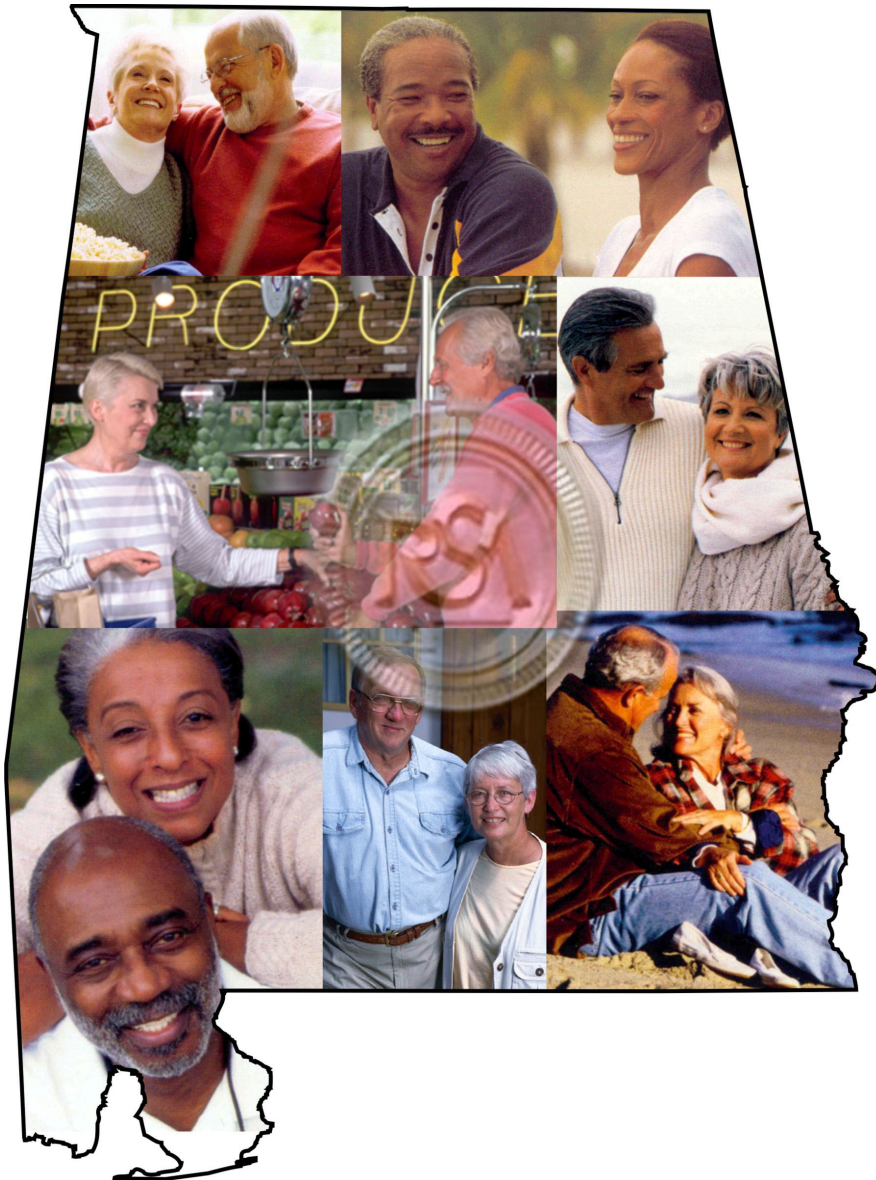


# Economic Impacts of RSA, PEEHIP, and SEIB Benefit Payments on Alabama

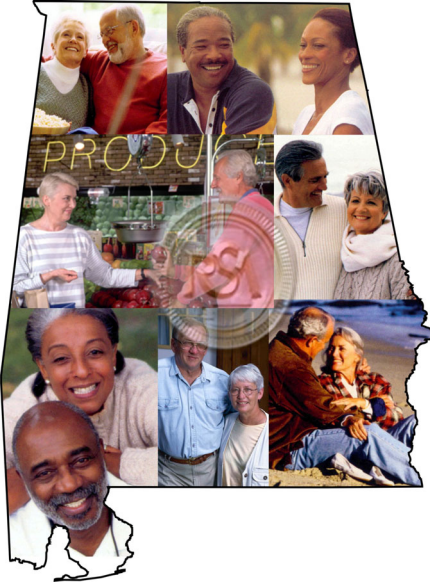


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Center for Business and Economic Research  
Culverhouse College of Commerce and Business Administration

THE UNIVERSITY OF ALABAMA

# Economic Impacts of RSA, PEEHIP, and SEIB Benefit Payments on Alabama



*for*  
The Retirement Systems of Alabama

*November 2007*

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## Contents

<b>Executive Summary</b>	i
<b>Introduction</b>	1
<b>Literature Review</b>	6
<b>Economic and Fiscal Impacts</b>	8
<b>Conclusions</b>	14
<b>Appendix</b>	15

## Executive Summary

- This study presents the economic and fiscal impacts of pension benefit payments by The Retirement Systems of Alabama (RSA) and healthcare benefit payments by the Public Education Employees' Health Insurance Plan (PEEHIP) and the State Employees' Insurance Board (SEIB) on Alabama in 2006. RSA provides pension benefits to retirees through the Employees' Retirement System (ERS), the Judicial Retirement Fund (JRF); and the Teachers' Retirement System (TRS). These assets are managed by RSA for its members and beneficiaries, both active and retired. Healthcare benefits are provided for public education employees and retirees through PEEHIP and for state and local government employees and retirees through SEIB. SEIB also administers other statewide benefit programs.
- The economic impacts focus on output, earnings, and employment. Output refers to the gross domestic product (the value of goods and services produced in Alabama [ALGDP]) on a value-added basis for the region of focus, the state of Alabama in this case. The fiscal impacts presented comprise income and sales taxes only; other taxes and fees (e.g., property, utilities, rental/leasing, alcoholic beverages, cigarette and tobacco, insurance premium, lodgings, driver's license fees, and auto title and license fees, and other personal property taxes) are not covered.
- Pension benefits exceeded \$1.7 billion, of which more than \$1.6 billion went to Alabama residents. Total healthcare payments surpassed \$1.4 billion with over \$1.3 billion going to Alabama providers and facilities. Pension and healthcare benefits paid by RSA, PEEHIP, and SEIB to in-state retirees, providers, and facilities for 2006 totaled \$2.95 billion. RSA accounted for 55 percent, PEEHIP for 27.2 percent, and SEIB had 17.8 percent.
- The combined statewide economic impacts of the pension and healthcare benefit payments are approximately \$5.8 billion in output (3.6 percent of the \$160.6 billion 2006 ALGDP), nearly \$1.9 billion in earnings, and 62,930 jobs (2.7 percent of nonagricultural employment). RSA accounted for 53 percent of the output impact with \$3.1 billion, 48.8 percent of the earnings impact with \$926 million, and 53.9 percent of the employment impact with 33,915 jobs. PEEHIP impacts are \$1.6 billion in output, \$580.3 million in earnings, and 17,917 jobs. SEIB impacts are \$1.1 billion in output, \$392.3 million in earnings, and 11,098 jobs.
- The \$1.9 billion combined earnings impact generated a total of \$100.8 million to state coffers; \$70.2 million in state income taxes and \$30.6 million in state sales taxes. Local (county and city) sales tax receipts totaled \$32.2 million. Total income and sales taxes were \$133 million.
- A literature survey showed clearly that pension and healthcare benefits are important to the economic vitality of areas. Alabama is no exception. The large sums pumped into the state by RSA, PEEHIP, and SEIB have significant economic and fiscal impacts. All 67 counties in the state receive pension and healthcare benefits from RSA, PEEHIP, and SEIB.
- RSA is also involved in various community and economic development activities and has made major investments in many areas of the state (e.g., the Shoals/Huntsville, Birmingham-Hoover, Montgomery, and Mobile). The economic and fiscal impacts presented in this report do not include the impacts of such RSA investments.

# Economic Impacts of RSA, PEEHIP, and SEIB Benefit Payments on Alabama

## Introduction

This report presents the economic and fiscal impacts of pension benefit payments by The Retirement Systems of Alabama (RSA) and healthcare benefit payments by the Public Education Employees' Health Insurance Plan (PEEHIP) and the State Employees' Insurance Board (SEIB) on Alabama in 2006. The economic impacts focus on output, earnings, and employment. Output refers to the gross domestic product (the value of goods and services produced in Alabama [ALGDP]) on a value-added basis for the region of focus, the state of Alabama in this case. The fiscal impacts presented comprise income and sales taxes derived from the earnings impacts.

RSA provides pension benefits to retirees through three major trust/investment funds: Employees' Retirement System (ERS); Judicial Retirement Fund (JRF); and Teachers' Retirement System (TRS). RSA administers and manages these funds to provide a secure and sound retirement at the end of the careers of employee members of these three public organizations. RSA manages and invests the retirement assets for its members and beneficiaries, both active and retired. RSA also provides healthcare benefits for public education employees and retirees through the Public Education Employees' Health Insurance Plan (PEEHIP). SEIB provides healthcare benefits to state and local government employees and retirees. SEIB also administers other statewide benefit programs. Most healthcare benefit payments are made by PEEHIP and SEIB to providers and facilities.

The spending by and on behalf of RSA, PEEHIP, and SEIB members provides jobs and stimulates business activity in various sectors of the Alabama economy. This spending also generates taxes for the state and other taxing jurisdictions. The large cash infusions have significant impacts on state output (also referred to as gross domestic product in Alabama or ALGDP) and generate earnings and employment.



RSA is also involved in various community and economic development activities, including a focus on statewide economic development initiatives to attract various industries and businesses, promoting and funding tourism through a series of golf courses known as the Robert Trent Jones Golf Trail and other resort and hotel properties, major construction projects, and other investments. The impacts of these RSA investments are not covered in this report.

As shown in Table 1, RSA paid more than \$1.7 billion in pension benefits in 2006; \$536.9 million from ERS, \$19.0 million from JRF, and almost \$1.2 billion from TRS. Of the total, about \$1.5 billion or 88.0 percent went to in-state bank accounts and in-state addresses with roughly \$464 million from ERS, \$16 million from JRF, and \$982.9 million from TRS. One important note is that retirees residing in Alabama received \$1.6 billion, 94 percent of the total pension benefits (Table 2); this figure was used to determine the economic impacts of pension benefits on the state because people tend to spend where they reside even though they may have bank accounts elsewhere.

**Table 1. 2006 Retirement and Healthcare Benefit Payments**

	<b>RSA Total</b>	<b>In-State</b>	<b>Out of State</b>
ERS	\$536,879,395	\$463,894,512	\$72,984,884
JRF	\$19,026,486	\$16,128,050	\$2,898,435
TRS	\$1,165,233,657	\$982,906,051	\$182,327,606
<b>Total</b>	<b>\$1,721,139,538</b>	<b>\$1,462,928,613</b>	<b>\$258,210,925</b>

	<b>PEEHIP Total</b>	<b>Alabama Portion</b>
Provider	\$290,518,403	\$267,359,166
Facility	\$280,376,458	\$252,294,502
HMO	\$24,002,553	\$23,834,777
DVIC	\$43,678,573	\$43,678,573
Pharmacy	\$245,901,061	\$214,846,598
<b>Total</b>	<b>\$884,477,049</b>	<b>\$802,013,616</b>

	<b>SEIB Total</b>	<b>Alabama Portion</b>
Dental	\$14,909,265	\$14,618,653
Drugs	\$84,166,841	\$89,816,437
Hospital	\$92,215,427	\$89,450,805
Medical	\$208,017,064	\$204,140,450
Professional	\$130,710,905	\$128,612,627
<b>Total</b>	<b>\$530,019,502</b>	<b>\$526,638,973</b>

Note: Rounding effects may be present. Acronyms are for Employees' Retirement System (ERS), Judicial Retirement Fund (JRF), Teachers' Retirement System (TRS), and Dental, Vision, Indemnity, and Cancer (DVIC).

Source: The Retirement Systems of Alabama; State Employees' Insurance Board; and Center for Business and Economic Research, The University of Alabama.

Also in 2006, PEEHIP provided \$884.5 million in healthcare benefits; about \$802 million or 91 percent was spent in Alabama. Similarly, SEIB spent \$530 million in healthcare benefits with \$527 million (99.4 percent) going to Alabama facilities and providers. Healthcare benefits from both PEEHIP and SEIB exceeded \$1.4 billion. A little over \$1.3 billion went to in-state providers and facilities and this amount was used to determine the economic impacts of PEEHIP and SEIB healthcare benefit payments. Pensions and healthcare payments totaled \$3.1 billion with a little less than \$3.0 billion or 94 percent going to beneficiaries residing in Alabama and in-state providers and facilities. Table 2 shows benefit payments by county; all PEEHIP HMO dollars were attributed to Jefferson County because it is home to the insurance programs that receive those funds. Of the \$3.0 billion spent in Alabama, over \$1.6 billion went to beneficiaries.





**Table 2. 2006 Retirement and Healthcare Benefit Payments by County**

<b>County</b>	<b>RSA (ERS/JRS/TRS)</b>	<b>PEEHIP</b>	<b>SEIB</b>	<b>Total</b>
Autauga	\$18,395,983	\$4,649,524	\$17,012,617	\$40,058,125
Baldwin	54,686,426	21,051,667	16,709,389	92,447,482
Barbour	8,459,024	2,328,263	4,559,270	15,346,557
Bibb	6,155,838	1,316,921	2,149,148	9,621,907
Blount	11,369,384	9,110,088	3,143,551	23,623,022
Bullock	3,180,585	2,105,582	3,303,376	8,589,544
Butler	7,041,787	2,106,437	3,545,015	12,693,238
Calhoun	42,052,974	22,711,516	7,986,306	72,750,795
Chambers	8,795,324	15,921,404	1,485,340	26,202,068
Cherokee	5,633,264	15,299,310	1,313,740	22,246,315
Chilton	11,774,825	3,268,148	5,180,693	20,223,667
Choctaw	4,273,946	1,048,821	1,114,250	6,437,018
Clarke	11,166,455	3,662,371	4,885,217	19,714,043
Clay	5,055,994	4,182,380	1,910,172	11,148,545
Cleburne	2,814,259	363,017	719,645	3,896,921
Coffee	15,422,645	6,628,084	3,626,171	25,676,900
Colbert	22,044,053	11,361,136	5,749,840	39,155,029
Conecuh	4,419,064	3,905,075	2,038,144	10,362,283
Coosa	4,043,883	5,931,927	2,043,859	12,019,669
Covington	13,359,138	4,727,293	3,806,635	21,893,066
Crenshaw	6,758,024	906,746	3,357,461	11,022,232
Cullman	27,232,467	14,681,617	5,976,770	47,890,855
Dale	12,111,153	15,181,476	3,828,780	31,121,409
Dallas	16,233,576	6,008,194	4,896,006	27,137,776
DeKalb	16,031,120	5,469,366	5,034,854	26,535,340
Elmore	40,895,988	4,315,573	33,264,203	78,475,764
Escambia	12,561,273	2,165,285	8,531,455	23,258,013
Etowah	41,221,423	8,982,875	9,061,270	59,265,568
Fayette	6,279,971	3,201,774	1,559,916	11,041,661
Franklin	10,200,954	2,511,543	3,349,316	16,061,813
Geneva	7,093,488	12,013,365	2,787,822	21,894,674
Greene	4,612,321	736,101	1,168,617	6,517,040
Hale	6,688,706	728,095	3,300,220	10,717,021
Henry	7,038,350	1,014,823	2,213,132	10,266,305
Houston	32,066,150	6,186,429	7,217,738	45,470,317
Jackson	15,870,385	5,034,981	4,099,945	25,005,311
Jefferson	232,285,171	220,832,496	39,683,246	492,800,913
Lamar	4,863,434	1,442,303	1,840,726	8,146,464
Lauderdale	31,742,223	15,977,873	5,962,137	53,682,234
Lawrence	7,553,060	3,824,071	2,555,766	13,932,896
Lee	55,124,175	9,817,177	6,307,329	71,248,680
Limestone	19,485,893	8,409,491	5,658,045	33,553,429
Lowndes	5,482,577	160,457	2,088,118	7,731,151
Macon	9,128,958	733,326	3,438,035	13,300,320

(continued on next page)

**Table 2. 2006 Retirement and Healthcare Benefit Payments by County (continued)**

<b>County</b>	<b>RSA (ERS/JRS/TRS)</b>	<b>PEEHIP</b>	<b>SEIB</b>	<b>Total</b>
Madison	89,959,377	58,049,956	13,141,220	161,150,553
Marengo	7,773,855	2,548,606	1,553,438	11,875,899
Marion	10,540,337	1,932,459	3,618,552	16,091,348
Marshall	26,146,244	7,665,566	7,082,072	40,893,882
Mobile	123,214,662	77,287,654	34,844,484	235,346,800
Monroe	7,599,009	1,413,589	2,066,976	11,079,575
Montgomery	129,094,678	52,083,784	103,636,476	284,814,938
Morgan	38,484,606	17,583,714	9,903,383	65,971,703
Perry	4,395,632	396,380	147,146,973	6,263,482
Pickens	7,528,685	1,602,674	2,562,459	11,693,819
Pike	17,660,509	2,180,964	8,071,398	27,912,871
Randolph	7,452,267	1,317,355	1,797,411	10,567,032
Russell	7,428,042	1,738,413	2,008,385	11,174,840
Saint Clair	18,784,848	10,950,048	5,024,078	34,758,975
Shelby	46,611,875	12,163,901	8,013,713	66,789,489
Sumter	5,944,914	707,729	1,887,055	8,539,698
Talladega	26,939,049	6,160,299	5,903,058	39,002,406
Tallapoosa	17,571,760	2,629,986	7,156,820	27,358,566
Tuscaloosa	99,224,880	38,395,294	33,409,817	171,029,991
Walker	23,419,088	9,866,506	7,215,187	40,500,781
Washington	6,129,631	894,366	3,453,355	10,477,352
Wilcox	4,082,630	817,358	1,421,142	6,321,130
Winston	7,047,629	1,612,616	1,933,736	10,593,982
<b>Total</b>	<b>\$1,621,739,899</b>	<b>\$802,013,616</b>	<b>\$526,638,973</b>	<b>\$2,950,392,488</b>

Note: Rounding effects may be present. Acronyms are for The Retirement Systems of Alabama (RSA), Employees' Retirement System (ERS), Judicial Retirement Fund (JRF), Teachers' Retirement System (TRS), Public Education Employees' Health Insurance Plan (PEEHIP), and State Employees' Insurance Board (SEIB).

Source: The Retirement Systems of Alabama; State Employees' Insurance Board; and Center for Business and Economic Research, The University of Alabama.

The economic and fiscal impacts presented later in this report indicate the influence that RSA, PEEHIP, and SEIB pension and healthcare benefits have on the State of Alabama. To determine the total economic and fiscal impacts, two types of impacts are estimated. The first, pension benefit impacts, deals with the economic and fiscal impacts of the spending behavior of retirees. Healthcare benefit impacts, the second type, are based on the spending behavior of providers and facilities. The Regional Input-Output Modeling Software (RIMS II), developed by the U.S. Department of Commerce's Bureau of Economic Analysis, is used to estimate the impacts. RIMS II final demand multipliers for relevant industries were used to determine the state-level economic impacts. Pension benefit impacts are presented first, followed by healthcare benefit impacts and a combination of the two. Only the payments made to in-state retirees and beneficiaries were used to determine impacts. The input-output methodology used in the estimation of these impacts is detailed in the Appendix.

## Literature Review

In a 1986 paper titled “The Growing Importance of Retirement Income in Timber-Dependent Areas,” Debra J. Salazar, Con H. Schallau, and Robert G. Lee examine the socioeconomic changes caused by migration of retirees to nonmetropolitan, natural resource-based counties. They examined five counties whose economies have transformed from being timber dependent to retirees dependent. This change has diversified the economies of these counties and has brought new amenities to the counties which did not exist before. In-migration of new retirees does significantly lessen the impact that would otherwise be felt from downturns in timber or any other resource-based economy.

In a 2001 paper titled “Retirement Migration Counties in the Southeastern United States: Geographic, Demographic, and Economic Correlates,” William J. Serow identified rural areas in the Southeastern United States that have consistently attracted retirees since 1950. Most of these counties are located in Florida close to metropolitan areas, or in mountains and/or close to coastal areas. Using regression analysis, the study demonstrates that retirees are attracted to coastal areas whose demographics are very similar to that of retirees.



In a 2003 paper titled “Economic Consequences of Retiree Concentrations: A Review of North American Studies,” Serow shows the importance of attracting retirees and the economic growth it brings to a community. The paper also discusses how states are very actively studying the behavioral patterns of retirees and attracting them as an economic development strategy.

In a 2000 paper titled “Economic Impact of Retirement Migration on the Texas Hill Country,” Frederick A. Day and Jon M. Barlett explain that several Texas Hill Country counties that had stagnant economies and dwindling populations in the early 20<sup>th</sup> century have transformed themselves over the past three decades by attracting relatively wealthy retirees. The study reveals a strong correlation between elderly in-migration rates and increases in county income and growth in service, retail, and construction sectors.

In a 2007 study titled “The Combined Annual Impacts in California of CalPERS and CalSTRS Retirement Income Benefit Payments,” the Applied Research Center at California State University, Sacramento showed a significant economic impact of the two retirement systems. The study found the combined assets of these two funds totaled \$391.6 billion, served about 2.3 million active, inactive and retired members, and made payments to 649,123 retirees, survivors, and disabled

teachers and public employees during FY2005-06. CalPERS made payments to 389,071 retirees living in the state (85.3 percent of the total 468,674 beneficiaries) and those payments accounted for \$7.7 billion out of a total payment of \$9.1 billion paid to all retirees, survivors and disabled workers, both in and out of state. CalSTRS payments to retirees living in the state were 87.9 percent of the total amount paid out, about \$6.03 billion to 265,085 beneficiaries. Over the past decade, CalPERS earned an average annual return of 9.3 percent while CalSTRS earned a return of 9.1 percent annually. These investment earnings accounted for 75 percent of teacher retirement payments made by CalSTRS and 76 percent of public employee retirement paid by CalPERS. For FY2005-06 net earnings on investments pool totaled \$20.8 billion for CalPERS and \$14.26 billion for CalSTRS.

The above mentioned study noted that combined benefit payments of \$13.8 billion had an economic impact of \$21.1 billion on California's output and this level of economic activity supported 138,974 jobs with total earnings impact of \$4.8 billion. The study also showed that for every dollar invested by the state of California in CalPERS funds returned \$8.55, while every dollar invested by the state in CalSTRS retirement pool yielded \$6.71 to the California economy. State and local governments gained \$1.4 billion in revenues as a result of payments made to the retirees by CalPERS, while payments made by CalSTRS to the retirees yielded approximately \$606.9 million in state and local government tax receipts.

In a study titled "The Economic Impact of Trends in Retirement and Expected Life," Rudolph G. Penner explained that as the baby boom ages, there will not only be shortages imposed on Social Security, Medicare, and Medicaid, but as the large numbers of experienced workers retire, this could also impose a shortfall in private pension funds, which could have an effect of diminishing economic growth. It will therefore be necessary to either cut benefits for retirees or the private sector will have to reduce impediments for these workers to work longer and save more.



Studies conducted by The Perryman Group in 2006 have estimated the economic impacts of pension and healthcare benefits paid by the Teachers' Retirement System of Texas (TRST) on business activity in Texas, its regions, metropolitan areas, and counties. According to these Texas studies, retirement benefits paid by TRST totaled \$5.39 billion in 2005, more than 95 percent of this

amount (\$5.15 billion) was paid to 248,500 Texas residents. The annual impact of these payments on the Texas economy included \$9.872 billion in total expenditures, \$4.740 billion impact on Texas GDP, \$2.928 billion in personal income, \$2.662 in retail sales, and 72,014 jobs. These payments also generated \$466.9 million in state tax receipts and \$97.7 million in local government tax revenues. Every \$1 the state of Texas invests in TRST, if measured on a dynamic basis to account for tax revenues generated, leads to \$12.48 in total spending in the state, \$5.99 in additional GDP, and \$3.70 in personal income.

The Teachers Retirement System of Texas administers both retirement and health benefits for teachers in Texas and other educational personnel. Health benefits totaled \$1.2 billion in 2005. This total included approximately \$682 million for active educational personnel and almost \$523 million for retirees. Of the \$1.2 billion, \$439 million was paid to hospitals, \$462 million to doctors and other providers, \$165 million to retail pharmacies, \$31 million for mail order prescriptions, \$66 million for administrative fees, and \$43 million to HMOs. More than 450,000 individuals were covered by the health plan. The annual impact of these payments on the Texas economy included \$4.194 billion in total expenditures, \$2.282 billion impact on Texas GDP, \$1.579 billion in personal income, \$0.655 billion in retail sales, and 33,942 jobs. These payments also generated \$122 million in state tax receipts and \$24.9 million in local government tax revenues. Every \$1 the state contributes towards the health plan, if measured to account for taxes, leads to \$8.96 in total expenditures, \$4.35 in additional GDP, and \$3.21 in personal income.



Clearly, pension and healthcare benefits are important to the economic vitality of areas. The large sums injected into economies have significant economic and fiscal impacts. Attracting retirees, especially wealthy ones, is currently an accepted economic development strategy.

## **Economic and Fiscal Impacts**

As noted earlier, RSA payments to retirees exceeded \$1.7 billion in 2006, with more than \$1.6 billion going to in-state beneficiaries. TRS provided nearly \$1.1 billion to in-state beneficiaries, ERS added \$518.9 million, and JRF contributed \$18.7 million. The \$1.6 billion Alabama portion was distributed by industry using the Consumer Expenditures Survey (CES) produced by the United States Bureau of Labor Statistics (Table 3). Specifically, CES average annual expenditure distribution for persons

of age 65 and over and residing in the South region for 2004-2005 was used; this is the most recently available consumption expenditure data.

Healthcare benefits of over \$1.3 billion from both PEEHIP and SEIB to Alabama providers and facilities were also allocated to industries (Table 4). Amounts for pharmacy and drugs were allocated to the retail trade sector. HMO funds were given to insurance carriers and related activities. Hospitals and facility spending went to the hospitals and nursing and residential care industry. All remaining funds were distributed to the ambulatory health services industry because physicians, dentists, laboratory technicians, and other health professionals belong to this industry.

The separate industry distribution and allocation of pension and healthcare benefits is necessary because economic and fiscal impacts are affected by differences in spending behavior of retirees and providers and facilities. Industry specific multipliers were used to estimate the economic impacts on output, earnings, and employment.

**Table 3. 2006 Pension Benefits Expenditure Distribution**

<b>Industry</b>	<b>Expenditure Share (Percent)</b>	<b>Expenditure Amount</b>
Retail trade	41.6	\$674,755,162
Insurance carriers and related activities	14.6	237,539,654
Other services	9.6	156,076,805
Utilities	9.2	149,951,779
Food services and drinking places	4.9	80,015,115
Securities, commodity contracts, investments	3.9	63,421,863
Finance and insurance (other financial vehicles)	3.7	59,301,390
Real estate	3.5	56,127,513
Households	2.1	33,297,870
Hospitals and nursing and residential care	1.9	30,123,993
Amusements, gambling and recreation	1.1	17,428,484
Accommodation	1.0	16,370,525
Construction	0.8	13,697,786
Transit and ground passenger transportation	0.8	13,252,329
Educational services	0.7	10,635,273
Rental and leasing services	0.6	9,744,360
<b>Total</b>	<b>100.0</b>	<b>\$1,621,739,899</b>

Note: Rounding effects may be present. Expenditure shares are derived from consumer expenditures for persons aged 65 and over and residing in the South for 2004-2005.

Source: U.S. Department of Labor, Bureau of Labor Statistics; RSA; SEIB; and Center for Business and Economic Research, The University of Alabama.

**Table 4. 2006 Distribution of Healthcare Benefits to Alabama Providers and Facilities**

<b>Industry</b>	<b>PEEHIP</b>	<b>SEIB</b>	<b>Total</b>
Retail trade	\$214,846,598	\$89,816,437	\$304,663,035
Hospitals and nursing and residential care	252,294,502	89,450,805	341,745,308
Insurance carriers and related activities	23,834,777	0	23,834,777
Ambulatory health services	311,037,739	347,371,730	658,409,469
<b>Total</b>	<b>\$802,013,616</b>	<b>\$526,638,973</b>	<b>\$1,328,652,588</b>

Note: Rounding effects may be present.

Source: RSA; SEIB; and Center for Business and Economic Research, The University of Alabama.

Table 5 presents the economic and fiscal impacts by the expenditure industries shown in Tables 3 and 4, but includes indirect effects across all sectors of the state's economy. Statewide economic impacts of the over \$1.6 billion in pension payments to retirees are about \$3.1 billion in output (1.9 percent of the \$160.6 billion 2006 ALGDP), \$926 million in earnings to Alabama households, and 33,915 direct and indirect jobs. The employment impact is 1.7 percent of the 1.9 million Alabama nonagricultural jobs in 2006. The roughly \$1.3 billion healthcare benefits had economic impacts of about \$2.7 billion in output (1.7 percent of the 2006 ALGDP), \$973 million in earnings, and 29,015 jobs (1.5 percent of nonagricultural employment).

The combined economic impacts of the 2006 pension and healthcare benefit payments on Alabama are about \$5.8 billion in output (3.6 percent of ALGDP), \$1.9 billion in earnings, and 62,930 jobs (3.2 percent of nonagricultural employment) earning \$30,175 on average. RSA accounts for 53 percent of the combined output impact, 48.8 percent of the earnings impact, and 53.9 percent of the employment impact. The PEEHIP shares are 28.3 percent of output with \$1.6 billion, 30.6 percent of earnings with \$580.3 million, and 28.5 percent of employment with 17,917 jobs. SEIB contributes \$1.1 billion in output, \$392.3 million in earnings, and 11,098 jobs.

The earnings impacts generate significant tax revenues for both state and local governments. Not all of the earnings impact is taxable, expenditures on sales taxable items constitute 42.4 percent of total household earnings, and state taxable income (net income) is about 74 percent of earnings. The state income tax rate is 5.0 percent on net income.<sup>1</sup> Sales tax rates used are 4.0 percent for the state and 5.0 percent for combined county and city jurisdictions statewide. Combined county and city sales tax rates vary from 3.0 to 7.0 percent among Alabama counties, but are most frequently at 5.0 percent.

<sup>1</sup> In 2005 and 2006, the first \$500 and the next \$2,500 are taxed at 2 percent and 4 percent, respectively, for single persons, head of family, and married persons filing separately. For married persons filing joint returns the first \$1,000 and the next \$5,000 are taxed at 2 percent and 4 percent, respectively. Excess net income is taxed at the 5 percent rate. Corporations pay at a 6.5 percent rate.

The roughly \$1.9 billion combined earnings impact provided \$70.2 million in state income taxes and \$30.6 million in state sales taxes for a total of \$100.8 million to state coffers. Local (county and city) sales tax receipts totaled \$32.2 million. Income and sales taxes totaled \$133 million. It is important to note that the fiscal impacts in this report are conservative because they cover only income and sales taxes. Other taxes and fees (e.g., property, rental/leasing, alcoholic beverages, utilities, cigarette and tobacco, insurance premium, lodgings, driver's license fees, and auto title and license fees, and other personal property taxes) are not included.

**Table 5. Pension and Healthcare Benefits Economic and Fiscal Impacts on Alabama**

	Output (Millions)	Earnings (Millions)	Employment (Jobs)
<b>2006 Pension benefit impacts</b>			
Retail trade	\$1,262.6	\$411.0	16,427
Insurance carriers and related activities	476.9	140.1	3,469
Other services	324.9	101.6	3,869
Utilities	238.3	44.5	893
Food services and drinking places	161.6	44.6	2,554
Securities, commodity contracts, investments	130.6	56.3	1,848
Finance and insurance (other financial vehicles)	105.8	28.1	1,006
Real estate	83.5	10.8	394
Households	44.2	13.0	442
Hospitals and nursing and residential care	64.4	23.3	763
Amusements, gambling and recreation	33.6	10.2	508
Accommodation	29.9	9.3	430
Construction	31.5	10.4	315
Transit and ground passenger transportation	28.7	9.6	467
Educational services	22.9	8.6	378
Rental and leasing services	19.6	5.0	151
<b>Total</b>	<b>\$3,058.9</b>	<b>\$926.4</b>	<b>33,915</b>
<b>2006 Healthcare benefit impacts</b>			
Retail trade	\$570.1	\$185.6	7,417
Hospitals and nursing and residential care	730.4	264.2	8,652
Insurance carriers and related activities	47.9	14.1	348
Ambulatory and health services	1,362.7	508.8	12,598
<b>Total</b>	<b>\$2,711.1</b>	<b>\$972.5</b>	<b>29,015</b>
<b>Combined 2006 benefit impacts</b>			
RSA	\$3,058.9	\$926.4	33,915
PEEHIP	1,632.9	580.3	17,917
SEIB	1,078.2	392.3	11,098
<b>Total</b>	<b>\$5,770.0</b>	<b>\$1,898.9</b>	<b>62,930</b>
<b>Fiscal impacts</b>		<b>Amount (Millions)</b>	
State income tax		\$70.2	
State sales tax		\$30.6	
Local (county and city) sales tax		\$32.2	
<b>Total</b>		<b>\$133.0</b>	

Note: Rounding effects may be present.

Source: U.S. Department of Commerce, Bureau of Economic Analysis; RSA; SEIB; Alabama Department of Revenue; and Center for Business and Economic Research, The University of Alabama.



Table 6 shows the combined statewide economic impacts of the RSA, PEEHIP, and SEIB pension and healthcare benefit payments by county. This distribution is based on the total benefits by county in Table 2, with the rationale that the spending of the benefits is what creates the economic impacts. Interestingly, Greene County which has the lowest county population in the state did not have the lowest impacts. That distinction goes to Cleburne County. The more important point is that every county receives pension and healthcare benefit payments and therefore generates some statewide impact.

**Table 6. 2006 Retirement and Healthcare Benefit Payments Impacts by County**

County	Output (Millions)	Earnings (Millions)	Employment (Jobs)
Autauga	\$78.3	\$25.8	854
Baldwin	180.8	59.5	1,972
Barbour	30.0	9.9	327
Bibb	18.8	6.2	205
Blount	46.2	15.2	504
Bullock	16.8	5.5	183
Butler	24.8	8.2	271
Calhoun	142.3	46.8	1,552
Chambers	51.2	16.9	559
Cherokee	43.5	14.3	475
Chilton	39.6	13.0	431
Choctaw	12.6	4.1	137
Clarke	38.6	12.7	420
Clay	21.8	7.2	238
Cleburne	7.6	2.5	83
Coffee	50.2	16.5	548
Colbert	76.6	25.2	835
Conecuh	20.3	6.7	221
Coosa	23.5	7.7	256
Covington	42.8	14.1	467
Crenshaw	21.6	7.1	235
Cullman	93.7	30.8	1,021
Dale	60.9	20.0	664
Dallas	53.1	17.5	579
DeKalb	51.9	17.1	566
Elmore	153.5	50.5	1,674
Escambia	45.5	15.0	496
Etowah	115.9	38.1	1,264
Fayette	21.6	7.1	236
Franklin	31.4	10.3	343
Geneva	42.8	14.1	467
Greene	12.7	4.2	139
Hale	21.0	6.9	229
Henry	20.1	6.6	219
Houston	88.9	29.3	970

(continued on next page)

**Table 6. 2006 Retirement and Healthcare Benefit Payments Impacts by County (continued)**

<b>County</b>	<b>Output (Millions)</b>	<b>Earnings (Millions)</b>	<b>Employment (Jobs)</b>
Jackson	48.9	16.1	533
Jefferson	963.8	317.2	10,511
Lamar	15.9	5.2	174
Lauderdale	105.0	34.6	1,145
Lawrence	27.2	9.0	297
Lee	139.3	45.9	1,520
Limestone	65.6	21.6	716
Lowndes	15.1	5.0	165
Macon	26.0	8.6	284
Madison	315.2	103.7	3,437
Marengo	23.2	7.6	253
Marion	31.5	10.4	343
Marshall	80.0	26.3	872
Mobile	460.3	151.5	5,020
Monroe	21.7	7.1	236
Montgomery	557.0	183.3	6,075
Morgan	129.0	42.5	1,407
Perry	12.2	4.0	134
Pickens	22.9	7.5	249
Pike	54.6	18.0	595
Randolph	20.7	6.8	225
Russell	21.9	7.2	238
Saint Clair	68.0	22.4	741
Shelby	130.6	43.0	1,425
Sumter	16.7	5.5	182
Talladega	76.3	25.1	832
Tallapoosa	53.5	17.6	584
Tuscaloosa	334.5	110.1	3,648
Walker	79.2	26.1	864
Washington	20.5	6.7	223
Wilcox	12.4	4.1	135
Winston	20.7	6.8	226
<b>Total</b>	<b>\$5,770.0</b>	<b>\$1,898.9</b>	<b>62,930</b>

Note: Rounding effects may be present.

Source: U.S. Department of Commerce, Bureau of Economic Analysis; RSA; SEIB; and Center for Business and Economic Research, The University of Alabama.

## Conclusions

This study presents the 2006 economic and fiscal impacts on the State of Alabama of pension benefit payments made by The Retirement Systems of Alabama (RSA) and healthcare benefit payments made by the State Employees' Insurance Board (SEIB) and the Public Education Employees' Health Insurance Plan (PEEHIP). Pension benefits exceeded \$1.7 billion with all but about \$100 million going to Alabama residents. Similarly, healthcare payments surpassed \$1.4 billion and over \$1.3 billion went to Alabama providers and facilities. Thus total pension and healthcare benefits paid by RSA, PEEHIP, and SEIB to in-state retirees, providers, and facilities for 2006 were \$2.950 billion. RSA accounted for 55 percent, PEEHIP for 27.2 percent, and SEIB had 17.8 percent.

This large cash infusion had a significant impact on the state. The combined statewide economic impacts of the pension and healthcare benefit payments are almost \$5.8 billion in output (3.6 percent of the \$160.6 billion 2006 ALGDP), nearly \$1.9 billion in earnings to Alabama households, and 62,930 jobs (3.2 percent of nonagricultural employment). RSA accounts for 53 percent of the output impact with \$3.1 billion, 48.8 percent of the earnings impact with \$926 million, and 53.9 percent of the employment impact with 33,915 jobs. PEEHIP impacts are \$1.6 billion in output, \$580.3 million in earnings, and 17,917 jobs. SEIB impacts are \$1.1 billion in output, \$392.3 million in earnings, and 11,098 jobs.

The roughly \$1.9 billion combined earnings impact provided \$70.2 million in state income taxes and \$30.6 million in state sales taxes for a total of \$100.8 million to state coffers. Local (county and city) sales tax receipts totaled \$32.2 million. Income and sales taxes totaled \$133 million. It is important to note that the fiscal impacts in this report are conservative because they cover income and sales taxes. Other taxes and fees (e.g., property, rental/leasing, alcoholic beverages, utilities, cigarette and tobacco, insurance premium, lodgings, driver's license fees, and auto title and license fees, and other personal property taxes) are not included. Also, the impacts in this report do not include those of the various investments made by RSA in Alabama.

## APPENDIX

### Methodology - Economic Impact Analysis

Economic impact analysis measures the effects of a specific economic activity or event on a specified geographic area. Examples include the economic impact on a state or county of a proposed industrial plant, an existing industry, or closing of a military installation. In some cases, federal laws, as well as state and local regulations, require economic impact studies prior to the implementation of a particular policy (relocation of an economic activity, changes in zoning ordinance, etc.). No matter what the justification, impact studies are designed to provide information for instituting policies to facilitate positive economic impacts and/or mitigate potential negative impacts. Economic impact analysis is therefore an important tool that can enhance the quality of decisions made, as well as the decision making process in both public and private sectors.

The analysis typically focuses on one or more of the major economic indicators: output, employment, and income. The purpose of an impact study usually determines which socioeconomic variable(s) should be monitored. In this study, the primary focus is on all three major indicators and the consequent changes in income and sales tax revenues resulting from retirement benefits paid to retirees by RSA and the impact of healthcare benefits paid by RSA administered PEEHIP and by SEIB.

Economic impacts comprise direct and indirect types. Direct impacts are those that are most obvious and include the wages and salaries of the employees who work directly for an organization or industry, as well as all other expenditures of the firm or an industry, including taxes and distributed profits. Indirect economic impacts, often referred to as the “ripple” or “multiplier” effects, occur because of the additional demands arising from new income and expenditures for inputs and products related to the activity under study. New income creates demand for consumer products and services and their associated indirect impacts are often called induced impacts. Indirect and induced impacts may spark new demand for the output of the firm or industry under study. For example, RSA, PEEHIP, and SEIB create an indirect impact on wholesale and retail industries through payments made to or on behalf of benefit recipients. The total economic impacts of the organization being studied are the combined direct, indirect, and induced impacts. The ratio of the total economic impact to the direct impact is the multiplier that can be used to summarize the economic effects of the organization on the region(s) or area(s) of focus.

Economic relationships do not obey strict geographic boundaries; workers and their incomes and firms’ purchases flow across these boundaries enabled by transportation and communication. Thus

a portion of the indirect effects of purchases or expenditures may occur beyond the boundaries of the specified region. Such occurrences are called *leakages*, as opposed to *linkages* (supplier-purchaser relationships) within the region. In general a small geographic area will have a small *absolute* economic impact due to a high likelihood of leakage. A large region will have a larger absolute economic impact, but a smaller *relative* economic impact of an individual firm or industry on that area. The closure of one plant within a state, for example, may have only a small relative impact even if the plant employs thousands of workers; the absolute impact could be very large. The important point is that the effect or size of the economic impact is influenced by the size of the study area. If the area is too broadly defined, the relative impact will be small. If narrowly defined, the relative impact will be large.

## Determining the Multiplier

Several methodological approaches are used in estimating economic impacts. These include the construction of econometric, economic base, computable general equilibrium (CGE), and input-output (I-O) models. Econometric and CGE models can be very costly and time-consuming to build. Economic base models require a very detailed set of information that is sometimes not available. The other methodological approaches generate slightly smaller multipliers than I-O models because of assumptions on factors such as input substitution and optimization behavior by economic agents.

The I-O modeling framework is used in this study. The technique generates multipliers for the economic activity of interest by focusing on economic interactions among all industries and all other economic transactions in the specified region. Interindustry relationships exist in both a backward direction (suppliers and other upstream linkages and leakages), and a forward direction (distributors, retailers, customers, and other downstream linkages and leakages). The number and strength of these backward and forward linkages and leakages determine the multiplier effects of the industry. In general, products and services that require a small number of inputs and little additional processing (little value addition) will have smaller multiplier effects than complex ones that require lots of inputs and extensive processing.

The three main types of multipliers—output, income or earnings, and employment—are defined as follows. Output multipliers represent the total dollar change in all industries that results from a \$1 change in output delivered to final demand (final consumption) by the industry under study. All the benefit payments in this study go to final demand. Earnings multipliers represent the total dollar change in earnings of households employed by all industries for each dollar of payroll expenditure or each dollar of output delivered to final demand by the industry whose economic impact is being

estimated. Employment multipliers represent the total change in the number of jobs in all industries for each direct job or for each million dollars of output delivered to final demand by the industry whose economic impact is being estimated.

The nature of the product and technology largely determine the degree of interindustry linkages and leakages (and thus the overall impact), and the specific impact on a region depends upon the degree to which these interindustry relationships are localized. Technology determines inputs and economics determines the geographic source of supply. Inputs purchased outside the economic impact study area constitute a leakage of potential impact. Leakage represents activities of local firms that have no economic impact on the local economy; it provides opportunities for “localizing” such impact. Identifying leakage can provide valuable planning information to local economic development authorities for commercial or industrial development. An activity’s maximum impact on a specific area is obtained when all interindustry linkages occur within the area. A systemwide view is required because different firms have different linkages. The I-O technique permits the incorporation of such systemwide perspectives.

To estimate the economic impact of RSA, PEEHIP, and SEIB benefits paid to or on behalf of retirees on the Alabama economy, linkages between benefit payments and recipients and the rest of the economy must be traced. This task is facilitated by the Regional Input-Output Modeling System (RIMS II), an input-output model developed and maintained by the U.S. Department of Commerce’s Bureau of Economic Analysis. The model is available for every state in the nation and also for many counties. This study uses RIMS II for the state of Alabama. As part of the analysis, another I-O software package called IMPLAN is used to check the RIMS II multipliers.

The RIMS II I-O model consists of nearly 500 industries. Data on each industry reflects the value of inputs used per dollar of output in the production of that industry’s output. For example, data for the motor vehicle, body, trailer, and parts industry show the value of each input per dollar of product produced. Since the rows (outputs) are produced by specific industries, they are also columns (inputs). Demand for a particular input will cause supply from the industry that produces it. This then creates demand for the inputs that are used to produce the particular product, and so on; the round-by-round impacts converge. The I-O model captures the total effect of these rounds of spending as the multiplier effect. RIMS II multipliers for an economy account for all linkages within and leakages from that economy. I-O models are based on a table of transaction balances, which ensures economy-wide accounting consistency. Total payments equal total receipts for each producing sector. Aggregate final demand equals aggregate value added.

Multipliers are determined mathematically from I-O tables that are constructed from observed and reported data for the economic area of interest. The economy is divided into a number of producing industries or sectors that sell and purchase goods and services to and from each other (*interindustry* or *intersectoral* flows). These interindustry flows are key data. Sector goods and services are purchased by domestic consumers (households), international customers (exports), governments (federal, state, and local), and for private investment purposes. These external to production purchases are for direct use and termed *final demand*. Assume an economy with  $n$  sectors and let  $X_i$  represent total output for sector  $i$ ,  $Y_i$  represent final demand for sector  $i$  products,  $z_{ij}$  represent interindustry flows. Then for each sector we can write

$$X_i = \sum_{j=1}^n z_{ij} + Y_i \quad (1)$$

If we let  $a_{ij}$  represent the I-O technical coefficients where  $a_{ij} = z_{ij} / X_j$  so that sectors use inputs in fixed proportions (the constant returns to scale Leontief production function) then the above equation becomes

$$X_i = \sum_{j=1}^n a_{ij} X_j + Y_i \quad (2)$$

The standard formulation of the basic I-O model and its application, in matrix notation is:

$$\text{Transactions balance: } X = AX + Y \quad (3)$$

$$\text{Solving for X: } X = (I - A)^{-1}Y \quad (4)$$

$$\text{For a change in Y: } \Delta X = (I - A)^{-1}\Delta Y \quad (5)$$

where  $X$  is the gross output column vector,  $A$  is the matrix of fixed I-O coefficients,  $Y$  is the final demand column vector, and  $I$  is the identity matrix. With this basic model, the resulting output is computed given changes in final demand levels (consumption, investment, government, or exports). The Leontief inverse,  $(I - A)^{-1}$ , is the source of multipliers for determining impacts in the I-O methodology. The elements of the matrix are really very useful and important. Each captures in a single number an entire series of direct and indirect effects. Gross output requirements are translatable into employment coefficients in a diagonal matrix that is used together with the Leontief inverse to generate employment impacts. Similar manipulations generate income or earnings multipliers.