourists from the People's Republic of China and Russia, comprising about 20% of tourism revenues in FY2008 (Hotel Association of the Northern Mariana Islands 2009b) would no longer qualify for visa waivers under the new rules. Additionally, the previous economic advantage of hiring workers from Asian sources who accept lower wages may become moot as the CNMI minimum wage rises incrementally to meet the U.S. federal minimum wage because of Public Law 110-28 (enacted in 2007).

A recent study commissioned by the governor of the CNMI and funded by the DOI estimates a 44% decrease in Gross Domestic Product in the CNMI due to the combined federalization of wages and immigration (CNMI Office of the Governor 2008).

The political reaction to re-federalization has resulted in strong suspicion of other federal actions in the CNMI. For example, in 2008, President George W. Bush designated the Marianas Trench and surrounding waters as the Marianas Trench Marine Monument. While the designation could represent an economic asset to the CNMI in tourist revenues and non-governmental organization activity (Pew Environmental 2008), it has also been characterized as a federal encroachment on the CNMI's local sovereignty (Sebastian 2008).

Other challenges to the CNMI economy include its outdated and inefficient power equipment. These have resulted in high utility rates that drain consumer expenditures from other normal activity (CNMI Department of Commerce 2008a).

Finally, some economic observers (e.g., Bartolucci and Shreni 2006) believe that the CNMI's current real estate system presents a serious deterrent to outside investors and tends to depress land values. Namely, there exists a Constitutional restriction of real property ownership to persons of at least 25% Northern Mariana Islands descent. The purpose of this restriction is to prevent the widespread alienation of land from native peoples that has occurred in places such as the Hawaiian Islands. This is covered at somewhat more length in the subsequent section "Sociocultural Issues."

#### 16.1.1.2 Tinian

From a historical perspective, the island of Tinian is best known as the forward base from where nuclear attacks on Japan were launched in 1945. Most residents moved from Tinian following the close of the war. In recent years the airstrip has become an attraction for Tinian's small tourism industry. However, Tinian has remained a quiet and lightly populated island.

The leasing of land from the CNMI by the federal government has been an economic factor since January 6, 1983, when the federal government finalized a Lease Agreement for the use of 17,799 acres (ac) (7,203 hectares [ha]) of land and waters for military training. Other items included in the lease agreement were 177 acres in Tanapag Harbor on Saipan, and the entire Farallon de Mendinilla (an approximate area of 206 acres). The Tinian portion of the agreement encompasses roughly the northern two-thirds of the island of Tinian. In total, the government paid \$19,520,600 for the lease agreement. Of that amount, \$17,500,000 was for the Tinian acreage. The lease agreement is effective for 50 years (till year 2028), with a 50 year renewal option.

In 1994, the CNMI and DoD signed a leaseback agreement for a portion of the public lands leased to the military. This area was made available for scattered small agricultural and grazing operations. The leaseback agreement was amended, and has now expired. The agreement is now available on a month-to-month basis, at the discretion of the military. The military has also ceded some lands in and around the West Field back to the local government of Tinian to build and operate the civilian airport. The current remaining military lease area is 14,651 ac (5,929 ha).

The leased lands utilized by the military are called Exclusive Military Use Area and is open to the public only during times when military training is not occurring. The leaseback area on the other hand, is a joint use area at all times and military and civilian activities on this land must be compatible.

When the original lease was made, residents anticipated the economic benefits of a permanent base. As the Covenant was being discussed in the early 1970s, military planners told Tinian residents that North field would be refurbished into a fully-functioning B-52 Air Force base, generating approximately 300 jobs for the local population at mainland U.S. wage scales (Tinian Chamber of Commerce 2009). The construction of such a base would have allowed residents to access (now-defunct) clauses in the original lease agreement guaranteeing them access to on-base amenities. In reality however, the various military services have in fact conducted only sporadic training exercises there. While there is no permanent residential population on the military's land, it is usually available for resident food-gathering and recreation, and for tour business access to beaches and historical sites.

Tinian's economy is dominated by one existing casino, a small tourism trade centered on the island's role in WWII, and marine activities such as diving. In the early 1990s the island hosted a tuna transshipment and freezer facility, but this facility closed late in the decade when its owner entered bankruptcy. Agriculture on the island is primarily of a subsistence nature, though there is some small cash cropping of vegetables. Cattle-ranching has been promoted as a growth industry on Tinian but remains in its early stages. Both cattle ranching and tourism are dependent on access to the military lease area.

Household income on Tinian is derived mainly from the CNMI government employment and a small retail trade sector. Casino gaming revenues enter the economy through revenues to the taxation by the local government. The existing casino has been staffed almost entirely with foreign guest workers, as longtime Tinian residents are more likely to seek work in the higher-paying government sector.

A look at the Tinian casino and resort economy shows its reliance on the Asian market. In the late 1970s, the people of Tinian decided to permit gambling on the island through construction of up to five casinos. Thus far only the Tinian Dynasty Hotel and Casino resort has actually been constructed. It enjoyed success after its 1998 opening but has suffered in the CNMI economic recession. In 2008, a second casino (Bridge Investment Group) began construction, with two more in the planning and permitting phases. However, reflecting both international and the CNMI economic conditions, Bridge Investment Group subsequently halted its current casino construction. Various industry representatives interviewed for this report believe the Tinian Dynasty may have to close if and when visa waiver federalization takes effect (Hotel Association of the Northern Mariana Islands 2009a, Marianas Visitors Authority 2009a, Tinian Dynasty Hotel and Casino 2009a).

The Tinian Dynasty Hotel and Casino, the only casino operating on Tinian, is at risk of closure for two reasons. The first is because a large percentage of its customer base is Chinese. The second is because the availability of a foreign labor workforce is now threatened by re-federalization. Table 16.1-1 shows the Tinian Dynasty's reliance on the Chinese market as well as its recent lower occupancy numbers. The low level of "Guam and Other U.S." percentages indicates that few of the current military personnel on Guam have spent rest and relaxation time on Tinian.

**Table 16.1-1. Tinian Dynasty Hotel & Casino National Markets and Occupancy Levels**

	2002	2003	2004	2005	2006	2007	2008
<b>Tinian Dynasty Markets</b>							
China %	24%	39%	55%	58%	65%	63%	56%
Japan %	33%	30%	24%	22%	20%	18%	24%
Korea %	19%	13%	10%	7%	5%	8%	10%
Guam, Other U.S. %	8%	2%	1%	1%	1%	1%	2%
All Else:	17%	16%	10%	12%	9%	10%	9%
<b>Tinian Dynasty Average Occupancy Levels</b>	<b>51%</b>	<b>45%</b>	<b>58%</b>	<b>62%</b>	<b>63%</b>	<b>54%</b>	<b>43%</b>

*Source:* Data on visitors by nationality provided by Tinian Dynasty Hotel & Casino (Tinian Dynasty Hotel & Casino 2009b); occupancies calculated using data and/or assumptions vetted with the casino – total number of guests per year, 400 rooms, 1.75 average persons per room, average three-night stay.

In addition to the Tinian Dynasty, there are two other local hotels on Tinian. Table 16.1-2 shows a trend estimate for Tinian's total average daily visitor count, using tourist counts from these locations. Given a 2005 Tinian resident population of 2,829, this estimate suggests that tourists comprised about 15% of the total number of people on island at any one time for that year. The visitor population declined by about 30% from 2005 to 2008. There are no data on the rate of resident population decline during those years.

**Table 16.1-2. Tinian Average Daily Visitor Count**

	2002	2003	2004	2005	2006	2007	2008
Tinian Dynasty	418	369	477	504	512	437	350
Day Trippers	12	11	14	14	15	12	10
<b>Total</b>	<b>430</b>	<b>379</b>	<b>491</b>	<b>519</b>	<b>526</b>	<b>450</b>	<b>360</b>

*Source:* Tinian Dynasty Hotel & Casino (2009b) data on annual visitors, plus additional assumptions provided by or vetted with the casino – additional visitors equal 10% of Dynasty numbers; average length of stay 3.5 days.

Insufficient transportation infrastructure is also noted as a barrier to further tourism development throughout Tinian, and as a factor in the Tinian Dynasty's poor occupancy rate and financial performance. The recent reduction in air travel and corresponding slump in tourist numbers on all the CNMI islands has led to less revenue going to any island. That, coupled with the fact of rising fuel and food prices, has made living on Tinian economically difficult for residents.

#### 16.1.1.3 Saipan

In conjunction with and since the decline of the previously strong garment industry, tourism has comprised a major part of the Saipan economy for decades. Saipan's principal markets have been Japan and Korea, with strong recent growth from China and Russia. Tourism was again surging in early 2008 before the global economic crisis occurred and new federal controls over wage levels and visa entry permits were announced. As a result, as of June 2009, visitor arrivals (for all purposes, including business) were down 29% from the previous June, with declines from China (72%) and Russia (43%) leading the downturn. The Marianas Visitors Authority said the Russian decline was due to the misimpression that the new visa permit rules had already been implemented (Marianas Visitors Authority 2009a, Marianas Visitors Authority 2009b).

#### 16.1.1.4 Rota

The 2007 Economic Census indicates Rota's private-sector economy that year was dominated by retail trade and the accommodations and food service industries. Rota has a number of small hotels and hostels, and a very small visitor count (680 in June 2009, down from 953 in June 2008) is dominated by U.S./Guam leisure and business visitors, followed by Japanese (Marianas Visitors Authority 2009a).

Although no casinos have yet been built on Rota, in 2007 a Casino Gaming Commission was created, and island leaders have been looking into this activity for Rota's economic future (Marchesseault 2009).

Rota has also long been known as an agricultural island, though the 2007 U.S. Agricultural Census indicates the number of farm operators dipped slightly from 2002 to 2007 (99 to 97) and the acreage in farms during the same period dropped from 897 to 770, the smallest amount of any CNMI municipality (U.S. Department of Agriculture 2009). However, the reported 2007 market value of Rota agricultural products reached nearly \$1 million. Most of this value was from root crops (principally sweet potatoes and taro), followed by vegetables and melons (with cucumbers and watermelons the principal crop in terms of pound raised).

## 16.1.2 Population Characteristics

### 16.1.2.1 CNMI

Population trends for the CNMI and Tinian are shown in Table 16.1-3.

**Table 16.1-3. Historical and Projected CNMI and Tinian Populations, 1970 - 2015**

	1970	1980	1990	2000	2005	2008	2010	2015
CNMI	12,359	16,890	44,037	69,706	65,927	62,969	63,031	64,068
Tinian	710	866	2,118	3,540	2,829	N/A	N/A	N/A

Sources: U.S. Census Bureau 2000, CNMI Department of Commerce CSD 2008, Secretariat of the South Pacific 2008.

The CNMI population increased during the 1980s and 1990s due to high birthrates and guest-worker immigration. However, that trend reversed itself in the 2000s, due to a shrinking economy.

In 2000, the CNMI had a population of 69,921:

- 5% lived on Tinian (3,540 people)
- 90% on the capital island of Saipan
- 5% on Rota
- Only a handful of residents on the Northern Islands

By 2005, due to a faltering economy, the CNMI-wide population had dropped to 65,927 and Tinian's population had declined even more rapidly to 2,829, just 4% of the total population (CNMI Department of Commerce, Central Statistics Division 2008). The 2000 CNMI-wide census indicated that Asians were the largest population group.

Currently, the Commonwealth is characterized by a relatively young population (median age 30.1 years); high annual rate of population growth (approximately 2.3% per year); and a relatively long life expectancy at birth (76.7 years). It is estimated that 27% of the population is under 18 and 3% is over age 65. These population characteristics heavily impact the health care and educational systems (Central Intelligence Agency 2009).

Official projections by the U.S. Census Bureau (2008) estimate continued rapid expansion of the population, but the CNMI government statisticians give more weight to the projections of the Secretariat of the South Pacific (included in Table 16.1-3), though they believe even these may be overstated (CNMI Department of Commerce 2008b).

### 16.1.2.2 Tinian

The 2005 CNMI Department of Commerce Household Income and Expenditure Survey counted 2,829 residents on Tinian. All of Tinian's population is located in the south with 76% of the island's 2005 population located in and around the main village of San José.

The ethnic makeup of Tinian is heavily influenced by the resort/tourism industries that employ large numbers of guest workers from the Philippines and other Asian countries. The 2005 CNMI Household Income and Expenditures Survey found that 32% of the population of Tinian is of Filipino descent and 0.8% was of Micronesian descent. Overall, the Chinese population on Tinian is lower than for the CNMI as a whole as Filipino workers, and a smaller group of Bangladeshi, fill many hotel jobs on Tinian.

Birthplace information for Tinian residence is shown in Table 16.1-4. Despite the population decline from 2000 to 2005, birthplace profiles remained similar. A little less than half the Tinian citizenry was CNMI-born, and a little under half were foreign-born. Additional data from both years showed the great majority of the foreign-born had not become U.S. citizens. Furthermore, the foreign born population has a higher outward migration rate than their native born counterparts.

**Table 16.1-4. Tinian Residents by Birthplace, 2000 and 2005**

	2000	2005
<b>Total Population</b>	<b>3,540</b>	<b>2,829</b>
<i>Native born</i>	53.6%	54.3%
Born CNMI	44.7%	46.2%
Born Elsewhere in the U.S.	8.8%	8.1%
<i>Foreign born</i>	46.4%	45.7%
Philippines	26.6%	27.0%
China	6.9%	8.8%
Bangladesh	2.6%	2.9%
All Other Foreign	10.3%	7.1%

Source: U.S. Census Bureau 2000.

Tinian's future population growth independent of the proposed action is not certain, as it would likely depend on the construction and success of further casinos.

### 16.1.2.3 Saipan

The island of Saipan is home to more than 90% of the population of the CNMI. The 2005 population was 60,608. Only 49% of the residents of Saipan were U.S. citizens at the time, though it should be noted that elements of the garment industry were still active then so that number may have gone up as foreign workers migrated home. Saipan consists of 31% Filipinos, 20% Chamorros, and the remaining consisting of various other Asian and Pacific Islander groups (CNMI Department of Commerce, CSD 2008).

### 16.1.2.4 Rota

U.S. Census records assembled by the U.S. Department of Interior (U.S. Department of the Interior 2009) indicated Rota's population peaked at 3,509 in 1995 and then declined to 3,283 in 2000, less than Tinian's population at the time. CNMI Census data for 2005 indicated a further drop to 2,490 in 2005, still under Tinian's population (CNMI Department of Commerce CSD 2008). Rota's 2005 population had the highest proportion of Chamorros of the three major the CNMI municipalities (65%, vs. 44% for Tinian and 20% for Saipan). It also had the highest proportion of U.S. citizens (77%, vs. 55% for Tinian and 49% for Saipan) and of children under 18 (35%, vs. 26% for Tinian and 29% for Saipan).

### 16.1.3 Economic Characteristics

#### 16.1.3.1 Labor Force and Income

##### CNMI

Minimum wage rates in the CNMI (\$4.55/hour [hr]) are substantially below comparable wage rates on Guam (\$6.55). There have been few organized labor contracts in the guest-worker-dependent sectors of the economy. Thus there is little internal pressure for wage increases.

Average income varies considerably from one ethnic group to another. Chamorros earned a median 2005 annual income of \$31,619; Filipinos earned \$14,190; peoples of the Freely Associated States of Micronesia (FAS), \$13,916 (CNMI Department of Commerce, CSD 2008).

The CNMI raising of wages to meet the new minimum wage standards would have various consequences on labor force and income. One consequence of the CNMI's guest worker policies has been that a relatively high proportion of wages were at the legal minimum wage level. Under Public Law 110-28, the CNMI minimum wage would rise to meet the U.S. federal minimum wage by 2014. It would accomplish this by annual \$0.50 increases. The CNMI minimum wage stands at \$4.55 per hour as of September 2009, with another \$0.50 increase on May 26, 2010. The rising minimum wage would have an impact on the CNMI income, but is likely to result in both a reduction in overall the CNMI employment and a loss of the Commonwealth's competitive wage advantage (Congressional Budget Office 2004, Vallejera 2007). It may also encourage more native born persons to replace foreign workers as wages increase to more desirable levels.

Table 16.1-5 shows employment by industry for the CNMI in 2005. Employment in the manufacturing industry made up about one-third of total employment; the accommodations industry (e.g. Tourism) was the second leading employer.

**Table 16.1-5. Employment by Industry, CNMI, 2005**

	<i>Total CNMI</i>	<i>Tinian</i>	<i>Saipan</i>	<i>Rota</i>
Total Employed	33,622	1,602	31,109	908
Agriculture/forestry/fisheries/mining	422	15	392	14
Construction	1,640	77	1,505	58
Manufacturing	10,988	31	10,950	7
Wholesale	305	8	297	0
Retail	2,431	23	2,386	22
Transportation/communication/utilities	913	23	875	14
Information	366	0	366	0
Finance	821	62	752	7
Professional Services	1,803	46	1,727	29
Educational	2,070	131	1,794	145
Arts	1,430	69	1,255	105
Accommodation	4,866	677	4,066	123
Other	2,414	170	2,201	43
Public	3,153	270	2,543	341

*Sources:* CNMI Department of Commerce CSD 2008

Tinian

The leading employer on Tinian was the accommodations industry, that industry provided more than 40% of the jobs. The second leading employer is the public sector (17% of total employment). Tinian's unemployment rate is estimated to be around 17%.

Hourly wages on Tinian have historically been somewhat higher than in the CNMI as a whole. The CNMI hourly wages were brought down due to the large amount of low-wage Chinese workers employed on Saipan. Another factor in the higher wages on Tinian may be the fairly high level of educational attainment on the island (Table 16.1-6).

**Table 16.1-6. Educational Attainment on Tinian  
(Population 25 and Older)**

	2000	2005
Less than 9 <sup>th</sup> grade	9%	10%
9 <sup>th</sup> to 12 grade, no diploma	15%	11%
High school graduate	31%	41%
Some college, no degree	18%	12%
Associate degree	6%	16%
Bachelor's degree	18%	7%
Graduate or professional degree	3%	2%
<i>% High School Grad or Higher</i>	76%	79%
<i>% Bachelor Degree or Higher</i>	21%	9%

Sources: U.S. Census Bureau 2000, CNMI Department of Commerce CSD 2008.

Saipan

The Saipan-wide 2005 number of employed persons was 31,109, with the unemployment rate estimated at 7.7%. As previously suggested the population and labor force are both believed to be declining as the depressed economy produces both out-migration and discouraged workers dropping out of the official labor force. Chamorros made up only 12% of the active labor force in 2005, but 30% of the unemployed population. The household median income was \$16,835, and per capita income was \$6,017.

Rota

Unemployment was 10.1%, the intermediate between Tinian and Saipan. Rota's median household income slightly exceeded that of Tinian in 2005 (\$22,270 on Rota, \$21,538 on Tinian, and \$16,835 on Saipan). However, this likely reflects the effects of strong reliance on government jobs rather than the health of the private sector – of Rota's 908 employed persons in 2005, 51% held government jobs. Using data from the 2007 U.S. Economic Census (that includes private-sector employment only) to calculate average salary by dividing total payroll by number of employees, Rota emerges as having the lowest private-sector average (\$8,100, vs. \$10,400 on Tinian and about \$11,000 on Saipan) (U.S. Census Bureau 2009).

## 16.1.3.2 Agriculture

CNMI

The CNMI Agriculture industry accounts for only a small percentage of employment, however; the industry may see disproportionately high beneficial economic impacts from the proposed action. Table



16.1-7 shows the number of farms and the monetary value of agricultural production, by island, for 2002 and 2007.

**Table 16.1-7. Number of Farms and \$ Values of Agricultural Production, CNMI, 2002 and 2007**

Item	CNMI Total		Tinian		Saipan		Rota	
	2002	2007	2002	2007	2002	2007	2002	2007
Total # of Farms	214	256	23	31	92	128	99	97
Total \$ Value	\$2,287,407	\$2,409,513	\$147,387	\$263,622	\$1,469,548	\$1,241,411	\$670,472	\$904,480
Root Farms	85	106	2	5	37	54	46	47
Root \$ Value	\$404,734	\$638,498	(D)	\$3,010	(D)	\$184,228	\$297,284	\$451,260
Vegetable and Melon Farms	102	110	6	7	64	69	32	34
Vegetable and Melon \$ Value	\$821,293	\$631,470	\$54,500	\$77,188	\$684,178	\$340,182	\$82,615	\$214,100
Fruits and Nuts Farms	103	115	9	8	37	74	57	33
Fruits and Nuts \$ value	\$343,021	\$401,664	\$16,000	\$72,339	\$122,083	\$217,480	\$204,938	\$111,845
Nursery Crop Farms	10	17	1	2	6	10	3	5
Nursery Crop \$ Value	\$93,247	\$178,311	(D)	(D)	\$72,600	(D)	(D)	\$26,500
Livestock Farms	71	98	11	26	16	36	44	36
Livestock \$ Value	\$475,167	\$279,485	\$52,800	\$77,945	\$365,027	\$107,415	\$57,340	\$94,125
Poultry and Eggs Farms	32	18	1	3	3	9	28	6
Poultry & Eggs \$ Value	\$143,795	\$214,360	(D)	(D)	(D)	\$187,745	\$24,345	(D)
Fish & Aquaculture Farms	5	5	1	1	1	2	3	2
Fish & Aquaculture \$ Value	\$6,150	\$65,725	(D)	(D)	(D)	(D)	(D)	(D)

Notes: Some farms produce more than one type of crop and are included under multiple categories.

(D) represents that data was withheld so that the sales of individual farms would not be disclosed.

Source: U.S. Department of Agriculture 2009.

### Tinian

Tinian has the lowest level of agricultural production of the three islands. Livestock farms are more numerous than other types of farms and account for 30% of the value of agricultural production. Vegetables/Melons farms and Fruits/Nuts farms also each account for about 30% of the value of production on Tinian.

### Saipan

Saipan has the highest level of agricultural production of the three islands. Vegetable and melon produce accounts for the highest percentage of sales, however; vegetable and melon sales declined dramatically from 2002 to 2007, and the total value of Saipan agricultural production declined by 15.5% from 2002 to 2007.

### Rota

Agricultural production on Rota grew by 35% from 2002 to 2007. This indicates improved efficiency, as the growth occurred despite the loss of two farms. Root produce generally creates the most value of all of

the different types of produce (50% of the total in 2007). Vegetable and melon production value increased substantially from 2002 to 2007 while fruit and nut production value declined.

### 16.1.3.3 Housing Supply and Projections

#### CNMI

In 2000, the CNMI had the highest median house value of any of the U.S. Insular Areas, exceeding median house values on the U.S. Mainland. More than three-quarters (76%) of the CNMI houses were valued at \$100,000 or above in 1999. Approximately 32% of these homes were appraised at \$500,000 or above.

Table 16.1-8 presents year 2000 data on the value of housing for the CNMI as a whole, as well as Tinian, Saipan, and Rota. About two-thirds of the houses were constructed since 1980.

**Table 16.1-8. Value of Owner-Occupied Housing in CNMI, 2000**

	<i>Total CNMI</i>	<i>Tinian</i>	<i>Saipan</i>	<i>Rota</i>
<b>TOTAL UNITS</b>	<b>4,408</b>	<b>248</b>	<b>3,560</b>	<b>352</b>
Less than \$50,000	10.1%	6.8%	10.7%	11.1%
\$50,000 to \$99,999	17.2%	17.2%	16.3%	22.7%
\$100,000 to \$149,999	16.8%	16.5%	16.5%	19.6%
\$150,000 to \$199,999	13.9%	21.0%	13.0%	13.1%
\$200,000 to \$299,999	15.2%	19.0%	14.6%	15.9%
\$300,000 to \$499,999	10.2%	3.6%	11.6%	5.2%
\$500,000 or more	16.6%	15.7%	17.1%	12.5%
Median	\$159,829	\$162,234	\$161,205	\$125,000

Source: U.S. Census Bureau 2000.

#### Tinian

Table 16.1-9 summarizes the most recent available information on housing occupancy on Tinian.

A substantial number of houses were vacant at the time of the 2000 census. While the Tinian homeownership rate was low, there also remained a high rental vacancy rate. This was caused by limited employment and the existence of group housing for hotel workers. By 2005, the number of occupied units had begun to dwindle along with the population, but the homeownership rate remained roughly constant.

**Table 16.1-9. Housing Occupancy and Ownership on Tinian, 2000 and 2005**

	<i>2000</i>	<i>2005</i>
Occupied Housing Units	790	656
Occupied by the Owner	248	216
Vacant all Year	266	N/A
Vacant part of the Year	14	N/A
<i>Total Units</i>	<i>1,055</i>	<i>N/A</i>

Sources: U.S. Census Bureau 2000, Guam Department of Commerce CSD 2008.

As of 2000, the average household size for owner-occupied dwellings on Tinian (5.04 individuals) was substantially higher than that for rented units (2.85 individuals). The higher household size reflects the existence of multi-generational households common in the CNMI society (CNMI Department of Commerce, CSD 2002).

Table 16.1-8 shows the median value of housing on Tinian to be the highest in the CNMI in 2000. The Tinian housing prices presented were partially due to optimism on the part of homeowners during 2000, a

time of economic success. Subsequent economic downturns have most likely reduced housing values, at least relative to other islands in the CNMI. Additionally, there has been some modest increase in housing supply for permanent residents, as well as the construction of temporary barracks by the Bridge Investment Group for the possible development of a new casino (CNMI Department of Commerce 2008b).

### Saipan

Saipan had by far the most housing units in the CNMI and the median value of those units was above the CNMI average. Nearly 30% of the housing units on Saipan had a value of at least \$300,000. Based on the 2000 U.S. Census data, the total value of housing units on Saipan was \$574 million.

### Rota

Rota had the fewest number of housing units in the CNMI and the value per unit was well below the CNMI average. About 67% of Rota housing units were valued below \$200,000. Based on the 2000 U.S. Census data, the total value of housing units on Rota was \$44 million.

#### 16.1.3.4 CNMI Government Finances

Table 16.1-10 shows the recent financial conditions of the CNMI government. In 2001 the government was running a budget surplus. However in later years, mostly due to increasing expenditures, the government has spent more than it earns. In 2004 the CNMI government budget deficit equaled 18% of its total revenues.

**Table 16.1-10. CNMI Government Finances, 2001-2004**

	2001	2002	2003	2004
Own source revenue	\$227,709,651	\$215,650,986	\$225,412,808	\$235,754,891
Federal contributions	\$49,348,134	\$71,964,627	\$57,560,034	\$63,006,595
Total revenues	\$277,057,785	\$287,615,613	\$282,972,842	\$298,761,486
Total expenditures	\$258,177,431	\$314,985,333	\$303,986,379	\$352,488,419
Revenues less expenditures [surplus/(deficit)]	\$18,880,354	(\$27,369,720)	(\$21,013,537)	(\$53,726,933)

Source: General Accounting Office 2006.

### Tinian Government Structure and Revenue

The Municipality of Tinian and Aguiguan is made up of the islands of Tinian and Aguiguan (sometimes referred to as Goat Island), an uninhabited island about 10 miles southeast of Tinian. The municipal government is made up of the Mayor's Office and Municipal Council. The Municipal Council is an elected three-person Council. The Municipality of Tinian and Aguiguan is represented in the CNMI Legislature by an elected four-member Legislative Delegation (three senators and one House representative).

The relationship between the Municipality and the CNMI central government is not as independent as are relationships between most American cities or counties and state governments. All CNMI Resident Department Heads on Tinian are appointed by Tinian's Mayor. Thus the CNMI agencies on Tinian are effectively responsible to both the Mayor and the CNMI department heads on Saipan.

Casino revenues on Tinian, derived from private casino operators, represent the only revenue generated on the island. Gambling is prohibited in the Northern Mariana Islands except as allowed through Commonwealth law or as established through initiative in the Commonwealth or in any senatorial district, per Article XXI of the CNMI Constitution. In the November 1978 general elections, 78% of the people of

Tinian voted overwhelmingly in a senatorial initiative to allow casino gaming in the Municipality of Tinian and Aguiguan. Through this casino gaming initiative, the revenues generated were considered local revenues and the funds remain in the municipality instead of being transferred to the central government.

Casino revenues thus contribute to a local budget that funds the operations of the Tinian Casino Gaming Control Commission, the Tinian Municipal Treasury, and the Tinian Mayor's Office. The Commission was created through the Casino Gaming Act to be the regulatory and enforcement agency for the casino gaming industry. The Treasury was created by the Act to handle all related gaming revenues. Casino revenues flowing to the Tinian Mayor's Office are used to fund personnel, operations, and public programs that are not provided for under the CNMI primary funding.

A collapse of the Tinian casino gaming industry would thus displace casino employees *and* workers in those regulatory agencies currently funded through the casino revenues. Table 16.1-11 and Table 16.1-12 show current Tinian government employment funded by casino revenues as well as CNMI Legislative Appropriations.

**Table 16.1-11. Tinian Governmental Agencies by Primary Funding Source**

<i>Agencies Funded by Tinian Gaming Revenues</i>	<i>Agencies Funded by CNMI Legislative Appropriations</i>
Mayor's Office (25 employees as of early 2009)	Mayor's Office (125 employees as of early 2009)
Municipal Treasury (Treasurer and 4 staff as of early 2009)	Tinian Municipal Council (3 Council members and 4 staff as of early 2009)
Tinian Youth Center (Director and 11 staff as of early 2009)	CNMI agencies located on Tinian (6 Resident Department Heads and 297 employees as of early 2009)
Tinian Casino Gaming Control Commission (5 Commissioners and 39 staff as of early 2009)	

Source: Tinian Municipal Treasury 2009.

**Table 16.1-12. Trends in Tinian Municipal Budgets and Employment Funded by Gaming Revenues**

<i>FYs</i>	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>
<b>Revenues</b>									
- from Gaming	\$4,509,875	\$2,983,242	\$4,082,930	\$4,144,802	\$4,641,222	\$3,709,667	\$4,933,137	\$3,643,869	\$3,304,018
- Other Sources	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$649,217
Expenditures (all purposes)	\$2,340,874	\$4,308,361	\$3,853,264	\$4,475,527	\$4,547,366	\$3,695,949	\$4,505,376	\$4,351,260	\$4,297,424
Year-End Surplus/Deficit	\$2,169,001	-1,325,119	\$229,666	-\$330,275	\$93,856	\$13,718	\$427,761	-\$707,391	-\$344,189
Combined Jobcount <sup>1</sup> (filled positions)	40	80	84	93	92	94	80	80	80
-Mayor's Office/ Youth Center/ Treasurer	2	46	50	57	56	48	42	42	42
-Gaming Commission	38	34	34	36	36	36	38	38	38

Notes:

<sup>1</sup> FTE

Source: Tinian Municipal Treasury 2009.

## 16.1.3.5 Tinian Public Services

Education Services

There are two public schools on Tinian; Tinian Elementary (grades 1-6) and Tinian Junior/Senior High Schools (grades 7-12). Both are located in the village of San José and are accredited by the Accrediting Commission of Western Association of Schools and Colleges.

According to 2007-2008 school year data provided by the CNMI Public School System, Tinian Elementary enrollment was 295 students, and Tinian Junior/Senior High School enrollment was 320 students.

Class sizes are relatively small with a student-teacher ratio of 20 at Tinian Elementary and 13.4 at Tinian Junior/Senior High School. About 64% of the teachers at the high school are certified by the CNMI Public School System (CNMI Public School System 2008a).

The student body of the CNMI as a whole is mostly drawn from the indigenous population. Guest worker populations (with the exception of the Filipino population) have been less likely to have children.

On Tinian, the primary school student population is concentrated in the Chamorro and Filipino ethnicities, with relatively few from neighboring Micronesian areas (Table 16.1-13).

**Table 16.1-13. Ethnic Pupil Accounting, Tinian versus Rest of CNMI Schools, 2007-2008**

	<i>Tinian (Combined Schools)</i>	<i>All Other CNMI Schools</i>
Chamorro or Chamorro Mix	62%	41%
Carolinian or Carolinian Mix	1%	11%
Other Micronesian*	2%	13%
Filipino	32%	28%
Other Asian**	2%	4%
Caucasian	0%	1%
All Others	1%	2%
<b>Total (Base):</b>	<b>615</b>	<b>10,127</b>

Notes:

\* Chuukese, Palauan, Pohnpeian, Marshallese, Yapese

\*\* Korean, Chinese, Japanese

Source: CNMI Public School System 2008a.

For the period 2000-2005, student tracking studies suggest that approximately 37% of the graduates from Tinian High school have some college education. Historically, the Northern Marianas College operated an extension campus in San José, but it recently closed.

In 2006 the CNMI school system received 46% of its revenues from the CNMI sources. Another 40% came from grants, mostly from the U.S. Department of Education (CNMI Public School System 2008c).

Health and Human Services

Infectious diseases in the CNMI are a major health concern. Of particular concern are HIV, TB, Hepatitis A and B, food-borne illnesses, vaccine-preventable diseases, and sexually transmitted diseases. The rapid influx of contract workers has contributed to these problems. The incidence of tuberculosis is over 10 times higher than the Mainland U.S., with over half of all cases among non-resident alien workers (U.S. Department of the Interior 1999).

The Tinian Health Center is the island's primary health care facility. It was built in 1987. The building is entirely air-conditioned. The Center provides emergency services, treatment, two holding beds, delivery, laboratory, X-Ray, pharmacy, dental and public health services. The morgue and Sanitation Office are

located in a separate building. The morgue currently has space for two bodies and there are no funded plans for a larger morgue facility.

The Tinian Health Center employs one full-time doctor, one nurse-practitioner, one physician's assistant, five registered nurses, five licensed practical nurses, and one nursing aide. It also employs one dentist and two dental technicians. While this staffing level meets Tinian's current needs, this capacity is tenuous, as health professionals often leave the island after only short periods of employment (Tinian Municipal Directors 2009).

#### Public Safety Services

The CNMI Department of Public Safety is responsible for Police, Fire, and Emergency Management activities on Tinian. Facilities are located in San José and as of late 2008 were staffed by 20 police officers, 12 firefighters, and six administrative support personnel. Staffing was anticipated to expand if and when a new casino opened.

The Commonwealth Ports Authority maintains firefighting capability at the Tinian International Airport. This capability could be made available to Department of Public Safety in the event of a major emergency. The Airport has two fire-fighting vehicles and a staff of nine officers (out of 12 authorized positions) who man the facility on a three-shift, 24-hour basis.

In general, the CNMI Department of Public Safety's capacity is adequate to meet the current needs of the Tinian community.

While recent Tinian crime rates are not available, Tinian police officials suggested recent spikes in petty theft due to "the discovered value of copper, brass, aluminum, etc.," and status offenses. Although organized crime (mainly prostitution) linked to the tourist industry is known to exist on Saipan, no prostitution has yet been reported on Tinian. Much of the Department of Public Safety's law enforcement effort is directed at traffic control, drunk driving, and domestic disputes. While Tinian police report significant reductions in the number of highway accidents, they remain concerned about the lack of any drivers' education due to Tinian being legally exempted from any written driver examination (this exemption applies on Rota as well) (Tinian Department of Public Safety 2008).

Public safety services on Tinian as they currently exist would not be adequate to meet the needs of a major population influx or a serious public emergency. In particular, fire-fighting equipment may not be capable of fighting major structural or brush fires. Acquisition in 2006 of a refurbished fire engine provided by the Department of Homeland Security under its Weapons of Mass Destruction program was the first major piece of firefighting equipment to arrive on the island for several years (de la Torre 2006).

#### 16.1.3.6 Sociocultural Issues

Land tenure is an important social issue in the CNMI, as it is elsewhere in the Pacific islands.

Although long-term land leases are possible on Tinian and elsewhere in the CNMI, Article XII of the the CNMI Constitution restricts ownership of real property to people of at least 25% Northern Mariana Islands descent or to corporations entirely controlled and owned by Northern Mariana Islands descent. Privately-owned lands may be leased to individuals of non-Northern Mariana Islands descent for no more than 55 years, and (under Article XI) public lands for no more than 40 years.

Ethnic enclaves in group housing accentuate the economic stratification and language differences between guest and indigenous populations. For example the garment industry on Saipan often provided housing to Chinese workers in large compounds, supplying traditional Chinese food and medicine and sometimes

employing Chinese civil law. Hotels and tourism companies in the CNMI often provide housing for their workers.

Recent changes to the CNMI immigration system would have an impact on the CNMI social values and issues. The recent federalization of the CNMI's immigration system is likely to change the source, if not the pattern, of immigrant labor in the Commonwealth. This federal legislation, combined with the collapse of the garment industry, would decrease the CNMI's Chinese guest worker population. Over the longer term the Filipino labor force supporting the tourism industry may also contract. These jobs are likely to be taken primarily by migrants from neighboring areas (such as the FSM and Palau) that are not subject to immigration restrictions (*Compact of Free Association, Sec. 141*).

Additional social impacts of the proposed federalization of the CNMI immigration cited in mid-2007 by the Deputy Assistant Secretary of the Interior for Insular Affairs included: (1) security concerns including the need for an effective pre-screening process for aliens wishing to enter the Commonwealth and the implementation of a refugee protection system and (2) the possibility of human trafficking, primarily for prostitution purposes, into the CNMI (Cohen 2007).

Upcoming possible changes to the CNMI land tenure system would also be influential to social values and issues in the region. Beginning in 2011, a 1976 Covenant between the U.S. and the CNMI would permit the amendment of land tenure laws through ballot initiatives. Although substantial support for continuation of the current system exists throughout the CNMI, it has been argued that this system results in the concentration of land ownership to a pool of a few families, and that continued demographic change in the CNMI would likely exacerbate this concentration. One possible result of such a landowner monopoly would be that business and residential rental prices could be set independent of market forces (Bartolucci and Shreni 2006).

## **16.2 ENVIRONMENTAL CONSEQUENCES**

The section provides the socioeconomic impact analysis clustered into four major sections of Environmental Consequences: Economic Impacts, Public Services and Sociocultural Impacts. The section concludes with a Summary of Impacts and Summary of Potential Mitigation Measures. Socioeconomic impacts would be islandwide in nature with little difference in effects among the various alternatives. Therefore, the summary of impacts presented below covers all of the alternatives except the no-action alternative, which is treated separately in Section 16.2.4.

### **16.2.1 Approach to Analysis**

The impact analysis for this Volume 3 follows the approach laid out in Volume 2, Chapter 16. However, the magnitude of the proposed action on the CNMI is far less than on Guam; therefore, there is a more limited analysis and discussion of impacts. For example, because the proposed action would not involve an influx of population for the construction or operation components, an in-depth analysis of population and its associated effects was not needed.

The impact analysis discusses both the construction and operation components of the proposed action.

#### **16.2.1.1 Methodology**

Methodology for assessed impacts varied. Refer to the Volume 2 and the Methodology Chapter (Chapter 2) of the Socioeconomic Impact Assessment Study (SIAS) (Located in Appendix F) for a detailing of this methodology.

Public service impacts for this action are quite limited due to the small number of jobs involved. However, information about these was based in part on input from military planners and discussions with Tinian resident department heads.

Sociocultural topics are also assessed in a qualitative fashion, based primarily on interviews conducted during three site visits over the course of a year (from February 2008 to February 2009).

#### 16.2.1.2 Determination of Significance

##### Significance Criteria for Economic Sections

The economic sections focus primarily on the impact the proposed action would have on the economy of the affected the CNMI islands and the prosperity of their people. Tinian is a small place where actions that would be insignificant elsewhere would have a more critical impact on the population. Only some of the economic impacts are precisely quantifiable, and so determination of significance was carried out through consideration of both the quantitative and available qualitative (i.e., interview) information.

In the following analysis, those impacts that can be quantified, and for baseline trend projections that could be made, would be considered significant if they would add 2% or more at any point in time to the current levels, as determined by most recent available information. (The 2% value was selected to be consistent with the criteria used for the socioeconomic analyses of impacts on Guam in other volumes.) Quantifiable impacts related to jobs and dollars – the usual measures of prosperity – would be considered to constitute a beneficial significant impact if they increase the expected level of jobs or dollars by 2% or more.

##### Significance Criteria for Public Service Sections

Significance of additional demand was assessed through qualitative and quantitative calculation of whether this increase would necessitate substantial increases in 1) staffing (including consideration of whether staffing needs could easily be met), 2) new or physically altered facilities, and/or 3) equipment/vehicles. In general, however, the 2% criteria would be applied, although in relation to the reported actual staffing levels in the baseline year (generally 2005) for the agencies that supplied information. Public service impacts stem from demands of additional population on current staff.

##### Significance Criteria for Sociocultural Sections

Sociocultural impacts are largely qualitative in nature, and the emphasis of most of these sections is less on predicting quantifiable impacts than on identifying potential threats and opportunities. However, they remain an important element of the proposed action's impact and have attracted much public attention and comment. To the extent their significance can be assessed, it is primarily based on the relative magnitude and nature of the proposed action under consideration.

#### 16.2.1.3 Issues Identified During Public Scoping Process

As part of the analysis, concerns related to socioeconomics that were mentioned by the public, including regulatory stakeholders, during the public scoping meetings were addressed. A general account of these comments includes the following:

- *Access to Historical Sites:* cultural traditions and tourism.
- *Employment Opportunities:* would proposed action bring jobs?
- *Public Infrastructure:* collaboration between local agencies and the military.
- *Harbor and Airport Control:* transportation infrastructure needs repair/improvement.
- *Permanent Military Presence:* potential benefits of the action and effects on land lease issues.



## 16.2.2 Alternative 1 (Preferred Alternative)

### 16.2.2.1 Economic Impacts

#### Construction

##### *Tinian*

The construction associated with the proposed action would be minimal, especially relative to construction required for the Tinian Dynasty Hotel. The proposed action on Tinian includes the use of: a Platoon Battle Course, Automated Combat Pistol Range, a Rifle Known Distance (KD) Range, and Automatic Field Firing Range.

Most construction contracts are expected to be fulfilled by contractors based on Saipan or Guam (Tinian Business Panel 2008). A maximum of 180 construction jobs per year, for a two-year period, are expected to be created by the proposed action. This would also lead to the creation of about 35 indirect jobs in the Tinian economy. These 35 indirect jobs would constitute a significant beneficial impact, being greater than 2% of the 2006 Tinian employment figure of 1,626.

While the source of construction workers is uncertain, historically they have consisted of mostly foreign workers. Based on previous private-sector experience, expenditures of foreign construction workers in the Tinian economy are usually negligible. However prime contractors would typically subcontract local Tinian companies for activities such as trash collection, security detail, and house rentals for construction executives (Bridge Investment Group 2008).

No economic costs to the community are anticipated from construction.

##### *Saipan*

There is no construction, related to the proposed action, expected to occur on Saipan. Neither is it expected that any lay down areas (off-site construction) would be located on the island. There may be some increased, indirect demand for Saipan's manufactured or agricultural products, however that impact is likely to be small. Slight beneficial economic impacts are expected for Saipan and no economic costs are anticipated.

##### *Rota*

There is no construction, related to the proposed action, expected to occur on Saipan neither is it expected that any lay down areas (off-site construction) would be located on the island. There may be some positive economic impact to Rota's agricultural industry as increased population in the region would drive up demand for more food. No economic costs are anticipated.

##### *CNMI Government*

The CNMI government revenues would likely increase due to more economic activity generating higher tax revenues. This impact would likely not be substantial and would not, in and of itself, alleviate the government deficit.

## Operation

### *Tinian*

There is a possibility that 12 to 15 Tinian residents could be employed as security guards, grounds-keeping crew, and sanitation workers to support the proposed action on Tinian. Those direct jobs would constitute a less than significant impact, falling short of the calculated 32.5-job mark.

Local stores and restaurants in San Jose would also benefit from the proposed action if the Marines in training are granted liberty, as has been the case in the past. However such liberty is not currently guaranteed for regular training exercises under the current description of proposed action. Liberty may be available to advanced teams before and after training exercises, though these advanced teams would be much smaller and thus have a lesser economic impact.

Restriction to certain sites during construction and operation would cause significant adverse impact to Tinian's economy, particularly: tourism, ranching, and the collection and selling of wild chili peppers.

While Tinian's tourism may benefit from an increase in visitors from Guam due to the population growth there, restricted access to popular sites would negatively affect the island's tourism economy (Marianas Visitors Authority Tinian Office 2008). Much of the Tinian visitor industry provides tours of scenic and/or historic sites on the island (e.g., the Atomic Bomb Pits where nuclear weapons were loaded into planes bound for Hiroshima and Nagasaki). About 70% of the visited sites are located in the military lease area (Tinian Chamber of Commerce 2009). The Tinian Dynasty runs one historical tour daily, and other independent tour companies such as Fleming Tour, Star Photo Tour, Island Garden Tour, and Hafa Adai Scooter Tour, also run various tours. Based on access procedures described in Section 2.3.4.4, tour operators would be allowed to access critical historical sites such as the Bomb Pits just north of Runway Able during training activities.

Tinian ranchers would also be impacted by closure of the land required to build the proposed training ranges. Ranchers have historically exercised grazing rights in the military lease area, through a lease-back agreement. This agreement required the municipal government to pay a dollar per acre per year to lease back particular areas. Because the municipal government has been behind on payment for several years, grazing rights have been allowed on a month-to-month basis. The military would terminate the grazing rights to build the proposed ranges, causing significant adverse economic impact. Tinian ranchers would have to utilize a diminished amount of available grazing land in the southern third of the island.

Finally, loss of access to training areas would mean loss of local gathering access to the wild chili peppers (*Capsicum annum*) locally known as *donnisali*, a Tinian export. Many residents earn money by collecting these peppers, nearly all grown in the military lease area. It is possible that residents would retain some access to the chili plants by way of 8<sup>th</sup> Avenue during training exercises. However, any chili plants in the southeast quadrant of the military lease area would be either up-rooted during grading or be located in the Surface Danger Zone (SDZ), where access would be restricted during proposed training activities.

### *Saipan*

There are no plans for any operational component of the proposed action to be located on Saipan. Some economic benefits from increased tourism, increased local agricultural consumption, and operational contracts for Saipan companies may be expected but these impacts would be very small. No economic costs are anticipated.

*Rota*

There are no plans for any operational component of the proposed action to be located on Rota. Rota's agriculture industry may see some positive impact as the increased population would demand more food than at present. No economic costs are anticipated.

*CNMI Government*

The CNMI government revenues would likely increase due to more economic activity generating higher tax revenues. This impact would not likely be substantial and would not, in and of itself, alleviate the government deficit. However, it should be noted that the CNMI government recently released a Draft of a report entitled "Strategic Approach: Utilizing CNMI's Natural Resources to Provide Complementary Support to DOD Guam". This report recommends that the CNMI adopt a strategy of providing DOD with support services in three areas: Operational Support; Supply and Maintenance; and Quality of life. If this strategy were to be adopted and successfully implemented the CNMI's revenues from providing these support services could be substantially increased.

## 16.2.2.2 Public Service Impacts

Construction*Tinian*

The construction phase would likely constitute a significant impact only to public safety services on Tinian. An increase in the number of construction workers would require the addition of one additional police officer, exceeding 2% of the existing force. However, foreign construction workers historically keep to themselves and require little police attention (Tinian Department of Public Safety 2008).

Operation*Tinian*

Tinian police anticipate few operation phase public safety impacts, if training units are accompanied by military police, as they historically have been (Tinian Department of Public Safety 2008). The Tinian fire department expects no impact from training, although brush fires are common on the island and range fires are possible (Tinian Municipal Directors 2009).

A small number of contracted/civilian fire fighters may be required by the military.

Also, a small number of medical personnel would accompany military training units, and would be expected to assist civilian medical personnel in the event of emergencies. As these military medical personnel would rotate in and out with training units, the 2% significance threshold does not apply, and impacts would be less than significant.

## 16.2.2.3 Sociocultural Impacts

Construction*Tinian*

If the proposed action coincides with resumed casino construction, there could be additional social tensions. If not, as the expected number of military-related construction workers would be just 10% of the number that built the casino in the late 1990s, the sociocultural impacts of the construction phase would be less than significant.

The Tinian Department of Public Safety anticipates increased crime and community tensions if the economy permits eventual construction of new casinos (Tinian Department of Public Safety 2008). Historical accounts of the sociocultural impacts of the construction of the Tinian Dynasty Hotel and Casino differ. Some accounts describe a situation where 18 months of construction and 1,800 largely foreign workers created conflict with local residents that culminated in several hundred construction workers storming the police department complaining of local assaults on workers (Tinian Dynasty Hotel & Casino 2008). Tinian police, however, recall only one fight between the local population and foreign construction workers in the 1970s (Tinian Municipal Directors 2009).

### Operation

#### *Tinian*

Sociocultural impacts during the operations phase would be affected by decreased access to land for the purposes of recreation and cultural activities. During training exercises, local residents would lose access to popular beaches and fishing spots such as Unai Dankulo on the eastern side. During training exercises, access to the memorial crosses at the north tip of the island may also be lost. Tinian residents traditionally march in procession to these crosses (Tinian Chamber of Commerce 2009).

Relative to past military-civilian relations, military-civilian relations under the preferred alternative could be impacted. Because of the minimal opportunities for liberty, there would be few opportunities for direct military-civilian interaction. While this could prevent friction between locals and Marines, it would also prevent the common everyday interpersonal interactions that could result in mutual understanding between the local and military populations on Tinian.

### **16.2.3 Summary of Impacts**

Table 16.2-2 summarizes the potential impacts of the action alternatives and the no-action alternative.

None of the alternatives being considered would meet the expectations of Tinian residents in terms of economic benefits, facilities, and infrastructure. Restrictions on access to historic sites and natural resources in the military lease area would have a significant but mitigable adverse impact on the Tinian economy. Since even the no-action alternative would play against Tinian expectations and damage military-civilian relations, the possible mitigation measures could assume added importance.

**Table 16.2-1. Summary of Impacts**

<i>Alternatives 1, 2 and 3</i>	
BI	<ul style="list-style-type: none"> <li>• <b>Economic Impacts:</b> Minor beneficial economic impacts to the CNMI economy – about 180 construction jobs, 35 indirect jobs and 12 to 15 direct jobs on Tinian.</li> </ul>
SI-M	<ul style="list-style-type: none"> <li>• <b>Tourism Impacts:</b> Significant adverse impacts to Tinian economy due to periodic access limitations to tourism-related sites, cattle grazing land, and wild chili plants – economic costs may outweigh benefits</li> </ul>
LSI	<ul style="list-style-type: none"> <li>• <b>Public Service Impacts:</b> Less than significant impact to public safety services; one more police officer may be required during the construction period</li> </ul>
SI-M	<ul style="list-style-type: none"> <li>• <b>Sociocultural Impacts:</b> Significant adverse impacts to military-civilian relations because, during training exercises, local residents would lose access to popular beaches, fishing spots, and the memorial crosses at the north tip of the island on religious holidays; less than significant social impacts in all social aspects during construction.</li> </ul>

*Legend:* SI-M = Significant impact- mitigable; LSI = Less than significant impact; BI = Beneficial Impact.

#### **16.2.4 No-Action Alternative**

Under the no-action alternative, the Marine Corps would continue to train in the military lease area of Tinian on a smaller scale, consistent with the existing Marianas Integrated Range Complex guidelines. No additional ranges or infrastructure would be built. Access to the military lease area, for any social or economic reasons, would remain the same as at present.

Wages would still rise to federal minimums. Federalization of the CNMI's immigration would restrict access to willing foreign laborers by the end of the transition period in 2014. Also, the global finance collapse appears likely to threaten future casino investment. Therefore, even without the development of additional ranges in the military lease area, Tinian's economy would still experience a severe contraction like the rest of the CNMI. However, the disappointment of expectations Tinian residents have long held about the benefits from a full-fledged military base may be especially acute if no action at all is taken.

#### **16.2.5 Summary of Potential Mitigation Measures**

A review of the above impacts show that the proposed action has the potential to have both minor beneficial and potentially significantly adverse, but mitigable, socioeconomic impacts in the CMNI. The mitigation measures identified below provide avenues to address the potentially significant adverse impacts identified in analysis by taking into account the unique position of the CNMI as an isolated island economy.

Table 16.2-3 summarizes potential mitigation measures.

**Table 16.2-2. Summary of Potential Mitigation Measures**

<i>Alternatives 1, 2 and 3</i>
<ul style="list-style-type: none"><li>• To minimize economic impacts of the proposed action on local tour companies, the Marine Corps would consider providing access to the Atomic Bomb Pits via 8th Avenue as frequently as practicable.</li><li>• To enhance economic benefits and compensate for economic costs for local businesses, the Marine Corps would consider granting trainees some liberty at the end of every training mission so that they might spend money in local establishments and interact with local residents.</li><li>• To mitigate sociocultural impacts of reduced resident access to areas of cultural significance in the military training area, the Marine Corps would consider avoidance of scheduling training on religious holidays.</li><li>• CNMI could seek federal financial assistance for development of a small museum dedicated to Tinian's history; to support Tinian's tourism industry would further minimize economic impacts on the Tinian tourism industry.</li></ul>