



The Economic Impact of Banking Job Losses in Georgia:

**An Economic Impact Study by
the University of West Georgia
Center for Business and Economic Research
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*Center for Business and
Economic Research*

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Executive Summary

The impacts of Georgia's banking collapse and subsequent banking job losses have been felt across all sectors of the Georgia economy. During the housing market collapse and subsequent financial turmoil, Georgia became home to a disproportionately large number of both housing foreclosures and bank failures. Although 91.3% of the banks that failed in Georgia were merged into the operations of an acquiring bank, large numbers of banking positions were eliminated. Community-based banks accounted for the vast majority of bank failures, possibly because of their relatively small size.

Over the period from March 2006 (peak banking employment) to March 2010 (lowest banking employment post-recession) between 14,000 and 16,000 banking-related jobs were lost, and only recently have these jobs begun to return to the state. An additional 20,308 job losses within the state over the 2006-2010 period can be attributed to a decline in the banking sector. About 8,749 jobs were lost in industries and firms that directly supported banking activities, which included professional services, securities, contract services, and real estate services. An additional 11,559 jobs were indirectly lost in industries that sold goods and services to those earning incomes from these supporting activities. In total, the four-year slide in banking sector employment has cost the state an estimated 36,308 jobs. Thus, for every one job lost from the banking sector, we estimate that another 1.26 jobs were eliminated within the state as a result. In total, the decline in Georgia's banking sector cost the state more than 36,000 jobs.

The loss in labor income associated with these banking jobs (including benefits) accounts for \$1-\$1.2 billion. The reduction in banking activity cost the state a total \$4.2 billion in directly generated output. Another \$2.8 billion in indirect and induced economic activity was also lost over the period. From the most recent peak in banking employment (2006) to the most recent banking employment low (2010), the reduction in banking activities in Georgia resulted in an estimated economic output loss of \$7.0 billion.

The loss in tax revenues to both the state and local governments was substantial. The state is estimated to have lost \$115 million in tax revenues from the income tax (personal and corporate) and the sales tax. Local governments are estimated to have lost an additional \$118 million in property tax and local sales tax revenues.

Section 1: Introduction

The housing market collapse, the Lehmann Brothers bankruptcy and the 2007-2009 recession have combined to change the landscape of banking in both the U.S. and in Georgia. Like several other states, Georgia's economy was heavily dependent on both population and income growth. With rising wages in the Atlanta Region came more workers, and with workers came a rising demand for housing, financed, in many cases, by Georgia banks.

As demand for owner-occupied housing grew across the nation, new financing alternatives became available to allow more mortgage applicants to qualify for loans. It was these loans that started the avalanche of foreclosures that eventually inundated and forced the closure of many Georgia banks. Although 91.3% of the banks that failed in Georgia were merged into the operations of another acquiring bank, large numbers of banking positions were eliminated. Depending on the source of the employment numbers used, between 14,000 and 16,000 jobs have been lost in the banking sector in Georgia alone since the beginning of the recession (December 2007). Only two years into the economic recovery has there been any significant job creation in Georgia's financial sector. The goal of this analysis is to estimate the economic impact of the loss of these banking jobs in Georgia.

Though all banks were affected by the housing downturn, smaller community-based banks that were located in fast-growing areas were especially vulnerable. Since 2000, the state of Georgia has seen 80 of its banks fail. The loss of these banks has had a substantial negative impact on the communities they served, which stretches well beyond the front doors of these failed banks.

This economic impact analysis examines the economic and fiscal impact of the banking sector job losses in Georgia. This analysis includes the direct impacts of job losses suffered by permanent employees in the banking industry, the indirect effects that other industries in the supply chain supporting banking operations, along with the induced impact from the lost spending of income by former employees of the Georgia banks, their contractors, subcontractors, suppliers, etc.

Data for this analysis were obtained from the Georgia Department of Labor (GA-DOL) and from the Federal Depository Insurance Corporation (FDIC) on both employment and wages at various points in time. The University of West Georgia Center for Business and Economic Research (CBER) conducted this research and used a nationally recognized and industry-standard model (IMPLAN 3.0), along with generally accepted practices, to estimate the impacts of the recent reduction in banking employment and operation on the state of Georgia. The CBER is a division of the Richards College of Business at the University of West Georgia. The CBER produced this report as part of a grant provided by the Main Street Association.

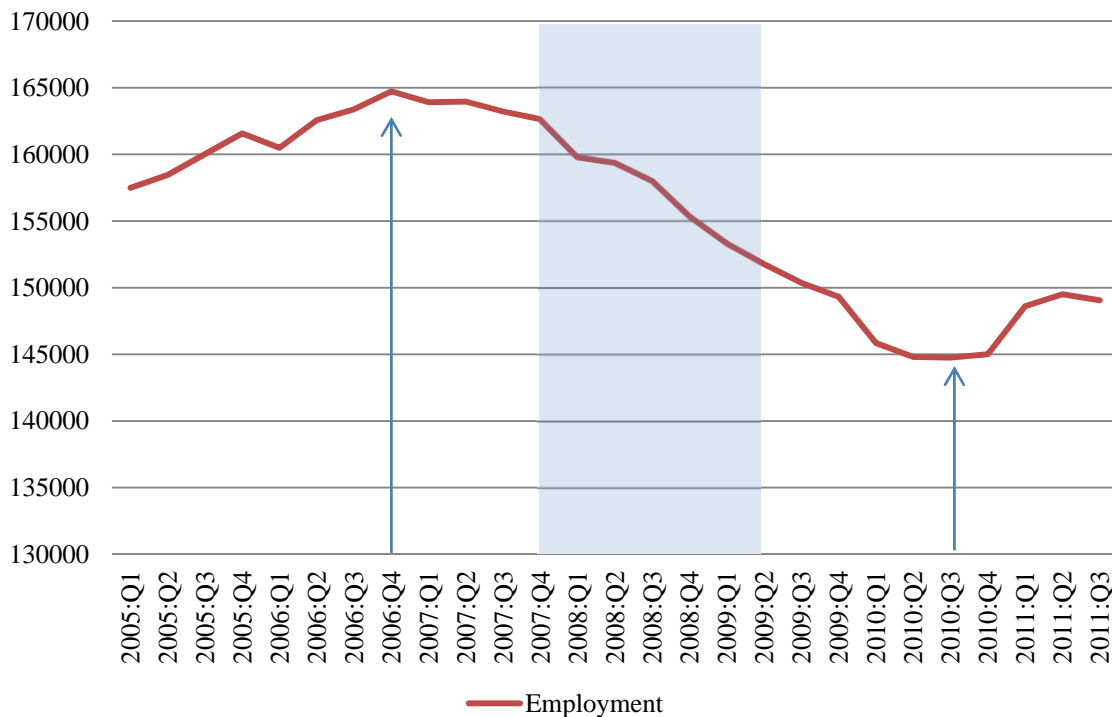
The remainder of this report is divided into 5 sections:

- **Section 2 provides background information on the banking crisis in Georgia.**
- **Section 3 presents estimated fiscal (tax-related) and economic impacts for the state. These impacts include jobs, income, output, and tax revenue lost.**
- **Section 4 provides concluding remarks, and**
- **Section 5 provides detail about the techniques used to develop the estimates.**

• **Section 2: The Banking Crisis in Georgia**

The banking industry is contained within the Finance and Insurance sector within the North American Industry Classification System (NAICS 52). The State of Georgia provides employment data at the NAICS 2-digit level on a quarterly basis. Figure 2.1 depicts quarterly employment for the finance and insurance sector for the past seven years. In 2006:Q4, finance and insurance provided 164,732 jobs to the State of Georgia. By 2010:Q3, employment in this sector had fallen to 144,761, a decline of 19,971 jobs from peak to trough, or a 12.1% decrease in overall employment for the sector. As indicated in Figure 2.1, the banking sector started shedding employment one full year prior to the official start of the recession and continued seeing job losses until the 2010:Q3, more than a year after its end. Even though there have been some jobs created with the past year, the recovery in employment in the finance and insurance sector has not been sustained.

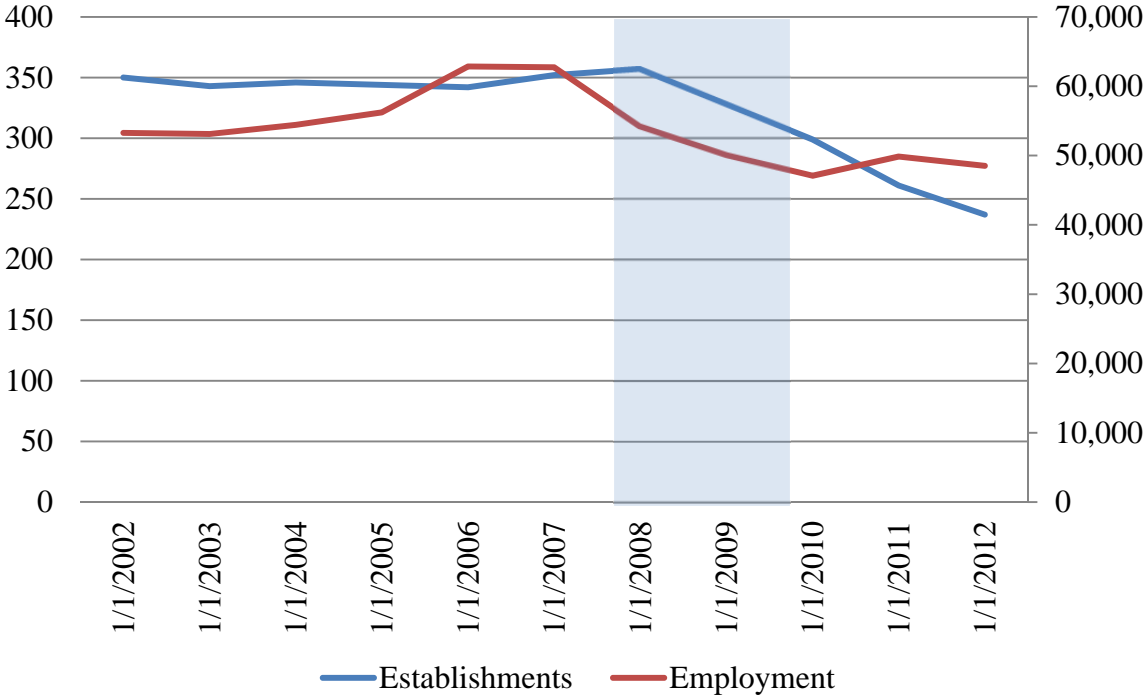
Figure 2.1:
Employment in Finance & Insurance
(2005:Q1 - 2011:Q3)



Georgia currently is home to 232 reporting FDIC-insured institutions, which are comprised of both savings institutions and commercial banks. As of March, 2012, these institutions employed a full-time equivalent (FTE) of 48,516 workers (see Figure 2.2). In March, 2006 employment in FDIC-insured institutions in the state reached a peak of nearly 63,000 FTE workers. By March 2010, the employment level had fallen to 47,083, a decline of 25.1% over the period. In terms of employment, FDIC-insured institutions performed substantially worse than other types of firms within the overall financial industry. Over approximately the same time period, 2006 to 2010, commercial banks and

savings institutions had more than twice the rate of jobs loss than did the finance and insurance industry grouping (NAICS 52). Furthermore, the decline in the number of firms insured by the FDIC shows no sign of rebounding. Since its peak in 2008, a third fewer FDIC-insured institutions are reported in Georgia, and the end of the recession has not changed this downward trend.

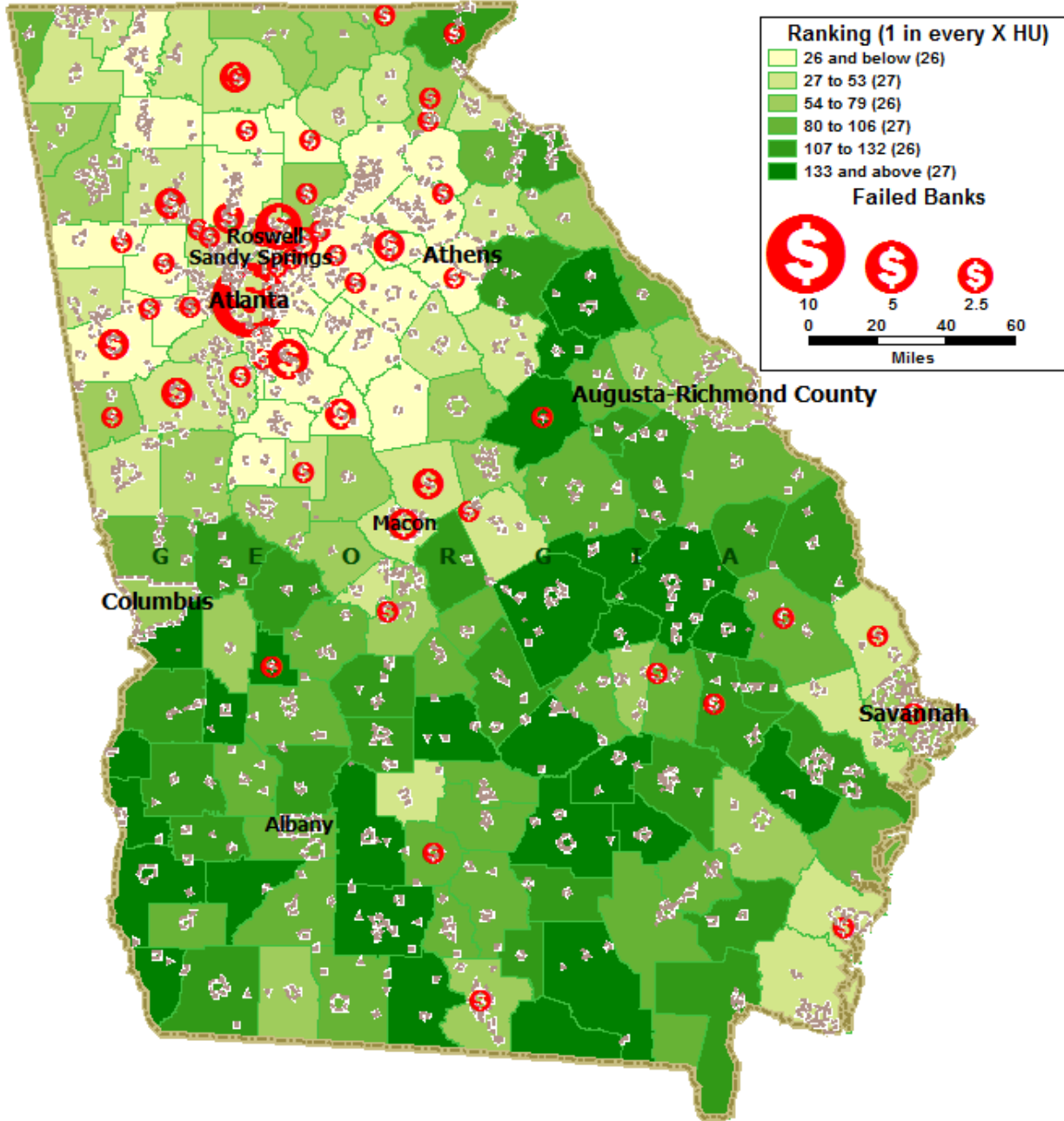
Figure 2.2:
FDIC Depository Institutions and Employment in Georgia March 2002-March 2012



Within the State of Georgia, the distribution of failed banks has been centered on the Atlanta Metropolitan Counties. These counties have also been the loci of some of the highest concentrations of foreclosures in the state. Although Fulton and Cobb have seen a large absolute number of foreclosures since the beginning of the recession, the highest concentration of foreclosures has been located in suburban counties. The largest contiguous region of highly concentrated foreclosures is located on the eastern side of the Atlanta MSA, just outside I-285.

Figure 2.3:

Location of Georgia's Failed Banks



Although the massive number of residential foreclosures has been cited as the primary reason for bank closures, recent research has focused on banking regulation as another potential source of banking job losses. Figure 2.3 depicts a simple stock index of community banks across the U.S. This index is calculated as the sum of the adjusted closing value of one share of stock summed across all community banks in the group. The index is normalized by dividing by the initial value at the beginning of 2005, the year the group was compiled. Stock values in the community-focused banking sector have taken a sharp drop, indicating the impact of the housing market collapse on the value of community-based banks. Currently, this group of stocks averages about 45.1 percent of their starting value in the year they were included in the listing of USBanker's Top 200 Publicly Traded Community Banks in the U.S.

Many bankers and some lawmakers argue that pricing assets at fire-sale prices when markets are effectively inactive has exacerbated the financial crisis through excessive accounting write-downs which have damaged capital ratios, and reduced a banks' ability to lend or, for that matter, stay in business. On June 27, 2008, Merrill Lynch announced that it was selling off a substantial amount of its ABS (asset-backed securities)/CDO (collateralized debt obligations) securities. As a result of the transaction(s), the company expected to record a pre-tax write-down in the third quarter of 2008 of approximately \$5.7 billion. On July 28, 2008, Merrill Lynch agreed to sell \$30.6 billion gross notional amount of U.S. super senior ABS CDOs to an affiliate of Lone Star Funds for a purchase price of \$6.7 billion. Although these stocks had, on average, been moving in the upward direction prior to the announcement, in the days and weeks after the announcement of the sale, the average prices of this groups of stocks began to fall again.

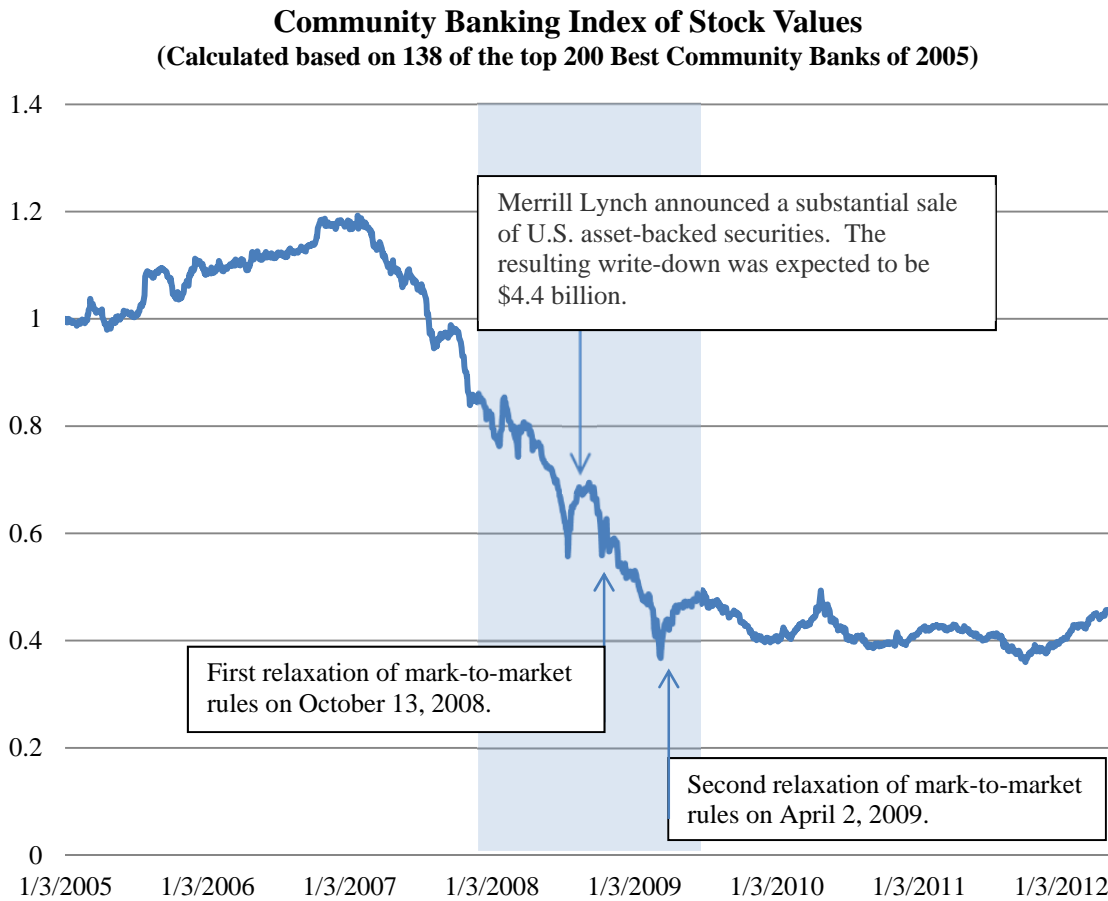
As the financial crisis continued and financial institutions continued to fail, accounting regulators introduced rule relaxations in the fair value regime on two separate occasions. First, there was the amendment of IAS 39 on October 13, 2008, which allowed banks to re-classify certain financial instruments from the trading category (which requires continuous marking-to-market) to the loan category (which is measured at their costs). It can be reasoned that, even though changes in the standards do not affect a bank's underlying solvency, this suspension of fair value accounting may have reduced the probability of regulatory-based bank failure. If this is the case, the impact would become evident in share prices. If bank share prices increase as a result of the rule relaxation, it might be surmised that analysts perceive a lower risk of bank failure.¹ It is not, at least visually, clear if this first rule change substantially affected perceived risk in these banking stocks.

Again on April 2, 2009, the U.S. accounting rule-makers began allowing more flexibility in valuing "toxic assets," slightly easing mark-to-market standards previously in place. This change was expected to boost bank earnings and improve their capital levels, helping many to avoid shutting down operations. The arrow near the bottom of Figure 2.4 indicates the point in time at which the accounting rule was modified. In the press ([Reuters, April 2, 2009](#)), the accounting change was

¹ See Bank Failure, "Mark-to-Market and the Financial Crisis," by Amel-Zadeh and Meeks. Judge Business School, University of Cambridge (November 1, 2011) for a more complete discussion.

credited with helping create a stock market rally based on optimism that the change would help the financial sector stabilize, at least in the short term; however, Figure 2.4 provides some visual evidence that the downward spiral in asset valuations may have affected the perceived riskiness of community banking institutions, and that the relaxation of the mark-to-market accounting standards for the banking sector may have helped stabilize stock values, albeit at a substantially lower level, in the community banking sector for a much longer period. Some research suggests that these standards changes may have also helped to prevent additional regulatory-based bank failures and, subsequently, more job losses in these banking institutions in Georgia, the U.S., and abroad.

Figure 2.4:



Source data: compiled from the American Registry and USBanker based on the Top 200 Publically Traded Community Banks.

Section 3: Economic and Fiscal Impacts – Banking Operations in Georgia

The tables below represent the economic and fiscal impact of recent employment changes in banking for the State of Georgia. Although the focus is on the state and not any particular county,

those counties with more banking operations are likely to bear a substantially larger burden of the total impact of the job losses.

Impacts are divided into “direct,” “indirect” and “induced” effects. The direct impacts are the losses (employees, wages and economic activity) suffered by the banking industry. Indirect impacts are the changes in inter-industry purchases as they respond to changes in Georgia banking activities. In this case, indirect impacts reflect the spending changes that occur among the suppliers of goods and services to Georgia banks. Indirect impacts also include the share of suppliers’ payroll (or employees’ wages) that is supported by bank spending for their goods or services. For example, when a Georgia bank builds a new building, the general contractor purchases lumber, rents construction equipment, hires building designers and employs construction workers to build the building. The spending on the raw materials, equipment rentals, architectural/engineering fees and employee payroll that is generated by that contract reflects the indirect impacts of a Georgia bank on construction spending within the state. That same construction spending also supports a certain number of jobs and generates a share of the personal income of the employees of these suppliers – and, this represents the indirect employment and personal income impacts of a Georgia bank’s construction spending. This same process is reflected for each good or service banks require for operations. The example depicts the positive impact of increased construction spending by banks; however, a reduction in construction spending has a similar but negative impact on the state economy.

The induced effects reflect changes in spending from households as a result of changes in income stemming from changes in the level of production. In the case of Georgia’s banking sector, induced economic impacts are generated by the change in spending by the employees of the suppliers of goods and services to Georgia banks. If we continue with the bank building construction example, the additional wages received by the employees of the general contractor, materials suppliers, equipment rental companies and architectural/engineering firm induce spending across the economy in places such as gas stations, grocery stores, clothing stores, restaurants, and entertainment venues. The jobs and income created as a result of these new consumer purchases are considered induced employment, income and output. Likewise, a reduction in construction activity will have a similar but negative impact on the state economy.

Banking facilities in Georgia have lost a total of about 16,000 jobs over the period between March 2006 (peak employment) and March 2010 (lowest banking employment since the beginning of the recession). The loss in labor income (including benefits) associated with these banking jobs accounts for \$1-\$1.2 billion. Additionally, these lost banking jobs and the subsequent reduction in banking activity cost the state a total \$4.2 billion in directly generated output. The reduction in banking activity also affected other industries. Another \$2.8 billion in indirect and induced economic activity was also lost over the period. In total, the reduction in banking activities in Georgia resulted in an estimated economic output loss of \$7.0 billion from the peak to the most recent low in banking employment (2010).

An additional 20,308 job losses within the state over the 2006-2010 period are attributable to the employment decline in the banking sector. About 8,749 jobs were lost in industries and firms that support banking activities, which include professional services, securities, contract services, and real estate services. An additional 11,559 jobs were lost in industries that sold goods and services to

those earning incomes from these supporting activities. In total, the four-year slide in banking sector employment has cost the state an estimated 36,308 jobs. Stated another way, for every one job lost from the banking sector, another 1.26 jobs are eliminated within the state as a result.

**Table 3.1: Economic Impact for Georgia
(Cumulative Impact From Peak-to-Trough)**

Impact Type	Employment	Labor Income (in billions)	Output (in billions)
Direct Effect	-16,000	-\$1.1	-\$4.2
Indirect Effect	-8,749	-\$0.5	-\$1.3
Induced Effect	-11,559	-\$0.5	-\$1.5
Total Effect	-36,308	-\$2.1	-\$7.0

Table 3.2 estimates the impact on state revenues for the three most prominent state revenue categories of taxes: Personal income, sales/use, and corporate income taxes; and, for local jurisdictions, the two most important revenue sources: sales/use, and property taxes. In Georgia, local revenues are derived primarily from the property tax and the local portions of the sales tax (up to 3 percent on the sale of final goods and services in most localities). The loss in Georgia banking activity has resulted in lower taxable spending by banks, current and former banking employees, supporting industries and their employees’ households. In total, the reduction in banking employment has reduced sales tax revenues for both state and local governments by an estimated \$93 million over the four-year period. Property taxes support an array of local services in jurisdictions across the state. Property tax revenues are estimated to be \$78 million less for local jurisdictions than at the peak of banking employment. State personal income taxes

**Table 3.2: Fiscal Impact for Georgia
(Cumulative Impact From Peak-to-Trough)**

State Revenue (Losses)			Local Revenue (Losses)	
Personal Income Tax	Sales/Use Tax	Corporate Income Tax	Property Tax	Sales/Use Tax
-\$47 million	-\$53 million	-15 million	-\$78 million	-\$40 million

Table 3.3 provides a list of the top ten most affected industries in the State of Georgia, ranked by employment. To illustrate, let us consider the impacts of the job reductions on the first three industries in the list. The most affected industry from the reduction is banking itself. These 16,000 jobs are treated as jobs that were directly and indirectly eliminated, since they represent the total losses measured by sources at the Georgia Department of Labor and the FDIC. The second most affected industry was food services and drinking places, which experienced job losses totaling 2,338 over the period. This includes forgone catering services that would have been provided to banks directly, the reduction in catering and meals eaten out by employees in the banking sector, and the reduction in catering and meals eaten out as a result of lower levels of income across the economy as a result of the employment reduction. Since banking institutions likely do not purchase food services in large quantities, the larger impact is likely due to a reduction lost income from former banking employees or lower wages for goods and services providers that formerly contracted with

banking institutions, or a reduction. Employment in securities, commodity contracts, and investment related activities were reduced by 1,507 workers over the period, reducing labor income in that industry by \$109 million in the state.

Table 3.3: Top 10 Most Affected Industries by Employment (Georgia)

Description	Employment	Labor Income	Output
Monetary authorities and depository credit intermediation activities	-16,000	(\$1,207,086,609)	(\$4,514,864,561)
Food services and drinking places	-2,338.3	(\$45,028,624)	(\$137,293,552)
Securities, commodity contracts, investments, and related activities	-1,507.6	(\$109,415,293)	(\$252,742,705)
Real estate establishments	-940.7	(\$22,587,558)	(\$141,990,144)
Employment services	-813.1	(\$20,684,376)	(\$30,651,191)
Services to buildings and dwellings	-720.3	(\$17,842,373)	(\$41,597,478)
Offices of physicians, dentists, and other health practitioners	-615.4	(\$44,874,919)	(\$77,721,809)
Civic, social, professional, and similar organizations	-575.4	(\$17,805,687)	(\$29,827,312)
Non-depository credit intermediation and related activities	-532.4	(\$49,956,531)	(\$122,341,535)
Private hospitals	-500.1	(\$27,975,273)	(\$57,915,298)

Section 4: Concluding Remarks

This analysis provides detailed estimates of the impact of job losses in Georgia banking associated with the financial crisis. Because of Georgia's status as a fast-growing state, closely tied to the construction industry, it became one of the most negatively affected states in terms bad housing loans, and the most negatively affected state in terms of the number of banks that have been forced into receivership. For these reasons it is important to understand how job losses in banking, by itself, have impacted Georgia's economic potential. Banking, via consumer credit and small business loans, is often viewed as a necessary precursor for economic development. Some research has suggested that, the housing collapse was only one source of banking job losses. Another source cited has been regulatory actions. Regardless of the cause, however, this analysis indicates that jobs lost in banking have a significant impact on Georgia's economy, which extends into a variety of non-financial sectors.

Section 5: Methodology

The method used to develop the estimates for the impacts of the banking industry in Georgia is called input-output analysis. We use industry-standard input-output software and data developed by the Minnesota IMPLAN Group (MIG) to estimate the economic impact of banking employment reductions on the state economy. Input-output models use industry-level monetary transactions data

to measure the degree to which industries and institutions in the economy interact with one another, and the extent to which changes in final consumption ripple through the rest of the economy (see e.g., Miller and Blair, 1985).

Input-output models can be *descriptive* and *predictive*. Descriptive models estimate the degree to which different industries rely on one another. The relationships are tabulated in tables that summarize the flow of dollars and goods between industries and institutions. As an example of a descriptive model, consider a baker, who in order to make x loaves of bread must buy y pounds of flour from a miller who in turn must buy z bushels of wheat from a farmer. The values x , y and z describe the relationships between the three industries measured in units of output. The relationships also can be described in terms of value added (payments to workers, taxes, interests, profits and other income) and employment.

The predictive models utilize the interdependence between industries to predict how changes in final consumption by households, industries or governments affect other sectors of the economy. The extent to which an initial stimulus impacts all other parts of the economy is summarized with quantitative expressions called *multipliers* (see Leontief 1936). Multiplier effects can be divided into *direct*, *indirect* and *induced* effects. The original change in final consumption is the actual *direct* effect. The *indirect* effects are the changes in all production processes in the economy needed to match the new consumption needs. Finally, the *induced* effects are the changes in household spending derived from the increases or decreases in households' incomes. IMPLAN provides estimates of all effects in terms of output, wages and number of jobs created or destroyed throughout the economy (employment). All dollar figures are in 2010 dollars.

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