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## ECONOMIC IMPACT OF FUNDING CALIFORNIA'S TRANSPORTATION INFRASTRUCTURE

### An Economic Benefit Assessment of California's Investment in Transportation Infrastructure

#### OVERVIEW

California's \$2 trillion transportation infrastructure system is a prime ingredient in the fuel that fires the state's economic engine. In fact, economists and business leaders agree, investment in transportation brings jobs to California and encourages vital business investment, which creates permanent economic benefit to the state.

But, despite a 50 percent increase in population and miles driven over the past 20 years, California has only increased lane capacity on its highways by seven percent. And according to the census bureau, California ranks 48th in investment in its highways and 40th in overall infrastructure investment based on personal income.

On behalf of the California Infrastructure Coalition (CIC), the California Business Roundtable, a founding member of the CIC, and other Coalition partners, the California Alliance for Jobs and Transportation California, commissioned the SAER Group to conduct an analysis of the economic impact of restoring California's transportation funding.

To gain an understanding of the potential economic impacts of increased funding for California's transportation infrastructure, the SAER Group commissioned the Sacramento Regional Research Institute (SRRRI) to provide an estimate of the positive impacts to the California economy resulting from restored transportation funding.<sup>1</sup>

The goal of this analysis was to assess the current state of transportation funding and define the economic benefits to the state to restore borrowed funding and create a mechanism for sustainable investment in California's transportation infrastructure.

#### BACKGROUND

***The January Budget Proposal:*** Since fiscal year 2001-02, the state General Fund has borrowed substantial amounts of monies from various transportation funds and, according to the Legislative Analyst's February analysis of the Schwarzenegger Administration's proposed budget for fiscal year 2004-2005, more than \$4 billion was to be diverted from transportation projects. In fact, the Administration's January budget proposal recommended permanently suspending the transfer of \$1.127 billion in

<sup>1</sup> SRRRI was retained to perform an economic impact analysis of the intended use of the transportation funds, utilizing an econometric input-output model called IMPLAN. This model is widely used in California for economic and fiscal analysis or urban development projects. See the Transportation Funding Fact Sheet for detail of borrowed/suspended transportation funds.



Proposition 42 funds and proposed to eliminate the Transportation Congestion Relief Program (TCRP).<sup>2</sup>

***The May Budget Revisions:*** In its mid-year revision of the state budget (known as the May revise), the Administration amended its January budget proposal, due largely to an influx of previously unexpected revenues, to provide substantially more transportation funding for fiscal year 2004-05. Specifically, for fiscal year 2004-05, the Administration proposes to provide \$383 million to the Traffic Congestion Relief Fund (TCRF) as a partial repayment of the \$1.383 billion now owed to TCRF. The TCRF will pass on \$184 million to the State Highway Account and \$36 million to the Public Transportation Account leaving \$163 million to fund projects already approved by the California Transportation Commission. The continuation of Transportation Congestion Relief Program (TCRP), however, is made dependent on a review and prioritization of TCRP projects by the Administration's Business, Transportation and Housing Agency.

***The State General Fund vs. Transportation Project Balance Sheet:*** After repaying the \$383 million, the General Fund would still owe the TCRF \$1 billion in borrowed funds. With regard to the \$1 billion still owed from prior years, the Administration has promised to "allocate any potential one-time revenue from the renegotiation of tribal gaming compacts to repay this loan." If the tribal gaming revenues do not materialize, the loan will be repaid from other sources by fiscal year 2005-06.

While the May revision of the budget still suspends the transfer of fiscal year 2004-05 Proposition 42 funds, which is currently estimated to be more than \$1.2 billion, the suspended amount is proposed to be repaid by the General Fund by fiscal year 2007-08.

## **KEY FINDINGS**

The restoration of previously diverted and borrowed transportation funds is good news for California's economy and business climate. The extent of the impact, however, depends in large part on the realization of the one-time dollars from the renegotiation of Indian gaming compacts. A portion of these revenues will be ongoing and a portion will be one-time settlement for past years. (Note: The nature of the renegotiated compacts is unknown at this time and only provides us with a range of benefits, based on the variety of potential outcomes.)

- **Every \$1 billion of transportation spending in California creates approximately 18,000 new jobs in the state** (net of procurement).
- If the \$383 million in additional General Fund dollars can be augmented with an additional \$1 billion in Indian Gaming revenues, **the state should realize approximately 25,000 new California jobs in construction and support**

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<sup>2</sup> See the Transportation Funding Fact Sheet for detail of borrowed/suspended transportation funds.



**sectors and \$2.7 billion in total direct, indirect and induced economic benefit.**

- If the remaining \$1.2 billion owed is repaid in fiscal year 2005-06, as promised, this will mean **an additional 22,000 California jobs and an additional \$2.4 billion in direct, indirect and induced economic benefit.**
- **All of the 25,000 jobs generated from the fiscal year 2004-05 spending cannot be outsourced.** These benefits are specifically related to projects and support projects physically located in California.
- **The additional funds from Indian Gaming revenues are new to the state General Fund and are not being withdrawn to the detriment of any another state program.**
- **Project expenditures will improve the state's transportation infrastructure and business environment resulting in ongoing general economic benefit.**

#### **Economic Impact of the Restoration of Transportation Funding:**

Because such a wide array of segments in the economy benefit from transportation investment, it is difficult to estimate a comprehensive measurement of the permanent economic impact. The SAER Group analysis provides a comprehensive view of the inter-related economic impacts. For example, roadway and transit construction projects and the subsequent procurement activities directly create employment as well as influence the purchase of goods and services throughout California. However, economic activities associated with transportation funds do not end with construction and procurement. These activities also create jobs and output in linked industries in the state.

This analysis allows for the evaluations of the full range of economic impacts related to specific infrastructure activities (construction and procurement) by calculating the direct, indirect and induced benefits of the activities in the State of California. Additionally, the analysis quantifies the multiplier that's generated when new employment is added in one sector (direct impact), but generates additional employment in other sectors that supply goods and services (indirect impact) and consumer services to employees (induced impact).

**Range of Benefits:** This analysis is based on the assumption that transportation dollars approved in the budget will be spent as follows:

- **Roadway Construction Projects      50.3 percent**
- **Transit Construction Projects        47.8 percent**
- **Procurement Activities                1.8 percent**
- **Right of Way Costs:** While Right of Way costs are part of project budgets, they do not strictly create economic impacts; therefore, these amounts were removed prior to input-output analysis (TCRP numbers show that these costs represent about 13.6 percent of total funds)



Again, the total amount of funding will depend on the outcome of the renegotiation of the Indian gaming compacts. **Additional funding will consist of, at least, \$383 million from General Fund dollars plus the one-time Indian gaming revenues. Therefore, this analysis calculated the benefit of spending at least \$500 million and, at most, \$2.5 billion in transportation projects during fiscal year 2004-05.**

ESTIMATED BREAKDOWN OF THREE MAIN TRANSPORTATION FUND AREAS (IN MILLIONS UNLESS NOTED)					
<i>Level</i>	<i>Total Amount</i>	<i>Total Less Right of Way</i>	<i>Procurement Activities</i>	<i>Roadway Construction</i>	<i>Transit Construction</i>
\$2.5 Billion	\$2,500	\$2,160	\$39	\$1,086	\$1,032
\$2.0 Billion	\$2,000	\$1,728	\$31	\$869	\$826
\$1.5 Billion	\$1,500	\$1,296	\$23	\$652	\$619
\$1.0 Billion	\$1,000	\$864	\$16	\$435	\$413
\$0.5 Billion	\$500	\$432	\$8	\$217	\$206

Sacramento Regional Research Institute, April 2004  
 Source: LAO, SAER Group, and TCRP  
 Note: Differences due to rounding.

**Multipliers:**

If the additional funding were used for procurement, roadway construction, and transit construction activities as discussed above, the state could see the following economic impacts (it is important to note that the figures do not include estimated Right of Way costs or the potential effects of debt service):

- **For every construction job created with the additional transportation spending, California would see an additional .76 jobs in indirect and induced sectors for a total employment multiplier of 1.76.**
- **For every state dollar spent on transportation projects, the state would see an additional \$.97 in indirect and induced spending in the economy. Many of these additional transactions result in sales tax revenues and additional income for taxpayers in the state creating additional revenue not only for the state but local governments as well.**

The total impact on employment and spending in the economy is substantial and impacts a wide variety of sectors of the California economy.



**TOTAL ECONOMIC IMPACTS OF POTENTIAL TRANSPORTATION FUNDS**  
(DOLLARS IN MILLIONS UNLESS NOTED)

<i>Impacts</i>	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	<i>Total</i>
<b>\$2.5 Billion Level</b>				
Output	\$2,157	\$831	\$1,269	\$4,257
Employment	25,384	6,560	12,668	44,611
Value Added	\$1,174	\$470	\$750	\$2,394
Employee Compensation	\$955	\$256	\$388	\$1,599
<b>\$2.0 Billion Level</b>				
Output	\$1,726	\$665	\$1,015	\$3,407
Employment	20,313	5,249	10,137	35,700
Value Added	\$939	\$376	\$600	\$1,916
Employee Compensation	\$764	\$205	\$311	\$1,280
<b>\$1.5 Billion Level</b>				
Output	\$1,294	\$499	\$761	\$2,554
Employment	15,228	3,936	7,600	26,764
Value Added	\$704	\$282	\$450	\$1,436
Employee Compensation	\$573	\$154	\$233	\$959
<b>\$1.0 Billion Level</b>				
Output	\$864	\$333	\$508	\$1,705
Employment	10,165	2,628	5,073	17,866
Value Added	\$470	\$188	\$300	\$959
Employee Compensation	\$382	\$103	\$156	\$640
<b>\$0.5 Billion Level</b>				
Output	\$431	\$166	\$253	\$851
Employment	5,071	1,311	2,531	8,912
Value Added	\$235	\$94	\$150	\$478
Employee Compensation	\$191	\$51	\$78	\$319

Sacramento Regional Research Institute, April 2004

Source: IMPLAN, 2001 Coefficients based on LAO, SAER Group, and TCRP information

Note: Differences due to rounding. Impacts do not include estimated Right of Way costs.

The comprehensive economic impact resulting from the actual construction of the projects and the employment of thousands of construction workers is broad reaching.

The following charts illustrate the total number of construction jobs and dollars spent on actual construction activities. Additionally, they demonstrate the jobs created and amount of spending that supports construction activities and provides essential goods and services to construction workers. Construction projects also require architectural and engineering services, as well as tools, supplies and other services directly tied to the projects. And, construction employees necessitate everything from groceries and household goods to family physicians, insurance and hospital and bank services.



### SECTORS WITH GREATEST TOTAL EMPLOYMENT IMPACTS

<i>Sector</i>	<i>\$2.5 Billion Level</i>	<i>\$2.0 Billion Level</i>	<i>\$1.5 Billion Level</i>	<i>\$1.0 Billion Level</i>	<i>\$0.5 Billion Level</i>
Other new construction	14,505	11,609	8,700	5,805	2,895
Highway, street, bridge, and tunnel construction	10,609	8,489	6,369	4,250	2,120
Food services and drinking places	1,550	1,240	930	621	310
Architectural and engineering services	1,374	1,099	824	550	274
Wholesale trade	1,305	1,042	780	525	262
Offices of physicians and dentists	726	581	435	291	145
Employment services	707	566	424	283	141
Automotive repair and maintenance	528	423	317	212	106
Hospitals	517	413	310	207	103
Food and beverage stores	504	403	302	202	101
General merchandise stores	426	341	256	171	85
Real estate	424	339	254	170	85
Nursing and residential care facilities	363	291	218	146	73
Motor vehicle and parts dealers	359	287	215	144	72
Nonstore retailers	321	257	193	129	64

Sacramento Regional Research Institute, April 2004

Source: IMPLAN, 2001 Coefficients based on LAO, SAER Group, and TCRP information

Note: Differences due to rounding. Impacts do not include estimated Right of Way costs.

### SECTORS WITH GREATEST TOTAL OUTPUT IMPACTS (IN MILLIONS UNLESS NOTED)

<i>Sector</i>	<i>\$2.5 Billion Level</i>	<i>\$2.0 Billion Level</i>	<i>\$1.5 Billion Level</i>	<i>\$1.0 Billion Level</i>	<i>\$0.5 Billion Level</i>
Highway, street, bridge, and tunnel construction	\$1,086	\$869	\$652	\$435	\$217
Other new construction	\$1,032	\$826	\$619	\$413	\$206
Wholesale trade	\$189	\$151	\$113	\$76	\$38
Architectural and engineering services	\$136	\$109	\$82	\$54	\$27
Owner-occupied dwellings	\$94	\$75	\$56	\$38	\$19
Petroleum refineries	\$85	\$68	\$51	\$34	\$17
Automotive repair and maintenance	\$80	\$64	\$48	\$32	\$16
Food services and drinking places	\$70	\$56	\$42	\$28	\$14
Real estate	\$69	\$55	\$41	\$28	\$14
Offices of physicians and dentists	\$62	\$49	\$37	\$25	\$12
Hospitals	\$60	\$48	\$36	\$24	\$12
Monetary authorities and depository credit intermediation	\$51	\$41	\$31	\$20	\$10
Insurance carriers	\$49	\$39	\$29	\$20	\$10
Machinery and equipment rental and leasing	\$48	\$38	\$29	\$19	\$10
Truck transportation	\$39	\$32	\$24	\$16	\$8

Sacramento Regional Research Institute, April 2004

Source: IMPLAN, 2001 Coefficients based on LAO, SAER Group, and TCRP information

Note: Differences due to rounding. Impacts do not include estimated Right of Way costs.



## FACT SHEET

### Transportation Funds Transfers To The General Fund

#### Breakdown of Transfers

Since 2001-02, the General Fund has received transfers of approximately \$2.24 billion from special funds for transportation. According to the Legislative Analyst, the administration has proposed approximately \$2.05 billion in additional transfers to the General Fund.<sup>3</sup> The total transfers to the General Fund may be broken down as follows:

- \$238 million was transferred in 2001-02. The authorizing statute provided that money in the Traffic Congestion Relief Fund (“TCRF”) derived from the General Fund and not currently needed for expenditures on specified projects could be transferred to the General Fund through the annual Budget Act.<sup>4</sup> The authorizing statute did not clearly require repayment or mention interest:

*“Upon making a determination that funds in the TCRF are not adequate to support expected cash expenditures for the listed projects, the Director of Finance, by executive order, shall require that funds transferred to the General Fund...be repaid to the TCRF. All these loans shall be repaid no later than June 30, 2006.”<sup>5</sup>*

- An additional \$1.145 million was transferred from this source in 2002-03. The authorizing statute was amended to characterize the transfers to the General Fund from the TCRF as “loans.”<sup>6</sup> Interest is not mentioned in the statute.
- The administration also proposes to transfer \$189 million from the TCRF to the General Fund in the current year.<sup>7</sup>
- \$856 million in gasoline sales tax money was retained by the General Fund in 2003-04 instead of being transferred to the Transportation Improvement Fund (“TIF”) created by Proposition 42 (adopted in 2002).<sup>8</sup> The voters authorized the transfer of gasoline sales tax money to be suspended, in whole or in part,

<sup>3</sup> Source: 2004-05 Analysis of Transportation by Legislative Analyst’s Office at page A-21.

<sup>4</sup> Government Code Section 14556.8(c)(1), added by Section 6 of Chapter 113 of Statutes of 2001.

<sup>5</sup> Government Code Section 14556.8(c)(2).

<sup>6</sup> Government Code Section 14556.8(c), as amended by Section 4 of Chapter 445 of Statutes of 2002.

<sup>7</sup> Legislative Analyst’s Analysis cited in note 1 at A-19.

<sup>8</sup> The amount of \$856 million is taken from the Legislative Analyst’s Analysis cited in note 1 at A-19. The Analysis incorrectly reports this as funding denied to the TCRF instead of the TIF.



by the Governor and the Legislature. The authorizing statute created the “Transportation Deferred Investment Fund” and provided for payment of the \$856 million plus interest at the Pooled Money Investment Account rate (a short-term taxable rate) on or before June 30, 2009 for the uses deprived by the 2003-04 suspension.<sup>9</sup>

- The administration also proposes to retain \$1.127 billion in gasoline sales tax money in the General Fund in 2004-05 instead of transferring those funds to the TIF.<sup>10</sup> The administration did not propose to pay the \$1.127 billion to the Transportation Deferred Investment Fund, however.<sup>11</sup>
- The Legislative Analyst states that the administration proposed to divert transportation funds aggregating \$731 million to the General Fund in the current fiscal year.<sup>12</sup> This diversion is made possible by a change in accounting methods.<sup>13</sup> Only \$200 million would be repaid, and repayment would be required by June 30, 2007. Interest on this loan is not discussed by the Legislative Analyst.<sup>14</sup>

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<sup>9</sup> Revenue and Taxation Code Section 7105, added by Section 3 of Chapter 224 of Statutes of 2003.

<sup>10</sup> Legislative Analyst’s Analysis cited in note 1 at A-20.

<sup>11</sup> Ibid.

<sup>12</sup> Legislative Analyst’s Analysis cited in note 1 at page A-21 in Figure 2.

<sup>13</sup> Legislative Analyst’s Analysis cited in note 1 at page A-18.

<sup>14</sup> Ibid.





## FACT SHEET

### The IMPLAN Model

The measurement of the economic impacts in this analysis of transportation funds was performed using an input-output model called IMPLAN, developed at the University of Minnesota specifically for use in regional analysis and currently distributed and supported by the Minnesota Implan Group. This model is widely used in California for economic and fiscal analysis of urban development projects. Input-output models are characterized by their ability to evaluate the effects of industries on each other, through both the assumptions that any industry uses the outputs of others as its inputs, and that the outputs of any industry are partly used by other industries. Most typical measures of economic activity examine only the total output or employment of an industry, or the amount of final consumption demand provided by a given industry. The input-output model provides a much more comprehensive view of the inter-related economic impacts.

Specifically, roadway and transit construction projects as well as procurement activities directly create employment and purchases of goods and services throughout California; however, economic activities associated with transportation funds do not end with construction and procurement. These activities also create jobs and output in linked industries in the state.

The econometric analysis allows for the evaluations of the full range of economic impacts related to specific economic activities (construction and procurement) by calculating the direct, indirect, and induced benefits of the activities in the specific geographical designation (State of California).

- Direct Benefits consist of economic activity contained exclusively within the designated sector(s). This includes all expenditures made by the companies or organizations in the industry and all employees who work directly for them.
- Indirect Benefits define the creation of additional economic activity that results from linked businesses, suppliers of goods and services, and provision of operating inputs.
- Induced Benefits measure the consumption expenditures of direct and indirect sector employees. Examples of induced benefits include employees' expenditures on items such as retail purchases, housing, doctors and dentists, banking, and insurance.

Additionally, the input-output model can be used to quantify the multiplier effect that occurs when new employment is added in the geographical area via the designated economic activities. The multiplier effect is generated when new employment is added in one sector, but generates additional employment in other sectors which supply goods and services (indirect impact) and consumer services to employees (induced impact).



For this analysis, SRRI used the state as the geographical designation to assess the overall economic impacts of the total statewide transportation funds. This places a frame around the economic impacts where the activity is internalized in this frame and leakages (payments made to imports or value-added sectors which do not in turn re-spend the dollars within the area) are not included in the total impacts. Additionally, the economic relationships between sectors and activities are based on statewide information which essentially provides a statewide average rather than distinct regional relationships that may vary from the statewide information.

To describe the economic activities related to roadway construction, transit construction and procurement, SRRI associated these activities with three of the model's sectors. These placements were based on the recognition that the model provides information related to typical statewide economic activities including employment associated with dollar values and the linked goods and services necessary to perform the activities. Spending on roadway construction projects was associated with typical statewide activities in the Highway, Street, Bridge, and Tunnel Construction sector. Funds for transit construction projects were placed in the Other New Construction sector which encompasses typical statewide heavy and civil engineering activities including tunnel, streetcar, and railway construction. Procurement funds include the purchase of various goods, and based on a review of the statewide economic relationships of the State and Local Government Passenger Transit sector and industry classification descriptions, SRRI chose to place these funds in the Wholesale Trade sector. This sector includes the sale of capital or durable nonconsumer goods used in the production of other goods and services, and is associated with the sale of already manufactured products.