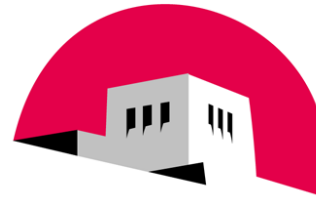


University of New Mexico
Bureau of Business and Economic Research



ESTIMATED ECONOMIC IMPACTS OF THE BUCKMAN DIRECT DIVERSION PROJECT

PRESENTATION TO THE BUCKMAN DIRECT DIVERSION BOARD

February 5, 2009

Dr. Lee A. Reynis, Director

UNIVERSITY OF NEW MEXICO
BUREAU OF BUSINESS AND ECONOMIC RESEARCH
303 Girard Blvd. NE
MSC06 3510 / Onate Hall
Albuquerque, New Mexico 87131

UNIVERSITY OF NEW MEXICO
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Data Bank

FOR- UNM Economic Forecasting Service

Census Project

**Demographic and economic estimates and projections,
economic and fiscal impact analyses, government finance,
surveys, policy studies, economic research...**



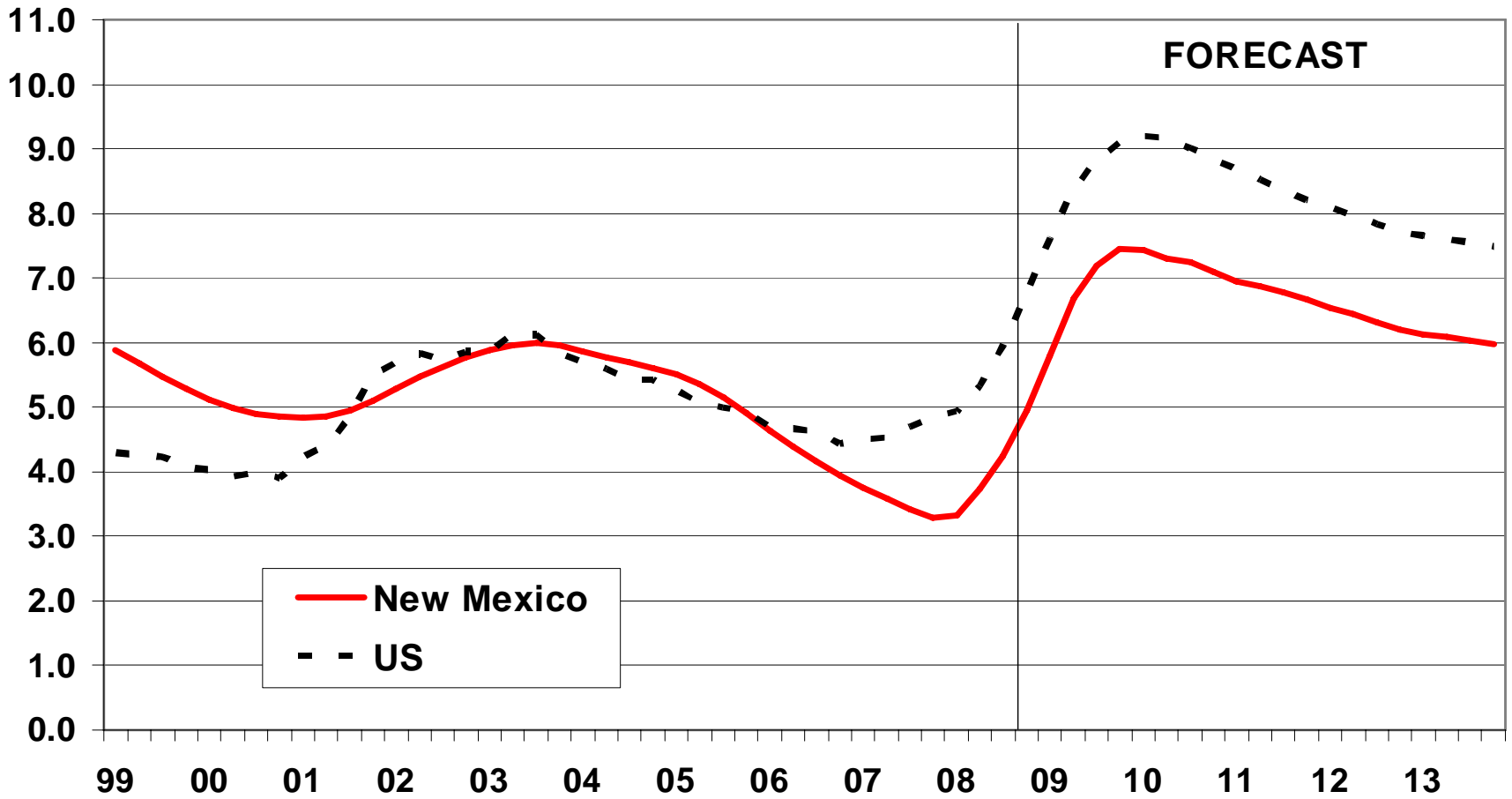
BBER (505) 277-2216
Fax 277-7066
Data Bank 277-6626
Fax 277-2773
<http://www.unm.edu/~bber/>

THE BUCKMAN DIRECT DIVERSION PROJECT

The Buckman Direct Diversion (BDD) Project will provide an additional source of water supply for the Santa Fe area. It includes a diversion structure on the Rio Grande, pumping stations, pipelines and a new water treatment plant.

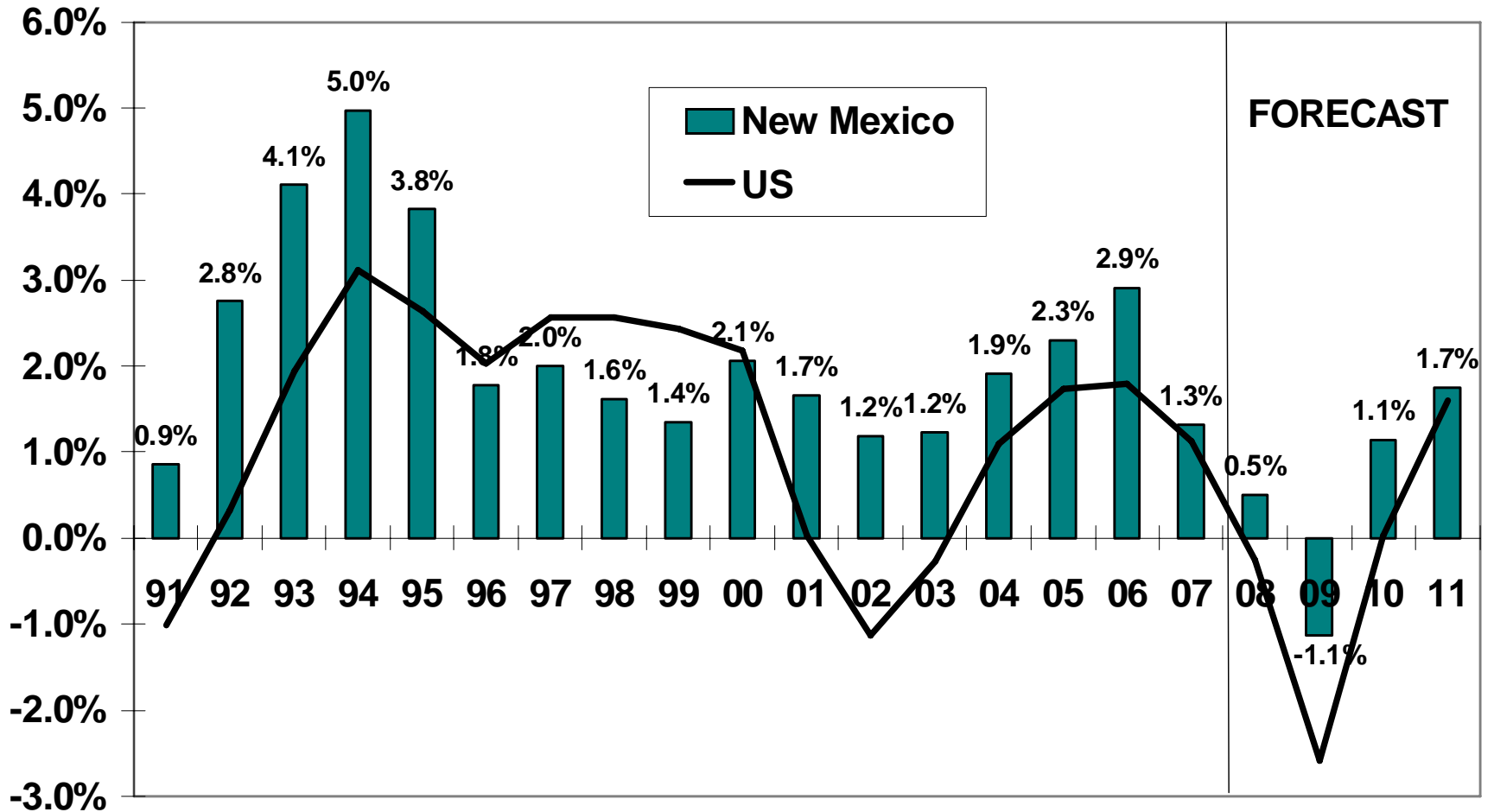
ECONOMIC CONTEXT

QUARTERLY UNEMPLOYMENT RATE US AND NEW MEXICO, SAAR



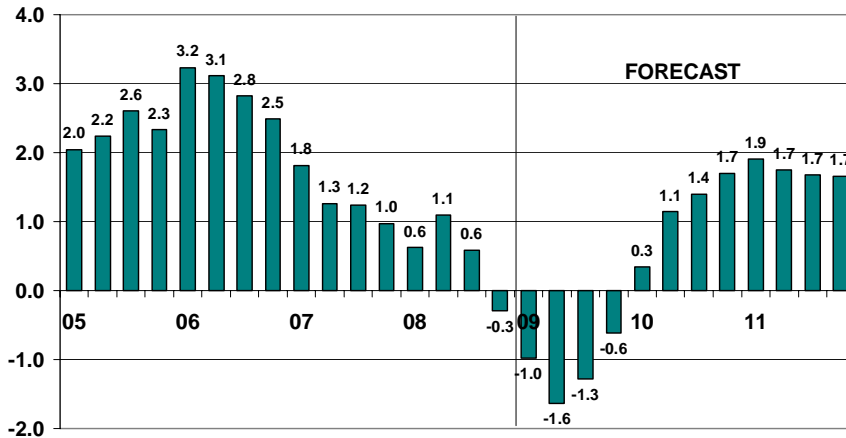
Source: Global Insight, Jan 09; BBER FOR-UNM, Jan 09

ANNUAL GROWTH IN NONFARM EMPLOYMENT NEW MEXICO AND US



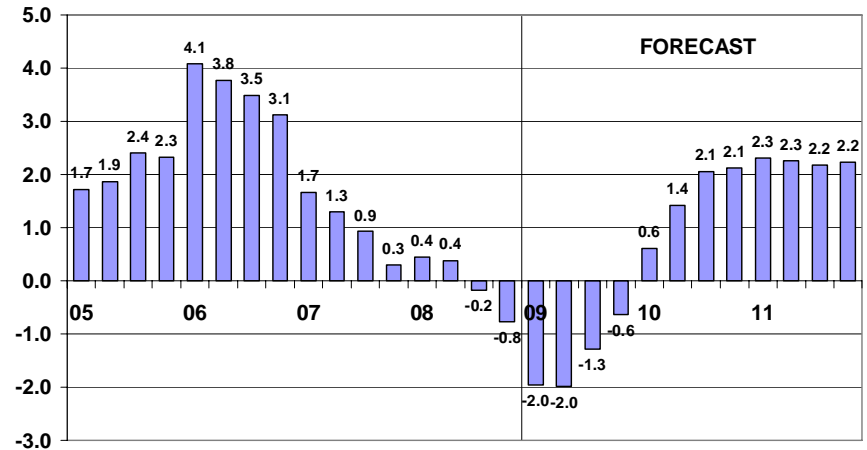
Source: FOR-UNM, Jan 2009
Global Insight, Jan 2009

NEW MEXICO ECONOMY
Quarterly Nonfarm Employment
% Growth Year-Over-Year



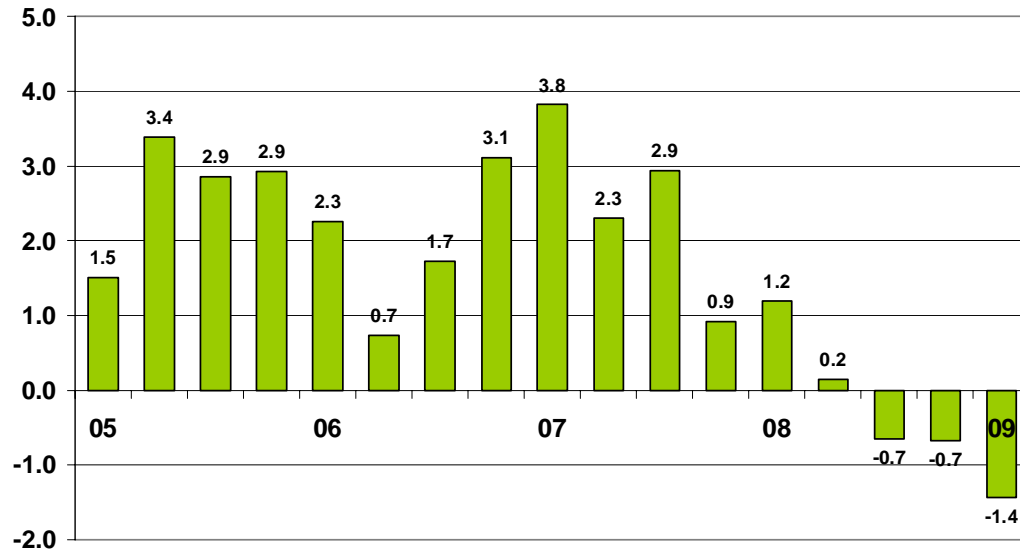
Source: UNM BBER FOR-UNM, Jan 09

ALBUQUERQUE MSA ECONOMY
Quarterly Nonfarm Employment
% Growth Year-Over-Year



Source: UNM BBER FOR-UNM, Jan 09

SANTA FE MSA ECONOMY
Quarterly Nonfarm Employment
% Growth Year-Over-Year



Source: NM Dept of Workforce Solutions
 thru 08Q3; BBER estimate thereafter

Revised figures from The New Mexico Dept Workforce Solutions will show somewhat different patterns for 2007 and 2008, but the slowdown is undisputed.

METHODOLOGY

ECONOMIC IMPACTS OF BUCKMAN DIRECT DIVERSION PROJECT ON THE LOCAL ECONOMY

TRADITIONAL ECONOMIC IMPACT ANALYSIS

BBER uses IMPLAN, a proprietary model and set of state and county databases, that is widely used for this purpose. Model is based on an “input-output model” that enables estimation of direct, indirect and induced effects on output, employment and labor income. With IMPLAN, the analysis can go beyond the first round effects and quantify the “multiplier” impacts.

- Comparative static versus a dynamic analysis. Comparison between economy with and economy without the Buckman Direct Diversion Project. However, no attempt to analyze the qualitative changes that could be set in motion.**
- Export base model focusing on injections into the spending stream (e.g., funding from federal stimulus package) & leakages from the spending stream (e.g., purchases of goods and services from outside the region).**
- Distinguish one-time activity (e.g., BDD construction project) from permanent or on-going operations**

ANALYSIS OF ECONOMIC IMPACTS OF BUCKMAN DIRECT DIVERSION PROJECT ON THE LOCAL ECONOMY

Estimating impacts of the project on the local economic region, which BBER has defined as including Santa Fe, Rio Arriba, Bernalillo and Sandoval Counties

Impacts of the Design & Construction Phase

- **Professional service contracts**
- **Construction project**
- **Financing with taxes and fees**
- **Fiscal impacts and government spending**

Impacts of Operating Phase

- **On-going operations**
- **Financing with fees**
- **Fiscal impacts and government spending**

**IMPACTS OF THE BUCKMAN DIRECT
DIVERSION PROJECT: DESIGN AND
CONSTRUCTION PHASE, FY 08 - 11**

Buckman Direct Diversion Project
ESTIMATED COSTS BY CATEGORY OF EXPENDITURE
 January 1, 2008 – June 30, 2011

| Buckman Direct Diversion Project Costs | Amount (\$ millions) |
|---|-----------------------------|
| Main Contract | |
| Design-Build Construction & Engineering Contract | \$181.52 |
| Professional services | \$12.62 |
| Construction | \$145.22 |
| Contractor's Commission (profit) estimated at 15% | \$23.68 |
| Miscellaneous | |
| Owners' Engineer (Engineering and DB Procurement) | \$4.03 |
| Acquisition of Permits & Easements | \$0.76 |
| Utilities | \$3.15 |
| Legal/Administration | \$1.53 |
| Design-Build Taxes | \$12.28 |
| Other Project Costs | \$6.34 |
| Materials Escalation and Contingency Reserves | \$6.73 |
| TOTAL | \$216.34 |
| Activities | |
| Professional Services | \$25.28 |
| Construction | \$178.78 |
| Design-Build GRT | \$12.28 |

\$25.8 million in expenditures, \$15.2 million of which with local businesses

Estimated Economic Impacts of BDD Spending on Professional Services Contracts

FY 08

| | Direct | Indirect | Induced | Total |
|--------------|-------------|-------------|-------------|-------------|
| Output | \$4,125,690 | \$2,089,863 | \$3,256,954 | \$9,472,507 |
| Employment | 36 | 23 | 32 | 90 |
| Labor Income | \$1,975,490 | \$820,529 | \$1,060,716 | \$3,856,735 |

Output
\$15.2 m -> \$34.8 m
M = 2.3

FY 09

| | Direct | Indirect | Induced | Total |
|--------------|-------------|-------------|-------------|--------------|
| Output | \$4,658,449 | \$2,359,732 | \$3,677,532 | \$10,695,712 |
| Employment | 40 | 26 | 36 | 101 |
| Labor Income | \$2,230,589 | \$926,485 | \$1,197,688 | \$4,354,763 |

Employment
Average Annual
33 jobs -> 83 jobs
M = 2.5

FY 10

| | Direct | Indirect | Induced | Total |
|--------------|-------------|-------------|-------------|-------------|
| Output | \$3,834,795 | \$1,942,511 | \$3,027,313 | \$8,804,619 |
| Employment | 33 | 21 | 29 | 83 |
| Labor Income | \$1,836,202 | \$762,675 | \$985,927 | \$3,584,804 |

Earnings
\$ 7.3 m -> \$14.2 m
M = 2.0

FY 11

| | Direct | Indirect | Induced | Total |
|--------------|-------------|-------------|-------------|-------------|
| Output | \$2,547,432 | \$1,290,398 | \$2,011,026 | \$5,848,856 |
| Employment | 22 | 14 | 20 | 55 |
| Labor Income | \$1,219,778 | \$506,640 | \$654,945 | \$2,381,364 |

UNM BBER estimates based on data provided for BDD Project

Estimated Economic Impacts of the BDD Construction Project

Buckman Direct Diversion Project Construction Impacts on Total Output

| Year | Direct Effect | Indirect Effect | Induced Effect | Total Effects |
|--------------|----------------------|----------------------|---------------------|----------------------|
| 2008 | \$8,348,266 | \$6,029,005 | \$2,163,760 | \$16,541,032 |
| 2009 | \$43,449,996 | \$31,379,001 | \$11,261,666 | \$86,090,662 |
| 2010 | \$93,692,009 | \$67,663,105 | \$24,283,733 | \$185,638,847 |
| 2011 | \$9,608,607 | \$6,939,207 | \$2,490,424 | \$19,038,238 |
| Total | \$155,098,878 | \$117,713,686 | \$46,702,227 | \$286,573,804 |

M = 1.9

Buckman Direct Diversion Project Employment Impacts from Construction

| Year | Direct Effect | Indirect Effect | Induced Effect | Total Effects |
|------|---------------|-----------------|----------------|---------------|
| 2008 | 34 | 54 | 24 | 113 |
| 2009 | 179 | 283 | 127 | 589 |
| 2010 | 387 | 611 | 273 | 1,270 |
| 2011 | 40 | 63 | 28 | 130 |

M = 3.3

Buckman Direct Diversion Project Labor Income Impacts

| Year | Direct Effect | Indirect Effect | Induced Effect | Total Effects |
|--------------|---------------------|---------------------|---------------------|---------------------|
| 2008 | \$2,016,106 | \$2,165,842 | \$818,677 | \$5,000,625 |
| 2009 | \$10,493,174 | \$11,272,498 | \$4,260,947 | \$26,026,619 |
| 2010 | \$22,626,620 | \$24,307,091 | \$9,187,956 | \$56,121,668 |
| 2011 | \$2,320,479 | \$2,492,820 | \$942,273 | \$5,755,571 |
| Total | \$37,456,379 | \$40,238,251 | \$15,209,853 | \$92,904,483 |

M = 2.5

Assumes total labor compensation is 21% of total construction project.

UNM BBER estimates based on data provided for BDD Project

Estimated Total Economic Impacts of Gross Receipts Tax and Water Rate Increases Used to Finance the BDD Construction Project

| All Estimated Impacts are Negative | | | | | | | | | | | | |
|------------------------------------|-------------------------------------|--------|-------------|---------------------------------------|--------|-------------|------------------------------------|--------|-------------|--------------------------|--------|-------------|
| Fiscal Year | City of Santa Fe Gross Receipts Tax | | | City of Santa Fe Water Rate Increases | | | Santa Fe County Gross Receipts Tax | | | Las Campanas Assessments | | |
| | Output | Employ | Earnings | Output | Employ | Earnings | Output | Employ | Earnings | Output | Employ | Earnings |
| | \$ Millions | | \$ Millions | \$ Millions | | \$ Millions | \$ Millions | | \$ Millions | \$ Millions | | \$ Millions |
| 2008 | \$9.9 | 70 | \$3.1 | | | | \$0.7 | 5 | \$0.2 | | | |
| 2009 | \$9.9 | 70 | \$3.1 | \$1.7 | 12 | \$0.4 | \$1.3 | 9 | \$0.4 | | | |
| 2010 | \$9.9 | 70 | \$3.1 | \$5.1 | 36 | \$1.2 | \$1.3 | 9 | \$0.4 | \$0.4 | 3 | \$0.1 |
| 2011 | | | | \$8.8 | 62 | \$2.0 | \$1.3 | 9 | \$0.4 | \$0.4 | 3 | \$0.1 |
| 2012 | | | | \$13.0 | 92 | \$3.0 | \$1.3 | 9 | \$0.4 | \$0.4 | 3 | \$0.1 |
| 2013 | | | | \$17.6 | 124 | \$4.0 | \$1.3 | 9 | \$0.4 | \$0.4 | 3 | \$0.1 |
| 2014 | | | | \$20.0 | 141 | \$4.6 | \$1.3 | 9 | \$0.4 | \$0.4 | 3 | \$0.1 |
| | | | | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 2032 | | | | \$10.0 | 71 | \$2.3 | | | | | | |

Estimated Fiscal Impacts

Gross Receipts Tax Revenues

Construction Contract

- Santa Fe County \$3.01 Million
- State of New Mexico \$9.27 ”

Contracts for Professional Services

- Local governments in region \$0.25 ”
- State of New Mexico \$0.32 ”

Spending by Employees Supported

- Local governments in region \$1.0 ”
- State of New Mexico \$1.2 ”

Estimated Total Economic Impacts of Local Government Spending Supported by Gross Receipts Tax Revenue Related to BDD Construction Project

| Fiscal Year | 2008 | 2009 | 2010 | 2011 |
|---------------------|------------------|--------------------|--------------------|------------------|
| Output | \$675,972 | \$2,268,448 | \$4,346,221 | \$675,229 |
| Employment | 7 | 24 | 45 | 7 |
| Labor Income | \$328,833 | \$1,103,506 | \$2,114,257 | \$328,471 |

OPERATING IMPACTS

Estimated Economic Impacts of the BDD Operations

| | Direct | Indirect | Induced | Total |
|--------------|-------------|-------------|-------------|--------------|
| Output | \$8,257,887 | \$4,453,778 | \$5,022,600 | \$17,734,265 |
| Employment | 36 | 46 | 49 | 130 |
| Labor Income | \$2,522,927 | \$1,868,451 | \$1,635,434 | \$6,026,812 |

Multipliers:

Output 2.2

Employment 3.7

Labor Income 2.4

CONCLUSION: BUCKMAN DIRECT
DIVERSION PROJECT WILL PROVIDE
A MAJOR ECONOMIC STIMULUS TO
THE LOCAL ECONOMY IN THIS
PERIOD OF SERIOUS ECONOMIC
DOWNTURN.

BDD Project will provide a major stimulus to the regional economy over the four year period beginning FY 08:

Even after taking into account the negative impacts of higher gross receipts taxes, higher water rates, and Las Campanas homeowner assessments ...

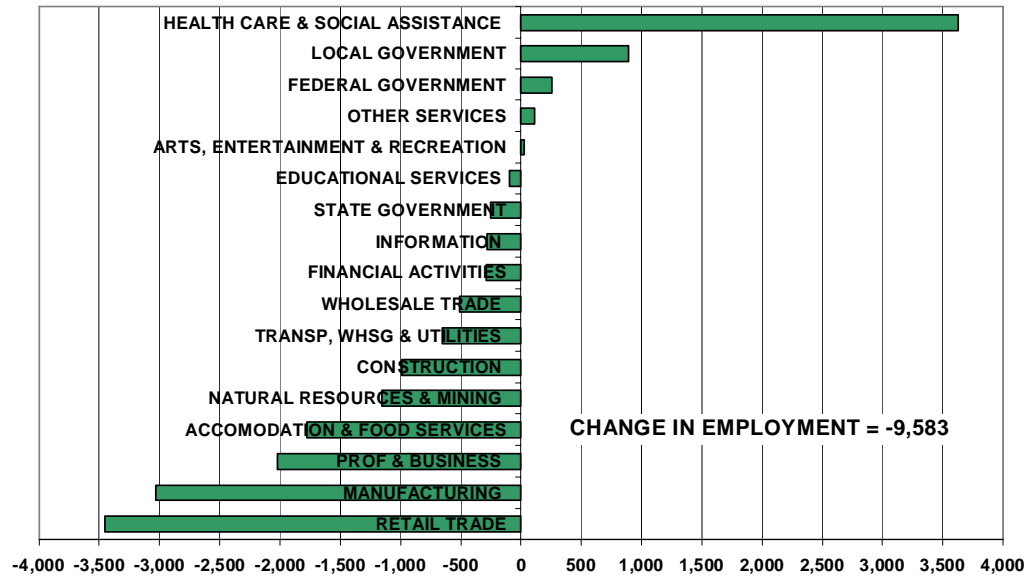
Net present value of local economic activity supported FY 08-11 \$287 million

Net local employment gain FY 08-11 average 539 jobs

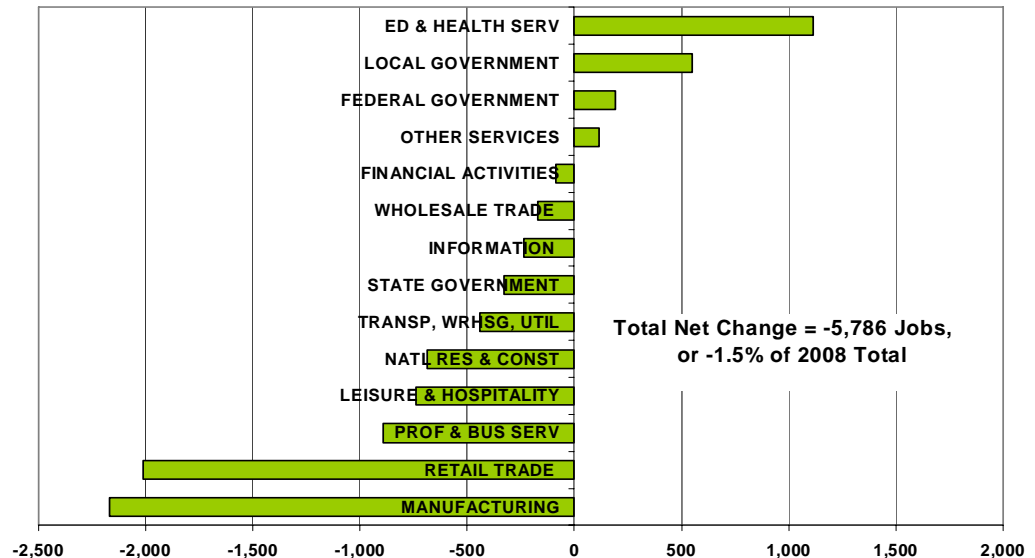
| | |
|-------|-------|
| FY 08 | 135 |
| FY 09 | 623 |
| FY 10 | 1,281 |
| FY 11 | 118 |

Net present value of total labor earnings supported FY 08-11 \$ 92.7 million

CHANGE IN NEW MEXICO NONFARM EMPLOYMENT 2008 TO 2009



CHANGE IN ALBUQUERQUE MSA NONFARM EMPLOYMENT 2008 TO 2009



BBER's January 2009 forecast anticipates the worst recession in Albuquerque and New Mexico since the 1950s. No one knows when this economy will hit bottom.