# Economic Impact of the Choctaw Point Intermodal Facility on the Mobile Area

CBER Research Report #52

## Research Reports

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# Economic Impact of the Choctaw Point Intermodal Facility on the Mobile Area

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**by**

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# Executive Summary

The Alabama State Port Authority (ASPA) recently completed a feasibility study for development of the Choctaw Point property as an intermodal facility that focuses on increasing container business at the port. This study estimates the economic impact of the facility on the local economy. Major findings of this report are listed below.

## Construction Expenditures Impact

1. The impact estimation of the Choctaw Point development is limited to Stage 1 expenditures. Stage 1 involves development of a one berth 60-acre terminal with 2 cranes designed to accommodate projected demand through 2010.

2. Out of the total Stage 1 expenditures ($214,608,611), it is estimated that $180,147,740 will be used for local expenditures.

3. Total number of jobs that will be created by the construction expenditures, including the multiplier effect, is 72 for year 2002; 552 for year 2003; 1,345 for year 2004; 1,425 for year 2005; and 596 for year 2006.

4. The total amount of retail expenditures in the Mobile area that will be created by the construction expenditures over the five project years is $84,270,230. Retail expenditures are estimated to be $1,516,864 in year 2002; $11,545,022 in year 2003; $28,146,257 in year 2004; $29,831,662 in year 2005; and $12,471,994 in year 2006.

## Tax Impact of Construction Expenditures

5. The tax impact of the Stage 1 construction expenditures is estimated to be $1,583,072 for the City of Mobile; $904,374 for Mobile County; $4,511,758 for the state of Alabama; and $574,344 for school tax.

## Impacts beyond Construction

6. The economic impact of the Choctaw Point intermodal facility on the local economy extends beyond the construction stage, and includes (a) impact on the number of jobs that will be created to operate the facility; (b) revenue impact on the local economy through various port charges; (c) impact on existing businesses in Mobile's dense trade cluster area, and (d) attraction of future businesses.

Employment Impact from Facility Operation

7. The total local employment impact for operating the facility is 483 new jobs. Direct wages relating to these new jobs total $16,295,454.

8. The annual tax impact that will be generated by the wages of new Alabama State Docks workers who will be operating the facility is estimated to be $268,162 for the City of Mobile; $153,195 for Mobile County; $764,262 for the state; and $97,290 for school tax.

Benefits to Local Businesses

9. One of the direct benefits of the new facility for local businesses will be lower transportation costs. Total cumulative savings in transportation costs to existing local businesses in Mobile's dense trade cluster area through year 2030 is projected to be $80,654,100.

Private Sector Employment Impact from Container Movement Services

10. Intermodal container facilities utilize many service sector businesses. These business include shipping lines, truck lines, and container-related service and repair. Other private sector businesses provide value-added services such as the handling of overweight containers, warehouse/logistical services, double stack rail access, fumigation, and others.

11. Total employment impact for the service sector in year 2015 is 1,696 new jobs. Direct wages relating to these new jobs total $57,219,648.

12. The annual tax impact that will be generated by the wages of the new service sector jobs is estimated to be $941,620 for the City of Mobile; $537,927 for Mobile County; $2,683,619 for the state; and $341,623 for school tax. Year 2015 is used as a representative year in estimation.

Attraction of New Businesses

13. The development of the Value-Added Warehousing and Distribution area is one of the most attractive aspects of the project because this is the area that can attract large distributors with many new jobs. Examples include Newport (Virginia), Wilmington (Delaware), Umatilla (Oregon), Hampton Roads (Virginia), Savannah (Georgia), and Morrow (Oregon). Because of the uncertainty involved in estimation os such impact, no estimation is made in this report for new businesses other than service providers that will be attracted to the facility. It will simply be stated that the probability is virtually 100 percent that there will be new businesses in the Mobile area that will be attracted by the new intermodal facility.

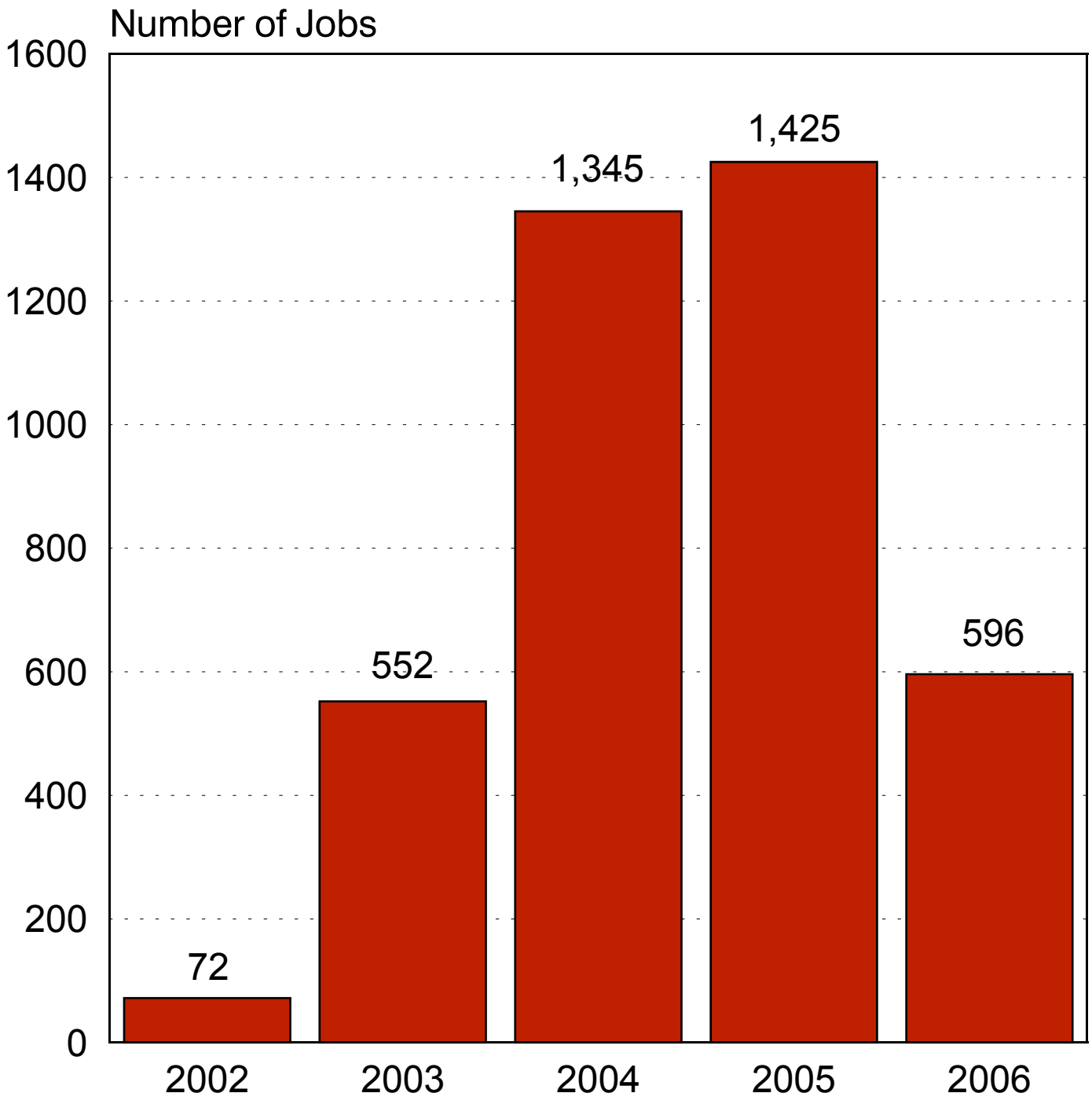
Snap Shot of Impact in Year 2015

14. In the year 2015, there will be 483 new workers with wages totaling $16,295,454 that are associated directly and indirectly with operating the new Choctaw Point facility. These wages will generate annual tax revenues of $268,162 for the City of Mobile; $153,195 for Mobile County; $764,262 for the state; and $97,290 for school tax.

15. New service sector employment in year 2015 will be 1,696, with wages totaling $57,219,648. These wages will generate annual tax revenues of $941,620 for the City of Mobile; $537,927 for Mobile County; $2,683,619 for the state; and $341,623 for school tax.

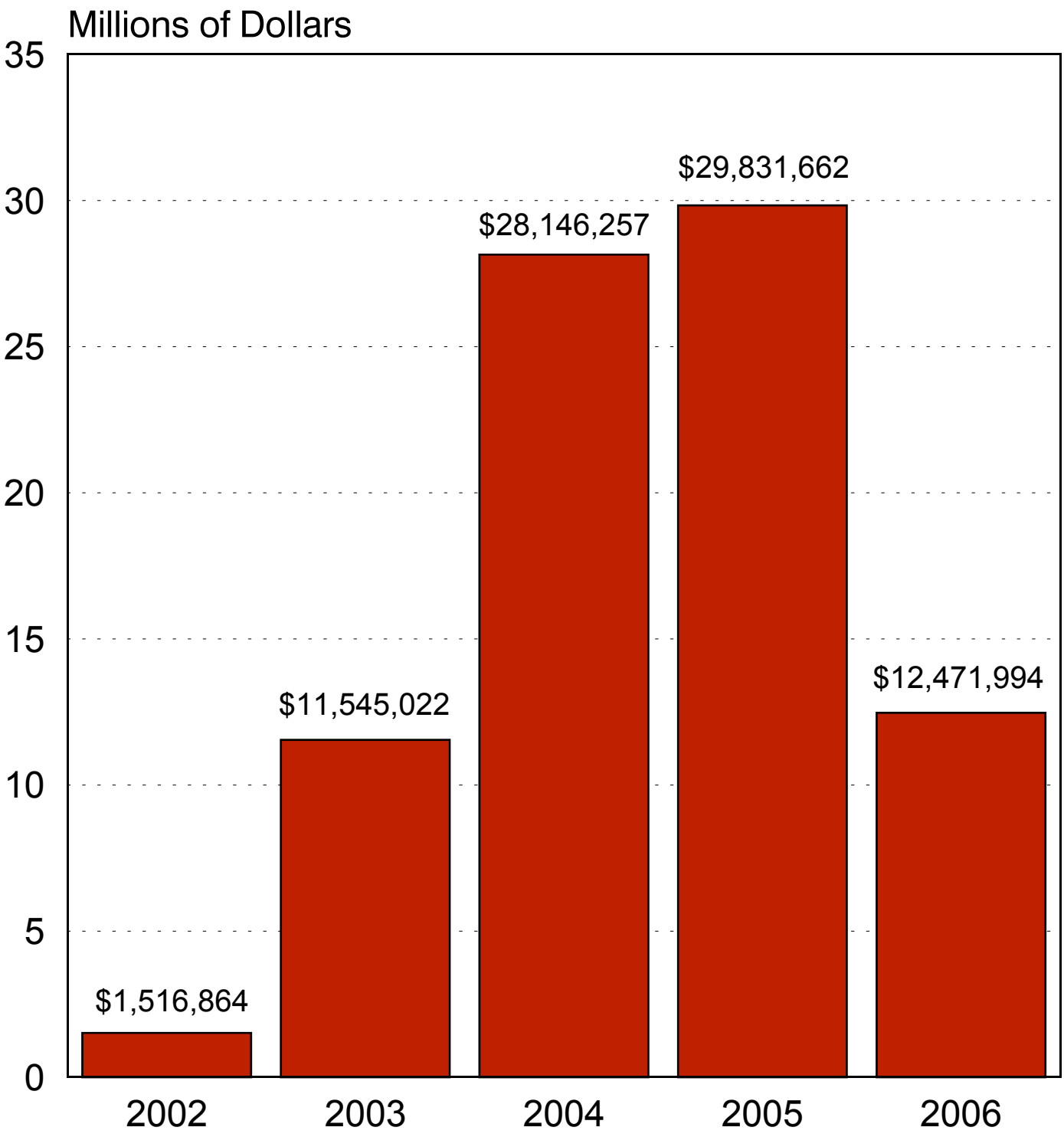
16. Existing businesses in the Mobile trade cluster area will save an estimated $2,045,022 in transportation costs during year 2015.

# Figure 1.
# Construction Expenditures
# Employment Impact

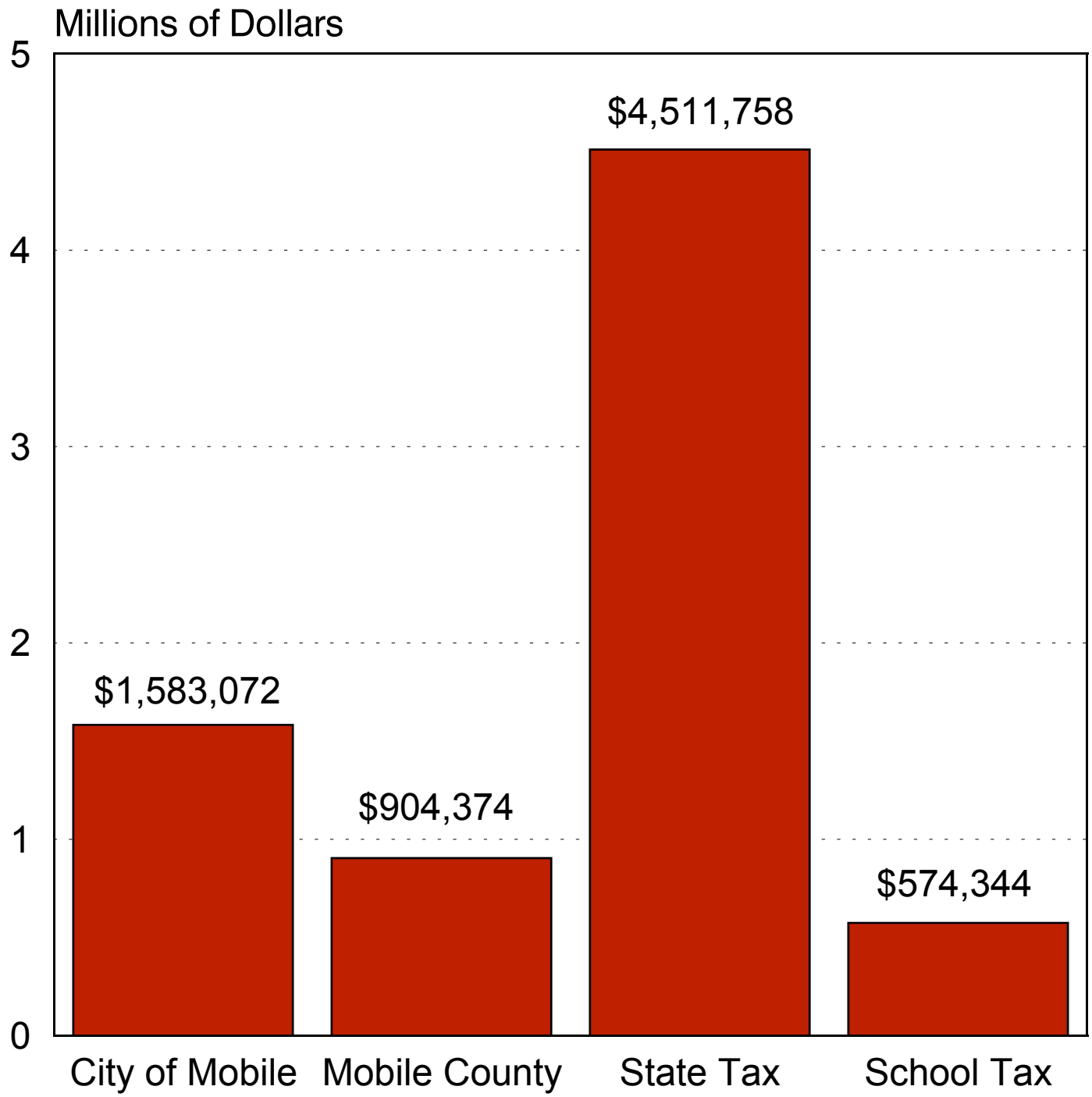



Note: Impact includes multiplier.

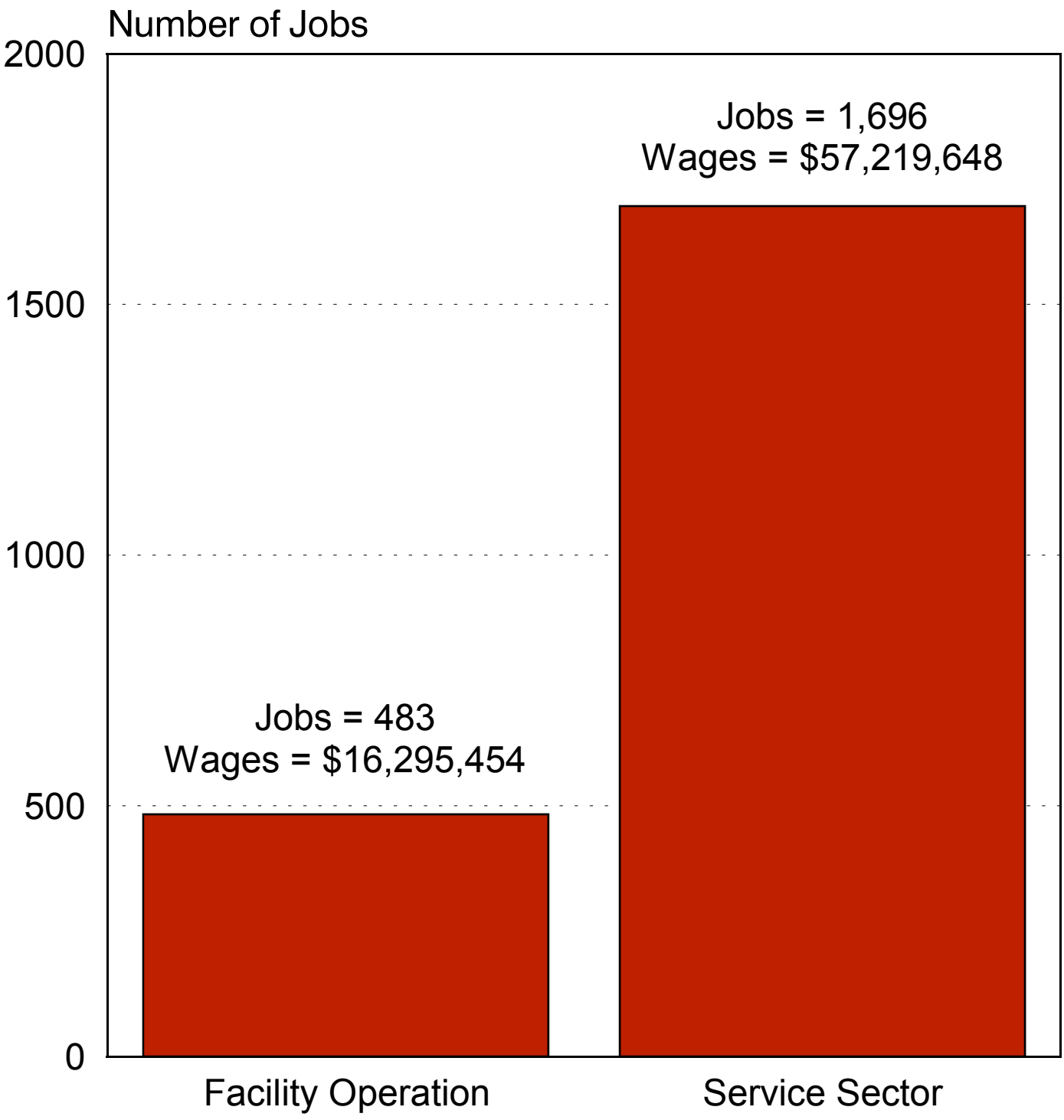
# Figure 2.
# Retail Expenditures from Construction Only



# Figure 3.
# Tax Impact of
# Construction Expenditures

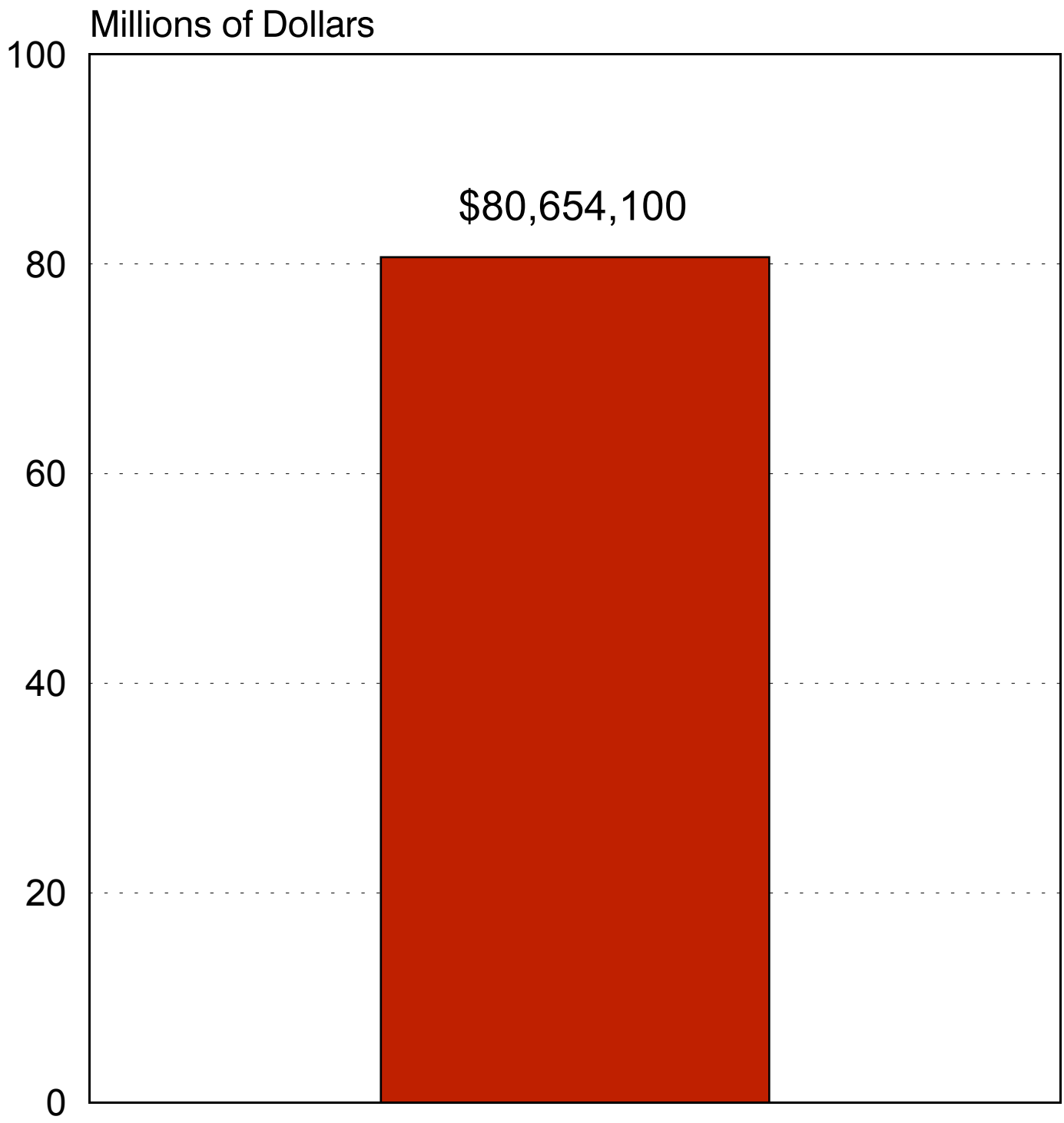


# Figure 4.
# Permanent Employment Impact as of 2015



# Figure 5.
# Savings to Existing Local Businesses

## Cumulative through 2030



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Section 1

# Introduction

The Alabama State Port Authority (ASPA) recently completed a feasibility study for development of the Choctaw Point property as an intermodal facility that focuses on increasing container business at the port. This study estimates the economic impact of the facility on the local economy.

## Containerization Trend in the United States

Both containerized imports and exports in the United States steadily increased in the 1990s. In the five-year period between 1994 and 1999, containerized imports and containerized exports both increased by 41 percent (in TEUs). The escalating trend toward containerization is also apparent in a review of imports and exports for a number of key state ports along the northern Gulf of Mexico coast for the period of 1995 to 1999. [The Council of State Governments, Southern Legislative Conference. "The Future of Southern Ports: Megaships and Megachanges on the Horizon." Atlanta, Georgia. October 1999, p. 18]

Table 1 summarizes recent trends in imports and exports of container traffic at Gulf ports and across the United States. Container traffic in TEUs at Mobile (AL), Total Gulf Ports, and Total U.S. Ports are shown for 1995-2001.

Table 1. Containerized Imports and Exports (in TEUs) - 1995 to 2001

| Ports | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|---|---|---|---|---|---|---|---|
| Mobile AL | 30,181 | 32,306 | 25,753 | 24,171 | 16,993 | 18,735 | 21,059 |
| Total Gulf | 1,187,850 | 1,358,596 | 1,494,003 | 1,479,117 | 1,588,693 | 1,700,154 | 1,651,723 |
| Total US | 22,338,750 | 22,607,154 | 24,526,225 | 26,174,697 | 27,977,430 | 30,407,953 | 30,471,305 |

Source: Adapted from American Association of Port Authorities (AAPA), "U.S./Canada Container Traffic in TEUs." http://www.aapa-ports.org/pdf/US_Canada_Containers.PDF

The Alabama State Docks, based on total cargo volume in short tons, was ranked 14th in total trade, 12th in foreign trade, and 13th in domestic trade among all U.S. ports in year 2000. [American Association of Port Authorities. "Port Industry Statistics." http://www.aapa-ports.org/industryinfo/statistics.htm]

Market Feasibility

Encouraged by the strong trend towards container traffic at U.S. ports, the Alabama State Port Authority authorized Moffatt & Nichol Engineers to conduct a market feasibility and engineering study. [Moffatt & Nichol Engineers. "Development Master Plan Choctaw Point Terminal - Executive Summary & Market Analysis," a report prepared for the Alabama State Port Authority. May 2002]

The study by Moffatt & Nichol concludes that the Mobile port has the potential to become a world class container port and intermodal transfer location. This is because it offers the following: [Moffatt & Nichol Engineers, pp. 1-2]

- Fast access to the Gulf of Mexico through a deep water channel
- The best port rail connections in the Mid-Gulf region
- Port-Interstate highway connections
- Available land for development
- Excellent water connections
- Strong community-state-federal support

The focal point for these facilities, according to the study, would be a modern container facility to support a value-added warehousing and distribution area. Analyses indicate that such a facility would provide access to and from world markets for firms throughout Alabama and provide added incentives for manufacturing firms with container-capable products to locate in the State.

The centerpiece of the Stage 1 development will be the construction of a one-berth container terminal at the Choctaw Point location. The terminal will be connected to the proposed

Intermodal Terminal and Value-Added Warehousing and Distribution area by a dedicated highway with an overpass at the intersection of the main rail line and roads into McDuffie Island. [Moffatt & Nichol Engineers, p. 4] The development of the Value-Added Warehousing and Distribution (VAD) area is one of the most attractive elements of the entire program. In the early years of operation, the flow of containers through the marine terminal and intermodal terminal is expected to encourage businesses to locate their facilities in the VAD area. [Moffatt & Nichol Engineers, p. 6] This VAD area is likely to have a major economic impact on the local economy.

Overall Program

The overall development program as envisioned by Moffatt & Nichol Engineers consists of three Stages. Stage 1 involves development of a one berth 60-acre terminal with 2 cranes designed to accommodate projected demand through 2010; Stage 2 progresses to a two berth 80-acre terminal with 4 cranes designed to accommodate projected demand through 2015; and finally Stage 3 will complete the project by encompassing a two berth 120-acre terminal with 5 to 6 cranes designed to accommodate projected demand through 2020.

Traffic Projection

Moffatt & Nichol defines the market area of the Port of Mobile as an area in which the Port of Mobile has at least a marginal advantage over its competing ports in terms of total transportation cost. The market area thus defined contains 451,000 TEUs, or 23.1% of the total North-South market. If Mobile's market area is defined as an area with a cost differential of $10, the Mobile market advantage area is reduced to about 340,000 TEUs. If the market area is defined as an area with a cost differential of at least $20, the Mobile market is further reduced to

about 298,000 TEUs. [Moffatt & Nichol Engineers, pp. 21-22] These figures do not include future growth of the container traffic.

Projections of the Port of Mobile container traffic are made based on the assumption of a 50 percent capture rate of all container traffic in which the Port of Mobile has cost advantages. Under this scenario, Mobile will have a total volume of about 291,000 TEUs in 2010, growing to 614,000 in 2020, more than one million in 2030, and more than two million TEUs in 2045. The projected container traffic for the Port of Mobile is summarized in Table 2.

Table 2. Mobile's Containerized Trade Growth (in TEUs)

| | 2005 | 2010 | 2015 | 2020 | 2025 |
|---|---|---|---|---|---|
| Exports | 17,885 | 133,177 | 166,758 | 291,165 | 415,572 |
| Imports | 17,355 | 90,523 | 113,349 | 181,065 | 248,781 |
| Empties | 10,571 | 67,110 | 84,033 | 141,670 | 199,306 |
| Total | 45,811 | 290,810 | 364,140 | 613,900 | 863,659 |

| | 2030 | 2035 | 2040 | 2045 |
|---|---|---|---|---|
| Exports | 520,360 | 651,572 | 815,870 | 1,021,597 |
| Imports | 311,513 | 390,063 | 488,419 | 611,577 |
| Empties | 249,562 | 312,491 | 391,287 | 489,952 |
| Total | 1,081,435 | 1,354,126 | 1,695,576 | 2,123,126 |

Source: Moffatt & Nichol Engineers, p. 28.

Since the long-term local impact is expected primarily from the container traffic handled at the warehouses, the intermodal rail, and trucking within the facility, estimates of the container traffic at these elements of the Port of Mobile development are shown separately in Table 3.

Table 3. Value-Added Distribution Forecast & Modal Split (in TEUs)

| | Warehouses | | Intermodal Rail | | Truck | |
|---|---|---|---|---|---|---|
| | 2015 | 2025 | 2015 | 2025 | 2015 | 2025 |
| Exports | — | — | 146,747 | 365,703 | 20,011 | 49,869 |
| Imports | 62,519 | 102,730 | 99,747 | 218,927 | 13,602 | 29,854 |
| Empties | — | — | 73,949 | 175,389 | 10,084 | 23,917 |
| Total | 62,519 | 102,730 | 320,443 | 760,019 | 43,697 | 103,640 |

Source: Moffatt & Nichol Engineers, p. 29.

To summarize, the Port of Mobile is positioned to exploit an advantageous geographical location on North-South trade routes and capture a significant portion of containerized trade to the "Mid-American" region of the United States. Based on a detailed analysis of the relative economics of shipping through the Port of Mobile as compared to its competing ports, it is projected that, with an appropriate marketing and development effort, the Port of Mobile could realize a growth in TEU volume to about 290,000 in 2010, and ultimately growing to more than two million in 2045. [Moffatt & Nichol Engineers, p. 33] The study cautions that the realization of these results is not inevitable. There are numerous factors beyond transportation cost savings that affect the routing of cargo. However, these cost advantages provide a foundation for a well conceived and well executed marketing and development plan that can lead to a successful port development. [Moffatt & Nichol Engineers, p. 34]

Section 2

## Estimating the Impact of Construction Expenditures

In terms of time period, the economic impact of the Choctaw Point intermodal facility has two components: construction stage, which is a relatively short term impact, and operation stage, which is a longer term impact. Impact of construction expenditures is estimated in this section, while impacts from operation are estimated in the next section.

### Construction Expenditures

The latest estimates of construction expenditures as of October 2002 are summarized in Table 4 by year and quarter.

Table 4. Projected Construction Expenditures

| Year | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter | Total |
|---|---|---|---|---|---|
| Stage 1 | | | | | |
| 2002 | $667,637 | $742,616 | $1,018,195 | $1,235,920 | $3,664,368 |
| 2003 | $1,460,000 | $2,640,000 | $11,137,191 | $12,584,180 | $27,821,371 |
| 2004 | $17,729,149 | $23,764,418 | $17,807,935 | $21,655,612 | $80,957,113 |
| 2005 | $22,870,811 | $16,076,066 | $16,694,124 | $16,454,545 | $72,095,547 |
| 2006 | $19,636,701 | $8,047,701 | $2,395,811 | $100,000 | $30,180,212 |
| | | | | Stage 1 Total | $214,608,611 |
| | | | | Stage 2 | $47,866,975 |
| | | | | Stage 3 | $28,763,600 |
| | | | | Grand Total | $291,239,186 |

Source: Moffatt & Nichol Engineers, October 2002.

Stage 1's projected capital expenditures will be made on the following four project areas: Garrows Bend restoration, Choctaw Point container terminal, Garrows Bend intermodal yard, and value-added/distribution area.

Garrows Bend restoration expenditures will be made on storm water channel reroute; containment dikes; dredging; contaminated materials treatment; site capping; intertidal dike and wetlands creation; public access development; and permitting, engineering, design & administration. Choctaw Point container terminal expenditures relate to planning, marketing & financials; demolition & site clearance; remediation; mitigation; dredging & reclamation; marine structures; site work, paving, roads, utilities & buildings; cranes; relocation of rail ferry; and permitting, engineering, design & administration. Garrows Bend intermodal yard expenditures will be made on demolition & site clearance; intermodal rail yard; site work, paving, roads, utilities & buildings; and permitting, engineering, design & administration. Value-added/ distribution area expenditures will be made on primary road network; secondary roads; utilities (local network); public access areas; and permitting, engineering, design & administration. [Moffatt & Nichol Engineers, p. 8]

The impact estimation is limited to Stage 1 expenditures. Out of total Stage 1 expenditures ($214,608,611), it will be assumed that expenditures on crane purchases ($13,000,000) during year 2004 and ten percent of the remaining expenditures will be made outside the Mobile area, resulting in the following local expenditures for impact estimation:

$214,608,611 - 13,000,000 - (214,608,611 x 0.1) = $180,147,740

Annual Employment Impact

The employment impact of the project's construction expenditures is estimated using the U.S. Department of Commerce RIMS II model. The impact estimation, shown in Table 6, indicates that the total number of jobs that will be created by the construction expenditures is 4,026, which includes the multiplier effect. It is important to note, however, that the construction expenditures are spent over a five-year period. The employment impact, therefore, is divided in

direct proportion to the scheduled expenditures in each of the five project years. The annual employment impact is summarized in Table 5 below.

Table 5. Employment Impact of Stage 1 Construction Expenditures

| Year | Jobs Impact |
|---|---|
| 2002 | 72 |
| 2003 | 552 |
| 2004 | 1,345 |
| 2005 | 1,425 |
| 2006 | 596 |

Annual Expenditures Impact

In addition to creating jobs, construction expenditures also generate retail purchases through spending of wages created by the new jobs. The total amount of retail expenditures in the Mobile area that will be created by the project's construction expenditures is $84,270,230, as shown in Table 6. This amount is again prorated over the five project years in direct proportion to the scheduled expenditures in each of the five project years. Detailed impacts of retail expenditures by retail segment are shown by year in Table 6 for total, Table 7 for 2002, Table 8 for 2003, Table 9 for 2004, Table 10 for 2005 and Table 11 for year 2006.

Table 6. Construction Expenditures Impact by Retail Segment - Five Year Total

| Local Economy by Sector | Total Impact Large Sector | Total Impact Sub-Sector |
|---|---|---|
| TOTAL PROJECT BUDGET | $180,147,740 | |
| TOTAL OUTPUT IMPACT (X1.9322) | $348,081,463 | |
| TOTAL WAGES IN $MILLION (x0.534) | $96,198,893 | |
| AFTER-TAX WAGES (x0.876) | $84,270,230 | |
| EMPLOYMENT IMPACT (x22.3469) | 4,026 | |
| Food | $11,882,102 | |
| Food at home | | $7,331,510 |
| Food away from home | | $4,550,592 |
| Alcoholic beverages | $674,162 | |
| Housing | $25,870,961 | |
| Shelter | | $13,483,237 |
| Utilities, fuels, & public services | | $6,320,267 |
| Household operations | | $1,516,864 |
| Housekeeping supplies | | $1,095,513 |
| Household furnishings & equip. | | $3,370,809 |
| Apparel and services | $4,634,863 | |
| Transportation | $16,769,776 | |
| Vehicle purchases | | $7,921,402 |
| Gasoline and motor oil | | $2,865,188 |
| Other vehicle: maint/repair/ins etc | | $5,224,754 |
| Public transportation | | $758,432 |
| Health care | $4,971,944 | |
| Entertainment | $4,044,971 | |
| Personal care/read/ed/smoking etc | $5,477,565 | |
| Personal care products & services | | $1,095,513 |
| Reading | | $337,081 |
| Education | | $1,179,783 |
| Tobacco & smoking supplies | | $758,432 |
| Miscellaneous | | $2,022,486 |
| Cash contributions | $2,528,107 | |
| Personal ins/pension/social security | $7,415,780 | |
| TOTAL EXPENDITURES IMPACT | $84,270,230 | |

Table 7. Construction Expenditures Impact by Retail Segment - 2002

| Local Economy by Sector | Total Impact Large Sector | Total Impact Sub-Sector |
|---|---|---|
| TOTAL PROJECT BUDGET | $3,242,659 | |
| TOTAL OUTPUT IMPACT (X1.9322) | $6,265,466 | |
| TOTAL WAGES IN $MILLION (x0.534) | $1,731,580 | |
| AFTER-TAX WAGES (x0.876) | $1,516,864 | |
| EMPLOYMENT IMPACT (x22.3469) | 72 | |
| Food | $213,878 | |
| Food at home | | $131,967 |
| Food away from home | | $81,911 |
| Alcoholic beverages | $12,135 | |
| Housing | $465,677 | |
| Shelter | | $242,698 |
| Utilities, fuels, & public services | | $113,765 |
| Household operations | | $27,304 |
| Housekeeping supplies | | $19,719 |
| Household furnishings & equip. | | $60,675 |
| Apparel and services | $83,428 | |
| Transportation | $301,856 | |
| Vehicle purchases | | $142,585 |
| Gasoline and motor oil | | $51,573 |
| Other vehicle: maint/repair/ins etc | | $94,046 |
| Public transportation | | $13,652 |
| Health care | $89,495 | |
| Entertainment | $72,809 | |
| Personal care/read/ed/smoking etc | $98,596 | |
| Personal care products & services | | $19,719 |
| Reading | | $6,067 |
| Education | | $21,236 |
| Tobacco & smoking supplies | | $13,652 |
| Miscellaneous | | $36,405 |
| Cash contributions | $45,506 | |
| Personal ins/pension/social security | $133,484 | |
| TOTAL EXPENDITURES IMPACT | $1,516,864 | |

Table 8. Construction Expenditures Impact by Retail Segment - 2003

| Local Economy by Sector | Total Impact Large Sector | Total Impact Sub-Sector |
|---|---|---|
| TOTAL PROJECT BUDGET | $24,680,240 | |
| TOTAL OUTPUT IMPACT (X1.9322) | $47,687,160 | |
| TOTAL WAGES IN $MILLION (x0.534) | $13,179,248 | |
| AFTER-TAX WAGES (x0.876) | $11,545,022 | |
| EMPLOYMENT IMPACT (x22.3469) | 552 | |
| Food | $1,627,848 | |
| Food at home | | $1,004,417 |
| Food away from home | | $623,431 |
| Alcoholic beverages | $92,360 | |
| Housing | $3,544,322 | |
| Shelter | | $1,847,203 |
| Utilities, fuels, & public services | | $865,877 |
| Household operations | | $207,810 |
| Housekeeping supplies | | $150,085 |
| Household furnishings & equip. | | $461,801 |
| Apparel and services | $634,976 | |
| Transportation | $2,297,459 | |
| Vehicle purchases | | $1,085,232 |
| Gasoline and motor oil | | $392,531 |
| Other vehicle: maint/repair/ins etc | | $715,791 |
| Public transportation | | $103,905 |
| Health care | $681,156 | |
| Entertainment | $554,161 | |
| Personal care/read/ed/smoking etc | $750,426 | |
| Personal care products & services | | $150,085 |
| Reading | | $46,180 |
| Education | | $161,630 |
| Tobacco & smoking supplies | | $103,905 |
| Miscellaneous | | $277,081 |
| Cash contributions | $346,351 | |
| Personal ins/pension/social security | $1,015,962 | |
| TOTAL EXPENDITURES IMPACT | $11,545,022 | |

Table 9. Construction Expenditures Impact by Retail Segment - 2004

| Local Economy by Sector | Total Impact Large Sector | Total Impact Sub-Sector |
|---|---|---|
| TOTAL PROJECT BUDGET | $60,169,345 | |
| TOTAL OUTPUT IMPACT (X1.9322) | $116,259,209 | |
| TOTAL WAGES IN $MILLION (x0.534) | $32,130,430 | |
| AFTER-TAX WAGES (x0.876) | $28,146,257 | |
| EMPLOYMENT IMPACT (x22.3469) | 1,345 | |
| Food | $3,968,622 | |
| Food at home | | $2,448,724 |
| Food away from home | | $1,519,898 |
| Alcoholic beverages | $225,170 | |
| Housing | $8,640,901 | |
| Shelter | | $4,503,401 |
| Utilities, fuels, & public services | | $2,110,969 |
| Household operations | | $506,633 |
| Housekeeping supplies | | $365,901 |
| Household furnishings & equip. | | $1,125,850 |
| Apparel and services | $1,548,044 | |
| Transportation | $5,601,105 | |
| Vehicle purchases | | $2,645,748 |
| Gasoline and motor oil | | $956,973 |
| Other vehicle: maint/repair/ins etc | | $1,745,068 |
| Public transportation | | $253,316 |
| Health care | $1,660,629 | |
| Entertainment | $1,351,020 | |
| Personal care/read/ed/smoking etc | $1,829,507 | |
| Personal care products & services | | $365,901 |
| Reading | | $112,585 |
| Education | | $394,048 |
| Tobacco & smoking supplies | | $253,316 |
| Miscellaneous | | $675,510 |
| Cash contributions | $844,388 | |
| Personal ins/pension/social security | $2,476,871 | |
| TOTAL EXPENDITURES IMPACT | $28,146,257 | |

Table 10. Construction Expenditures Impact by Retail Segment - 2005

| Local Economy by Sector | Total Impact Large Sector | Total Impact Sub-Sector |
|---|---|---|
| TOTAL PROJECT BUDGET | $63,772,300 | |
| TOTAL OUTPUT IMPACT (X1.9322) | $123,220,838 | |
| TOTAL WAGES IN $MILLION (x0.534) | $34,054,408 | |
| AFTER-TAX WAGES (x0.876) | $29,831,662 | |
| EMPLOYMENT IMPACT (x22.3469) | 1,425 | |
| Food | $4,206,264 | |
| Food at home | | $2,595,355 |
| Food away from home | | $1,610,910 |
| Alcoholic beverages | $238,653 | |
| Housing | $9,158,320 | |
| Shelter | | $4,773,066 |
| Utilities, fuels, & public services | | $2,237,375 |
| Household operations | | $536,970 |
| Housekeeping supplies | | $387,812 |
| Household furnishings & equip. | | $1,193,266 |
| Apparel and services | $1,640,741 | |
| Transportation | $5,936,501 | |
| Vehicle purchases | | $2,804,176 |
| Gasoline and motor oil | | $1,014,276 |
| Other vehicle: maint/repair/ins etc | | $1,849,563 |
| Public transportation | | $268,485 |
| Health care | $1,760,068 | |
| Entertainment | $1,431,920 | |
| Personal care/read/ed/smoking etc | $1,939,058 | |
| Personal care products & services | | $387,812 |
| Reading | | $119,327 |
| Education | | $417,643 |
| Tobacco & smoking supplies | | $268,485 |
| Miscellaneous | | $715,960 |
| Cash contributions | $894,950 | |
| Personal ins/pension/social security | $2,625,186 | |
| TOTAL EXPENDITURES IMPACT | $29,831,662 | |

Table 11. Construction Expenditures Impact by Retail Segment - 2006

| Local Economy by Sector | Total Impact Large Sector | Total Impact Sub-Sector |
|---|---|---|
| TOTAL PROJECT BUDGET | $26,661,866 | |
| TOTAL OUTPUT IMPACT (X1.9322) | $51,516,057 | |
| TOTAL WAGES IN $MILLION (x0.534) | $14,237,436 | |
| AFTER-TAX WAGES (x0.876) | $12,471,994 | |
| EMPLOYMENT IMPACT (x22.3469) | 596 | |
| Food | $1,758,551 | |
| Food at home | | $1,085,063 |
| Food away from home | | $673,488 |
| Alcoholic beverages | $99,776 | |
| Housing | $3,828,902 | |
| Shelter | | $1,995,519 |
| Utilities, fuels, & public services | | $935,400 |
| Household operations | | $224,496 |
| Housekeeping supplies | | $162,136 |
| Household furnishings & equip. | | $498,880 |
| Apparel and services | $685,960 | |
| Transportation | $2,481,927 | |
| Vehicle purchases | | $1,172,367 |
| Gasoline and motor oil | | $424,048 |
| Other vehicle: maint/repair/ins etc | | $773,264 |
| Public transportation | | $112,248 |
| Health care | $735,848 | |
| Entertainment | $598,656 | |
| Personal care/read/ed/smoking etc | $810,680 | |
| Personal care products & services | | $162,136 |
| Reading | | $49,888 |
| Education | | $174,608 |
| Tobacco & smoking supplies | | $112,248 |
| Miscellaneous | | $299,328 |
| Cash contributions | $374,160 | |
| Personal ins/pension/social security | $1,097,535 | |
| TOTAL EXPENDITURES IMPACT | $12,471,994 | |

Annual Tax Impact

The total amount of tax revenues that will be generated by the project's construction expenditures is summarized by type in Table 12. The tax impact is estimated to be $1,583,072 for the City of Mobile; $904,374 for Mobile County; $4,511,758 for the state; and $574,344 for school tax.

Table 12. Tax Impact of Construction Expenditures

| | Tax Impact |
|---|---|
| Mobile, City | |
| sales tax, general | $933,714 |
| sales tax, restaurant | $227,530 |
| auto tax | $158,428 |
| gasoline tax | $76,405 |
| property tax | $186,996 |
| City Total | $1,583,072 |
| Mobile County | |
| sales tax, general | $278,934 |
| auto tax | $39,607 |
| gasoline tax | $38,203 |
| property tax | $547,630 |
| County Total | $904,374 |
| State tax | |
| income tax | $2,865,188 |
| sales tax, general | $1,115,738 |
| auto tax | $158,428 |
| gasoline tax | $305,620 |
| property tax | $66,784 |
| State Total | $4,511,758 |
| School tax | |
| state | $106,855 |
| local | $467,489 |
| School Tax Total | $574,344 |

Section 3

## Estimating Impacts Beyond the Construction

The economic impact of the Choctaw Point intermodal facility on the local economy extends beyond the construction stage, and includes (a) impact on the number of jobs that will be created to operate the facility; (b) revenue impact on the local economy through various port charges; (c) impact on existing businesses in the Mobile area, defined as Mobile's dense trade cluster area by Moffatt & Nichol, in terms of reduced transportation costs; and (d) attraction of future businesses.

### New Employment for Operation of the Facility

New employment for operation of the facility by the Alabama State Docks is expected to come from the following sources:

| | |
|---|---|
| Choctaw Point administrative/maintenance | 80 |
| Choctaw Point long shore/terminal labor | 120 |
| Multi-user rail intermodal facility - administrative | 8 |
| Multi-user rail intermodal facility - equipment operators | 20 |
| Total | 228 |

Including the employment multiplier in the transportation sector, which is 2.1198 as estimated in the RIMS II specifically for Mobile County, the total local employment impact for operating the facility is:

228 x 2.1198 = 483

This is a permanent job impact and the impact is likely smaller in early years, but will increase rapidly as actual containers handled at the facility increase. By 2010, the actual number of jobs that will be created from operation of the facility is expected to exceed the estimated figure.

Note, for instance, that the Port of Corpus Christi has proposed a container terminal that consists of a 245-acre marine terminal, 3,800 linear feet of wharf, nine gantry cranes, and a 75-acre intermodal rail terminal. The project is known as the La Quinta Trade Gateway project. No container terminal currently exists at the Port of Corpus Christi. During Stage 1, the proposed La Quinta container terminal is assumed to handle 266,667 TEUs, or one-third of the total annual throughput at full development. According to the economic impact study prepared by Martin Associates for the Port of Corpus Christi, the annual throughput during Stage 1 would generate 2,158 direct, induced, and indirect jobs; $235 million of business revenue; and $77.9 million of personal wages and salaries and consumption purchases. [Martin Associates. "La Quinta Trade Gateway Preliminary Master Plan." p. 70. http://www.portofcorpuschristi.com/pdfs/LaQuintaEcoImpacts.pdf]

Wage Impact of the New Employment

Based on the average annual wage ($33,738) for the transportation & public services industry in year 2000, [figure derived from Table 609, entitled "Nonfarm Industries – Employees and Earnings: 1980 to 2000" in U.S. Census Bureau. *Statistical Abstract of the United States: 2001* (121st edition). Washington, DC. 2001, p. 394] direct wages relating to these new jobs total $16,295,454, as shown below.

$33,738 x 483 = $16,295,454

Annual Tax Impact of the New ASD Employment

The annual tax impact that will be generated by wages of new Alabama State Docks workers who will be operating the facility is estimated by tax type and summarized in Table 13. The annual tax impact is estimated to be $268,162 for the City of Mobile; $153,195 for Mobile County; $764,262 for the state; and $97,290 for school tax.

Table 13. Annual Tax Impact of New ASD Workers

| | Tax Impact |
|---|---|
| Gross Wage | $16,295,454 |
| After-Tax Wage | $14,274,818 |
| **Mobile, City** | |
| sales tax, general | $158,165 |
| sales tax, restaurant | $38,542 |
| auto tax | $26,837 |
| gasoline tax | $12,943 |
| property tax | $31,676 |
| City Total | $268,162 |
| **Mobile County** | |
| sales tax, general | $47,250 |
| auto tax | $6,709 |
| gasoline tax | $6,471 |
| property tax | $92,765 |
| County Total | $153,195 |
| **State tax** | |
| income tax | $485,344 |
| sales tax, general | $188,999 |
| auto tax | $26,837 |
| gasoline tax | $51,770 |
| property tax | $11,313 |
| State Total | $764,262 |
| **School tax** | |
| state | $18,100 |
| local | $79,190 |
| School Tax Total | $97,290 |

Benefits to Local Businesses

Existing local businesses will benefit from the new Choctaw Point intermodal facility. The immediate benefit would be the reduction of transportation costs. Reduced transportation costs will lead to additional benefits such as improved profits and possibly eventual expansions. It should be noted that local businesses in this report are businesses that are located within Mobile's dense trade cluster area. Dense trade clusters, as defined by Moffatt & Nichol, are "areas of trade focused within an 80-mile radius that represent geographically concentrated markets, with convenient rail access." [Moffatt & Nichol Engineers, p. 24]

It may be cautioned that existing container traffic that has Mobile as a destination or origination does not benefit from the new facility, since this traffic relies on the existing port facility. Only the additional container traffic will benefit from the new facility. It is also important to note that the cargo projections made by Moffatt & Nichol are based on the capture of market share, which may not include any growth of container traffic within Mobile's dense trade cluster that has been insignificant in recent years.

None-the-less, the new facility will clearly encourage and provide excellent opportunities for local shippers of existing container traffic to increase their shipments through the new facility. The container traffic at leading northern Gulf ports increased at an annual rate of 6.5 percent from 1995 to 2001 as indicated in Table 1 of this report. Total TEUs in Mobile's dense trade cluster area in year 2000 was 9,439. [Moffatt & Nichol Engineers, p. 26]

The benefits to local businesses are obtained by estimating the savings in transportation costs for existing businesses as follows. Firstly, the number of TEUs in Mobile's dense trade cluster is estimated through 2030 on the basis of overall increases in TEUs for the new facility as projected by Moffatt & Nichol. The net increase in container traffic in the Mobile dense trade

cluster is projected through year 2030 with 9,439 as the base figure and 6.5 percent as the annual growth rate, which is the rate indicated by the figures shown in Table 1. Secondly, the projected TEUs are multiplied by 120 which is an approximate mileage between Mobile and its nearest alternative port, which is New Orleans, based on the assumption that the future container traffic of the area's businesses will use New Orleans in the absence of the new intermodal facility. The results then are multiplied by $1.15, which is the trucking cost per TEU per mile as estimated by Moffatt & Nichol based on data provided by the American Trucking Association. [Moffatt & Nichol Engineers, p. 14]

It is usually more economical to use trucks ($2.30 per mile per FEU, i.e., 2 TEUs) for distances that are 250 miles or less, and it is more economical to use rail ($0.22 per mile per FEU, i.e., 2 TEUs) for distances that are 350 miles or greater, all due to terminal transport and charges. The distance between 250 and 350 miles is a gray area with cost differences varying with other factors. Note that these shipping cost figures are estimates, not exact figures, and do not include costs that may be equal for all ports. For example, some costs associated with trucking or rail transport, such as customer premises costs (drop-off) and intermodal yard costs, are "assumed to be the same for all ports...and were therefore not relevant in comparisons among competing ports." [Moffatt & Nichol, p. 14]

Note that HDR Engineering estimated the net benefit to regional container shippers resulting from Portland container operations. The model compares the transportation costs faced by these shippers ("with Portland" scenario) with the costs they would face using their least expensive shipping option in the absence of the Portland service ("without Portland" scenario), the difference representing the net shipper benefit. [HDR Engineering, Inc. "Port of Portland Marine Economic Impact Study: Container Transportation Cost-Benefit Analysis." December

2000, p. 1. http://www.portofportland.com/PDFPOP/CT_CBA.pdf] Annual shipper benefits thus estimated are $381.96 per container.

The estimation is summarized in Table 14. As usual, the rate of inflation is assumed to equal the discount rate. The present value of all future savings in transportation costs to existing local businesses in 2002 prices in $80,654,100. No additional employment, wage, and tax impacts from these savings to existing local businesses are estimated to avoid any possibility of speculation.

Table 14. Savings in Transportation Costs to Existing Local Businesses

| Year | Net Increase in TEUs (Growth Rate = 6.5%) | Savings (TEUs x 120 x $1.15) |
|---|---|---|
| 2001 | 613 | $84,594 |
| 2002 | 1,266 | $174,708 |
| 2003 | 1,961 | $270,618 |
| 2004 | 2,701 | $372,738 |
| 2005 | 3,489 | $481,482 |
| 2006 | 4,329 | $597,402 |
| 2007 | 5,223 | $720,774 |
| 2008 | 6,175 | $852,150 |
| 2009 | 7,189 | $992,082 |
| 2010 | 8,269 | $1,141,122 |
| 2011 | 9,419 | $1,299,822 |
| 2012 | 10,644 | $1,468,872 |
| 2013 | 11,949 | $1,648,962 |
| 2014 | 13,339 | $1,840,782 |
| 2015 | 14,819 | $2,045,022 |
| 2016 | 16,395 | $2,262,510 |
| 2017 | 18,074 | $2,494,212 |
| 2018 | 19,862 | $2,740,956 |
| 2019 | 21,766 | $3,003,708 |
| 2020 | 23,794 | $3,283,572 |
| 2021 | 25,953 | $3,581,514 |
| 2022 | 28,253 | $3,898,914 |
| 2023 | 30,702 | $4,236,876 |
| 2024 | 33,311 | $4,596,918 |
| 2025 | 36,089 | $4,980,282 |
| 2026 | 39,048 | $5,388,624 |

| | | |
|---|---|---|
| 2027 | 42,199 | $5,823,462 |
| 2028 | 45,555 | $6,286,590 |
| 2029 | 49,129 | $6,779,802 |
| 2030 | 52,935 | $7,305,030 |
| | Total Savings | $80,654,100 |

Note: Base figure for projection is 9,439 TEUs, which is the number of TEUs in Mobile's dense trade cluster area in year 2000.

Attraction of New Businesses to the Mobile Area

New businesses are often attracted to areas near container port facilities, leading to the creation of many new jobs. Businesses may set up their operations within the port facility. For example, Lydall Distribution Services, Inc. has a distribution warehouse located in the Newport News Marine Terminal of the Port of Virginia. The Lydall Paper Distribution Center offers expertise in the special requirements of handling paper cargoes. [Virginia Port Authority, http://www.vaports.com/FAC-term_frame.htm] At the Port of Wilmington (Delaware), many companies, such as Citrosuco, Chiquita, Dole, and Volkswagen maintain storage facilities onsite. [The Port of Wilmington, Delaware, http://www.portofwilmingtonde.com/HTML/Our%20Facilities/PortMap.html]

Current tenants at the Port of Umatilla (Oregon) McNary Instustrial Park are Boise Cascade, Columbia River Intermodal Services (CRIS), Inc., Forest Recovery, Gilroy Foods, Hagerman Trucking, Noffsinger West (Future), Pendleton Grain Growers, Tidewater Terminal Company, and Two Rivers Correctional Facility. Nearby are Oregon Potato, Strebin Farms, and South Basin Packaging. [The Port of Umatilla, http://www.portofumatilla.com/port-of-umatilla-industrial-park-properties.html, and Umatilla Development Corporation, http://www.umatilla.org/udc-sites-industrial.htm]

Major retailers and distributors are often interested in locations near container facilities. "Taking advantage of Hampton Roads' proximity to Eastern U.S. retail markets, big retailers such as Wal-Mart, Dollar Tree, QVC Network, CostPlus and Dollar General have set up major supply chain centers throughout the state – many in Southeastern or Central Virginia." [Galuszka & Kranz, http://www.virginiabusiness.com/magazine/yr2002/may02/port.shtml] Other distribution facilities that have been developed in Hampton Roads (Virginia) since the mid-1990s include Lillian Vernon Corp., CostPlus furniture, Sysco Food Systems, and Gateway. Virginia's Governor Mark R. Warner recently announced that "mass marketer Target [plans to build] a 1.5 million-square-foot distribution center worth $65 million on a 162-acre tract in Suffolk. The center could bring hundreds of new jobs." [*ibid*.] Wal-Mart, The Home Depot, Lowes, Dollar Tree, Dollar General, Family Dollar, Michael's, Best Buy, The Bombay Company, and Pier 1 Imports have distribution centers located near Savannah's container facilities. [Byrd, http://www.virginiabusiness.com/magazine/yr2002/may02/portside1.shtml, and State of Georgia, and http://www.ganet.org/services/newleg/budget2003/deptsum.pdf] These retailers "have located modern distribution centers within minutes of the gates of Savannah's port facilities.... Presently, 12 major retailers occupy more than 8.8 million square feet in nearby facilities." [Byrd, http://www.virginiabusiness.com/magazine/yr2002/may02/portside1.shtml]

Also attracted by the ports are manufacturing and processing firms. In Savannah, J.C. Bamford and Lummus Corporation have recently decided to locate near the port facilities. [State of Georgia, http://www.ganet.org/services/newleg/budget2003/deptsum.pdf] The Port of Morrow, which is located on the Columbia River in Boardman, Oregon, is home to several processing facilities. "There are about 1,000 jobs inside the [main industrial] park.... Lamb-Weston (french fries) and Oregon Potato (potato flakes) are the long-established industries.... Joining them have

been processed onions with Boardman Foods, dehydrated onions with Cascade Specialties and the recently opened Logan International french fry plant. These three businesses employ about 275 people." Other agricultural processing facilities near the port include Oregon Hay Co., Barenbrug U.S.A., Western Alfalfa, T.A.C.X., and Circle C Cubing. [Neal, http://www.tri-cityherald.com/progress/transportation/trans10.html]

It may also be noted that when a fully developed intermodal facility is available, additional private companies are often attracted to provide container freight stations. Some warehouse facilities that have container freight stations at Virginia ports include Fritz Companies, Inc., New World Logistics, Norfolk Warehouse Center, Inc., Samskip, Inc./Warehouse, and Southgate Terminal Warehouse. [Virginia Port Authority, http://www.vaports.com/PORT-serv-warehouse.PDF] "In cities where intermodal rail facilities were located, the immediate areas also experienced the development of public and private warehouse and distributions centers, origin and destination drayage companies, equipment maintenance companies, manufacturing companies, processing companies." [Rochelle Intermodal Facility, http://www.uprr.com/aboutup/rochelle.pdf]

It is important to point out that although a successful container port is an attractive place for many new businesses, there is no guarantee that these businesses will automatically come to Mobile's new intermodal facility. This is because business location is a complicated issue. When businesses look for a site or a building, these businesses usually have a checklist for site selection. Broadly speaking, the checklist includes amenities, business climate, financial arrangement, labor costs, land costs, transportation costs, and personal contact. Frequently, host jurisdictions offer investment incentives to attract businesses. Understandably, state and local assistance varies

greatly across individual jurisdictions in terms of the type of the project, the size of the project, products to be produced, and by the state and local area involved.

The point is that an easy access to a container port is one of the important factors that influence location decisions on large businesses in manufacturing and distribution. However, there is no way of predicting accurately how much influence the new container facility will have in attracting new businesses to the Mobile area. Because of this uncertainty, no estimation is made for the impact of the new facility on business locations outside the facility compound. It is important to repeat that the new container facility will have a highly positive impact on business location toward the Mobile area.

Service Sector Businesses for Container Movement

There is one group of businesses that are almost guaranteed to follow Mobile's new intermodal facility. These are container lines, i.e., shipping agencies handling almost exclusively containers; truck lines; and services & repair associated directly with containers. For example, the Port of Savannah (Georgia) utilizes over 40 steamship lines, 35 of which are located in the Savannah area. [Georgia Ports Authority, http://www.gaports.com/shipping.html] Other value-added services provided by the intermodal facility may include handling of overweight containers, warehouse/logistical services, double stack rail access, fumigation, and others. [Massachusetts Port Authority, http://www.massport.com/ports/about_value.html]

To determine a clearer idea of the potential impact of Mobile's new intermodal facility, we visited the Port of New Orleans. Responding to our question of how many container-related businesses will be expected to close if there were no more container businesses in New Orleans, the Port of New Orleans officials estimated that 8 shipping lines, 20 truck lines, one barge line, and 6 to 8 container-related repair and service businesses would leave New Orleans. These

businesses are currently hiring about 800 employees. The Port of New Orleans handles an average of 350,000 TEUs per year. No major distributors that utilize containers are located in the area. Distributors that depend on containers through the Port of New Orleans are handling from a distance, directing trucks to move their products that arrive or leave in containers. The Port of New Orleans officials speculate that the reasons why no major container-related distributors are located near the port's container facility is probably that the region's population base is not large enough. These officials also pointed out that businesses directly servicing container traffic moved into the area rather quickly as the port started its container business in the early 1970s.

Interestingly, the projected TEUs for Mobile's new intermodal facility will reach the 350,000 level (364,100 TEUs, to be specific) in year 2015. It seems safe to assume that Mobile's intermodal facility will be supported by 800 new private sector workers in and around 2015 with the following total job and annual wage impact:

Job impact: 800 x 2.1198 = 1,696

Wage impact: 1,696 x $33,738 = $57,219,648

In the calculation, 2.1198 is the RIMS II employment multiplier for the appropriate industry in Mobile County, and $33,738 is the average annual wage for the transportation & public services industry in year 2000. As usual in this report, the rate of inflation is assumed to equal the discount rate. The annual tax impact of the service sector employment is calculated in Table 15.

Table 15. Annual Tax Impact of the Service Sector Employment

| | Tax Impact |
|---|---|
| Gross Wage | $57,219,648 |
| After-Tax Wage | $50,124,412 |
| Mobile, City | |
| sales tax, general | $555,378 |
| sales tax, restaurant | $135,336 |
| auto tax | $94,234 |
| gasoline tax | $45,446 |
| property tax | $111,226 |
| City Total | $941,620 |
| Mobile County | |
| sales tax, general | $165,912 |
| auto tax | $23,558 |
| gasoline tax | $22,723 |
| property tax | $325,733 |
| County Total | $537,927 |
| State tax | |
| income tax | $1,704,230 |
| sales tax, general | $663,647 |
| auto tax | $94,234 |
| gasoline tax | $181,785 |
| property tax | $39,724 |
| State Total | $2,683,619 |
| School tax | |
| state | $63,558 |
| local | $278,065 |
| School Tax Total | $341,623 |

It would be reasonable to assume that about half the service sector impact will be realized by 2010 and the full impact as estimated will be realized in 2015. As the projected TEUs increase beyond 2015, the impact of the service sector business is also expected to increase although not necessarily in direct proportion.

Snap Shot Impact in Year 2015

By illustrating the impact estimates for 2015, which may represent one full year of rapidly rising container business in Mobile's intermodal facility, we provide job, wage, and tax impacts that pertain to one year as follows:

Table 16. Annual Impact - Year 2015

| | # jobs | wages | tax impacts | |
|---|---|---|---|---|
| New ASD Employment | 483 | $16,295,454 | $268,162 | City of Mobile |
| | | | $153,195 | Mobile County |
| | | | $764,262 | state |
| | | | $97,290 | school tax |
| New Service Sector Employment | 1,696 | $57,219,648 | $941,620 | City of Mobile |
| | | | $537,927 | Mobile County |
| | | | $2,683,619 | state |
| | | | $341,623 | school tax |
| Transportation Cost Savings to Existing Businesses: | | $2,045,022 | | |
| New businesses at Value-Added Center: | | unknown | | |

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