

**Louisiana Rehabilitation Services Cost-Benefit Analysis
Fiscal Years 2009 – 2013**

Produced By

**Belinda Creel Davis, Ph.D.
Associate Professor
Louisiana State University**

and

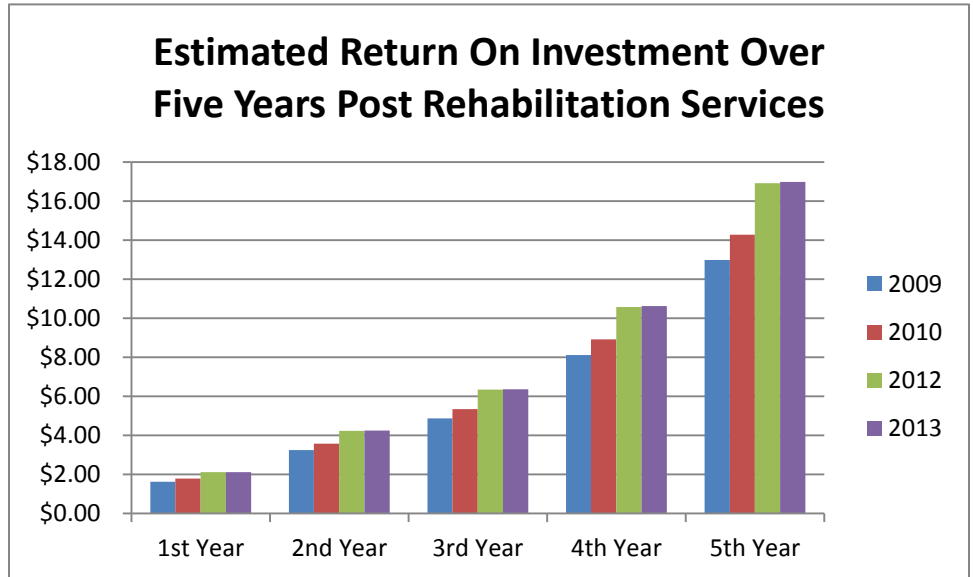
**Kirby Goidel, Ph.D.
Full Professor
Louisiana State University**



LOUISIANA STATE UNIVERSITY

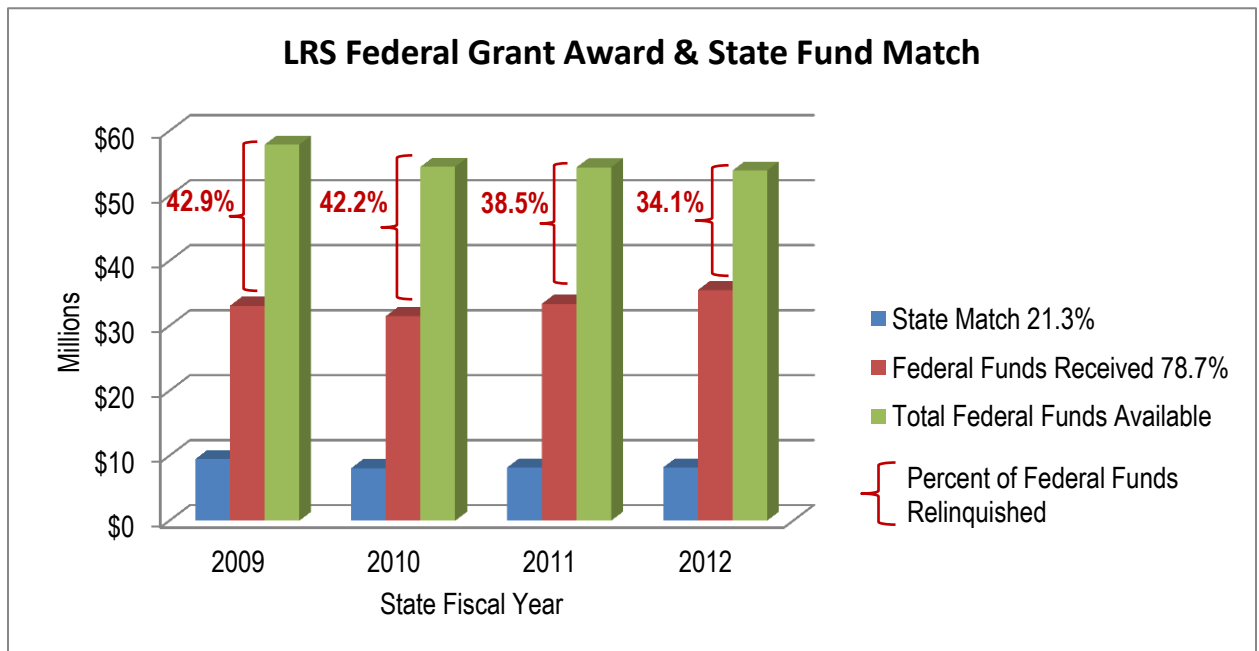
Executive Summary

- The estimated Return on Investment (ROI) is positive the first year after clients receive services and continues to accrue over time. Take the ROI in 2013 as an example. For every \$1 spent on services for all cases (regardless of whether the case is closed due to employment or not), the benefit in wages from closed cases with employment is \$2.12.



If these benefits are calculated out five years, the ROI rises to \$16.99.

- Over a five year period, the closed cases with employment from 2009 to 2013 will generate an estimated **\$65 million** in state and local taxes.
- For every \$1 of general appropriation funds budgeted to LRS, approximately \$4 in federal funds are generated. In 2012, Louisiana left over one-third, \$18.4 million, of the available federal funds on the table.



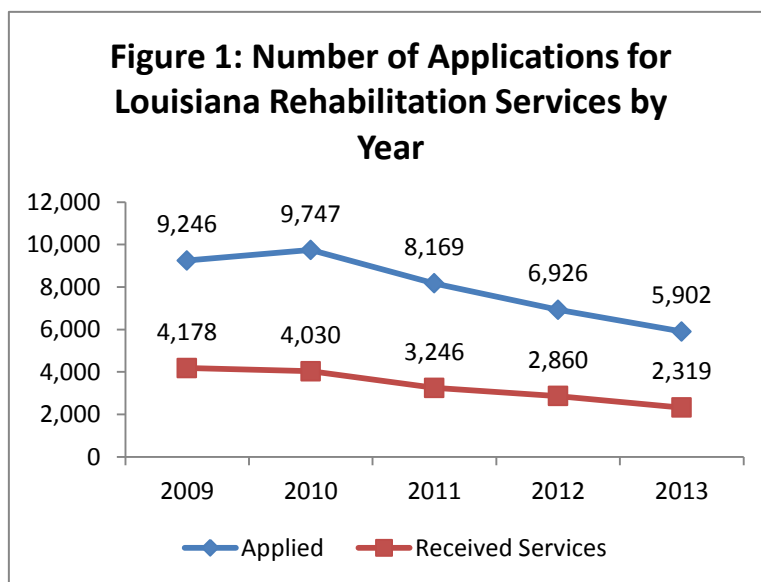
Louisiana Rehabilitation Services Cost-Benefit Analysis

The purpose of this report is to provide an overview of the services provided by Louisiana Rehabilitation Services (LRS), the costs of these services, and the return on investment to the state of Louisiana. To conduct the analysis, we collected data on the total number of applicants for disability services, the number of individuals served, the total costs of individual services, and the return on investment on services provided. Return on investment is estimated based on wages generated post service provision, tax revenue from employment and reductions in spending for state government services. In addition to the information collected, we also include data from the Louisiana Annual Review Reports as provided by the Federal Rehabilitation Services Agency.¹

Applications & Services, 2009-2013: An Overview

Our first task is to assess the number of applicants applying to the program, the number of applicants receiving services, and the number successfully securing employment. For the purposes of this analysis, we count applications as individuals who applied for the program from October 2008 to September 2013. Cases are assigned to individual years based on the fiscal year in which the individual applied; so, for example, 2009 includes applications from October 2008 to September 2009.²

From 2009-2013, the Louisiana Rehabilitation Services received 39,990 applications for rehabilitation services. Of these applications, 16,633 (41.5 percent) actually received services meaning that they were deemed qualified for services after an initial assessment in that they (1) had a disability and (2) that rehabilitation services could help them find employment; and (3) after this initial assessment actually received some level of support and were placed in an order of selection group LRS was serving at the time. In any given year from 2009-2013,



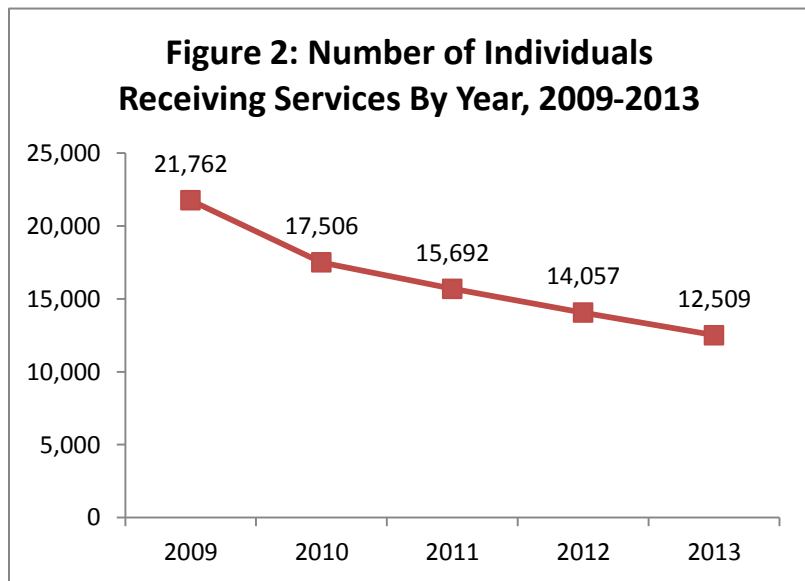
¹ These reports can be found at: <https://rsa.ed.gov/about-your-state.cfm?state=Louisiana>. Accessed on May 28, 2014.

² This definition is slightly different than what is included in the RSA reports. Specifically, they include applicants from the previous year if those applications had not been screened and qualified. In 2012, they list 8,893 applicants where we report 6,926.

roughly 40% of applicants receive services. Notably this was slightly higher in 2009 when 45 percent of applicants received services. **Looking at the data over time, we see a decline in both applications and the number of applicants receiving services. However, the fact that the percentage of applicants being served remains fairly constant over the time period provides some indication that qualified applicants are being served at a consistent rate.**

To rely on applications as an indicator of effort misses a larger picture as a number of applicants cross fiscal years. So, for example, an individual may apply for services in 2009, qualify and receive services in the same year but still be receiving services in 2010 and 2011. To capture this level of effort, we present the overall number of individuals receiving services in a given year in Figure 2.³ This figure reflects the overall open caseload irrespective of the date of application.

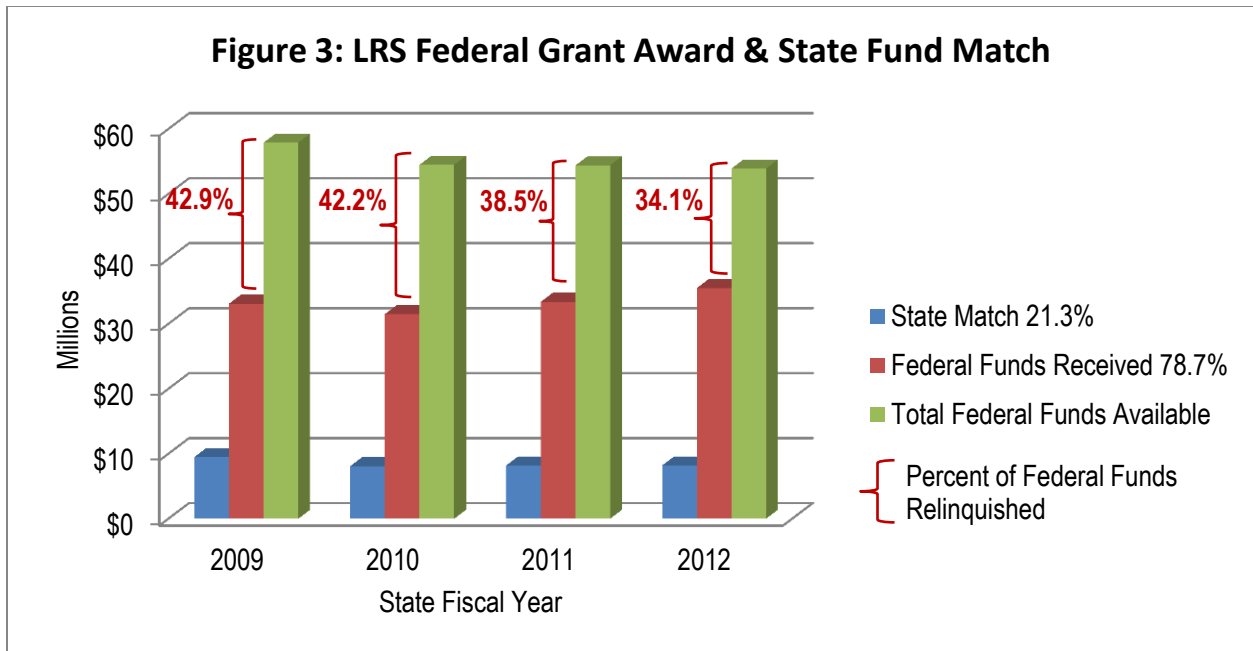
Looking at the data over time, the number of individuals receiving services follows the same general pattern as applications. From 2009-2013 the numbers have consistently declined from 21,762 in 2009 to



12,509 in 2013. This decline reflects, in large part, the return to the pre-Katrina order of selection (the removal of additional federal funds which allowed LRS to offer an expanded array of services to individuals whose order of selection would not normally be served). In addition, economic context and/or declining budgetary support for rehabilitation services also may play a role.

During the initial years of the study, the national economy was in the midst of the Great Recession. While Louisiana fared relatively well in terms of unemployment numbers, the Louisiana economy was not immune to the national recession. At the same time, Louisiana state government was going through a series of budgets cuts to address declining tax revenues.

³ Our number differs from the RSA report because of the limited time frame under consideration here.



In Figure 3, we present total state and federal funding for rehabilitation services from 2009 to 2012 using data from the Louisiana Workforce Commission Fiscal Office. These data include federal funds and state matching funds. From 2009 to 2012, available federal dollars for basic support services declined slightly from \$57.9 million to \$53.9 million. During the same time period, state general fund appropriations fell from \$9.5 million to \$8.2 million. This is a decline of nearly 14%.

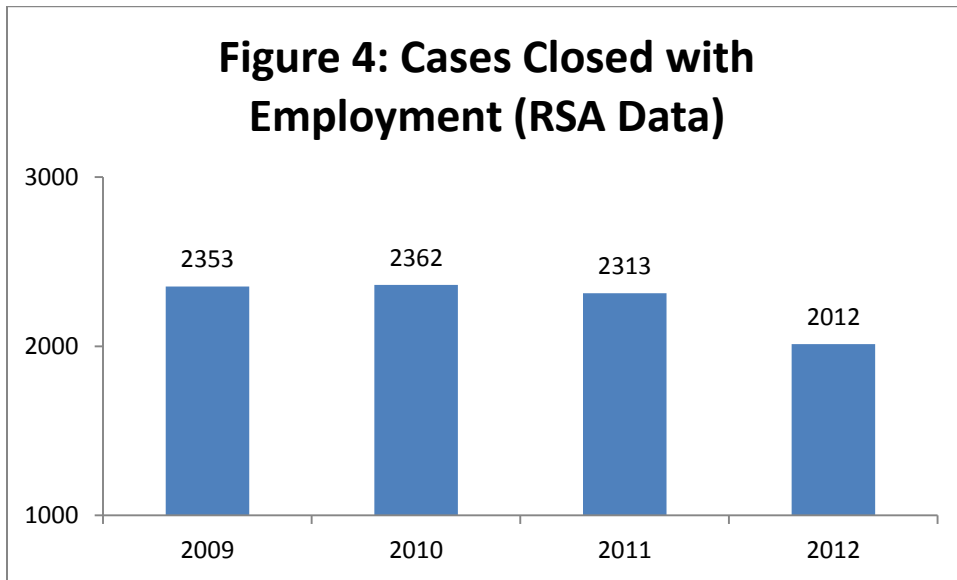
The key take away from Figure 3 is represented by the brackets on the green bars representing total federal funds relinquished. **The green bar represents what the federal government would have spent on basic services if the state had given its maximum in matching funds through general appropriations. The red bar represents actual federal funds the state received due to the state's appropriation of general funds. Roughly speaking, every one dollar spent in Louisiana general fund appropriations results in approximately four federal dollars.**

Transitioning Individuals with Disabilities to Employment

LRS closes cases when clients receive employment or when services are no longer needed or beneficial to securing employment. The most common reasons cases close without employment involve individuals who no longer need services or refuse services, or who move or otherwise become impossible to contact. Overall, approximately 39 percent of the cases receiving services are closed with employment. A roughly comparable 40 percent of cases were closed without employment and the remaining 21 percent of cases remained open. According to the 2012

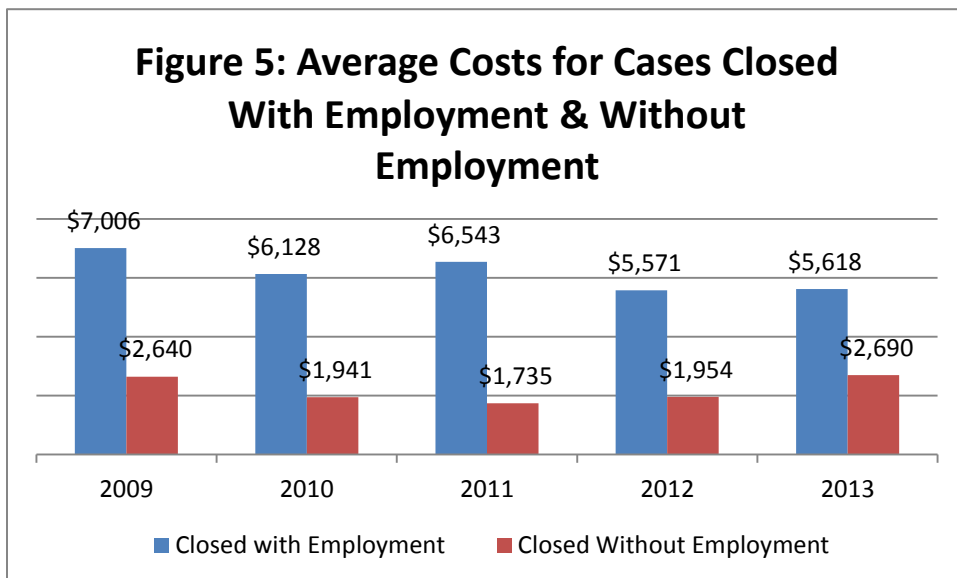
Louisiana Rehabilitation Services report, the average case took approximately 36 months to move from application to closure with employment.

Figure 4 contains the number of closed cases due to employment by federal fiscal year. While there has been a slight decline in the overall number of cases closed due to employment, the trend in closed cases is actually positive. For example, in 2009 LRS closed 47.7% of its cases due to employment. In 2011, that number had risen to 48.4%.



Costs of Services

To better understand the costs of these individual cases, we separate out cases closed with employment versus cases closed without employment. These costs include only costs associated with eligible cases. Cases where an initial screening determined the individual was not eligible for services are not included, even though the initial screening for eligibility might generate



nontrivial costs. In addition, these costs do not include administrative costs not tied to a specific case. As such, we might think of these costs as costs directly related to services for eligible applicants for whom a service plan was

developed. As noted previously, most cases closed without employment are closed because the person stopped using or refused the services. As a result, cases closed without employment generally costs less.

Using constant 2013 dollars, the average cost for a case closed with employment declined from 2009 to 2013. In 2009, the average case costs \$7,006 to close with employment. In 2013, the average costs were \$5,618, **a decline of nearly \$1,400**. While costs do vary by year, the trend over time for cases closed with employment is downward while costs associated with cases closed without employment dip and then rise back up to their 2009 level.

Return on Investment

There are a number of approaches for estimating the return on investment for spending on rehabilitation services and different researchers may calculate the outcomes in different ways. However, the items included are largely the same: (1) wages earned as a result of employment; (2) tax revenue returned to the state as a result of employment wages; and (3) the reduction in spending on services (SSDI) because of the employment.

Measuring Wages: Return on investment studies often rely on the wage data provided by rehabilitation services that is entered at the time the individual case is closed with employment. Assumptions can then be made about lifetime earnings or earnings over a set period of time (e.g., one year or three years). While such an approach is reasonable, it is generally agreed that the most accurate estimates use individual level Unemployment Insurance (UI) wage data. These data are combined with the individual record from rehabilitation services to track actual wages over time (as opposed to reported wages and assumed wages over a longer period of time). Such an approach is not without its own set of obstacles as some of the data are missing. In the estimates that follow, we use the available UI wage data .

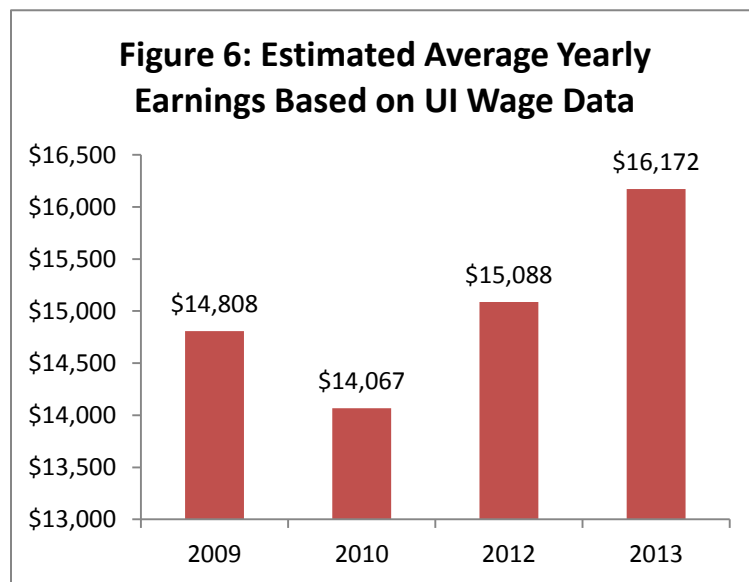
We can begin, however, with simple baseline calculation using the reported data provided by the RSA. According to the 2012 Annual Review Report, the average hourly wage for an individual program participant with a competitive employment outcome was \$12 per hour. This individual worked, on average, 33 hours per week. This translates into approximately \$396 per week (\$12 per hour X 33 hours) or \$19,800 per year (assuming 50 weeks of work). The RSA report estimates the average costs per employment outcome as \$7,536, indicating that within a year, the return in wages far exceed the state's costs for competitive employment outcomes.

Table 1: Baseline Calculation for Estimated Annual Salary Based on RSA Reported Average Hourly Wage and Average Hours Per Week

Year	Average Hourly Wage	Average Hours Per Week	Weekly Salary*	Estimated Annual Yearly Salary*
2009	\$13.78	34.25	\$472	\$23,598
2010	\$12.73	33.92	\$432	\$21,590
2011	\$12.17	33.14	\$403	\$20,166
2012	\$12.06	33.04	\$398	\$19,923

Note: Average hourly wage and average hours worked per week as reported in RSA reports. Weekly salary and estimated annual salary are based on secondary calculations.

Of the 6,520 cases closed with employment, 1,305 cases (20 percent) had no associated income data in the UI wage database. An additional 1,750 cases did not have wage data in the four quarters following the date listed in the LRS data as month and year the cases were closed with employment. Overall, roughly half of the cases (52 percent) listed as closed with an employment did not have the data necessary to estimate. Most likely, this reflects a couple of exemptions in the reporting requirements for unemployment insurance. First, individuals working for small non-profits, educational or religious organizations are exempt. Second, individuals suffering from disabilities or injuries who “cannot be readily absorbed in the competitive labor market and who receive rehabilitation or remunerative work in a facility conducted for the purpose of carrying out a program of rehabilitation.”⁴



Estimated yearly earnings range from \$14,067 in 2010 to \$16,172 in 2013 in real dollars. Importantly, under each scenario wages earned exceeds the initial investment in spending for rehabilitation services. Or perhaps stated differently, every \$1 dollar on rehabilitation services which results in a competitive employment outcome yields \$2.44 in earned wages for program participants. It is perhaps also worth noting that return on investment has increased over the years under

⁴ <http://www.laworks.net/Downloads/employment/employerhandbook.pdf>.

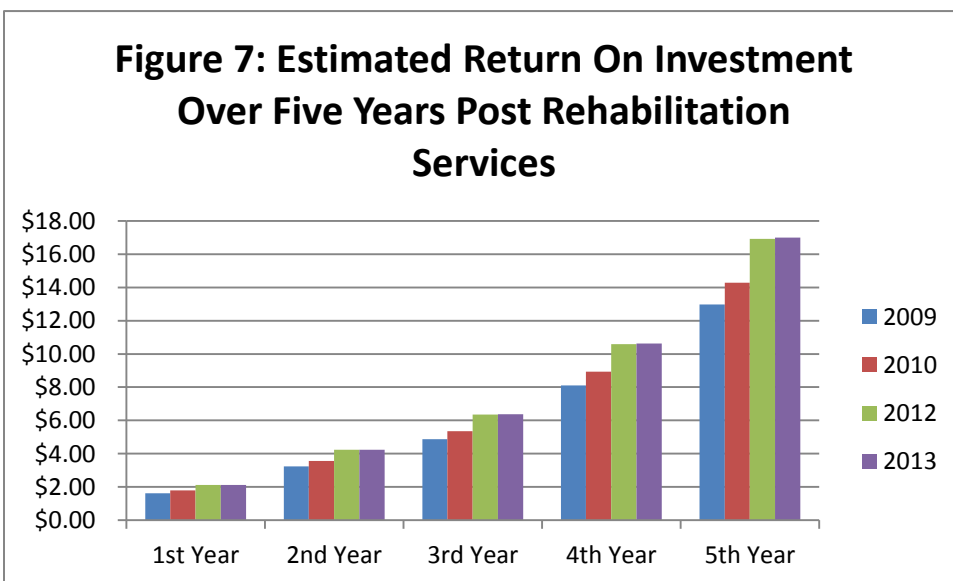
study. In 2009, every \$1 in spending yielded \$2.29 in wages. In 2013, every \$1 in spending yielded \$2.88 in wages.

Moreover, even if we add in participants closed without employment, the state continues to get back more than it is putting in to LRS. For example, in 2009, 1,826 of the applicants who received services were closed with employment while 2,009 cases were closed without employment. If we multiply the number of closed cases by the cost of each type of case (\$6,452 for a case closed with employment and \$2,431 for a case closed without employment), we estimate the total costs for these cases as \$16.6 million. To generate the estimated return we multiply the number of cases closed with employment by the average year earnings. The overall return in 2009 was \$27 million. This translates into a \$1.62 return on every dollar spent. In Table 2, we present the calculations and return on investment for each year in the study. Adding in the cases closed without employment, we continue to find that the return on investment is larger in more recent years, increasing to \$2.12 in 2012 and 2013.

Table 2: Return on Investment (Including Cases Closed Without Employment)

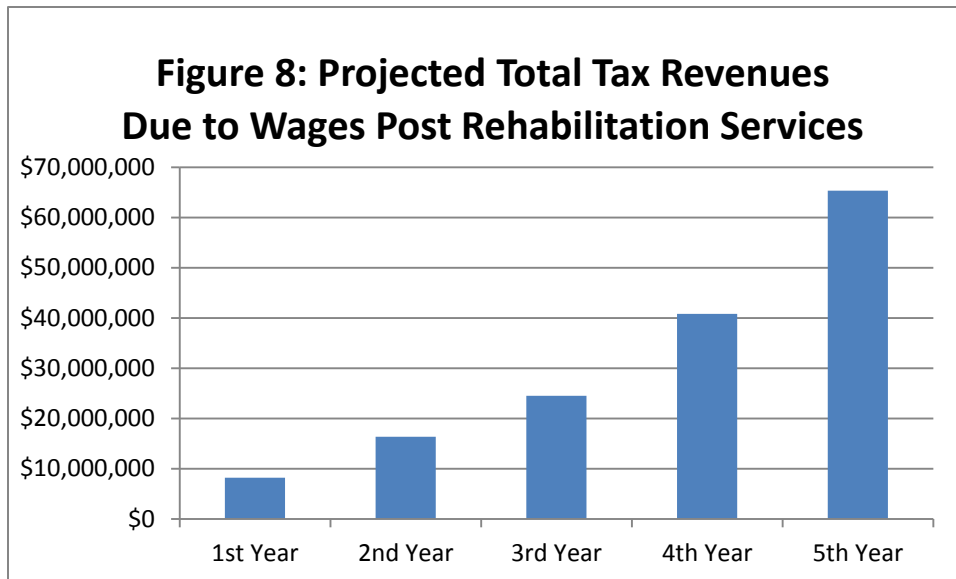
Year	Total Costs	Total Yearly Wages	Return on Investment (Per \$ Spending)
2009	\$16,665,231	\$27,039,408	\$1.62
2010	\$13,043,498	\$23,280,885	\$1.78
2012	\$7,829,928	\$16,566,624	\$2.12
2013	\$4,789,952	\$10,172,188	\$2.12

While Table 2 clearly illustrates the positive value generated by every dollar spent on vocational rehabilitation services, it does not gauge the cumulative impact of the investment of Louisiana



taxpayer dollars over time. Figure 7 provides just such an illustration. By 2014, spending \$1 on vocational rehabilitation services in 2009 will have generated an estimated \$12.99. Over time, the return on investment for services has grown so these benefits are larger for dollars

spent in 2013. By 2018, spending \$1 in 2013 will have generated over \$16 in the State of Louisiana's economy.



Another way to assess the effect of the program is to gauge what employed clients produce in tax revenue for the state of Louisiana. According to the Institute of Taxation and Economic Policy, Louisiana residents making less than \$16,000 a year spend 10.6% of their annual income on state and local taxes (<http://www.itep.org/pdf/whopaysreport.pdf>). Assuming the average income of closed cases and a 10.6% state and local tax rate, successfully closed cases from the years 2009, 2010, 2012, and 2013 generated \$8,168,265 in sales taxes, excise taxes, property taxes, and Louisiana income taxes. Note that this is only a calculation of taxes collected in their first year after being served by LRS. This means that the tax revenues generated by successfully closed cases over time will be higher. For example, if we assume that successfully closed cases from 2009 generate the same income over five years, the tax contributions from that year's successfully closed cases is over \$14 million. Figure 8 illustrates the total projected tax revenue from wages over five years for every case closed with employment from 2009-2013.

One additional consideration is the impact of LRS closed cases on the utilization of other government programs. For example, employment obtained as a result of rehabilitation services may very well lessen the need for a client to rely on other federal programs for assistance. Table 3 contains data on the programs serving LRS clients at the time of application and at the time of exit. Across all four programs, there is a decline in the number of clients receiving assistance from other programs. The decline is the largest for SSI Blind which experiences a decline of over 90%. It is worth noting that these numbers reflect services at the time the client exited LRS. It is entirely possible that as earnings increased post service provision, the utilization of other government programs and the amounts received declined.

Table 3: Participation in Other Government Programs

Program Type	# Receiving Services at Application	# Receiving Services At Closing
SSI Age	298	74
SSI Disability	1,183	967
SSI Blind	231	22
SS Disability Insurance	1,145	959