

Port Improvement Project

Sponsored by

The Port Authority of Guam

ECONOMIC IMPACT AND JOBS ANALYSIS OF THE PORT IMPROVEMENT PROJECT

BST Associates
August 2009



Supporting Material for the TIGER Discretionary
Grant Application Submitted by the Port Authority
of Guam

Near Term Construction Jobs and Impacts

Direct economic impacts are the changes in sales, income and jobs in those business or agencies that directly receive spending from the Project. Firms that directly receive Project funding make purchases of supplies, materials, and outside labor, creating indirect jobs. Induced jobs are also created by the additional spending generated by additional employment earnings.

An economic impact model tailored to Guam was prepared in order to identify the direct impacts from construction and operations.¹ The key variables included: revenue/sales by type of business, payroll/income as a percentage of sales, and employment and average wage rates. Total economic impacts (including indirect and induced effects) were estimated based on evaluations of other economic impact studies conducted in Guam and at several port authorities. Table 6 summarizes the economic impacts attributable to the construction of the Project.

Table 1: Construction Impacts of the Port Improvement Project

Category	Direct Impact on Guam	Total Impact on Guam	Direct Impact on Entire U.S.	Total Impact on Entire U.S.
Economic Output (\$millions)	\$99.4	\$119.3	\$99.4	\$208.5
Wages/income (\$millions)	\$19.3	\$22.0	\$33.2	\$68.4
Employment	656	804	708	1,599

Note: Totals may not add due to rounding

As can be seen in the table above, the project is expected to create approximately 1,600 jobs (708 of which are direct jobs), \$209 million in economic output, and \$68 million in employee wages. Due to a limited amount of supplies produced on Guam, a significant portion of the construction supplies are expected to come from the Continental United States, sharing a significant portion of the positive effects with the mainland. These supplies will also be carried by ships constructed in the U.S. and sailed with U.S. flags.

The construction-related impacts by quarter are shown in Table 4. Most of the construction spending occurs between the third quarter of 2010 and the second quarter of 2011, generating a significant amount of jobs quickly.

¹ The following data sources were used: US Census Bureau Economic Census of Guam (2007); and the Guam Department of Labor (2008).

Table 2: Quarterly Construction Impacts of the Port Improvement Project

Quarterly Period	Construction	Impacts on Guam		Impacts on Entire U.S.	
	Spending (\$1,000s)	Income (\$1,000)	FTE Employment	Income (\$1,000)	FTE Employment
2010 - Q1	\$523.1	\$115.6	16	\$394.4	24
2010 - Q2	\$1,940.4	\$428.7	64	\$1,463.1	120
2010 - Q3	\$12,076.9	\$2,668.2	392	\$8,383.7	776
2010 - Q4	\$21,808.4	\$4,818.3	704	\$15,005.1	1,404
2011 - Q1	\$26,729.8	\$5,905.6	864	\$18,271.3	1,724
2011 - Q2	\$18,131.2	\$4,005.9	588	\$12,416.7	1,168
2011 - Q3	\$7,166.5	\$1,583.3	232	\$4,916.0	460
2011 - Q4	\$5,954.9	\$1,315.7	192	\$4,072.3	384
2012 - Q1	\$5,048.2	\$1,115.3	164	\$3,467.9	324
Total	\$99,379.4	\$21,956.6	N/A	\$68,390.5	N/A

Note: Totals may not add due to rounding

Jobs in an Economically Distressed Area

The Port Improvement Project will generate jobs and economic stimulus in a severely distressed area. Guam's per capita income was a mere \$12,768 in 2005,² approximately 37% of the U.S. average in that year.

The most recent unemployment rate available for Guam is for September 2007, when Guam experienced unemployment at a rate of 8.3%.³ At the time, Guam's unemployment rate was 2.1% higher than that of the U.S. (at 6.2%). In general, unemployment has always been higher in Guam than in the mainland U.S. Guam is clearly an Economically Distressed Area.

Table 3: Comparison of Guam and U.S. Unemployment Rates and Income Per Capita

Year	Per Capita Income			Unemployment Rate		
	US	Guam	Difference	US	Guam	Difference
2008	\$39,751	N/A	N/A	7.1%	N/A	N/A
2007	\$38,615	N/A	N/A	6.2%	8.3%	2.1%
2005	\$34,690	\$12,768	-\$21,922	4.8%	7.0%	2.2%

Source: Government of Guam and U.S. Dept. of Commerce, Bureau of Economic Analysis

The jobs created during construction will be high-quality jobs, as the average wage paid will be significantly higher than the average wage in the private sector:

- According to the Government of Guam Department of Labor, the average annual wage in Guam is currently \$21,970 across all private sector jobs.
- Construction jobs in Guam (general contracting) average \$27,900 per year, which is 26.8% higher than the average private sector wage in Guam.
- The jobs created at the Port of Guam have an average income of \$32,930, which is 49.9% higher than the average private sector wage in Guam.

² 2005 is the most recent data available from Government of Guam.

³ The Guam Department of Labor, Bureau of Labor Statistics announced that the September 2007 unemployment rate was 8.3 percent, an increase of 0.9 percentage points from the 7.4 percent collected in September 2006.

Economic Opportunities

Opportunities for Small and Disadvantaged Business Enterprises

The Port Authority of Guam is an Equal Opportunity Employer, and in addition to observing the following EEO statutes in its hiring practices, requires compliance by contracted parties with: Title VII of the Civil Rights Act of 1964 (Title VII); Equal Pay Act of 1963 (EPA); the Age Discrimination in Employment Act of 1967 (ADEA), Title I and Title V of the Americans with Disabilities Act of 1990 (ADA); Sections 501 and 505 of the Rehabilitation Act of 1973; and the Civil Rights Act of 1991. The Project will comply with OMB circulars requiring opportunities for small businesses.

Economic Opportunities for Disadvantaged Workers

PAG is a member of the Civilian Military Task Force (CMTF), which was formed by the Office of the Governor. The mission of this group is to develop an integrated comprehensive master plan that would accommodate the expansion of military personnel, operations, assets and missions and to maximize opportunities resulting from this expansion for the benefit of all the People of Guam. PAG works closely with the CMTF⁴ and the Guam Procurement Technical Assistance Center (PTAC)⁵ to assist in workforce planning efforts⁶ that seek to address issues facing the underemployed, non-employed and employment entitlement programs.

Safety and Fair Treatment of Workers

The Port complies with Occupational Safety and Health Administration regulations, U.S. Coast Guard regulations, and other federal and local regulatory agencies that require the Port to meet a minimum level of operational standards. All entities involved in Port activities will, likewise, be required to be in compliance with these operational standards as well as the Employee Equal Opportunity (EEO) requirements listed above.

Long Term Jobs After Construction

The Port Improvement Project will enable increased employment in Guam, particularly in the private sector. The Project will have not only a positive effect on employment, but also on Gross Domestic Product and personal incomes in Guam and the U.S. mainland. This is particularly evident with the DOD buildup, which cannot occur without the Project's improvements to the Port of Guam.

After construction, the Project will generate ongoing Port/transportation-related jobs. The Government of Guam's Procurement Technical Assistance Center (PTAC) plays a key role in ensuring that the growth in sales by Guam businesses to the government supports the creation of high-wage jobs and promotes technology innovation. The PTAC program is a pragmatic approach to help Guam businesses build capacity, transition to high-wage jobs, and help make Guam a contributor to the defense industrial base of the future.

Table 9 summarizes the economic impacts from operations at the Port of Guam by comparing existing levels of income, jobs and economic output with the average level of activity experienced during the study period. Direct revenues associated with the activities by the Port of Guam (charges for cargo handling) and other private firms engaged in the Port-related supply chain

⁴ CMTF website is: <http://guamdol.net>, The document is included in Appendix 1 of this document.

⁵ The PTAC website is: <http://www.guamptac.com>. PTAC is funded by the Defense Logistics Agency and managed by the Governor of Guam in association with several partners: University of Guam, Guam Economic Development and Commerce Authority, the Small Business Administration, Guam Small Business Development Center, Guam Department of Labor, Bank of Guam, GTA TeleGuam, M80 Office Systems et al.

⁶ Key documents supporting workforce development include: Civilian Military Task Force Labor Sub-Committee Comprehensive Plan (<http://www.guamdol.net/cmtf/CMTF%20Labor%20Subcommittee%20Comprehensive%20Plan%20-%2022%20June%202007.pdf>) and Guam Buildup Oversight Hearing Report (<http://guamdol.net/Guam%20Buildup%20Oversight%20Hearing%20-%20Labor%20Report%2002.10.09.pdf>)

(tugs, warehousemen, truckers etc) were estimated at \$51.6 million in 2009. The average revenues after construction are estimated at \$74.8 million,⁷ or \$23.1 million more than in 2008. This is a 44.8% increase over existing operations.

Table 4: Economic Impacts of PAG Operations

Economic Impacts	Existing	Average Year After Project Construction	% Increase
Output (\$Millions)			
Direct	\$51.6	\$74.8	44.8%
Employment (Jobs)			
Direct	655	857	30.8%
Total	1,053	1,377	30.8%
Income (\$Millions)			
Direct	\$21.6	\$28.6	32.8%
Total	\$39.0	\$51.7	32.8%

⁷ Inflation-adjusted