

12-1-2010

# The Impacts of Federal Stimulus Funding under the American Recovery and Reinvestment Act (ARRA) on the Economy of New Mexico

Lee A. Reynis

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THE UNIVERSITY *of*  
NEW MEXICO

BUREAU *of* BUSINESS  
& ECONOMIC RESEARCH

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## Contents

<b>1. Introduction.....</b>	<b>1</b>
<b>2. Economic and Fiscal Context.....</b>	<b>3</b>
<b>3. ARRA Injections into the New Mexico Economy through June 30, 2010 .....</b>	<b>7</b>
<b>3.1. Tax Relief Programs</b>	<b>7</b>
<b>3.2. Aid to Directly Impacted Individuals and Families</b>	<b>9</b>
<b>3.3. Fiscal Stabilization Programs</b>	<b>10</b>
<b>3.4. Stimulus Projects</b>	<b>12</b>
<b>4. Impact Results for Expenditures Through June 30, 2010 .....</b>	<b>15</b>
<b>4.1. Overall Impacts</b>	<b>15</b>
<b>4.2. Filling a Deep Hole</b>	<b>18</b>
<b>5. Impacts on New Mexico Economy of ARRA Spending from the Pipeline after June 30, 2010.....</b>	<b>20</b>
<b>5.1. ARRA Monies in the Pipeline as of July 1, 2010, by Program</b>	<b>20</b>
<b>5.2. Method of Allocating Expenditures Over Time</b>	<b>23</b>
<b>5.3. Estimated Economic Impacts of ARRA Spending Between July 1, 2010 and June 30, 2011</b>	<b>23</b>
<b>5.4. Estimated Economic Impacts of ARRA Spending In the Years After July 1, 2010</b>	<b>27</b>
<b>Appendix A. Methodology and Data Sources .....</b>	<b>31</b>
<b>Appendix B: Programs Tracked by the New Mexico Office of Recovery and Reinvestment .....</b>	<b>36</b>
<b>Appendix C. Tax Relief Programs .....</b>	<b>40</b>
<b>Specific Program Descriptions and Methods of Estimation</b>	<b>40</b>
<b>Tax Relief Programs and Their Details</b>	<b>44</b>
<b>Appendix D. ARRA Loans and Bonds .....</b>	<b>46</b>
<b>References .....</b>	<b>48</b>
<b>Glossary .....</b>	<b>51</b>

## ACKNOWLEDGEMENTS

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We wish to thank the New Mexico Office of Recovery and Reinvestment for encouraging BBER to undertake this study and for providing funding and support. Thanks are due former Governor of New Mexico Toney Anaya for making this research project happen as well as for providing valuable feedback. Andrew Lenderman, Public Information Officer at the New Mexico Office of Recovery and Reinvestment, deserves special thanks for his ongoing energy and encouragement and for the support that he has personally provided at each step. We appreciate his willingness to sit down with us and go over the data; we appreciate his patient answers to our questions and the information he diligently and promptly provided to help make our way through what at times has seemed a mountain of data. Beth Savage carefully read the document for errors and inconsistencies. The document is better as a result of her efforts.

This study would not have been completed without BBER staff assistance. Michael O'Donnell researched, modeled and estimated tax impacts and wrote up his results in a way that was intelligible and convincing. He promptly addressed concerns, undertaking more research and redoing his numbers as warranted. He was truly a partner in this effort and we appreciate very much his work and his insights.

As in every effort, we are grateful to have access to BBER's Data Bank and the information they have assembled on their website and for internal staff use.

We also thank our graduate student employees. Sean Petranovich got us over one major hurdle by processing the data to assign NAICS codes to each Recovery Act funding recipient using the DUNS numbers in the NETS database of information compiled by Dunn and Bradstreet. Another student, Scott Maddux helped research bond-related funding measures.

In producing the estimates in this report, BBER has had to process an enormous amount of data. We have had excellent coaching and support, but we have had to make some simplifying assumptions and some judgment calls. We regret any errors in fact or in interpretation.

-Lee A. Reynis and Doleswar Bhandari.

# Executive Summary

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This report examines the impacts of the American Recovery and Reinvestment Act (ARRA) on the economy of New Mexico.

Nationally and in New Mexico, the effects of the “Great Recession” were compounded by the worst financial crisis since the 1930’s, a global crisis in which credit markets froze, asset values plummeted and major banks and other businesses disappeared. Nationally, some 8.4 million jobs were lost between the official beginning of the recession in December 2007 and December 2009, after which, some six months after the official end, employment first began to show monthly gains on a seasonally adjusted basis. In New Mexico, similarly using seasonally adjusted figures, the job loss through January 2010 totaled 43,700, with employment falling further to show losses of 52,100 by June of this year.<sup>1</sup> The losses would have been far greater and the pain much worse without the intervention of the Federal Reserve and its counterparts in other countries and without some form of major fiscal stimulus. ARRA has provided that much needed fiscal stimulus.

ARRA has allocated \$5.7 billion to New Mexico, of which over \$2.6 billion had been spent through June 30, 2010. The table below provides figures on the ARRA allocations to New Mexico by type of program. In reporting, we have found it useful to adopt the categories used by the Council of Economic Advisors in reported the national impacts of ARRA.

**Table ES.1. ARRA Allocations to New Mexico by Type of Program, in \$ Millions**

Tax Relief	1,204.8
Aid to Directly Impacted Individuals	1,423.5
Fiscal Stabilization (Education)	324.9
Stimulus Projects	2,097.8
	<hr/>
	5,051.0
Bonds and Loans	670.4
	<hr/>
	5,721.4

Sources: Recovery.gov website; data provided by the New Mexico Office of Recovery and Reinvestment

The more than \$2.6 billion in ARRA funds spent in New Mexico through June 30<sup>th</sup> consisted of the following: an estimated \$770 million in tax relief, including the

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<sup>1</sup> UNM Bureau of Business and Economic Research calculations based on seasonally adjusted employment estimates (CES) from the US Bureau of Labor Statistics.

Making Work Pay program, a further extension of relief from the full effects of the Alternative Minimum Tax, and various other programs; \$548 million in various programs that provide aid to directly impacted individuals<sup>2</sup>; an estimated \$491 million that has been used for fiscal stabilization, primarily to fund the State match for Medicaid and to fund K-12 education; and an estimated \$846 million in other stimulus projects, including nearly \$11 million in loans.

BBER estimates that through June 30, 2010, ARRA created or retained more than 24,000 jobs and over \$1.2 billion in labor income. These additional jobs amounted to 3.0% of New Mexico seasonally adjusted nonfarm employment as the national economy went into recession in December 2007.

Beginning July 1, 2010, a (now) estimated \$3.1 billion in additional ARRA monies are available to be spent. This amount includes \$431 million in tax relief, \$577 million for aid to directly impacted individuals, \$133 million for fiscal stabilization (education) and \$1,422 million for various stimulus projects. In addition to these amounts, there is the remaining allocation of loans and bonds of \$659 million.<sup>3</sup> The tax programs end in calendar 2010, so the impacts should be felt only through the next year, state fiscal year 2011. The same is true of many of the programs providing assistance to individuals and families. On the other hand, some of the other stimulus projects, such as road construction projects, have funding through federal fiscal year 2015.

BBER has estimated that between July 1, 2010 and June 30, 2011, ARRA will support over 23,000 jobs, with labor income in excess of \$800 million, for a total estimated increase in value added of \$1.2 billion. When all impacts are annualized, the overall magnitude of the impacts in FY 11 is similar to that experienced through June 30, 2010.

In the out-years the impacts of ARRA will show the effects of the program winding down. The total number of jobs estimated to be supported in FY 12 is 6,300; the next year the impact is less than 3,000; in FY 14, less than 1,300.

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<sup>2</sup> This amount excludes \$300 million in federal dollars to increase the Medicaid FMAP that was used to meet the state Medicaid match, freeing up General Fund monies for other programs, and that is included here as part of fiscal stabilization.

<sup>3</sup> In modeling economic impacts, BBER has included impacts from spending ARRA loans, although not the future impacts of repaying the loans. For a number of reasons including uncertainties about the timing of expenditures and debt service payments, we decided not to include spending from bond proceeds for the various ARRA bond programs.

# 1. Introduction

---

This study was commissioned by the New Mexico Office of Recovery and Reinvestment in an effort to tell the full story of the impacts of the American Recovery and Reinvestment Act (ARRA) on the economy of New Mexico. With an expected cost of \$787 billion, ARRA provides additional resources to state and local economies through four main channels: tax relief provided to individuals and to businesses, aid to directly impacted individuals and families, fiscal stabilization to help maintain levels of government spending for key services, and a broad range of stimulus projects. This report presents the economic impacts of ARRA supported expenditures from the time the law was signed, Feb 19, 2009, through the final end date for some ARRA projects, which is September 30, 2015. Appendix A provides details on the methodology used and data sources.

New Mexico is slated to receive a total of \$5.7 billion in ARRA stimulus funding, including ARRA bonds and loans. Of this total allocated to New Mexico, more than \$2.6 billion had already been injected into the economy by June 30, 2010, and, by BBER's estimates, had supported directly and indirectly more than 24,000 jobs. In addition, there is more than \$2.4 billion in additional project funding and \$659 million in bonds and loans available in the pipeline, only some of which has been committed or spent at the time of this writing. This report presents a preliminary analysis of the impacts of ARRA on the New Mexico economy through June 30, 2010 as well as preliminary estimates of the impacts of ARRA spending over the current and the next four fiscal years. In estimating the impacts of ARRA, BBER used the IMPLAN proprietary model software and data bases. (For a description of the IMPLAN model and its use in undertaking economic impact analyses, see Appendix A.) The IMPLAN model is widely used for conducting economic impact analysis and other regional economic analysis. Working from estimates of actual ARRA outlays and tax relief, BBER was able to estimate the total additional economic activity in the state supported by the inflow of ARRA funding into New Mexico, by a reduced outflow of federal tax payments to Washington and by the improved access to credit made possible by new SBA lending programs for small businesses and other ARRA loan programs and by the Build America Program.

Chapter 2 describes the situation in the US and New Mexico that necessitated such an extraordinary intervention. Chapter 3 looks in detail at the different types of ARRA programs and the associated direct flow of funds into New Mexico through June 30, 2010: tax relief provided to New Mexico households and businesses; the various programs designed to aid directly impacted individuals and families: the programs specifically targeted to provide fiscal stabilization to state and local governments, so that key services would continue without interruption; and the various other types of stimulus projects. Chapter 4 presents

the results of BBER's analysis, using the IMPLAN model, of the impacts of these various programs through June 30, 2010, on the economy of New Mexico. Finally, Chapter 5 examines the projects in the pipeline and estimates the impacts of the various ARRA programs on the New Mexico economy in the fiscal year ending June 30, 2011, and in the out-years.

Some caution is always advisable in the interpretation of the numbers generated by models. Please realize that the first numbers reported here cover a period of 16.5 months. Although the flow of expenditures from month to month is not uniform and varies greatly from one program to another, no attempt has been made to distribute actual spending over that time period. BBER has attempted to fit the stimulus expenditure into industrial sectors that can be used in modeling. This process has undoubtedly worked better in some cases than in others.

Direct job numbers reported by the recipients of a contract, grant and loan may be significantly different from the numbers produced by BBER's analysis. The disparity is due in part to the fact that the IMPLAN model estimates annual averages, whereas, recipients may report a job number for a time period that is relatively shorter or longer. It is also the case that the model used (IMPLAN) assumes businesses in particular industries produce the same product and use the same technology, i.e., they use inputs, including labor, in the same way and in same proportions. An actual project may use different combinations of different types of inputs; they may pay lower or higher wages.

The job estimates are in some cases for "newly created jobs", often with a brief life; in other cases the estimates are for jobs that have been retained – and that hopefully will be retained until the economy improves.

In short, in order to produce estimates, BBER has had to use some simplifying assumptions and we have had to make some judgment calls.

## 2. Economic and Fiscal Context

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It has been called the Great Recession. Nationally and in New Mexico, the effects of recession were compounded by the worst financial crisis since the 1930's, a global crisis in which credit markets froze, asset values plummeted and major banks and other businesses disappeared. Nationally, some 8.4 million jobs were lost between the official beginning of the recession in December 2007 and January 2010 when, some six months after the official end, employment first began to show monthly gains on a seasonally adjusted basis. The losses would have been far greater and the pain much worse without the intervention of the Federal Reserve and its counterparts in other countries and without some form of major fiscal stimulus.

The Federal Reserve responded immediately to the worsening economic and financial crisis by bringing the target federal funds rate effectively to zero and by working in collaboration with their counterparts abroad to restore liquidity and get credit flowing once again. However, the efficacy of monetary policy was thwarted by massive hoarding and a reluctance to lend. The Fed became more innovative, creating liquidity facilities and other tools to restore normal functionality in financial markets. The Fed also worked with the Treasury Department to stave off the contagion of financial collapse. However, it became increasingly apparent that a huge dose of fiscal stimulus would be necessary to get the economy moving as well as to provide relief to individuals out of work and with limited if any job prospects and to their families.

Even with the combined intervention of Fed and the federal government using its fiscal policy tools, the economic recession took on epic proportions -- in New Mexico as well as nationally. Overall payroll employment in New Mexico peaked in early 2008 just as employment nationally began to evidence monthly declines (Figure 2.1.) On a seasonally adjusted basis, both the US and New Mexico experienced extremely large monthly job losses during the last quarter of 2008 and the first quarter of 2009. Total job losses for New Mexico in calendar 2009 compared with 2008 exceeded 34,000 jobs, or 4.1% of total nonfarm employment. Nationally, the job loss accounted for 4.3% of total employment, with an additional loss of over 300,000 jobs yet to be reflected in the Current Employment Statistics (CES) totals. The loss of jobs in each case was without precedent in the Post World War II period and was accompanied by a sharp increase in unemployment rate and a surge in initial claims for unemployment insurance<sup>4</sup>. US unemployment (seasonally adjusted) peaked at 10.1% in October 2009; in New Mexico unemployment peaked at 8.8% in March 2010.

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<sup>4</sup> Initial claims for unemployment insurance in New Mexico increased by 55% in the fourth quarter of 2008, compared to the same quarter in 2007, 106% in the first quarter of 2009, and 68% in the second

**Figure 2.1. Nonfarm Employment, New Mexico and US (Seasonally Adjusted and Indexed to December 2007)**

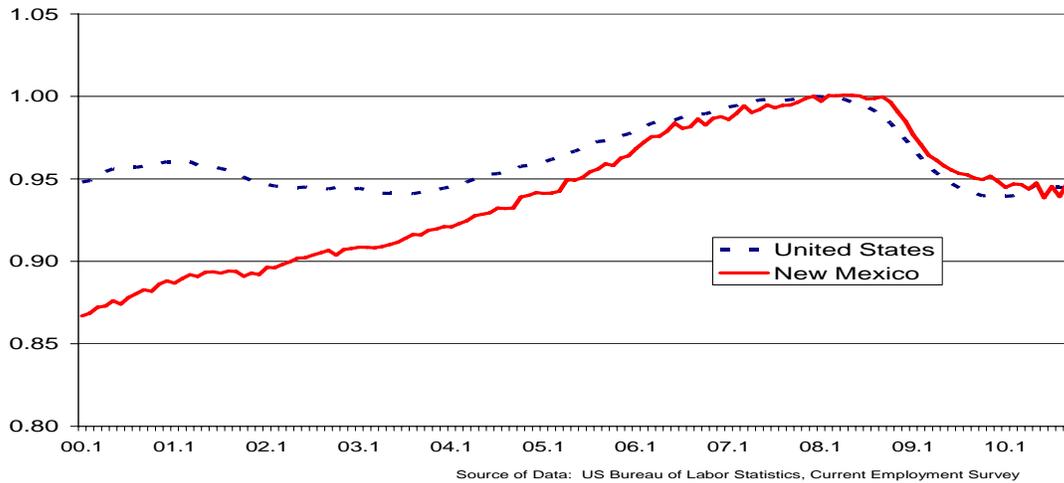
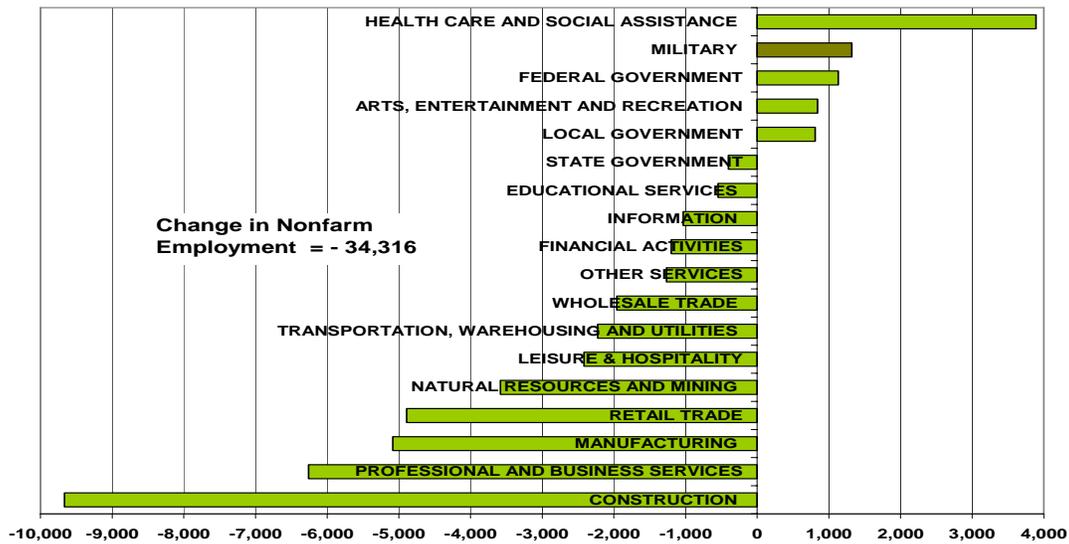


Figure 2.2 shows the concentration of job loss by New Mexico industry in 2009. As was true in the US, the biggest losses occurred in construction, where employment declined by almost 10,000. Professional and business services also experienced major job loss, losing over 6,000 jobs, as temporary workers were laid off and call centers were closed. Manufacturing lost over 5,000 jobs; while retail trade also lost nearly 5,000 as major regional and national chains, and some local stores like American Furniture, closed stores. The mining sector lost about 3,500 jobs as oil and gas exploration and drilling was cut back in response to the collapse in energy prices in mid-2008. The only sector to add significantly to employment was Health Care and Social Assistance, and this one sector, which had been responsible for some 30% of the job growth between 2000 and 2008, added another 4,000 jobs in 2009. The military, although not part of nonfarm employment, also added a significant number of filled positions in New Mexico, as did the federal government, primarily as it began staffing up for the 2010 Census.

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quarter and 36% in the third quarter compared to the same quarters in 2008. Although initial claims continue to exceed the previous year's claims after the third quarter of 2009, the margin has shrunk in each quarter thereafter.

**Figure 2.2. Change in NM Employment by Sector, 2008 to 2009**



The recession and the collapse of oil and gas prices had a major impact on virtually all levels of government in New Mexico as revenues plummeted. Table 2.1 shows the hit on the State’s recurring general fund revenues, which fell from \$6 billion in FY 08 to an estimated \$4.8 billion in FY 10. Particularly hard hit were general revenue sources, like the gross receipts tax, which is particularly sensitive to reductions in housing and other construction activity, to retail sales and to tourism. The collapse of financial markets combined with losses in employment earnings had devastating effects on personal income tax revenues. Mineral taxes and rents and royalty income both fell off sharply in the wake of the collapse in energy and other commodity prices.

**Table 2.1. New Mexico, Recurring General Fund Revenues**

Millions of Dollars	Actual FY 08	Prelim FY09	Forecast FY10 (Dec 09 adj)	Estimated FY 10 (6/20/10)
Total	\$6,015	\$5,320	\$4,831	\$4,802
General Sales	1,923	1,902	1,760	1,707
Income Taxes	1,568	1,121	1,158	1,078
Mineral Taxes	626	440	357	387
Rents & Royalties	610	544	335	410

NM Legislative Finance Committee, June 2010

Given the economic downturn beginning in 2007 and deepening in 2009, ARRA funding helped stimulate the New Mexico economy by supporting an estimated 24,000 jobs and more than \$1.8 billion in value added through June 30, 2010.

### **3. ARRA Injections into the New Mexico Economy through June 30, 2010**

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This chapter examines the different types of ARRA programs and both the allocations to New Mexico and the expenditures through June 30<sup>th</sup> of this year. The New Mexico Office of Recovery and Reinvestment (NMORR) tracks very closely awards to State Agencies that are subject to ARRA Section 1512 reporting as well as a number of non-Section 1512 programs, such as Medicaid and Unemployment Compensation. The 1512 programs which funnel dollars through state agencies all require quarterly reporting of jobs directly supported as well as of expenditures. NMORR has detailed financial numbers on the non-Section 1512 programs but not estimates of jobs. Appendix B presents a nice summary of activity for these programs through June. BBER's task has been to augment this information by examining the impacts of the various ARRA programs providing tax relief, by estimating the employment and other economic impacts of all the programs reported by NMORR, and by examining the economic activity created or retained by a myriad of other ARRA stimulus projects and loan and bond programs. Since data on almost all the individual programs can be found on the Recovery.gov website, we have made extensive use of their database so as to avoid double counting. We have tried to include all programs bringing dollars to New Mexico -- those where New Mexico is the principal place of business and those where New Mexico businesses may benefit from subcontracts with out of state firms. For a breakdown, see Table B2 in the same appendix. In reporting, we have found it useful to adopt the categories used by the Council of Economic Advisors in reported the national impacts of ARRA. This chapter discusses tax relief programs, aid to directly impacted individuals, fiscal stabilization, and the remaining stimulus projects, including loans and grants.

#### **3.1. Tax Relief Programs**

The American Recovery and Reinvestment Act included several programs that provided tax relief to individual and families. In some cases, the purpose was to increase disposable income by reducing a particular tax. For example, Making Work Pay reduced the federal payroll taxes deducted by employers. Other programs provided tax credits to incentivize certain types of purchases, e.g., automobiles in the "Cash for Clunkers" program; new or existing homes under the Homebuyer Credit programs. Others provided tax relief to help those who were out of work and drawing unemployment insurance or availing themselves of the COBRA subsidies to continue their health insurance. Table 3.1 below provides BBER estimates of the tax benefits received by New Mexicans as of

June 30, 2010 for each of the major tax benefit programs along with the estimated national benefits.

**Table 3.1. Estimated Tax Benefits Nationally and for New Mexicans by Tax Program**

	Estimated Payout as of June 30, 2010	
	New Mexico	United States
	In \$ Millions	In \$ Billions
<u>Tax Program:</u>		
Making Work Pay	511.0	73.0
Child Tax Credit	59.4	8.7
Suspension of Tax on Unemployment Insurance	18.2	4.7
American Opportunity Credit	57.0	14.5
Increase in Earned Income Tax Credit	7.7	2.2
First Homebuyer Credit	31.2	4.8
Car Sales Tax Deduction	7.2	1.1
Alternative Minimum Tax	79.0	65.0
<b>Total</b>	<b>770.6</b>	<b>174.0</b>

Calculations by UNM Bureau of Business and Economic Research

Sources of Data: US Council of Economic Advisors, US Treasury Department, US Social Security Administration, Internal Revenue Service, Recovery.gov, the official ARRA website

As the previous table shows, the greatest source of tax relief was the Making Work Pay tax credit, accounting for roughly 42% of all national benefits and 66% of all of New Mexico's total tax benefits. Not far behind nationally, is the Alternative Minimum Tax (AMT) patch, which accounts for approximately 37% of all national benefits but only 10% of the tax relief afforded by the act to New Mexicans. A relatively small number of New Mexicans are subject to the Alternative Minimum Tax.<sup>5</sup> This ARRA program, which reduces tax liability under the Alternative Minimum Tax, is listed last. The \$65 billion spent nationally in providing this particular form of tax relief does not really represent new spending; it simply extends the relief that has been provided in previous years and under other administrations.

Additional tax relief programs of substantial benefit to New Mexicans include the Child Tax Credit and the Homebuyer Credits, which constitute between 4% to 8% of total benefits (3% to 5% nationally). The remaining benefits, the Increase in Earned Income Tax Credit, Car Sales Tax Deduction, Suspension of Tax on Unemployment Insurance, and American Opportunity Credit, while substantial in

<sup>5</sup> In 2008, New Mexico filers accounted for only .30% of all Alternative Minimum tax filers and .22% of the total Alternative Minimum Tax dollars paid.

absolute value, constitute nearly 13% of the national and almost 16% of New Mexico totals. A more detailed analysis of each program and the methodology used in estimating the total tax relief provided to New Mexicans is presented in Appendix C.

### **3.2. Aid to Directly Impacted Individuals and Families**

Table 3.2 presents the allocations and expenditures for various programs providing aid to directly impacted individuals and their families in New Mexico. Programs currently administered by state agencies are grouped with the appropriate agency. The payment to Seniors and COBRA programs are implemented directly by the Federal Government. A total of \$1.42 billion is allocated as this type of aid throughout the life of ARRA, of which \$846 million was spent prior to July 1, 2010, accounting for 32% percent of total ARRA expenditure. Note that this includes almost \$300 million from the Medicaid FMAP increase that was used by the State for fiscal stabilization, so the aid total spent was actually \$548 million. Medicaid followed by Unemployment Benefits program and Supplemental Nutrition Assistance Program (SNAP) account for roughly \$700 million of almost \$850 million spent.

**Table 3.2. Aid to Directly Impacted Individuals: Program Allocations and Expenditures (in \$ million)**

Agency and ARRA Program	Estimated ARRA Allocation	Amounts Thru June 30, 2010	
		Receipts	Expenses
Human Services Department			
Medicaid	835.2	517.2	507.6
Supplemental Nutrition Assistance Program (Food Stamp)	174.2	95.3	95.3
The Emergency Food Assistance Program	0.7	0.6	0.6
Temporary Aid to Needy Families (TANF)	39.7	30.0	30.0
Child Support Enforcement Incentive Grant	13.4	5.0	5.1
Department of Health			
WIC Supplemental	2.9	0.9	0.9
Children, Youth and Families Department			
Child Care and Development Block Grant	17.8	9.8	10.4
Foster Care and Adoption Assistance	4.4	2.8	2.8
Workforce Solution Department			
Unemployment Benefits	194.2	102.8	102.8
Unemployment Modernization	41.8	2.6	3.5
Workforce Training	21.7	7.7	9.7
No Agency			
Payment to Seniors	71.6	71.6	71.6
COBRA Subsidy	5.8	5.8	5.8
	1,423.5	852.1	846.1
Total Net of Medicaid Fiscal Stabilization			547.6

\* According to NM Legislative Finance Committee, *2009 Post Session Review*, a total of \$298.5 million was to be used for fiscal stabilization.

Source: Data provided by the New Mexico Office of Recovery and Reinvestment

### 3.3. Fiscal Stabilization Programs

There are two main sources of fiscal stabilization in ARRA. The first involves the additional funding provided for Medicaid. Not only are funds provided to pay the federal government's share of additional spending necessitated by millions of Americans losing their jobs and/or their health insurance; ARRA also provides funding to increase the federal match – the FMAP – to prevent states in the midst of a fiscal crisis from cutting back sharply on Medicaid expenditures. Moreover, the increased federal match was made retroactive to the beginning of the federal fiscal year 2009. Originally, the enhanced FMAP was scheduled to expire on

December 31, 2010. In late summer of 2010, Congress extended the enhanced FMAP at a stepped down rate for an additional two quarters. The NM Office of Recovery and Reinvestment estimates that the federal funds available through the enhanced match rate total \$735 million over the three fiscal years: \$162 million for FY09, \$295 million for FY10 and \$278 million for 2011. The availability of these funds has allowed the state to take money that would have been spent on Medicaid and put it into other programs.

In their *2009 Post-Session Review*, the Legislative Finance Committee explains how the Medicaid FMAP funding was to be used:

The federal stimulus package boosts the federal medical assistance percentage (FMAP) approximately 8 percent retroactive to October 2008. For FY09, this will trigger a general fund reversion of approximately \$132 million to a special fund for future Medicaid appropriations per Chapter 126 (House Bill 920)... For FY10 the higher FMAP allowed for a reduction in the general fund appropriation for Medicaid of \$166.5 million, mostly for the Human Services Department but also for the Department of Health (DOH) and the Children, Youth and Families Department.<sup>6</sup>

In addition to the \$298.5 million used from the Medicaid FMAP monies, the state availed itself of Education Stabilization funds. New Mexico was allocated a total of \$260 million from the Education Stabilization Fund program and \$64.9 million from the Education Jobs Fund program. These federal dollars were distributed to public schools and institutions of higher education in FY10 (\$225 million) and FY11 (\$100 million) based on formula funding calculations. These federal funds allowed the State to offset what otherwise would have been reductions in the total formula funding for education or in support for other General Fund programs. BBER estimates indicate that through June 30, 2010, \$192 million of these educational stabilization funds had been spent, with most of the money spent on K-12 teachers and programs.

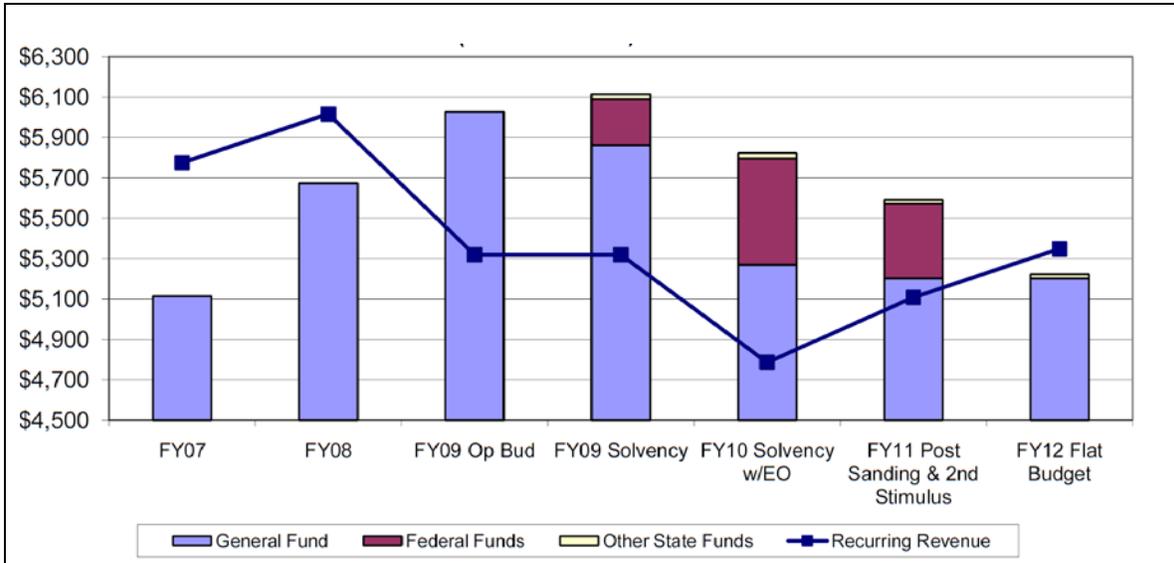
Overall, by BBER calculations, \$490.6 million were used by the end of June for purposes of fiscal stabilization.

Figure 3.1 illustrates how the State of New Mexico utilized ARRA stimulus monies and other funding to supplant scarce state revenues in order to maintain spending for critical state programs.

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<sup>6</sup>New Mexico Legislative Finance Committee, *2009 Post Session Review*, April 2009, p. 4

**Figure 3.1. New Mexico General Fund Appropriations and One-Time Funds Supplanting General Fund (In \$ Millions)**



Graph reproduced from Thomas Clifford, Chief Economist, Julie Anna Golebiewski, Economist, Leila Burrows Economist, N.M. Legislative Finance Committee, *Consensus General Fund Revenue Estimates, October 2010, Attachment 3, p. 11,*

### 3.4. Stimulus Projects

Before July 1, 2010, it is estimated that various stimulus projects spent a total of \$676 million, while spending from ARRA loans and bonds amounted to \$170 million. Together these types of projects accounted for \$846 million, or 32%, of total ARRA expenditures. Table 3.3 shows several categories of expenditure.

A total of \$192 million was spent on infrastructure and other construction projects prior to July 1, 2010, including \$133 million for streets and highways, \$1 million for health infrastructure and \$12 million for tax credit exchange programs used to fund housing.

There are a number of companies involved in nuclear and defense program, but the two largest are Los Alamos National Laboratory LLC and Washington TRU Solutions, which runs the Waste Isolation Project Plant. As of July 1, 2010, they had spent \$102 million and \$70 million, respectively.

**Table 3.3. Stimulus Projects, Loans and Bonds (In \$ Millions)**

	Estimated ARRA Allocation	Amounts Thru June 30, 2010	
		Receipts	Expenses
<b>Stimulus Projects</b>			
Infrastructure and Other Construction			
Highway, Street and Bridge Construction	268.4	159.0	132.5
Building Construction	93.6	37.7	26.9
Health Infrastructure	9.1	1.0	1.0
Housing Tax Credit Exchange Program	47.8	11.9	11.9
Other Construction	77.4	33.5	20.2
Nuclear and Defense	567.3	384.7	172.8
Education (Other than Fiscal Stabilization)	306.1	68.2	175.1
Other Projects	728.2	5.6	135.6
Total	2,097.8	701.6	675.9
<b>Loans and Bonds</b>			
ARRA Loan	64.3	11.4	10.9
ARRA Bonds	606.0		
Small Business Admin. Loan Guarantee			159.4
	670.4	11.4	170.3
	2,768.20	713.02	846.25

Source: New Mexico Office of Recovery and Reinvestment and spreadsheets available on Recovery.gov.

Expenditures for public education and higher education programs other than the fiscal stabilization programs discussed in the previous section amounted to \$175 million.

Included under other projects are a number of programs that provide funding directly to tribal governments or other Native American organizations. BBER was able to identify over \$120 million allocated to Native American tribal organizations.

The bottom of Table 3.3 presents figures on the various loan and bond programs, including expenditure as of June 30, 2010. A total \$11 million in ARRA loan money was spent in a number of communities around the state. Appendix D provides the details of loan amount and loan spending by recipient. The Small Business Administration (SBA) received an initial \$750 million in the ARRA to help unlock the small business lending market and an additional \$350 million to continue some ARRA programs through May, 2010. As of June 30, 2010, SBA has supported \$159 millions in recovery loans to 430 small businesses in New Mexico. ARRA facilitated lending by reducing the loan fee, by guaranteeing loans to small businesses, and by subsidizing the interest on loans. In modeling impacts, BBER has assumed that the loans support business expenditures in the near term which otherwise would not have happened or would have been

postponed. Overtime, the businesses will need to pay back the loan, but these payments have not been factored into the analysis.

There are a number of different bond programs within ARRA. For more information on the bond allocations for New Mexico under these different programs, see Appendix E. One of the larger bond programs is the Build America Bonds. Although there were four issues of Build America Bonds by the end of May 2010, there is no data on how much was actually spent before July 1, 2010. Bonds were issued by Taos Municipal School District No.1, City of Santa Fe, New Mexico State University, and New Mexico Finance Authority. The Build America Bond program provided a way for communities to access the bond market. Interest on the bonds is taxable, but the federal government subsidizes both the rate of interest paid and taxes owed by investors to make the vehicle more attractive. Unfortunately, the transaction and accounting costs are such that only the larger issuers may find this vehicle attractive. BBER assumed that a negligible amount of the raised funds were spent by June 30, 2010.

## **4. Impact Results for Expenditures Through June 30, 2010**

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### **4.1. Overall Impacts**

The impacts generated by stimulus funding on the New Mexico economy are impressive. Table 4.1 presents BBER's estimates of the impacts of the spending by type of program through June 30, 2010. Overall ARRA expenditures of \$2.6 billion injected into the New Mexico economy as stimulus funding directly supported 11,657 full-time and part-time jobs, including self employment, with \$658 million in labor income, \$787 million in value added and \$1.15 million in total output. In the absence of stimulus funding, this activity would not have occurred in New Mexico. Moreover, to this activity it is necessary to add the indirect and induced impacts to reflect the fact that the injection of federal dollars supported additional activity – the so-called multiplier – as the spending rippled through the economy. The total impacts of ARRA expenditures through June 30, 2010, on the economy of New Mexico are summed up by the second to last line: 24,000 additional jobs, \$1.2 billion in additional labor income and so on.

The last line gives a sense of the importance of this activity to the New Mexico economy by comparing the changes in different measures of economic activity with corresponding totals for New Mexico economic activity in 2008. Thus, for example, the employment supported directly and indirectly by ARRA through June 30, 2010 amounted to roughly 2.2% of total New Mexico payroll and individual proprietor employment in 2008. When annualized, the earnings of these workers supported by ARRA funding were about 1.9% of total New Mexico employment earnings in 2008. The value added was equal to about 1.7% of gross domestic product for New Mexico in 2008. It is interesting that ARRA supported employment represents a somewhat larger percent of total 2008 employment than either labor income of total 2008 earnings or value added of Gross Domestic Product for New Mexico in 2008.

**Table 4.1. Economic Impact of ARRA Stimulus Funding on the New Mexico Economy, through June 30, 2010**

	Employment	Labor Income (\$ million)	Value Added (\$ million)	Output (\$ million)
<b>Tax Impacts</b>				
Direct	*	*	*	*
Total	4,865	224.7	410.3	739.3
<b>Aid to Directly Impacted Individuals</b>				
Direct	1,643	79.6	113.0	196.2
Total	4,475	212.9	348.3	627.8
<b>Fiscal Stabilization</b>				
Direct	5,068	349.0	407.6	407.1
Total	7,148	446.7	584.4	726.5
<b>Stimulus and Loans</b>				
Direct	4,945	229.1	267.2	545.6
Total	7,754	363.4	506.9	981.5
<b>Total</b>				
Direct	11,657	657.7	787.8	1,149.0
Total	24,243	1,247.7	1,849.8	3,075.2
<b>Total annualized ARRA Impacts as a % of 2008 New Mexico total employment, earnings and GDP, 2008</b>				
	2.2%	1.9%	1.7%	

\* Tax cuts and incentives work by increasing disposable income households have or by providing incentives to purchase certain goods and services -- and not directly.

UNM Bureau of Business and Economic Research analysis using IMPLAN software and data reported above. NM total economic activity as reported by the US Bureau of Economic Analysis Regional Economic Accounts. <http://www.bea.gov/regional/>

Table 4.2 looks at the composition of total expenditures relative to the composition of the impacts on the economy. Stimulus projects and loans accounted for the largest chunk of funding – 32%. These programs are estimated to have yielded 32% of the jobs, but 29% of the labor income and 27% of the value added. Tax relief was the second biggest item, accounting for 29% of total expenditures through June of this year. In terms of economic impact, however, it was less impressive: 20% of the jobs, 18% of the income and 22% of the value added. Aid to individuals comprised 21% of total expenditures and yielded an estimated 18% of the jobs, 17% of the labor income and 19% of the value added.

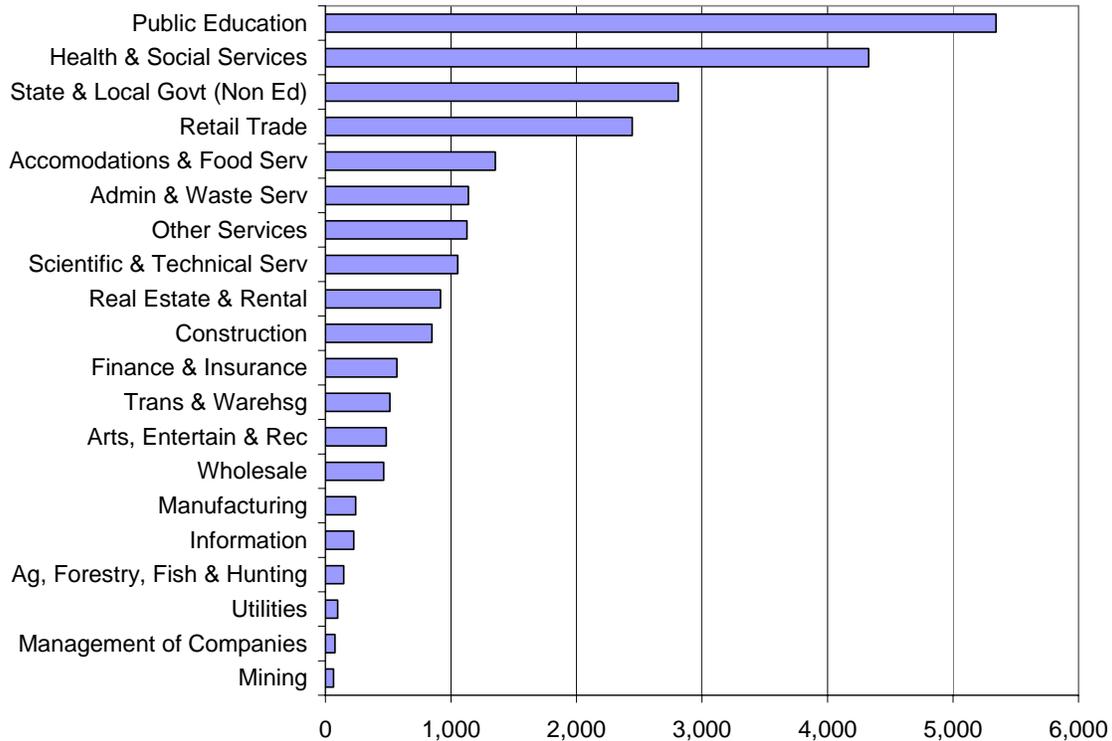
**Table 4.2. Major Programs Share of Total Expenditures and Total Impacts, ARRA Through June 30, 2010**

Type of Program	Dollars (\$ Millions)		Employment		Labor Income (\$ Millions)		GDP (\$ Millions)	
Tax Relief	770.6	29%	4,865	20%	224.7	18%	410.3	22%
Aid to Individuals	547.6	21%	4,475	18%	212.9	17%	348.3	19%
Fiscal Stabilization	490.6	18%	7,148	29%	446.7	36%	584.4	32%
Stimulus and Loans	846.3	32%	7,754	32%	363.4	29%	506.9	27%
Totals	2,655.1	100%	24,243	100%	1,247.7	100%	1,849.8	100%

UNM Bureau of Business and Economic Research Calculations

Figure 4.1 presents the analysis of the composition of ARRA job creation by industrial sector. The sector with the largest gains was public education, primarily K-12, where over 5,000 jobs were supported directly and indirectly with ARRA monies. This impact is not surprising given the major flow of federal stimulus monies to keep the schools open and teachers employed. After education, the sector with the next greatest employment impacts was health care and social assistance, reflecting federal injections into the Medicaid program, into subsidizing COBRA for laid-off workers who lost their health insurance, and other programs. In addition to these jobs, ARRA monies helped to save almost 3,000 non-educational jobs in state and local government, along with associated programs. Retail trade received a boost of more than 2,400 jobs.

**Figure 4.1. Employment Impacts of ARRA Expenditure by Sector**



UNM Bureau of Business and Economic Research Estimates

## 4.2. Filling a Deep Hole

There are no good current data on the number of individual proprietors, but in New Mexico, according to the Bureau of Labor Statistics, wage and salary employment (seasonally adjusted) fell by 52,100, or over 6.1%, between the official start of the recession in December 2007 and June 2010. Things would have been much worse without the estimated 24 thousand jobs that BBER estimates were retained or created by ARRA prior to June 30<sup>th</sup> of this year.

The most recent data from the Bureau of Economic Analysis (also seasonally adjusted) indicates a decline in wage and salary disbursements to private sector New Mexico workers of over \$1.0 billion (almost 10%) between the first quarter (data are only available quarterly) of 2008 and the second quarter of 2010. Reflecting the infusion of Census 2010 workers as well perhaps as the boost to state and local government employment from ARRA, government wages as salary disbursements actually rose – by over \$700 million – making the net decline in wage and salary disbursements \$350 million, or 1%. Over the same period, proprietors’ income, farm and non-farm, fell by \$370 million, or almost

7%. The deterioration would have been steeper without the infusion of an estimated \$1.2 million in labor income from ARRA.

Nationally and in New Mexico, it is now forecast that it will take some 6 years from the start of the recession before nonfarm payroll employment will achieve the pre-recession level of December 2007. According to the November national forecast by IHS Global Insight, when that previous high is finally achieved, unemployment will still be over 8%.

## 5. Impacts on New Mexico Economy of ARRA Spending from the Pipeline after June 30, 2010

### 5.1. ARRA Monies in the Pipeline as of July 1, 2010, by Program

Chapter 3 laid out the four types of programs under ARRA and presented estimates of expenditures through June 30 of this year. Chapter 4 presented the results of an economic impact analysis of these expenditures. This chapter will give consideration to the ARRA monies still in the pipeline and available to be spent in New Mexico beginning July 1, 2010.

#### Tax Relief

Table 5.1 presents information on the various tax relief programs, specifically, the original allocation and the amount remaining on July 1, 2010. The final column estimates expenditures for tax year 2010 that need to be included in the estimates for the state fiscal year beginning July 1, 2011. Any programs that only affected tax year 2009 – specifically, the Alternative Minimum Tax and the Car Sales Tax Deduction – have been zeroed out. BBER is assuming that the

**Table 5.1. Estimated ARRA Tax Relief, in Millions of Dollars**

	ARRA Allocation	Amount Left, July 1, 2010	Estimated Additional by June 30, 2011 *
<b>Tax Relief After 6/30/10</b>			
Making Work Pay	813.4	302.4	302.4
Alternative Minimum Tax	84.8	5.8	-
Child Tax Credit	101.1	41.7	41.7
Earned Income Tax Credit	16.4	8.7	8.7
First Time Home Buyers	42.9	11.7	11.7
Car Sales Tax Deduction	11.1	3.9	-
Tax Suspension on UI	18.2	-	-
American Opportunity Credit	114.0	57.0	57.0
	1,201.8	431.2	421.5

\* These are programs affecting tax years 2009 and 2010.

UNM Bureau of Business and Economic Research estimates based on information available from the US Treasury Department, from the Recovery.gov website, and from analyses prepared by the Council of Economic Advisors.

tax provisions applicable to 2010 will have all been used by June 30, 2011. Note that \$421.5 million in additional tax relief is identified with an expectation that all will be used by June 30, 2011.

## Aid to Directly Impacted Individuals

Table 5.2 summarizes the total funding available after July 1, 2010, to provide assistance to those directly impacted by the Great Recession. Some of these programs, most notably Medicaid, SNAP, and unemployment insurance have received additional funding as well as extensions to the time periods for which funding will be available.

**Table 5.2. Funds Available After June 30, 2010 for Aid to Directly Impacted Individuals and Families in Millions of Dollars**

	ARRA Allocation	Expenditures June 30, 2010	Additional Available
<b>Aid to Directly Impacted Individuals</b>			
Medicaid	835.2	507.6	327.7
SNAP	174.2	95.3	78.9
Emergency Food Assistance	0.7	0.6	0.1
TANF	39.7	30.0	9.7
Unemployment Benefits	194.2	102.8	91.4
Unemployment Insurance Modernization	41.8	3.5	38.3
Workforce Training	21.7	9.7	12.0
Payments to Seniors	71.6	71.6	-
COBRA Subsidy	5.8	5.8	-
Childcare Block Grant & Foster Care	35.6	18.4	17.2
WIC	2.9	0.9	2.0
	1,423.5	846.1	577.4

UNM Bureau of Business and Economic Research estimates based on information available from the New Mexico Office of Recovery and Investment and from the national databases as accessible from the Recovery.gov website,

## Fiscal Stabilization

According to BBER's calculations, on July 1 of this year there remained \$126 million in education stabilization funds.<sup>7</sup> According to the LFC's *2010 Post-Session Review*, the General Fund budget for FY 11 "includes \$23.9 million to the state equalization guarantee distribution to public schools and \$10.9 million to

<sup>7</sup> This was based on figures in Recovery.gov, specifically ARRA allocation figures of \$260.4 million for Education Stabilization (public schools) and \$57.9 million for the Education Jobs Fund, and total expenditures for education stabilization of \$192.1 million.

the institutions of higher education to be distributed through the higher education funding formula.”<sup>8</sup>

At the time that the State budget was finalized for 2011, the higher federal match for Medicaid (FMAP) was in effect only until the end of 2010. However, the general fund budget assumed that the “ARRA-enhanced federal medical assistance percentages (FMAP) will be extended for the entire FY11. As a result, \$85.3 million more is assumed available from federal funds.”<sup>9</sup>

### Other Stimulus Funds

Table 5.3 below reports the additional funds available for other stimulus projects.

**Table 5.3. Funds Available After June 30, 2010 for Other Stimulus Projects, in Millions of Dollars**

	ARRA Allocation	Expenditures June 30, 2010	Additional Available
<b>Stimulus Projects</b>			
Infrastructure and Other Construction			
Highway, Street & Bridge Const	268.4	132.5	135.8
Building Construction	93.6	26.9	66.7
Health Infrastructure	9.1	1.0	8.0
Housing Tax Credit Exchange Program	47.8	11.9	35.9
Other Construction	77.4	20.2	57.2
Nuclear and Defense	567.3	172.8	394.6
Education (Other than Fiscal Stabilization)	306.1	175.1	131.0
Other Projects	728.2	135.6	592.6
Total	2,097.8	675.9	1,421.9
<b>Loans and Bonds</b>			
ARRA Loan	64.3	10.9	53.4
ARRA Bonds	606.0		606.0
Small Business Admin. Loan Guarantee		159.4	
	670.3	170.3	659.4
<b>Total</b>	<b>2,768.2</b>	<b>846.3</b>	<b>2,081.3</b>

Sources: Recovery.gov, US Treasury Department

<sup>8</sup> New Mexico Legislative Finance Committee, *2010 Post-Session Review*, April 2010, p. 2.

<sup>9</sup> Ibid.

## **5.2. Method of Allocating Expenditures Over Time**

To model the impacts of projects in the pipeline on July 1, 2010, BBER estimated spending for each subsequent year ending June 30<sup>th</sup> -- essentially each state fiscal year -- based on the federal deadline to spend for each project, if such was available. Spending was assumed to be uniform across time. Thus, if the project was to end on June 30, 2012, the balance on July 1 of this year would be spent half in FY 11 and half in FY 12. If the end date was 2015, as is true of some major highway and other construction projects, the June 30<sup>th</sup> balance would be divided equally over the 5 years.

As is explained above, all of the tax relief programs either ended with tax year 2009 or with tax year 2010. If any of the allocation was available to be used for 2010, it was assumed that the monies would be expended by June 30, 2011. A number of the Aid to Impacted Individuals similarly had specified deadlines which would result in the program ending on or before June 30, 2011. For this reason, and because most of the New Mexico economy has continued to be in recession with year over year job declines, we first examine the economic impacts of anticipated expenditure over state fiscal year 2010-11 (FY 11), from July 1, 2010 to June 30, 2011.

## **5.3. Estimated Economic Impacts of ARRA Spending Between July 1, 2010 and June 30, 2011**

Table 5.1 presents the estimated impacts of FY 11 spending on the New Mexico economy. In general, the estimated impacts for FY 11 are of a similar magnitude to those for the period ending on June 30, 2010. ARRA spending is estimated to directly support job creation or retention for 12,254 jobs. Taking into account the multiplier, the total number of jobs created or retained is 23,382.

In terms of the average annual number of jobs supported, the effects of ARRA in FY 11 are slightly less but of similar magnitude as the employment impacts estimated for the period ending June 30, 2010. (See Chapter 4 and particularly Table 4.1.) This is because all the employment impacts in BBER's analysis are annualized to indicate the average number of jobs, full time and part time, supported over the period in question. This is not always the case for the dollars of labor income, value added and output. The dollar amounts for FY 11 cover a period of 12 months versus the almost 16.5 months covered by the analysis through June 30 of this year, and may be expected to be considerably less even if the employment impact is roughly the same. Indeed, total labor income for FY 11 is estimated to be \$821 million versus the more than \$1.2 million estimated through June 30, 2010.

**Table 5.1. Economic Impact of ARRA Stimulus Funding on the New Mexico Economy, FY 11**

	Employment	Labor Income (\$ million)	Value Added (\$ million)
<b>Tax Impacts</b>			
Direct	*	*	*
Total	3,663	\$124.7	\$227.3
<b>Aid to Directly Impacted Individuals</b>			
Direct	2,046	\$85.7	\$125.0
Total	5,016	\$189.3	\$306.8
<b>Fiscal Stabilization</b>			
Direct	1,799	\$91.8	\$103.3
Total	2,442	\$113.7	\$143.2
<b>Stimulus and Loans</b>			
Direct	8,409	\$260.7	\$289.1
Total	12,262	\$393.4	\$532.1
<b>Total</b>			
Direct	12,254	\$438.2	\$517.3
Total	23,382	\$821.0	\$1,209.4
<b>ARRA Impacts as a % of 2008</b>			
<b>New Mexico Totals **</b>	2.1%	1.7%	1.6%

\* Tax cuts and incentives work by increasing disposable income households have or by providing incentives to purchase certain goods and services -- and not directly.

\*\* Total NM value added in 2008 = State Gross Domestic Product

UNM Bureau of Business and Economic Research analysis using IMPLAN software and data reported above. NM total economic activity as reported by the US Bureau of Economic Analysis.

If an individual had an ARRA job from the start to June 30, 2010 and continued to have this job through June 30, 2011, ARRA will have directly supported the person in one job for 2 years and roughly 5.5 months. Suppose the individual earned \$50 thousand from ARRA through June 30, 2010 and another \$37 thousand over FY 11. Overall they would earn \$87 thousand working at the same job for a project supported by ARRA. In this example, the pay goes up slightly while the person worked for ARRA: they had average annual earnings through June 30, 2010 of \$36,364 and this amount increased to \$37,000 in FY11.

For an apples to apples comparison between the two periods on the impacts of ARRA on labor income and value added, it is necessary to annualize these dollar impacts as is suggested above and as was done at the bottom of Table 4.1 to give a sense of the total importance of ARRA to the total New Mexico economy. A similar comparison is made in Table 5.1. Comparing the last row of Table 5.1 with that in Table 4.1 indicates that the percentage of total employment supported fell slightly between the period ending in June of this year and that which will end on June 30, 2011: from 2.2% to 2.1%. There is also a somewhat smaller impact in FY 11 on each total labor income (17% versus 19%) and total value added, or GDP (16% versus 17%).

Table 5.2 looks at the importance of different types of ARRA programs in FY 11 relative to their total expenditures in producing the economic impacts discussed above. Stimulus projects and loans accounted for the largest amount of funding – 41%, up from 32% in the previous period. These programs are estimated to have yielded 52% of the jobs, 48% of the labor income and 44% of the value added. They had a much greater impact per dollar of expenditure in this period than in the period before June 30. Aid to individuals is estimated to account for about 28% of ARRA estimated expenditures in FY 11. BBER’s analysis indicates that this spending will account for about 21% of the jobs created or retained, 23% of the additions to labor income and 25% of the additional value added. Tax relief accounts for about 25% of the expected expenditures, but its effect on economic activity is less impressive: only 16% of the jobs, 15% of the labor income and 19% of the value added. The fiscal stimulus programs are estimated to have the highest payoff in terms of economic activity: accounting for only 6% of the dollars spent, these programs are expected to support 10% of the jobs, 14% of the labor income and 12% of the value added. Of course, the jobs directly saved in this case are government jobs, primarily teachers.<sup>10</sup>

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<sup>10</sup> BBER was unable to find consistent estimates of the amount of Medicaid FMAP monies that would be used to free up general fund dollars that would have supported Medicaid, so only the educational stabilization programs are included in the estimate.

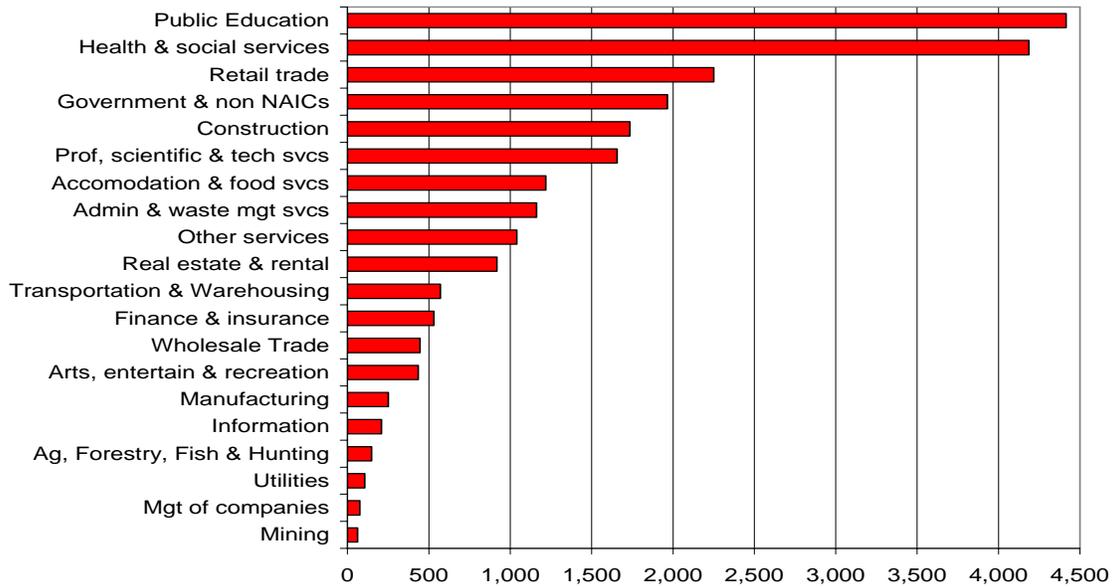
**Table 5.2. Major Programs Share of Total Expenditures and Total Impacts, ARRA, FY 11**

Type of Program	Dollars (\$ Millions)		Employment		Labor Income (\$ Millions)		Value Added (\$ Millions)	
<b>Tax Relief</b>	\$426.4	25%	3,663	16%	\$124.7	15%	\$227.3	19%
<b>Aids to Individuals</b>	\$475.2	28%	5,016	21%	\$189.3	23%	\$306.8	25%
<b>Fiscal Stabilization</b>	\$101.0	6%	2,442	10%	\$113.7	14%	\$143.2	12%
<b>Stimulus and Loans</b>	\$686.9	41%	12,262	52%	\$393.4	48%	\$532.1	44%
<b>Total</b>	\$1,689.6	100%	23,382	100%	\$821.0	100%	\$1,209.4	100%

UNM Bureau of Business and Economic Research calculations

Figure 5.1 examines the industrial sectors where jobs are estimated to be created or retained as a result of ARRA expenditures between July 1, 2010 and June 30, 2011. Note that public education tops the list, with almost 4,500 jobs created. Next is health care and social assistance, although the impressive performance of this sector reflects the inclusion of all the increase in the federal match for Medicaid (FMAP). In fact, this increase enabled the state to budget funding for other programs, so the actual expenditure (from state and federal dollars on Medicaid) did not increase as much as is suggested. On the other hand, the federal government did pay for considerably more Medicaid services as is reflected in the chart. Retail trade ranks third, with over 2,000 jobs and state and local government fourth, with just under 2,000. Construction gained over 1,700 jobs and scientific and technical services (presumably architects and engineers), about 1,600 jobs, as various infrastructure projects moved forward.

**Figure 5.1. Employment Impacts of ARRA Expenditure by Sector, FY 11**



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**5.4. Estimated Economic Impacts of ARRA Spending In the Years After July 1, 2010**

Table 5.3 presents the estimated employment impacts of ARRA spending for each of the state fiscal years beginning July 1, 2010. Note that after FY 11, the impacts of ARRA programs fall off sharply. While over 23,000 jobs are expected to be created or retained during FY 11, the figure for FY 12 is only slightly more than 6,300; that for FY 13, less than 3,000; that for FY14 and FY 15, less than 1,300 in each year. Tax relief programs end with tax year 2010. The various programs to assist impacted individuals are over or will be phased out by the end of June, 2011. Fiscal stabilization monies are drying up. Most of the longer term stimulus projects are construction projects.

**Table 5.3. Estimated Employment Impacts of ARRA Spending, State Fiscal Years 2011 through 2015**

Fiscal Years Ending June 30	2011	2012	2013	2014	2015
<b>Tax Relief</b>					
Direct	*	*	*	*	*
Total	3,663	0	0	0	0
<b>Aid to Individuals</b>					
Direct	2,046	500	0	0	0
Total	5,016	1,063	0	0	0
<b>Fiscal Stabilization</b>					
Direct	1,799	450	0	0	0
Total	2,442	610	0	0	0
<b>Stimulus and Loans</b>					
Direct	8,409	2,754	1,455	639	599
Total	12,262	4,653	2,905	1,260	1,207
<b>Total</b>					
Direct	12,254	3,704	1,455	639	599
Total	23,382	6,326	2,905	1,260	1,207

Table 5.4 complements the information in Table 5.3 by looking at the impacts on employment, labor income and value added of ARRA after June 30, 2011. In the four years for which we are showing impacts, the average number of jobs gained or retained is just under 3,000. The total additional labor income supported approaches \$500 million; the total additional value added is close to \$700 million.

**Table 5.4. Estimated Impacts of ARRA Spending, State Fiscal Years 2012 through 2015**

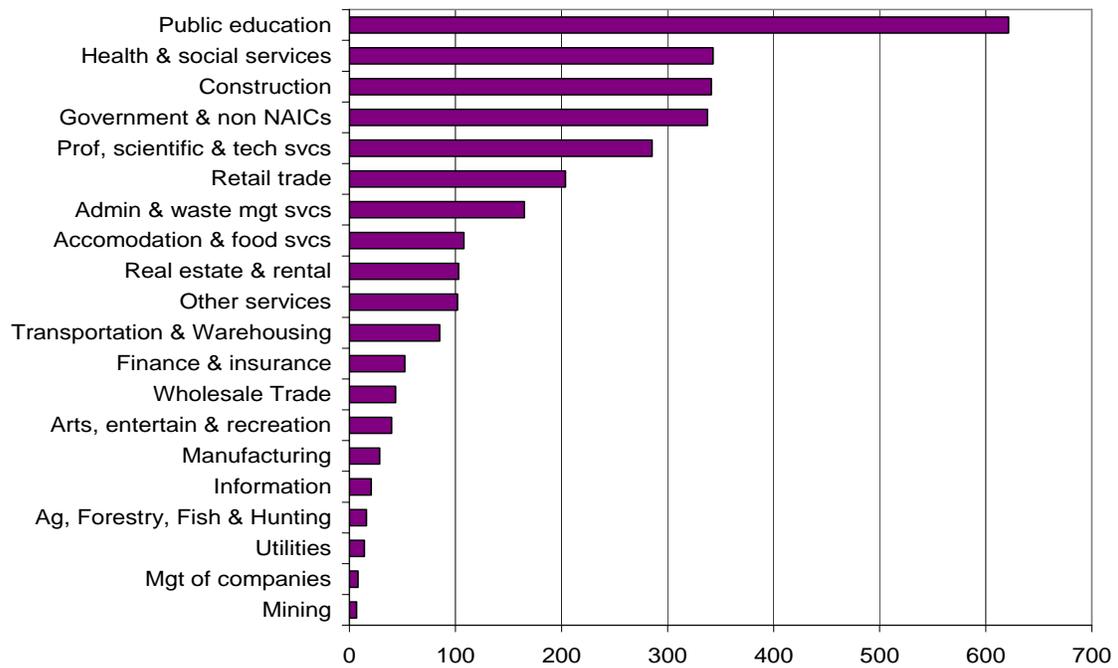
Type of Impact	Employment <sup>1</sup>	Labor Income (\$ million)	Value Added (\$ million)
<b>Tax Impacts</b>			
Direct	0	\$0.0	\$0.0
Total	0	\$0.0	\$0.0
<b>Aid to Directly Impacted Individuals</b>			
Direct	125	\$21.2	\$31.0
Total	266	\$41.0	\$66.3
<b>Fiscal Stabilization</b>			
Direct	112	\$23.0	\$25.8
Total	153	\$28.4	\$35.8
<b>Stimulus and Loans</b>			
Direct	1,362	\$253.1	\$292.9
Total	2,506	\$419.4	\$578.0
<b>Total</b>			
Direct	1,599	\$297.3	\$349.7
Total	2,925	\$488.8	\$680.0

<sup>1</sup> Employment numbers represent the average full time and partime jobs for the four years beginning July 1, 2011.

UNM Bureau of Business and Economic Research Estimates

Finally, Figure 5.2 shows the industrial composition of the average annual employment impacts from FY 12 to FY 15. Despite the winding down of spending for aid to directly impacted individuals and for fiscal stabilization public education employment continues to lead, with annual job gains of over 600; health care and social assistance is next, followed closely by construction and state and local government, all with gains of over 300 jobs per year. Scientific and technical works pick up just under 300 jobs per year.

**Figure 5.2. Employment Impacts of ARRA Expenditure by Sector, State Fiscal Years 2012 through 2015**



UNM Bureau of Business and Economic Research

## Appendix A. Methodology and Data Sources

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The objective of this economic impact analysis is to quantify economic impacts of ARRA funding on the economy of New Mexico. To analyze the economic impacts of ARRA, BBER used IMPLAN, a widely used regional economic modeling and impact analysis application that works with IMPLAN's proprietary databases to capture economic multipliers for the state and its 33 counties. In modeling the impacts of ARRA, only the state IMPLAN model was used. The IMPLAN model can be used to calculate how much of any given expenditure remains in the state and to trace the economic impacts of the spending as it ripples and through different New Mexico industries.<sup>11</sup> In the present case, these impacts include the total additional economic activity supported by the flow of ARRA monies into the state as well as by the additional in-state spending made possible because of the reduced outflow of federal tax payments or because of an improved access to credit, e.g. under ARRA loan programs.

IMPLAN provides estimates of impacts for **output**, **employment**, **labor income** and **value added**. All were included in the analysis, but we have generally chosen to report employment, labor income and value added. **Output** refers to local receipts. These could be monies provided to a particular government agency; in the case of a stimulus project involving construction, the local receipts are the contractor's receipts. **Employment** refers to the average number of individuals employed locally during a year on the project that has been funded. This may include people who are working part time or full time; it can include those who are self-employed as well as people who are wage and salary workers. **Labor income** equates to total earnings, and includes wages and salaries as well as supplements to wages and salaries (basically benefits paid by the employer), and individual proprietor income.

Modeling with IMPLAN starts with estimates of the **direct impacts** of the project. In the case where the ARRA project is a construction project, direct output refers to the local contractor's receipts. These receipts, after taxes, are generally available to be spent locally – e.g., on labor, on goods and services – but, depending upon availability, a large proportion of these receipts may be spent outside the region and outside the state. Direct employment refers to the people directly employed within the state or region by the local contractor, which may include independent contractors as well as wage and salary workers. Direct labor income refers to the total cost of this labor to the contractor, and may include self employment income. As is true of output, labor income is a pre-tax concept.

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<sup>11</sup> BBER's version of IMPLAN uses the 2004 database. Values were then inflated and expressed in 2008 dollars.

In the case of Medicaid, BBER used a breakdown of spending from the NM Human Services Department, which shows payments to providers but also the total paid to the Salud managed care contractors and for insurance under State Coverage Insurance (SCI). Tax impacts of big programs like Making Work Pay affect the economy indirectly through changes in household disposable income, which in turn affect total spending within the state on goods and services and the receipts of businesses. Assistance to directly impacted individuals often works through a similar channel, increasing household disposable income and inducing additional expenditure.

IMPLAN uses a variety of data sources to estimate the total economic impacts of economic activity, which includes impacts beyond the direct impacts. These additional impacts occur in two ways. **Indirect impacts** are a result of expenditures by the project, e.g., the construction contractor or perhaps a local school district on local goods and services. Many of these expenditures increase the demand for the goods and services of local businesses, which must then purchase additional goods and services and perhaps hire additional employees to produce additional product to meet the additional demand. The sum total of these iterative purchases and employee hiring is termed the indirect impact of the activity.

The second way in which additional economic activity occurs is through **induced impacts**, which are a result of the spending of project employees or contract workers and of spending by other employees supported as businesses gear up to satisfy the project's demand for goods and services. The first round could be set off by teachers who keep jobs they otherwise would have lost; or by nurses and doctors, health aids, etc. who continue to have their jobs in clinics or hospital reimbursed as a result of the additional monies provided by ARRA for the Medicaid program.

When the source of funding is federal, as is true in the case of ARRA spending with all the funds coming from outside the region, the indirect and induced impacts augment the initial direct impacts and yield an estimate of the total economic activity supported by the project's expenditures. Loans which must be repaid will stimulate the economy positively in the initial period but the negative impacts of future payments would need to be deducted from gains in future years.

BBER uses IMPLAN's New Mexico State model to estimate the economic impacts because activities occurring throughout the state will be captured in the model. BBER split the impacts into two general categories – impacts of funds expended before July 1, 2010 and impacts of funds either expended after June 30, 2010 or in the pipeline to be spent after that date. The analysis in this report only concerns the former category of impacts. To estimate the economic impact from the IMPLAN model, North American Industrial Classification System (NAICS) codes of major Recovery Act funding recipients were obtained from the

NETS database for New Mexico, a longitudinal database compiled from information collected by Dunn and Bradstreet. Identification of appropriate NAICS sector for each project was done by using researcher common sense and the nature of the project itself. Based on NAICS code, IMPLAN sectors were identified and associated with ARRA activities.

## 5.1 Data

Data on ARRA allocations to and expenditures in New Mexico were obtained from a variety of sources including New Mexico Office of Recovery and Reinvestment (NMORR), and Recovery.gov. and the Department of Workforce Solutions. Estimates of tax relief under different program were made using data from a number of additional sources, including the U.S. Department of Treasury, reports from the Council of Economic Advisors, Internal Revenue Service data on New Mexico tax filers and data from the New Mexico Taxation and Revenue Department. Data from the New Mexico Recovery and Reinvestment Act Project Information Portal (also called 1512 Report) as well as their reports on such critical non-1512 aid, such as Medicaid, SNAP, and TANF, proved extremely valuable. Throughout the project BBER relied heavily on the data and insight provided by the New Mexico Office of Recovery and Reinvestment. Nevertheless, as in many BBER projects, it was a challenge to reconcile the data and avoid double counting.

Various assumptions are inevitable in a study line this. Some relate to the IMPLAN model itself<sup>12</sup> and others related to study methodology. Two points should be made:

1. The stimulus only impacts the New Mexico economy if the ARRA dollars are spent *within* the New Mexico economy. However, given the large number of projects and the diverse nature of activities, tracing the type and location of spending for each project is not feasible. Therefore, BBER relied on IMPLAN model assumptions. For example, if IMPLAN indicates that only 80% of total

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<sup>12</sup> IMPLAN Model's Assumptions

- Direct employment, labor income, value added and output numbers are estimated from national industry averages. While IMPLAN uses New Mexico data, including data from the *Quarterly Census of Employment and Wages* to model the industrial structure of the state and individual counties. New Mexican industries are assumed to be similar to national industries in their input use.
- The input-output model assumes fixed coefficients and constant returns to scale, basically that each firm within an industry has the same production function. This means that a family run restaurant, for example, would use the same inputs, in the same proportion, as a multi-location fast food restaurant. It also assumes that the percentage of those inputs that are purchased locally is constant from one restaurant to the next.
- Output is assumed to be homogenous. In other words, the two restaurants would produce the same percentage of burritos, pizzas, hamburgers and other outputs.
- The model default assumes that increases or decreases in employment cause in- or out-migration from the region (State), so that full employment is maintained.
- IMPLAN models assume there is no supply constraint of any commodity. This means that there is no input substitution in this model when the relative prices of inputs change.

spending in nuclear cleanup programs are retained locally, then 20% was treated as leakage from the economy. The difference between direct output in the impact tables and expenditure amount is the leakage.

2. The impacts numbers generated by the IMPLAN model assume that economic activities occurs only in a single year rather than the 16.5 month period used in this analysis. Unless corrected for, job creation would be overstated. To resolve this issue, the model's impact number are converted to fit the 497-day duration from February 19, 2009 to June 30, 2010 by dividing by a factor 1.36 (i.e. 497 divided by 365). For example, 800 jobs for a year is equivalent to 587.5 jobs for 16.5 months<sup>13</sup>. The impact numbers presented in the report are converted to represent the entire 16.5 month period.

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<sup>13</sup> In this example, IMPLAN output indicates that in order to account for job creation for a given amount of stimulus funding in a single year, 800 employees would be hired. However, given the same amount to stimulus funding over 16.5 months, 587.5 employees would be hired. Because the given stimulus fund must stretch for an additional 4.5 months, the number of employees is necessarily reduced.



## **Appendix B: Programs Tracked by the New Mexico Office of Recovery and Reinvestment**

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Table B.1 is reproduced from a table produced by the New Mexico Office of Recovery and Reinvestment (NMORR). It shows the cumulative expenditures through June 30, 2010, on Section 1512 programs that flow through state agencies. All these programs are subject to the Jobs Accountability Act. Reports on expenditures and direct employment must be filed quarterly. All these programs are tracked in considerable detail on the NMORR website. Note that the cumulative direct employment reported in this table is the number of individuals employed directly on any of these programs since start-up. This number is considerably larger than the figures used by BBER, which instead provide estimates of the average number of jobs directly supported by the programs since ARRA was signed into law. Table B.1 also reports some non-Section 1512 programs that channel funding through state agencies, including Medicaid and Unemployment Compensation programs.

Table B2 provides more details on the total allocations for these non-Section 1512 programs as well as receipts and expenditures through June 30, 2010.

Table B3 presents information from the Recovery.gov website on ARRA awards where New Mexico was the primary place of performance. The table includes amounts destined for New Mexico even though the primary place of performance was elsewhere.

**Table B.1 Expenditures and Employment through June 30, 2010.**

**NEW MEXICO OFFICE OF RECOVERY AND REINVESTMENT**  
Federal Reporting Summary for Quarter Ending June 30, 2010

AGENCY	People Employed Due to ARRA Funding (Cumulative)**** 2/17/2009 to 6/30/2010	People Employed Due to ARRA Funding**** (Apr-May-Jun 2010)	Total FTEs**** For Quarter Apr-May-Jun 2010	Total ARRA Spent (1512 Reporting) Cumulative 2/17/2009 to 6/30/2010	Total ARRA Spent (Non-1512 Reporting) Cumulative 2/17/2009 to 6/30/2010	Grand Total ARRA Cumulative 2/17/2009 to 6/30/2010
2 Aging and Long-Term Services	16	9	3.00	654,024.00		\$654,024.00
3 Children, Youth and Families	183	156	63.35	10,558,755.66		\$10,558,755.66
4 Crime Victims Reparations Comm.	97	76	25.53	891,139.91		\$891,139.91
5 Department of Cultural Affairs	44	35	12.14	243,787.37		\$243,787.37
6 Department of Finance and Admin.	152	92	35.09	551,978.40		\$551,978.40
7 DFA-Government Services Fund	19	16	6.32	3,260,564.93		\$3,260,564.93
8 EMNRD (Energy)	238	203	54.64	6,046,744.49		\$6,046,744.49
9 Environment Department	541	453	99.89	7,832,448.73		\$7,832,448.73
10 Department of Health	572	422	25.56	2,290,657.38		\$2,290,657.38
11 Human Services Department	91	76	42.81	5,975,302.00		\$5,975,302.00
12 Commission For The Blind	2	2	0.00	492,208.81		\$492,208.81
13 Information Technology	1	1	0.08	20,000.69		\$20,000.69
14 New Mexico Finance Authority	373	334	92.09	4,159,208.17		\$4,159,208.17
15 Mortgage Finance Authority	436	377	76.99	10,356,245.40		\$10,356,245.40
16 Public Education Department	3,314	1,601	321.05	69,035,321.56		\$69,035,321.56
17 Public Education Stabilization	5,053	3,547	1,758.18	188,838,524.94		\$188,838,524.94
18 Higher Education Department	0	0	0.00	95,625.00		\$95,625.00
19 Public Safety	211	120	52.35	6,057,015.69		\$6,057,015.69
20 Dept. of Transportation Transit	31	5	0.56	6,866,371.32		\$6,866,371.32
21 Dept. of Transportation FHWA	1,880 **	1,880	631.30	119,963,766.09		\$119,963,766.09
22 Division of Vocational Rehabilitation	27	22	15.73	1,087,612.96		\$1,087,612.96
23 Department of Workforce Solutions	1,956 ***	139	59.12	9,535,339.53		\$9,535,339.53
24 Tax Credit Exchange Program					\$11,865,134.19	\$11,865,134.19
25 Medicaid					\$507,550,599.00	\$507,550,599.00
26 Child Support Enforcement					\$5,132,820.61	\$5,132,820.61
27 Emergency Assistance					\$30,015,078.00	\$30,015,078.00
28 Food Stamps					\$95,284,719.00	\$95,284,719.00
29 Emergency Food Assistance Program (food value)					\$572,966.01	\$572,966.01
30 Unemployment Benefits					\$106,325,138.00	\$106,325,138.00
31 Foster Care/Adoption Assistance					\$2,812,731.00	\$2,812,731.00
32 WIC Supplemental					\$546,044.00	\$546,044.00
33 <b>ARRA TOTALS</b>	<b>15,235</b>	<b>9,564</b>	<b>3,375.78</b>	<b>454,812,643.03</b>	<b>\$760,105,229.81</b>	<b>\$1,214,917,872.84</b>
34 HB920 Reserves to State General Fund*						133,300,000

35 \* Footnote: Transfer of remaining General Fund appropriation for Medicaid resulting from increased federal participation in the Medicaid program

36 \*\*Federal Highway Administration's required ARRA tracking system does not provide cumulative data

37 \*\*\*Includes 1,709 summer youth

38 \*\*\*\*These jobs have been funded in the public and private sector as a result of spending by state agencies

**Table B. 2. ARRA Programs That Are Not Part of 1512 Reporting**

<b>ARRA Program and Related Department</b>	<b>Sum of Estimated ARRA Amount</b>	<b>Sum of Receipts</b>	<b>Sum of Expenses</b>
<b>Children, Youth and Families Department</b>			
Foster Care and Adoption Assistance	\$4,360,000	\$2,824,223	\$2,812,731
<b>Human Service Department</b>			
Child Support Enforcement Incentive Grant 1	\$13,407,500	\$4,985,338	\$5,132,821
Medicaid 1, 3	\$835,223,230	\$517,178,092	\$507,550,999
Supplemental Nutrition Assistance Program (Food Stamp)	\$172,000,000	\$94,174,287	\$94,174,287
Supplemental Nutrition Assistance Program (Food Stamp administrative)	\$2,232,391	\$1,110,432	\$1,110,432
The Emergency Food Assistance Program 2	\$691,557	\$572,966	\$572,966
Temporary Aid to Needy Families Emergency Contingency Incentive Block Grant	\$33,173,430	\$26,738,528	\$26,738,528
Temporary Aid to Needy Families Supplemental	\$6,553,100	\$3,276,550	\$3,276,650
<b>New Mexico Mortgage Finance Authority</b>			
Tax Credit Exchange Program	\$47,777,169	\$11,865,134	\$11,865,134
<b>Workforce Solution Department</b>			
Unemployment Benefits Extension 5	\$104,017,356	\$31,319,865	\$31,319,865
Unemployment Benefits Increase 5	90,199,550	\$71,503,025	\$71,503,025
Unemployment Insurance Modernization - Reed Act	39,022,582	\$2,585,848	\$2,628,149
Unemployment Insurance Modernization - Reed Act (administrative)	\$2,787,327		\$874,099
<b>Total</b>	<b>\$1,351,445,192</b>	<b>\$768,134,288</b>	<b>\$759,559,686</b>

**Table B.3. ARRA Funds Allocated for New Mexico as the Primary Place of Performance or as a Major Subcontractor and Expenditures as of June 30, 2010**

State	Amount of Award	Total Federal Amount of ARRA Funds Received	Total Federal Amount of ARRA Expenditure
AK	\$30,665,259	\$25,569,838	
AL	\$672,244	\$94,902	
AZ	\$22,590,109	\$4,530,173	\$29,198
CA	\$61,871,805	\$14,457,495	
CO	\$42,371,652	\$7,452,515	\$341,704
DC	\$1,584,680	\$830,961	
FL	\$2,363,385	\$2,302,609	
ID	\$9,420,913	\$4,182,095	\$57,927
MA	\$81,954	\$81,954	
MD	\$962,665	\$962,665	
MI	\$26,129,128	\$3,808,942	
MN	\$41,595	\$41,595	\$41,595
MO	\$1,440,413	\$1,320,613	\$0
NC	\$20,296,970	\$0	
NE	\$1,750,216	\$1,454,398	\$7,717
NH	\$353,843	\$21,938	\$21,938
NJ	\$67,700	\$67,700	
NM	\$2,095,260,735	\$774,493,870	\$866,714,782
NV	\$36,419	\$36,419	
NY	\$2,427	\$2,427	
OH	\$5,490,590	\$1,261,738	
OK	\$7,483,359	\$3,174,822	
OR	\$994,381	\$378,366	
PA	\$44,429	\$44,429	
SD	\$920,220	\$204,475	
TN	\$7,448,862	\$4,115,320	
TX	\$26,307,321	\$17,691,779	\$628,971
UT	\$445,287	\$430,244	
VA	\$11,311,537	\$7,719,348	
WA	\$1,316,045	\$299,842	
WI	\$2,617,022	\$286,151	
Grand Total	\$2,382,343,164	\$877,319,624	\$867,843,832

Source: Recovery.gov: <http://www.recovery.gov/Pages/default.aspx>, as downloaded Sept 10, 2010

## Appendix C. Tax Relief Programs

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NMORR does not tract the details on specific ARRA programs extending tax relief to individuals and businesses. This appendix describes the particular tax relief programs and the methodologies used in estimating the benefits to New Mexico.

### Specific Program Descriptions and Methods of Estimation

#### Making Work Pay

**Description** - This is a federal tax credit that shows up directly in a worker's paycheck – i.e. a filer does not need to claim the credit on tax forms to receive it. From what I understand, it reduces the percentage of social security tax that an employee must pay and as a result the employee's income increases. It was expected that workers' paychecks would increase by about \$8-\$10 per week. It is important to note that the credit is NOT the same as the 2008 Federal Tax Rebates (also called the Bush Tax Rebates). In that case, taxpayers received a lump sum check if they fell within certain income parameters. The Making Work Pay income tax credit, on the other hand, increases the dollar amount of a worker's periodic paycheck.

**Distribution Methodology** – National figures are based on Recovery.gov website. New Mexico figures computed according to the proportion of benefits received by New Mexicans according to the Council of Economic Advisers Third Quarterly Report. The total was distributed amongst income ranges according to the same source, but according to the reported national distribution. No New Mexico specific distribution of benefits was available.

#### Alternative Minimum Tax

**Description** – ARRA includes an Alternative Minimum Tax patch for 2009 and increases exemption amounts to \$46,700 for individuals and to \$70,950 for joint filers. AMT liability can be reduced by the nonrefundable personal credits.

**Distribution Methodology** – The Council of Economic Advisers reported that \$68B in Alternative Minimum Tax relief has been afforded nationally from the start of Q2 2009 to the end of Q2 2010 (five quarters). Federal income tax data suggests that \$25.6B in Alternative Minimum Taxes were paid nationally in 2008. In order to estimate the New Mexico proportion of Alternative Minimum Tax relief, the following procedure was conducted. First, five quarters of national Alternative Minimum Tax data was estimated because Alternative Minimum Tax relief via

ARRA had been available for five quarters.<sup>14</sup> Next, \$68B (the amount of relief reported by the Council of Economic Advisers) was added to the five-quarter Alternative Minimum Tax amount. The percent increase between the amount of Alternative Minimum Tax actually paid, reported on the 2008 national federal income tax filings, and the five quarter amount in addition to the \$68B was computed. This percentage represents the hypothetical percentage increase in tax burden had the tax relief not gone into effect. Next, the amount paid by New Mexicans in Alternative Minimum Tax according to 2008 income tax filings was obtained, and the computed percentage increase was multiplied with this amount. Subtracted from this amount was the amount actually paid, which represents the relief received by New Mexico taxpayers. Unfortunately there is no precise way to identify which taxpayers received relief. Therefore, the relief amount was distributed in accordance with the relative proportion of tax filers paying Alternative Minimum Tax in New Mexico in 2008.

### **Child Tax Credit**

**Description** - This is a tax credit that relates to the refundable portion of the child tax credit (CTC) and is allowed for certain tax payers who cannot claim their full CTC because their tax liability is not high enough. Specifically, it reduces the income level at which a taxpayer can begin claiming the ACTC from \$12,500 to \$3,000 in 2009 and 2010.

**Distribution Methodology** – First, 2008 NM federal tax data and 2008 national tax data were compared and the proportion of total belonging to New Mexico was calculated. This proportion was then multiplied with the total National amount to obtain the amount paid to New Mexico. This amount was then distributed based upon 2008 NM Federal Tax data of New Mexicans receiving the Child Tax Credit.

### **Increase in Earned Income Tax Credit**

**Description** – The Earned Income Tax Credit is a refundable tax credit for low to moderate income households. When the earned Income Tax Credit exceeds the amount of taxes owed, the filer receives a refund.

**Distribution Methodology** - First, 2008 NM federal tax data and 2008 national tax data were compared and the proportion of total belonging to New Mexico was calculated. This proportion was then multiplied with the total National amount to obtain the amount paid to New Mexico. This amount was then distributed based upon 2008 NM Federal Tax data of taxpayers receiving the Earned Income Tax Credit.

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<sup>14</sup> In essence, AMT was calculated per quarter by dividing \$25.6B by four. Then, that amount was multiplied by five to account for five quarters.

## **First Time Homebuyer Credit**

**Description** – The First Time Homebuyer Credit is (was) a fully refundable tax credit received when a first time homebuyer purchases a home. The amount credited to the taxpayer's taxes is the lesser of 10% of the home's purchase price or \$8,000. However, the credit is phased out at income levels of \$125,000 for single taxpayers and \$225,000 for married couples filing joint returns for sales occurring after November 6, 2009 and \$75,000 for single taxpayers and \$150,000 for married taxpayers filing joint returns on or after January 1, 2009 and on or before November 6, 2009. The benefit was extended in cases where a binding sales contract was signed by April 30, 2010. If the April 30th deadline is met, the home purchase completed by September 30, 2010 will qualify

**Distribution Methodology** – 2008 national federal income tax data was not available for this item; therefore, the percentage of individuals, who are New Mexicans, receiving this credit was estimated by first calculating the percentage of New Mexicans compared to the total US population. This proportion was then multiplied with the total National amount obtain (estimated using data from Recovery.gov and the Council of Economic Advisers and my estimate) paid to New Mexico. This amount was then distributed based upon 2008 NM Federal Tax data of New Mexicans receiving the First Time Homebuyer credit.

## **Car Sales Tax Deduction**

**Description** – Provides a deduction for car purchasers that do not itemize. This allows the non-itemizing taxpayer to deduct the tax on a new car that meets Clean Air Act standards (up to a vehicle price of \$49,500). The deduction phases out for taxpayers with income between \$125,000 and \$135,000 for single filers (\$250,000 and \$260,000 for joint filers).

**Distribution Methodology** - 2008 national federal income tax data was not available for this item; therefore, the percentage of individuals, who are New Mexicans, receiving this credit was estimated by first calculating the percentage of New Mexicans compared to the total US population. This proportion was then multiplied with the total National amount obtain (estimated using data from Recovery.gov and the Council of Economic Advisers and my estimate) paid to New Mexico. Additionally, this item was not available for 2008 NM Federal tax filings. Therefore, the amount was distributed based upon the TOTAL FILINGS for the 2008 NM Federal Tax filings.

## **Suspension of Tax on Unemployment Insurance**

**Description** - Allows taxpayers to exclude up to \$2,400 in unemployment compensation from gross income for 2009.

***Distribution Methodology*** - First, 2008 NM federal tax data and 2008 national tax data were compared and the proportion of total belonging to New Mexico was calculated. This proportion was then multiplied with the total National amount to obtain the amount paid to New Mexico. This amount was then distributed based upon 2008 NM Federal Tax data according to taxpayers claiming unemployment.

### **American Opportunity Credit**

***Description*** – This is a new credit that replaces and expands the *Hope Credit* and is essentially a credit for taxpayers paying higher educational expenses. The taxpayer receives a 100% credit on first \$2,000 of qualified expenses and 25% on the next \$2,000, for a maximum of \$2,500. The income threshold at which the credit begins to phase out is increased to \$80,000 for single filers and \$160,000 for joint filers. 40% of the credit is refundable and therefore available to taxpayers with little or no income tax liability.

***Distribution Methodology*** – The document: [Report Showing American Opportunity Tax Credit Making College More Affordable for Students and Their Families](#), published by the US Treasury was consulted for this item. According to the Treasury report, New Mexicans had received \$57 million in tax relief as a result of the American Opportunity Credit for the tax year 2009. Because this credit is not a line item on the 2008 New Mexico tax returns, the distribution of individuals receiving the tax benefit was assumed to be the same as the distribution of the taxpayer population. Therefore, the New Mexico allocation was distributed according to the distribution of the New Mexico taxpayer base.

## Tax Relief Programs and Their Details

Tables C2 and C3 break the New Mexico tax benefit allocations down by income range. Specifically, Table C1 shows a break-down of the Making Work Pay tax credit by itself, while lists the remaining tax benefit programs. Notice that the income ranges in the two tables are different. The difference is due to the fact that the data published by the Council of Economic Advisers for the Making Work Pay tax credit uses the income ranges listed in the first table, while much of the New Mexico specific data for the remaining programs is from the Internal Revenue Service, which uses the income ranges listed in Table C3.

It is important to note that the Making Work Pay tax credit was available to most taxpayers; therefore, the benefits are distributed in roughly relative proportion to the number of taxpayers in each income bracket. At the lowest income ranges, the benefit begins to phase-in and at the highest income bracket, the benefit phases out. The remaining tax programs are closely related to income. For instance, the majority of Alternative Minimum Tax benefits are received by individuals at the relatively higher income brackets. This is because the taxpayers receiving the largest benefit tend to be at the higher income ranges. The remaining tax programs are explicitly designed to assist taxpayers in the lowest income ranges, as the disproportionate benefits received by those groups can be viewed in Table C3. For instance, excepting the Alternative Minimum Tax Relief benefit, the lowest income bracket receives over 65% of all benefits in that table.

**Table C2. Making Work Pay Tax Credit – Benefits to New Mexicans by Income Range**

<b>Making Work Pay</b>	
<b>Income Quintile</b>	<b>Amount</b>
\$0-\$12,000	\$ 33,215,000
\$12,000-\$25,000	\$ 80,227,000
\$25,000-\$43,000	\$ 108,332,000
\$43,000-\$78,000	\$ 151,256,000
\$78,000-\$152,000	\$ 127,750,000
>\$152,000	\$ 10,220,000
<b>Totals</b>	<b>\$ 511,000,000</b>

Council of Economic Advisers and  
Recovery.gov

**Table C3. Various Personal and Individual Tax Programs – Benefits to New Mexicans by Income Range**

Income Quintile	Tax Program Names							Total
	Alt. Min Tax	Child Tax Credit	Earned Income Credit	First Time Homebuyer	Car Sales Tax Deduction	Tax Suspension on UI	American Opp Credit	
\$0-\$50,000	\$ 594,105	\$ 33,690,605	\$ 7,655,953	\$ 18,552,549	\$ 5,104,235	\$ 13,883,221	\$ 40,691,103.0	\$ 120,171,771
\$50,000-\$75,000	\$ 707,602	\$ 12,866,953	\$ -	\$ 7,786,456	\$ 876,941	\$ 2,321,183	\$ 6,991,000.0	\$ 31,550,136
\$75,000-\$100,000	\$ 1,478,257	\$ 7,713,398	\$ -	\$ 3,319,463	\$ 505,593	\$ 1,091,075	\$ 4,030,605.0	\$ 18,138,392
\$100,000-\$200,000	\$ 8,250,217	\$ 5,169,107	\$ -	\$ 1,541,531	\$ 531,385	\$ 819,908	\$ 4,236,216.0	\$ 20,548,364
\$200,000 or more	\$ 67,925,568	\$ 3,456	\$ -	\$ -	\$ 131,845	\$ 97,620	\$ 1,051,076.0	\$ 69,209,566
<b>Total</b>	<b>\$ 78,955,749</b>	<b>\$ 59,443,518</b>	<b>\$ 7,655,953</b>	<b>\$ 31,200,000</b>	<b>\$ 7,150,000</b>	<b>\$ 18,213,007</b>	<b>\$57,000,000.0</b>	<b>\$ 259,618,228</b>

Recovery.gov, US Treasury, Council of Economic Advisers, IRS - 2008 National and NM State Returns, Calculations: UNM-BBER

## Appendix D. ARRA Loans and Bonds

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Although small business loans, ARRA loans and bonds certainly produced an economic impact, these amounts are to be repaid by the lender in future. If we include the cost of capital use in the equation, economic impacts are close to zero. However, given the downward spiraling of the national and the state economies in 2009, these activities have helped to prop up economic activity. BBER estimated the economic impacts of these programs to show their importance in this context. Table E1 provides the details on the distribution of ARRA Loans. Table E2 provides detail on the various types of ARRA Bonds.

**Table D1. ARRA Loan Amount and Spending by Recipient, as of June 30, 2010**

Recipient Name	Loan Amount	Amount Received	Amount Paid Out
LOGAN, VILLAGE OF	\$1,073,000	\$355,046	\$355,046
PUEBLO OF ACOMA	\$11,109,600	\$9,108,862	\$9,108,862
SANTA ROSA, CITY OF	\$4,261,000	\$635,817	\$635,817
GRATINGS INC	\$150,000	\$100,000	\$90,000
GUADALUPE, COUNTY OF	\$9,400,000	\$0	\$0
RUIDOSO DOWNS, CITY OF	\$1,000,000	\$0	\$0
SOCORRO, CITY OF (INC)	\$1,230,000	\$0	\$0
TAOS COUNTY CLERK	\$15,000,000	\$0	\$0
TUCUMCARI, CITY OF	\$4,376,000	\$466,504	\$466,504
VILLAGE OF RUIDOSO	\$8,755,000	\$0	\$0
BACA VALLEY TELEPHONE COMPANY, INC.	\$1,651,000	\$0	\$0
PENASCO VALLEY TELEPHONE COOPERATIVE, INC.	\$4,818,607	\$0	\$0
NEW MEXICO COMMUNITY DEVELOPMENT LOAN FUND	\$750,000	\$525,000	\$270,132
WOMEN'S ECONOMIC SELF-SUFFICIENCY TEAM, CORP.	\$750,000	\$250,000	\$0
Grand Total	\$64,324,207	\$11,441,228	\$10,926,360

Source: Recovery.gov as pulled September 24, 2010

**Table D2. Total ARRA Bond Amounts**

ARRA Bonds	Amount (\$ Millions)
Recovery Zone Economic Development Bond Allocation	\$90.0
Recovery Zone Facility Bond Allocation	\$135.0
2009 Qualified School Construction Bond Allocation <sup>a</sup>	\$86.6
2010 Qualified School Construction Bond Allocation <sup>a</sup>	\$87.1
Qualified Energy Conservation Bond Allocation	\$20.6
2009 Qualified Zone Academy Bond Allocation	\$12.2
2010 Qualified Zone Academy Bond Allocation	\$11.3
Tribal Economic Development Bond Allocation 2/	\$53.4
Build America Bond Total Amount <sup>b</sup>	\$109.9
Total	\$606.0

a. Includes state allocations as well as large local educational agencies.

b. Issuance data collected from Bloomberg.

Source: US Department of the Treasury, Recovery Act data as of 7-31-2010

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# Glossary

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## Definitions

- Impact Analysis: estimate of the impact of dollars from Recovery Act funding on the State of New Mexico.
- Output: the total economic activity resulting from Recovery Act funded project operation and construction activities on the state.
- Employment: the estimated number of jobs (including full and part-time by place of work) created as a result of Recovery Act funding.
- Direct Impacts: the initial, immediate economic impacts generated by Recovery Act initial expenditures.
- Indirect Impacts: the secondary impact caused by changing input needs of directly affected industries (e.g., additional input purchases to produce additional output).
- Induced Impacts: the economic impact resulting from Recovery Act funded project's direct employees spending a portion of their salary on goods and services for personal consumption. Induced impacts also resulted from the additional household spending attributed to different tax relief programs and income maintenance programs.
- Employee compensation: wage and salary payments as well as benefits.
- Final Demand: the sales of economic goods and services to purchasers who are the ultimate users or consumers of these products. The examples of ultimate users are household, government, export, etc.
- Labor Income: wage and salary workers' compensation plus self employment or proprietors' income
- Value Added: includes employee compensation (wage and salary plus benefits), proprietor income (payment received by self-employed individuals), other property type income (such as interest, rent, royalties, and dividends) and indirect business taxes (excise and sales taxes paid by individuals to businesses). Total value added provides a measure of the total domestic product, or Gross Domestic Product.
- Multipliers: represent the numeric summaries that indicate the total change in economic activity due to a one-unit direct change. The value of 1.5 employment multiplier explains that for each unit increase in direct job, an additional 0.5 job is generated in an economy.