Hiring Our Own?

The impact of local vs. non-local hiring practices in two county GOB projects

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Executive Summary

On November 2, 2004 the electorate of Miami-Dade County passed the "Building Better Communities General Obligation Bond" (GOB) initiative, which authorized the county to issue bonds for up to $2.925 billion over the next 30 years. Two of these projects were the renovation of the Orange Bowl and the expansion of Jackson South Community Hospital, with the county contributing $50 million of the $150 million Orange Bowl project and $52 million toward the total $100 million cost of the hospital expansion.

This report analyzes the impact on the county if the construction work on these two projects were to be done by local labor or by labor from out of the area. The purpose is to see which practice is more desirable for the county. Each project is analyzed separately; then total impact for the two project combined is computed.

(1) The Orange Bowl Renovation.

(A) If only out-of-area workers were to be used in the County's $50 million share of the Orange Bowl renovation, we find the following likely impacts:

- Total loss of local payroll between $16.9 million and $18.6 million (depending on spending patterns of non-local workers);
- Total loss of local employment (jobs) between 467 and 519 (402 of which are full-year construction jobs);
- Total loss of local spending between $4.2 million and $7.6 million; and
- Total loss of sales tax revenue (including direct "local options taxes" for health and transit needs and the county's share of state sales taxes) between $48,200 and $87,000.

(B) If only out-of-area workers were to be used in the **entire** Orange Bowl renovation, we find the following likely impacts:

- Total loss of local payroll between $50.8 million and $55.8 million;
- Total losses in local employment (jobs) between 1,401 and 1,556 (1,207 of which are full-year construction jobs);
- Total losses in local spending between $12.7 million and $22.9 million; and
- Total loss of sales tax revenue between $144,500 and $260,000.

(2) Jackson South Community Hospital Expansion

(A) If only out-of-area workers were to be used in the County's $52 million share of the JMH South expansion, we find the following likely impacts:

- Total loss in local payroll between $17.6 million and 19.3 million;
- Total losses in local employment (jobs) between 485 and 539 (418of which are full-year construction jobs);
- Total losses in local spending between $4.4 million and $7.9 million; and
- Total loss of sale tax revenue between $50,000 and $91,000.

(B) If only out-of-area workers were to be used in the **entire** JMH South expansion, we find the following likely impacts:

- Total losses in local payroll between $33.9 million and $37.2 million;
- Total losses in local employment (jobs) between 934 and 1,037 (805 of which are full-year construction jobs);
- Total losses in local spending between $8.5 million and $15.3 million; and
- Total loss of sales tax revenue between $96,500 and $173,000.

(3) Total impacts for the two projects combined

If the two projects were to be done entirely with non-local labor, we find the following likely impacts:

- **Loss of payroll** to local residents **between $85.7 million and $93 million**, depending on spending patterns of non-local workers employed on these two projects;
- **Loss in local employment between 2,335 and 2,593,** depending on spending patterns;
- **Loss of local spending between $21.2 million and $38.2 million**, depending on spending patterns;
- **Loss of tax revenue for Miami-Dade County between $241,000 and $433,000**, depending on spending patterns.

Given these impacts, the county would do well to attempt to ensure that all (or as many as possible) of those hired on these projects be local workers. This would maximize benefits to the county and its taxpayers.

The positive impact of local hiring could be magnified enormously if efforts were made to concentrate the local hiring on communities most in need of stable, well-paying jobs. A modest county impact could be translated into a major low-income community impact. In this way, the benefits of the general obligations bond to the county could be multiplied through wise implementation of project work.

Hiring Our Own? The Impact of Local vs. Non-local Hiring Practices in Two County GOB Projects

Introduction

On November 2, 2004 the electorate of Miami-Dade County passed the "Building Better Communities General Obligation Bond" initiative, which authorized the county to issue bonds for up to $2.925 billion over the next 30 years. The money raised is to be used in a number of projects aimed at improving the county in a variety of ways.

A general obligation bond is issued without any assets being used as collateral; instead the lender is promised repayment based on the borrower's ability to tax. Future tax revenues of the county will be used to pay off the bond obligations. Thus, this is a large expenditure of the taxpayer's money, spread out over a 30 year period.

The money raised is to be used in eight different areas. The largest amount is to be spent on constructing and improving parks and recreational facilities ($591 million). Cultural, library and multicultural educational facilities account for the second largest amount ($510 million). Water, sewer and flood control systems are allocated $479 million, followed by bridges, public infrastructure and neighborhood improvements at $328 million. Public safety facilities will receive $325 million, and $242 million will go to public outreach facilities to improve community access to services. Finally, emergency/healthcare facilities and elderly and family housing assistance will each receive about $138 million.

Raising and spending almost $3 billion dollars is clearly a major undertaking utilizing the taxpayer's money. The types of projects being funded are clearly important and useful to the county, so it is important to county taxpayers that the money be spent wisely and that the maximum benefits accrue to county residents from the money spent.

Beyond the immediate benefit to be gotten from the finished product (a new park, improved sewage system, etc.), there are also possible "spin-off" benefits from the projects funded under the General Obligation Bond. One such spin-off benefit is the extra employment created by the construction projects being funded, and the many benefits that come with that additional employment. In the implementation of the bond construction projects, it would be wise for the county to also pay attention to these indirect benefits and to work to ensure their maximization.

The South Florida Jobs with Justice chapter, in conjunction with the South Florida AFL-CIO and the South Florida Building Trades Council, took an interest in two of the projects to be funded under the general obligation bond program: the renovation of the Orange Bowl and the expansion of the Jackson South Community Hospital. Together they have set up a task force to monitor these two projects and to work to maximize their employment benefits to the county's residents.

As part of this effort, South Florida Jobs with Justice contracted with RISEP to research the impact of alternate ways of employing labor in these projects. One question of interest is what the impacts are if the construction labor on the projects is hired from the local labor pool or from outside it. Does it make much difference? Would there be any important impacts from hiring locally, or from employing workers who come from outside the local area? This research report is an attempt to answer that question. The following utilizes a variety of government statistics to quantify some of the likely impact of the two methods of hiring on the county and its economy.

Jobs and Local Spending Impacts of Hiring Local or Out-of-Area Workers

Orange Bowl Renovation

According to press reports (Rabin, 2005), the Orange Bowl renovation is to be an approximately $150 million project, with $50 million of that to come from the county General Obligation Bond (GOB). The following analysis will calculate the job, income, and spending impacts of the county's $50 million portion of the overall project first, followed by a similar analysis for the entire project.

How many jobs?
The first task is to determine how many jobs are likely to be generated by this project. How many construction jobs does $50 million in construction create in Miami-Dade County? How many will the entire $150 million construction project create? According to the federal government's Economic Census report (http://www.census.gov/prod/ec02/ec0223afl.pdf), the payroll of total Florida workers in "Commercial and institutional building construction" amounts to 23.7% of the net value of such work done in the state. For "Specialty trade contractors," payroll equals 31.0% of net value. Since the Orange Bowl renovation will require both types of contractors, we use the weighted average[1] of these two, which indicates that approximately 29.8% of the total cost of the project will be labor costs.

Using that percentage, a $50 million construction project will have a total **payroll of approximately $14.891 million.** How many workers will be required with a payroll that size? Because of the nature of construction, the number of workers on a project will fluctuate greatly over the course of the project. For the purpose of this study, we convert the jobs into yearly "average construction jobs," meaning the jobs that support a worker for a year at the average yearly wage earned by construction workers (whatever number of hours of work per year that may be, which is not relevant here).

According to state data (available on the state Agency for Workforce Innovation web site, QCEW data), an average yearly wage for a construction worker in Florida in 2005 was

[1] A weighted average gives proportionally more weight according to the size of a larger set of data, and thus is more accurate than a simple average between the two figures would be.

$37,014.67.[2] At this wage, the almost $15 million payroll will support approximately **402 workers** over the course of a year.

Difference if jobs go to local residents or not
What difference does it make if these 402 workers are hired from among local residents, or are hired from out of the area?[3] As it turns out, using workers whose primary residence is not local makes a difference in the economic impact of a project like this.

For the sake of simplicity, and to illustrate most clearly the difference, we consider the difference if all of the workers were local or if all of them are not local (other than temporarily being here just for the job). There are at least three measurable negative impacts from hiring non-local workers to do this construction work. First, it directly denies jobs to local construction workers, and hence to permanent local residents. Second, because of differences in the amount of local spending by local and non-local workers, less money circulates in the local economy and less secondary jobs are thus created. Third, because of less spending locally, a smaller amount of local sales tax revenue is collected.

DIRECT JOB LOSS. Regarding direct job loss to local residents, the **loss of 402 annual average construction jobs** would mean the **loss of $14.981 million in income to permanent local residents**.

DIFFERENCE IN LOCAL SPENDING AND INDIRECT JOB CREATION. Hiring out-of-area workers also causes job loss because of the different spending patterns of local residents and non-locals. The amount of "disposable spending income" used to make purchases in the local economy will be different. To determine "disposable spending income" available to spend locally, we must first subtract taxes from gross payrolls, as well as any money saved.

According to the Congressional Budget Office, the total federal tax burden on U.S. citizens for the middle 20% of income earners (which these jobs fall within) was 14.5% in 2002 and 13.6% in 2003.[4] According to the Institute on Taxation and Economic Policy, for middle income earners in the year 2000, the state tax burden (after adjusting for a federal tax offset for state taxes deducted from income in federal tax returns) in

[2] This figure is based on data from the first three quarters of 2005, which is the most updated data available. We converted quarterly wages into annual wages and used the average of the first three quarters for the fourth quarter.
[3] For the purposes of this analysis, we are considering the local area to be Miami-Dade County, although we recognize that many residents of immediately adjacent counties, especially Broward, also work in Miami-Dade, and vice versa. In many ways the economies of Miami-Dade County and Broward County are seamlessly interwoven with each other. The primary interest is in measuring the impact of "out of area" workers who come from out of the state or from distant parts of the state whereby a daily commute to work in Miami-Dade County is not possible.
[4] "Historical Effective Federal Tax Rates: 1979 to 2003," dated December 2005. Available on the web at: http://www.cbo.gov/ftpdocs/70xx/doc7000/12-29-FedTaxRates.pdf . This includes all federal taxes, including social security and the like.

Florida was 9.8%.[5] Although the years are different, we can thus roughly estimate that the **total (federal and state) tax burden on residents of Florida is thus approximately 14% plus 10%, or 24%.** This percentage may be slightly too high because both federal and state taxes have been lowered in the past few years, but it is likely that Miami-Dade property taxes are higher than the state's average. So the two possible sources of bias probably cancel each other out, and we consider 24% a good approximation of total tax burden that we use here to calculate "after tax" income.

We also want to subtract savings from earned income before we derive the percentage of that income that is spent. According to the U.S. Bureau of Economic Analysis, in 2003, 2004, and 2005, Americans saved 2.1%, 1.8%, and -0.4% of their income. The average of those three years is 1.17%. Thus, for this analysis we assume that the **employees on this project will save 1.17% of their paychecks**.

So the combined tax and savings deduction from the overall payroll amounts to 24% plus 1.17%, or 25.17%. Multiplying this percentage times the entire payroll of 14.891 million results in approximately $3.748 million being deducted from the paycheck for taxes and savings. That leaves approximately **$11.143 million to be spent on consumer goods and services.**

However, **permanent local residents and out-of-area workers will spend that money differently**. Out-of-area workers are likely to have families (both nuclear and extended) elsewhere to whom they will be remitting a large part of their paychecks. If a spouse and one or more children reside elsewhere, much of the paycheck will be sent to them to support a residence. On the other hand, a permanent local resident will be spending virtually all of the housing, food, and other family living expenses locally.

For the purposes of this analysis, **we assume that permanent local residents will be spending 95% of their paycheck locally**. In doing so, we follow the example of the only other out-of-area economic impact study of which we are aware.[6]

Estimating the percentage of the paycheck spent locally by an out-of-area worker is more difficult. An average construction income spread throughout a year means $711.83 per week in gross pay, or $532.66 after taxes and savings. A previous out-of-area study assumed that half of this will be sent back to the worker's family at the permanent home or place of origin, with the other half spent locally.[7] For a worker seeking inexpensive temporary local lodging and economizing on local living expenses while supporting a family elsewhere, this is a reasonable estimate (approximately $266/week spent locally, with the same amount sent back home). However, to make an additional and more

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[5] "Florida Tax System is Nation's Second Most Regressive," dated January 2003. Available on the web at: http://www.itepnet.org/wp2000/fl%20pr.pdf . Because Florida does not have a state income tax, the state "tax burden" consists of property taxes and sales taxes paid.

[6] See Carlos Davidson, "The Impact of Out-of-Area Workers in Non-Residential Construction on Contra Costa County: A Case Study of the USS-POSCO modernization," July 1989. Prepared for the Out-of-Area Worker Task Force of the Contra Costa County Board of Supervisors. (A copy is in the authors' possession.)

[7] See the study referenced in footnote 6.

conservative estimate, we will also calculate the impact if out-of-area workers send back home only 30% of their take home pay. In this way we are able to estimate a "high" and "low" range for the likely impact of utilizing out-of-area workers.

An **entirely local workforce** spending 95% of take-home pay after savings would thus be making approximately **$10.586 million in purchases locally** (95% times $11.143 million). An **entirely out-of-area workforce** spending either 50% or 70% of the same money would be purchasing approximately **$5.571 million or $7.800 million locally**. This means the **loss of local purchasing power of either $5.014 million or $2.786 million**, depending on assumptions about local/non-local spending patterns.

These differences in local purchasing power translate into different impacts on the local economy and local job creation. Once it is spent, money circulates in the local economy through secondary purchases and economic transactions by those being paid. This creates additional jobs, making for the well known "employment (job) multiplier effect" and "earnings multiplier effect" of spending, which of course will be diminished with diminished spending.

Economists use formulas to calculate the amount of extra earnings and the amount of extra jobs (employment) created by spending in a sector of the economy. These formulas are known as "multipliers." For this study, we utilize the standard multipliers used to calculate economic impact in Miami-Dade County for construction spending.[8] For new construction such as the renovation of the Orange Bowl, the earnings multiplier is 1.7377, meaning that every dollar spent in this type of economic activity will result in 73.77% additional earnings, beyond the earnings of those employed in doing the original work. (The additional earnings come because the money circulates repeatedly in the local economy, creating additional employment and earnings.)

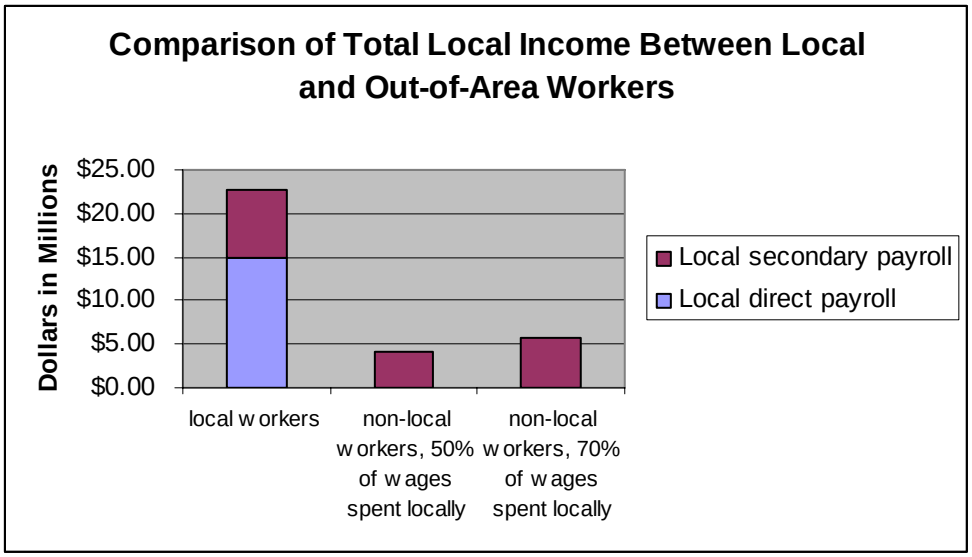
The $10.586 million spent locally by local workers thus creates an additional $7.809 million in local earnings, on top of the original payroll of $14.891 million. Thus **local income totals $22.700 million if all the workers are local.** But if out-of-area workers are used, and they spend either 50% or 70% of their paychecks locally, the additional local earnings shrink from $7.809 million to $4.110 million or $5.754 million, causing a comparative loss of local income of $3.699 million or $2.055 million. **So, local income (meaning income to permanent local residents) totals only somewhere between $4.110 million or $5.754 million if out-of-area workers hold the Orange Bowl renovation construction jobs.**

The **loss in local income from out-of-area hiring is thus either $18.590 million or $16.946 million**, depending on assumptions about out of-area worker spending patterns. These differences are shown in Table 1.

[8] Both the "earnings multiplier" and the "jobs multiplier" used in the following analysis were obtained from Jaap Donath, chief economist at the Beacon Council, which uses them for various estimates of economic impacts. They are taken from the RIM II regional economic model for the state of Florida, and adjusted to Miami-Dade County by the Beacon Council.

Table 1
Loss of local income if out-of-area workers are used in $50 million of the Orange Bowl renovation project

Dollars in millions	All local workers doing renovation	All non-local workers, 50% of wages spent locally	All non-local workers, 70% of wages spent locally	Difference in local income if out-of-area workers spend 50% locally	Difference in local income if out-of-area workers spend 70% locally
Local direct payroll	$14.891	-	-	-$14.891	-$14.891
Local secondary payroll	$7.809	$4.110	$5.754	-$3.699	-$2.055
Total local payroll (income)	$22.700	$4.110	$5.754	**-$18.590**	**-$16.946**



The numbers in bold at the bottom right of Table 1 are the ultimate income result of hiring out-of-area workers for the county's $50 million share of the Orange Bowl renovation. They show a **loss of between $16.946 and $18.590 million in local income (meaning income to permanent local residents) if out-of-area workers are used in this work.**

A second way to determine losses to the local community from out-of-area hiring is to calculate the total loss of **jobs**, not simply income. To determine additional jobs created, we employ a standard "jobs multiplier" or "employment multiplier" for this type of construction work, which is 1.6106. This means that, for every job created in this industrial segment, .6106 additional jobs in the local economy will be created because of the spending from the paycheck of that original job. Thus, if **all the 402 construction jobs** are given to **local workers**, it would result in an additional .6106 X 402 jobs, or

approximately **246 new secondary jobs**.[9] But, if **out-of-area workers are hired, only 129 or 181 additional jobs** will be created, depending on assumptions about spending patterns of those non-local workers. This means a **loss of 117 or 65 new secondary jobs** for local employees.

Thus, if we combine the loss of direct jobs and secondary jobs for local residents that results from hiring out-of-area workers on the county's $50 million share of the Orange Bowl renovation, the job loss is considerable. Table 2 shows the difference.

Table 2
Loss of local direct and secondary jobs if out-of-area workers are used in $50 million of the Orange Bowl renovation project

Number of local jobs	All local workers doing renovation	All non-local workers, 50% of wages spent locally	All non-local workers, 70% of wages spent locally	Difference in local jobs if out-of-area workers spend 50% locally	Difference in local jobs if out-of-area workers spend 70% locally
Direct local construction jobs	402	-	-	-402	-402
Indirect local jobs from spending	246	129	181	-117	-65
Total local jobs	648	129	181	**-519**	**-467**

The numbers in bold at the bottom right of Table 2 are the **ultimate "jobs impact" of hiring out-of-area workers for the county's $50 million** share of the Orange Bowl renovation. They show a **loss of between 467 and 519 jobs to local residents if out-of-area workers are used in this work.**

A third way to determine losses to the local community from hiring out-of-area workers is to calculate the local loss of sales tax revenue due to less of the paycheck being spent locally. This loss can take two forms: direct loss of the 1% local sales tax collected by the county (½ of 1% for the Public Health Trust and ½ of 1% for local transit needs), and the loss of the county's share of the 6% state sales tax rebated to the county. We consider first the direct loss of the 1% collected for local health and transit needs, and then the loss of the county's share of state sales taxes collected.

Utilizing the figures calculated above just prior to Table 1, and using a similar methodology for determining local spending from secondary jobs created, we can determine total local spending and sales tax revenue from the 1% sales tax under different

[9] In this and subsequent calculations, the number given may be rounded one up or down from a straight calculation from the numbers in the text, because text numbers are themselves rounded, and for greater precision we calculate using numbers with original decimal points. The difference is trivial, and is never more than one.

hiring scenarios. We assume that approximately 60% of local spending is taxable, following the example of the only other out-of-area study of which we are aware.[10]

According to state figures, the state returns 14.55% of the taxes it collects from Miami-Dade County sales to the county.[11] In the last row of the following table we add the lost revenue shared with the county from the state 6% sales tax to the money lost directly through the county "special use" 1% sales tax.

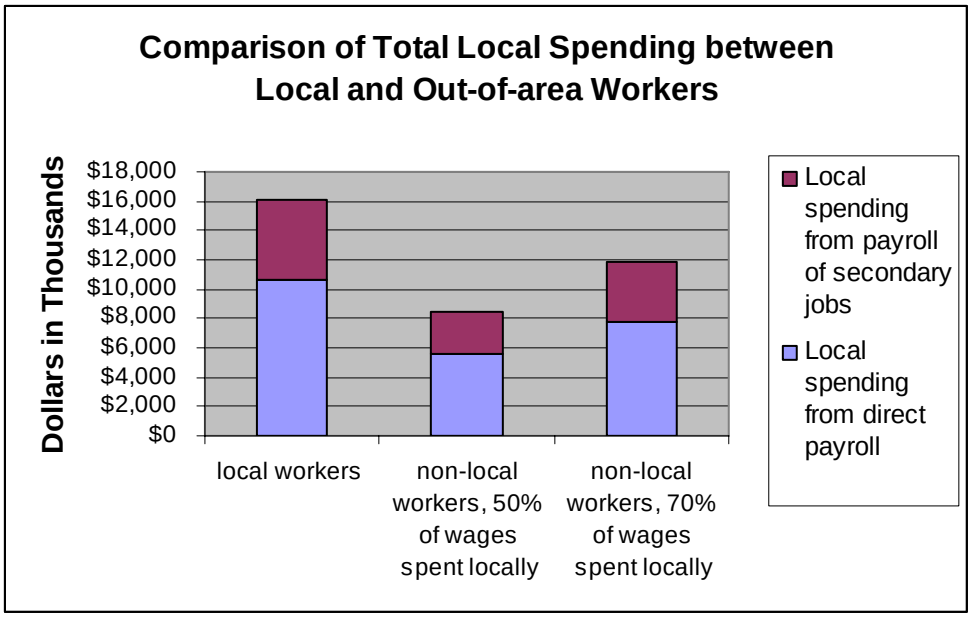
Table 3 shows the differences in sales taxes collected, depending on the hiring of local or non-local workers.

Table 3
Loss of sales tax revenue from the 1% Miami-Dade County local sales tax if out-of-area workers are used in $50 million of the Orange Bowl renovation ($ thousands)

Dollars in thousands	All local workers doing renovation	All non-local workers, 50% of wages spent locally	All non-local workers, 70% of wages spent locally	Difference if out-of-area workers spend 50% locally	Difference if out-of-area workers spend 70% locally
Local spending from direct payroll	$10,586	$5,571	$7,800	-$5,014	-$2,786
Local spending from payroll of secondary jobs	$5,551	$2,922	$4,090	-$2,630	-$1,461
Total local spending	$16,137	$8,493	$11,890	**-$7,644**	**-$4,247**
1% Sales tax revenue	$99	$52	$73	**-$47**	**-$26**
Tax revenue, including state sales tax share	$183.5	$96.5	$135.3	**-$87**	**-$48.2**

[10] See Carlos Davidson, "The Impact of Out-of-Area Workers in Non-Residential Construction on Contra Costa County: A Case Study of the USS-POSCO modernization," July 1989. Prepared for the Out-of-Area Worker Task Force of the Contra Costa County Board of Supervisors. (A copy is in the authors' possession.)

[11] This percentage is calculated from data contained in a memorandum to the Florida Legislative Committee on Intergovernmental Relations (LCIR) dated November 17, 2003 on the state revenue collected from and distributed to Florida's counties. In 2002, Florida collected $1,751,688,420 from sales and use taxes collected in Miami-Dade County, and distributed $254,952,811 of that back to the county. The distribution equals 14.55% of the money collected. Memorandum found at the website: http://www.floridalcir.gov/meetings/nov1703localevenues.pdf , last accessed on June 16, 2006.



The numbers in bold at the bottom right of Table 3 shows the losses to Miami-Dade County in local spending and local sales tax from the 1% Miami-Dade sales tax if out-of-area workers are hired for the county's $50 million share of the Orange Bowl renovation. They show a **loss of between $4.2 million and $7.6 million in local spending, and between $48,200 and $87,000 collected for local public health and transit needs and other county expenditures.**

These are relatively small sums of money in the county's budget, but they do represent an additional loss beyond the jobs and earnings losses noted in Tables 1 and 2.

SUMMARY OF IMPACTS OF NON-LOCAL HIRING WITH THE COUNTY'S $50 MILLION SHARE OF THE ORANGE BOWL RENOVATION PROJECT

Finally, we can add all the losses to the county if out-of-area workers were to be hired to do the county's $50 million share of the Orange Bowl renovation project. They would be the following:

- **Total losses in local payroll of between $16.9 and $18.6 million;**
- **Total losses in local employment (jobs) between 467 and 519 (402 of which are full-year construction jobs);**
- **Total losses in local spending between $4.2 million and $7.6 million; and**
- **Total loss of sales tax revenue (including the direct "local options" taxes for health and transit needs and the county's share of state sales taxes) between $48,200 and $87,000.**

Of course, these impacts are magnified greatly if we look at the entire Orange Bowl renovation project, not simply the county's $50 million share of it. The entire project is projected to cost $150 million, and thus the impacts calculated above should be multiplied by three to get the total differences should hiring be either entirely local or entirely non-local on the full project.

Tables 4, 5, and 6 present the results from re-calculating the data in Tables 1, 2, and 3, but counting the entire $150 million cost of the project rather than simply the county's $50 million share.

Table 4
Loss of local income if out-of-area workers are used in the entire Orange Bowl renovation project

Dollars in millions	All local workers doing renovation	All non-local workers, 50% of wages spent locally	All non-local workers, 70% of wages spent locally	Difference in local income if out-of-area workers spend 50% locally	Difference in local income if out-of-area workers spend 70% locally
Local direct payroll	$44.672	-	-	-$44.672	-$44.672
Local secondary payroll	$23.427	$12.330	$17.262	-$11.097	-$6.165
Total local payroll (income)	$68.099	$12.330	$17.262	**-$55.769**	**-$50.837**

Thus, **loss of local payroll** from using all **non-local workers on the entire Orange Bowl project** would be **between $50.8 and $55.8 million dollars**.

Table 5
Loss of local primary and secondary jobs if out-of-area workers are used in the entire Orange Bowl renovation project

Number of local jobs	All local workers doing renovation	All non-local workers, 50% of wages spent locally	All non-local workers, 70% of wages spent locally	Difference in local jobs if out-of-area workers spend 50% locally	Difference in local jobs if out-of-area workers spend 70% locally
Direct local construction jobs	1,207	-	-	-1,207	-1,207
Indirect local jobs from spending	737	388	543	-349	-194
Total local jobs	1,944	388	543	**-1,556**	**-1,401**

Thus, **loss of local jobs** from using all **non-local workers on the entire Orange Bowl project** would **between 1,401 and 1,556**.

Table 6
Loss of sales tax revenue to Miami-Dade County if out-of-area workers are used in the entire Orange Bowl renovation project

Dollars in thousands	All local workers doing renovation	All non-local workers, 50% of wages spent locally	All non-local workers, 70% of wages spent locally	Difference if out-of-area workers spend 50% locally	Difference if out-of-area workers spend 70% locally
Local spending from direct payroll	$31,757	$16,714	$23,400	-$15,034	-$8,357
Local spending from payroll of secondary jobs	$16,654	$8,765	$12,271	-$7,889	-$4,383
Total local spending	$48,411	$25,479	$35,671	**-$22,931**	**-$12,740**
1% Sales tax revenue	$296	$156	$218	**-$140**	**-$78**
Tax revenue, including state sales tax share	$549.5	$289.5	$405	**-$260**	**-$144.5**

Thus, there would be between $12.7 million and $22.9 million less spent in the local economy, and a total **loss of between $144,500 and $260,000 in tax revenue for the county** if the entire Orange Bowl project were done with non-local labor.

SUMMARY OF IMPACTS OF NON-LOCAL HIRING IN THE ENTIRE ORANGE BOWL RENOVATION PROJECT

If we add all the losses to the county if out-of-area workers are hired to do the entire Orange Bowl renovation project, they total to the following:

- **Total losses in local payroll of between $50.8 and $55.8 million;**
- **Total losses in local employment (jobs) between 1,401 and 1,556 (1,207 of which are full-year construction jobs);**
- **Total losses in local spending between $12.7 million and $22.9 million; and**
- **Total loss of sales tax revenue (through direct "local options" taxes for health and transit needs and the county's share of state sales taxes) between $144,500 and $260,000.**

This analysis has assumed that **all** hiring will be local, or **all** hiring will be non-local on the Orange Bowl project. In the event that a percentage less than 100% of the hiring were to be non-local, the above losses should be adjusted proportionally.

Jackson South Community Hospital Expansion

We now calculate the losses if the expansion of Jackson South Community Hospital in the south part of Miami-Dade County were to be done with out-of-area workers. Because the steps in doing this calculation are the same as those in the previous calculations regarding the Orange Bowl renovations, we will not explain each step in the same detail as was done above. Briefly, we will first calculate the impact if the County bond portion of the Jackson expansion were to be done with out-of-area workers, and then re-calculate the impact if the **entire expansion** were to be done with non-local labor.

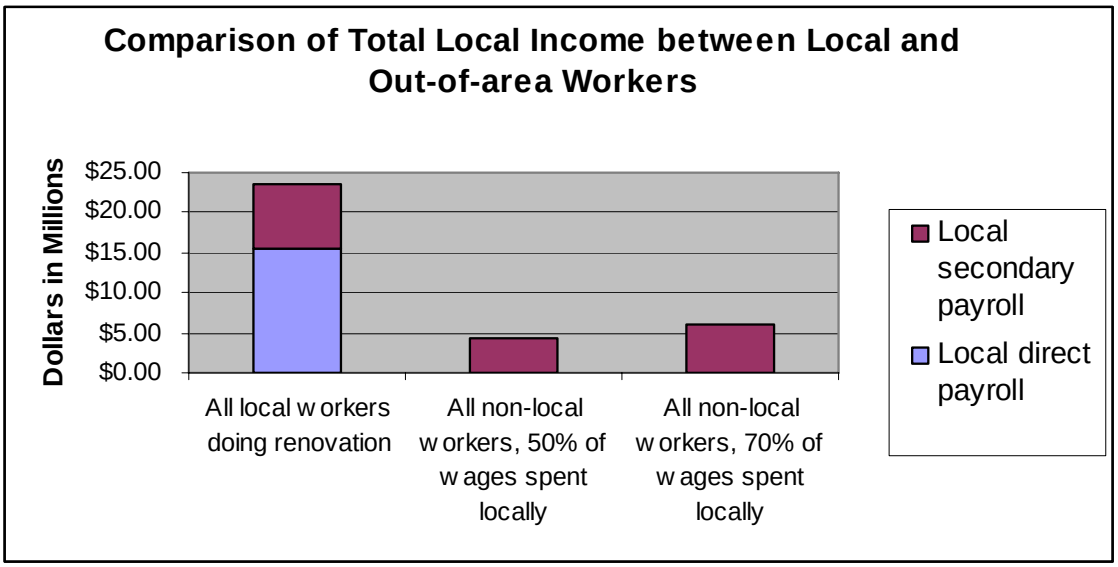
The hospital expansion is reported to cost approximately $100 million, with $52 million of that coming from the Building Better Communities General Obligation Bond (Martinez, 2006). The remainder is to come from the 2005 Jackson Health System revenue bonds.

Looking first at **the General Obligations Bond $52 million portion of the project**, at local pay rates and percentages of costs that go to labor, this project should generate a **payroll of $15.486 million**, with **418 full time yearly construction jobs**. If all of those jobs go to workers from out of the area, that of course means the direct loss for local residents of 418 full time yearly construction jobs. It also means a large loss of local payroll, as shown in Table 7. (The income multiplier in the county for new construction,

such as this hospital expansion, is 1.7377, meaning that for every $1 spent on direct payroll, an addition 73.77 cents in payroll is generated elsewhere in the local economy.)

Table 7
Loss of local income if out-of-area workers are used in $52 million of the Jackson South Community Hospital expansion project

Dollars in millions	All local workers doing renovation	All non-local workers, 50% of wages spent locally	All non-local workers, 70% of wages spent locally	Difference in local income if out-of-area workers spend 50% locally	Difference in local income if out-of-area workers spend 70% locally
Local direct payroll	$15.486	-	-	-$15.486	-$15.486
Local secondary payroll	$8.121	$4.274	$5.984	-$3.847	-$2.137
Total local payroll (income)	$23.607	$4.274	$5.984	**-$19.333**	**-$17.623**



Thus, depending on assumptions about out-of-area worker spending patterns, there will be a **loss of between $17.6 and $19.3 million in payroll to local residents if non-local labor is used on the county bond portion of the Jackson South Community Hospital expansion**.

Utilizing the "employment multiplier" or "jobs multiplier" for this type of construction work,[12] we can also calculate the loss of employment. Table 8 shows the impact.

[12] Multiplier is 1.6106, meaning that for each direct job created, .6106 additional jobs are created in the local economy through "ripple effects" from spending.

Table 8
Loss of local direct and secondary jobs if out-of-area workers are used in $52 million of the Jackson South Community Hospital expansion project

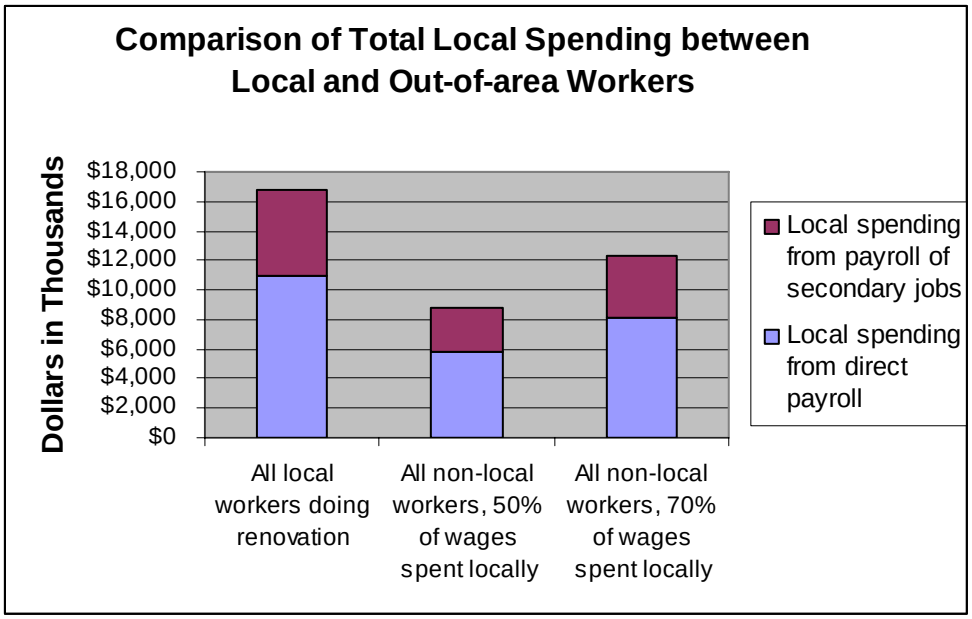
Number of local jobs	All local workers doing renovation	All non-local workers, 50% of wages spent locally	All non-local workers, 70% of wages spent locally	Difference in local jobs if out-of-area workers spend 50% locally	Difference in local jobs if out-of-area workers spend 70% locally
Direct local construction jobs	418	-	-	-418	-418
Indirect local jobs from spending	255	134	188	-121	-67
Total local jobs	673	134	188	**-539**	**-485**

So, depending on assumptions about spending patterns of out-of-area workers, the **local economy would lose between 485 and 539 jobs if non-local labor were to be used in the Jackson South Community Hospital expansion project.**

County government income from sales tax revenue would also drop if out-of-area workers were to be used in $52 million of the hospital expansion work. Table 9 shows the details.

Table 9
Loss of sales tax revenue to Miami-Dade County if out-of-area workers are used in $52 million of the Jackson South Community Hospital expansion project

Dollars in thousands	All local workers doing renovation	All non-local workers, 50% of wages spent locally	All non-local workers, 70% of wages spent locally	Difference if out-of-area workers spend 50% locally	Difference if out-of-area workers spend 70% locally
Local spending from direct payroll	$11,009	$5,794	$8,112	-$5,215	-$2,897
Local spending from payroll of secondary jobs	$5,773	$3,039	$4,254	-$2,734	-$1,519
Total local spending	$16,782	$8,833	$12,366	**-$7,949**	**-$4,416**
1% Sales tax revenue	$103	$54	$76	**-$49**	**-$27**
Tax revenue, including state sales tax share	$191	$100	$141	**-$91**	**-$50**



Thus, the county would **lose between $50,000 and $91,000 in tax revenue** if the county bond portion of the Jackson South Community Hospital expansion were to be done with **non-local labor**.

SUMMARY OF IMPACTS OF NON-LOCAL HIRING WITH THE COUNTY'S $52 MILLION SHARE OF THE JACKSON SOUTH EXPANSION PROJECT

The losses to the county if out-of-area workers were hired to do the county's $52 million share of the Jackson south expansion project would be as follows:

- **Total losses in local payroll of between $17.6 and $19.3 million;**
- **Total losses in local employment (jobs) between 485 and 539 (418 of which are full-year construction jobs);**
- **Total losses in local spending between $4.4 million and $7.9 million; and**
- **Total loss of sales tax revenue between $50,000 and $91,000.**

We now perform the same calculations for the **entire** Jackson South Community Hospital expansion project, not simply the $52 million share assumed by the county under the Building Better Neighborhoods General Obligation Bond. Tables 10, 11, and 12 show the impacts on earnings, jobs, and sales tax income to the county if this entire project were to be done with non-local labor.

Table 10
Loss of local income if out-of-area workers are used in the entire Jackson South Community Hospital expansion project

Dollars in millions	All local workers doing renovation	All non-local workers, 50% of wages spent locally	All non-local workers, 70% of wages spent locally	Difference in local income if out-of-area workers spend 50% locally	Difference in local income if out-of-area workers spend 70% locally
Local direct payroll	$29.781	-	-	-$29.781	-$29.781
Local secondary payroll	$15.618	$8.220	$11.508	-$7.398	-$4.110
Total local payroll (income)	$45.399	$8.220	$11.508	**-$37.179**	**-$33.891**

Thus, depending on assumptions about spending patterns of out-of-area workers, the **loss of earnings to local residents** will be **between 33.9 million and 37.2 million** if all non-local labor is used on the entire Jackson South Community Hospital expansion project.

The loss of jobs is calculated in Table 11.

Table 11
Loss of local primary and secondary jobs if out-of-area workers are used in the entire Jackson South Community Hospital expansion project

Number of local jobs	All local workers doing renovation	All non-local workers, 50% of wages spent locally	All non-local workers, 70% of wages spent locally	Difference in local jobs if out-of-area workers spend 50% locally	Difference in local jobs if out-of-area workers spend 70% locally
Direct local construction jobs	805	-	-	-805	-805
Indirect local jobs from spending	491	259	362	-232	-129
Total local jobs	1,296	259	362	**-1,037**	**-934**

Thus, **loss of local jobs** from using all **non-local workers on the entire Jackson South Community Hospital project** would **between 934 and 1,037.**

The loss of sales tax income to the county is calculated in Table 12.

Table 12
Loss of sales tax revenue to Miami-Dade County if out-of-area workers are used in the entire Jackson South Community Hospital expansion project

Dollars in thousands	All local workers doing renovation	All non-local workers, 50% of wages spent locally	All non-local workers, 70% of wages spent locally	Difference if out-of-area workers spend 50% locally	Difference if out-of-area workers spend 70% locally
Local spending from direct payroll	$21,171	$11,143	$15,600	-$10,028	-$5,571
Local spending from payroll of secondary jobs	$11,103	$5,843	$8,181	-$5,260	-$2,922
Total local spending	$32,274	$16,986	$23,781	**-$15,288**	**-$8,493**
1% Sales tax revenue	$197	$104	$145	**-$93**	**-$52**
Tax revenue, including state sales tax share	$366	$193	$269.5	**-$173**	**-$96.5**

Thus, the county would **lose between $96,500 and $173,000 in tax revenue** if the entire Jackson South Community Hospital expansion were to be done with **non-local labor**.

SUMMARY OF IMPACTS OF NON-LOCAL HIRING IN THE ENTIRE JACKSON SOUTH EXPANSION PROJECT

If we add all the losses to the county if out-of-area workers are hired to do the entire Jackson South expansion project, they total to the following:

- **Total losses in local payroll of between $33.9 and $37.2 million;**
- **Total losses in local employment (jobs) between 934 and 1,037 (805 of which are full-year construction jobs);**
- **Total losses in local spending between $8.5 million and $15.3 million; and**
- **Total loss of sales tax revenue (through direct "local options" taxes for health and transit needs and the county's share of state sales taxes) between $96,500 and $173,000.**

Conclusion

This report has demonstrated that it is highly desirable for the construction work on the Orange Bowl renovation and the Jackson South Community Hospital expansion project to be done with local labor. Combining the two projects, the use of entirely non-local labor would mean:

- **Loss of payroll** to local residents of **between $84.7 million and $93 million**, depending on the spending patterns of non-local workers employed on these two projects;
- **Loss in local employment** of **between 2,335 and 2,593**, depending on the spending patterns of non-local workers employed on these two projects;
- **Loss of local spending between $21.2 million and $38.2 million**, depending on the spending patterns of non-local workers employed on these two projects; and
- **Loss of tax revenue for Miami-Dade County** of **between $241,000 and $433,000**, depending on the spending patterns of non-local workers employed on these two projects.

The above figures assume that all of the construction employment on these projects would be either local workers or out-of-area workers. If a percentage less than 100% of the workers should come from out of the local area, the numbers would have to be adjusted accordingly.

Given these impacts, the county would do well to attempt to ensure that all (or as much as is possible) of the hiring on these projects should be of local workers. This would maximize benefits to the county and its taxpayers.

The positive impact of hiring locally could be magnified enormously if efforts were made to concentrate the local hiring in communities most in need of stable, well-paying jobs. Thus, a modest impact on the county as a whole could be translated into a major impact for a community (or communities) with low incomes and higher unemployment. For example, if Orange Bowl renovation work could result in added jobs for residents of the Little Havana neighborhood, the focused positive impact on a needy community could be rather large. In this way, the benefits of the general obligations bond to the county could be multiplied through wise implementation of project work.

Appendix: Construction Labor cost and Payroll impacts analysis: details and methodology

1. Labor cost and average wage

The data to calculate labor cost in construction industry are from the U.S. Census Bureau 2002 Economic Census Florida report (http://www.census.gov/prod/ec02/ec0223afl.pdf). Two NAICS code 238 and 23622 were selected to represent the construction work for the Orange bowl and Jackson South Community Hospital.

Table 1: Labor cost

(in thousand dollars)	Payroll of total workers	Net value of construction work	Percent of Labor cost
Commercial and institutional building construction (23622)	1,213,664	5,114,961	23.7%
Specialty trade contractors (238)	7,596,965	24,469,311	31.0%
Total	8,810,629	29,584,272	29.8%

The data of state average annual wage are from QCEW- Quarterly Census of Employment & Wages (ES-202) (http://www.labormarketinfo.com/library/qcew.htm). The latest data in QCEW is in Table B.

Table 2: Average quarterly wage

	Construction industry	All industry
1st Quarter, 2005	$8,977	$8,815
2nd Quarter, 2005	$9,254	$8,956
3rd Quarter, 2005	$9,530	$9,199

The construction industry average annual wage in 2005:
(1st Quarter + 2nd Quarter + 3rd Quarter)*4/3= $ 37,014.67
The state average annual wage in 2005:
(1st Quarter + 2nd Quarter + 3rd Quarter)*4/3= $ 35,960.00

2. Payroll impacts of local and non-local workers

The calculation of payroll impacts is based on following parameters.

Percent of labor cost	29.8%	
Average annual wage	$37,014.67	
% of spending done locally by local worker	95%*	
% of spending done locally by non-local worker	50%-70%	
% of local spending that is taxable	60%*	
Local sales tax	1%	
% of income that goes to all taxes	24%*	
% of income that saved (average of 2003-2005 U.S. saving rates)	1.17%	(2003, 2.1%; 2004, 1.8%, 2005, -0.4%)**
Miami-dade county employment multiplier for new construction industry	1.6106***	
Miami-dade county income multiplier for new construction industry	1.7377***	

* Data are from Carlos Davidson, 1989. The Impact of Out-of-Area Workers in Non-residential Construction on Conra Costa County: A Case Study of the USS-POSCO Modernization. Report for The Out-of-Area Worker Task Force of the Contra Costa County Board of Supervisors.

** Data from Bureau of Economic Analysis, National Income and Product Accounts Tables, Table 2.1. Personal Income and Its Disposition (http://www.bea.gov/bea/dn/nipaweb/TableView.asp?SelectedTable=58&FirstYear=2004&LastYear=2006&Freq=Qtr)

*** The Florida new construction multipliers from the RIMS II model are as follows: Earnings multiplier: 2.2377; Employment multiplier: 2.1106
The multipliers of Miami-dade County equal to the Florida multipliers subtract 0.5

Formulas for Payroll Impacts

Multiplier effects:

Labor cost	Total amount of investment * percent of Labor cost
Total workers	Labor cost / Industry average annual wage
Amount of local spending done by local worker (A)	(1-% of income that goes to all taxes -% of income that saved)*% of spending done locally by local worker*labor cost
Amount of local spending done by non-local worker (B)	(1-% of income that goes to all taxes -% of income that saved)*% of spending done locally by non-local worker*labor cost
Secondary income due to multiplier effects, local worker (C)	A* (Income multiplier-1)
Secondary income due to multiplier effects, non-local worker (D)	B* (Income multiplier-1)
Secondary local spending from secondary income of local worker (E)	C* (1-% of income that goes to all taxes -% of income that saved)*% of spending done locally by local workers
Secondary local spending from secondary income of non-local worker (F)	D* (1-% of income that goes to all taxes -% of income that saved)*% of spending done locally by local worker
Total local income, non-local worker (G)	Labor cost + C
Total local income, local worker (H)	D
Total local purchasing power, local worker (I)	A+E
Total local purchasing power, non-local worker (J)	B+F
Number of secondary jobs generated by local worker (K)*	Total worker* (Employment multiplier-1)
Number of secondary jobs generated by non-local worker (L)*	K*B/A
Local sales tax collected from local workers (M)	[[C*% of spending done locally by local worker*(1-% of income that goes to all taxes -% of income that saved)]+A]* % of local spending that is taxable * Local sales tax
Local sales tax collected from local workers (N)	[[D*% of spending done locally by local worker*(1-% of income that goes to all taxes -% of income that saved)]+B]* % of local spending that is taxable * Local sales tax

* The job and income multiplier is from the new construction industry employment and earnings multiplier.

Orange Bowl:

$50 million:

Multiplier Effects:

Dollars in thousands	Local Worker	Non-local worker		Difference	
		50% local spending	70% local spending	50% local spending	70% local spending
Number of Local jobs for the project	402	-	-	402	402
Total Local Payroll	$14,891	-	-	$14,891	$14,891
Local Spending	$10,586	$5,571	$7,800	$5,014	$2,786
Secondary Income	$7,809	$4,110	$5,754	$3,699	$2,055
Secondary local spending	$5,551	$2,922	$4,090	$2,630	$1,461
Total Local Income	$22,700	$4,110	$5,754	$18,590	$16,946
Total local Purchasing Power	$16,137	$8,493	$11,890	$7,644	$4,247
Sales Tax Revenue	$99	$52	$73	$47	$26
Secondary Jobs	246	129	181	117	65

$150 million:

Multiplier Effects:

Dollars in thousands	Local worker	Non-local worker		Difference	
		50% local spending	70% local spending	50% local spending	70% local spending
Number of Local jobs for the project	1,207	-	-	1,207	1,207
Total Local Payroll	$44,672	-	-	$44,672	$44,672
Local Spending	$31,757	$16,714	$23,400	$15,043	$8,357
Secondary Income	$23,427	$12,330	$17,262	$11,097	$6,165
Secondary local spending	$16,654	$8,765	$12,271	$7,889	$4,383
Total Local Income	$68,099	$12,330	$17,262	$55,769	$50,837
Total local Purchasing Power	$48,411	$25,479	$35,671	$22,931	$12,740
Sales Tax Revenue	$296	$156	$218	$140	$78
Secondary Jobs	737	388	543	349	194

Jackson South Community Hospital:
$ 52 million:

Multiplier Effects:

Dollars in thousands	Local Worker	Non-local worker		Difference	
		50% local spending	70% local spending	50% local spending	70% local spending
Number of Local jobs for the project	418	-	-	418	418
Total Local Payroll	$15,486	-	-	$15,486	$15,486
Local Spending	$11,009	$5,794	$8,112	$5,215	$2,897
Secondary Income	$8,121	$4,274	$5,984	$3,847	$2,137
Secondary local spending	$5,773	$3,039	$4,254	$2,734	$1,519
Total Local Income	$23,607	$4,274	$5,984	$19,333	$17,623
Total local Purchasing Power	$16,782	$8,833	$12,366	$7,949	$4,416
Sales Tax Revenue	$103	$54	$76	$49	$27
Secondary Jobs	255	134	188	121	67

$100 million:

Multiplier Effects:

Dollars in thousands	Local worker	Non-local worker		Difference	
		50% local spending	70% local spending	50% local spending	70% local spending
Number of Local jobs for the project	805	-	-	805	805
Total Local Payroll	$29,781	-	-	$29,781	$29,781
Local Spending	$21,171	$11,143	$15,600	$10,028	$5,571
Secondary Income	$15,618	$8,220	$11,508	$7,398	$4,110
Secondary local spending	$11,103	$5,843	$8,181	$5,260	$2,922
Total Local Income	$45,399	$8,220	$11,508	$37,179	$33,891
Total local Purchasing Power	$32,274	$16,986	$23,781	$15,288	$8,493
Sales Tax Revenue	$197	$104	$145	$93	$52
Secondary Jobs	491	259	362	232	129