

# City of Los Angeles WIB Layoff Aversion Program

## Economic Impact Study



Los Angeles County Economic Development Corporation

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This report was prepared by the Economic and Policy Analysis Group of the Los Angeles County Economic Development Corporation (LAEDC).

As the Southern California region's premier economic development organization, the mission of the LAEDC is to attract, retain and grow businesses and jobs in the regions of Los Angeles County.

The LAEDC Economic and Policy Analysis Group offers objective economic and policy research for public agencies and private firms. The Analysis group focuses on economic impact studies, regional industry analyses, economic forecasts and issue studies, particularly in water, transportation, infrastructure and environmental policy. Projects are selected based on their relevance to the *L.A. County Strategic Plan for Economic Development* and the potential for the research to shape policy that supports the LAEDC mission.

## Executive Summary

A Layoff Aversion Program for the Los Angeles City Workforce Investment Board (WIB) has been implemented over the past year by the Los Angeles County Economic Development Corporation (LAEDC) and its partners, resulting in the retention of 3,503 jobs for at-risk businesses in the City WIB Service Delivery Area (SDA).

In this report, the Economic and Policy Analysis Group of the LAEDC (formerly the Consulting Practice) performs an analysis of the success and overall benefit of the City of LA WIB Layoff Aversion Program in four steps, as described below.

### Program Evaluation

We begin by comparing the performance of the Layoff Aversion Program against the standard used by the U.S. Department of Housing and Urban Development (HUD) to evaluate the public benefit of an economic development program. Against this standard, the program produced a retention rate *over one hundred times over* that of the HUD minimum level required.

We use GIS mapping software to show the locations of the businesses who received assistance within the LA City WIB SDA to successfully retain jobs.

Next we outline the Layoff Aversion Program in measureable metrics and display how the LAEDC and its partners performed in relation to those goals – meeting or exceeding all.

### Industry Classifications of Jobs Saved

We identify the industries associated with the jobs saved in the LA WIB Service Delivery Area, through both the layoff aversion program efforts and the leveraged jobs saved through the efforts of the Business Assistance Team of the LAEDC, and compare them to the industry and population-serving clusters and targeted industries for employment that were outlined in the initial industry and occupational analysis conducted by the Economic and Policy Analysis Group of the LAEDC (formerly the Consulting Practice) for the City WIB in its report entitled *The Next Decade: Industries and Occupations for the Los Angeles Workforce*. Over 80 percent of the jobs saved were in industries that were identified as target industries for employment generation.

## Economic Impact Analysis

A total of 3,503 jobs have been retained through the Layoff Aversion Program: 872 jobs were directly retained as a result of activities funded by the program and an additional 2,631 were retained in the LA City WIB SDA due to additional activities of the Business Assistance Program during the contract period. The Economic and Policy Analysis Group of the LAEDC conducted an economic impact analysis of these jobs, quantifying their effect on economic activity in Los Angeles County. The results are shown below.

Economic Impact of Jobs Saved			
	Employment (jobs)	Labor income (\$ millions)	Output (\$ millions)
Direct effects	3,503	\$ 269.2	\$ 670.0
Indirect effects	1,612	93.1	286.6
Induced effects	2,234	112.4	328.8
<b>Total Impact</b>	<b>7,348</b>	<b>\$ 474.6</b>	<b>\$ 1,285.4</b>

Source: Estimates by LAEDC

In addition to the economic impact listed in the table, these 3,503 jobs saved are estimated to have a total annual fiscal impact (federal, state and local) of \$160 million.

## Occupational Analysis

Additionally, we provide an analysis of the occupations represented by the jobs saved based upon their respective industries, and provide their average annual wages in the county.

Aggregated Occupational Distribution for Jobs Saved in the City of LA WIB SDA			
SOC Code	Occupational Description	Direct Employment	Total Employment
11-1300	Management, business, and financial occupations	213	624
15-2900	Professional and related occupations	1,302	1,913
31-3900	Service occupations	611	1,453
41-0000	Sales and related occupations	288	751
43-0000	Office and administrative support occupations	515	1,325
45-0000	Farming, fishing, and forestry occupations	1	7
47-0000	Construction and extraction occupations	25	77
49-0000	Installation, maintenance, and repair occupations	96	284
51-0000	Production occupations	320	486
53-0000	Transportation and material moving occupations	132	429
<b>Total</b>	<b>All Occupations</b>	<b>3,503</b>	<b>7,348</b>

\* May not sum due to rounding

Source: Estimates by LAEDC

## Introduction

The City of Los Angeles Workforce Investment Board Service Delivery Area (City WIB SDA) stretches across vast areas of Los Angeles County encompassing a variety of socio-economically diverse communities, from the Port of Los Angeles in the south to Sylmar in the north, and from West Hills in the west to the I-710 in the east.

The Los Angeles County Economic Development Corporation (LAEDC) and its partners (the Valley Economic Alliance (VEA), Valley Economic Development Corporation (VEDC) and California Manufacturing Technology Consulting (CMTC)) have led a year-long Layoff Aversion Program for at-risk businesses in the City WIB SDA. Through a wide range of services including in-person consultations and layoff aversion workshops, the LAEDC and its partners have helped to retain a meaningful number of businesses and jobs in the region, helping to stem the loss of employment opportunities for many local residents.



Simultaneously, the Business Assistance Program (BAP) of the LAEDC provided additional support to businesses in the LA City WIB Service Delivery Area, resulting in additional jobs retained within the SDA during the contract period.

In concert with these efforts, the Economic and Policy Analysis Group of the LAEDC (formerly the Consulting Practice) conducted an Industry Cluster Report for the City WIB entitled *The Next Decade: Industries and Occupations for the Los Angeles Workforce*. This report included an industry cluster analysis to quantify the economic output, employment, and wages generated within the WIB's Service Delivery Area, focusing on fifteen export-oriented industry clusters that are key drivers in the Los Angeles County economy. The report examined the industry makeup and occupational composition of the WIB SDA, and outlined those industries which were most promising to target for job retention efforts.

In this supplemental report, we identify the industries impacted through the efforts of the Layoff Aversion Program and the BAP in the LA City WIB SDA and quantify the total economic impact associated with the jobs saved, including their effect on economic output, employment, and wages in Los Angeles County. Additionally, we provide insight into the types of occupations represented and their average annual wages. By way of introduction, we compare the results of the Layoff Aversion Program to the standard employed by the U.S. Department of Housing and Urban Development (HUD) and outline how the program achieved its goals with various program metrics.

## HUD Public Benefit Evaluation Guidelines

The U.S. Department of Housing and Urban Development (HUD) has specific guidelines for evaluating and selecting economic development programs (24 C.F.R. §570.209), including mandatory standards for activities in the aggregate which are used in evaluating the public benefit of a particular economic development program. The minimum level of public benefit obtained from the expenditure of federal funds is defined by HUD as the creation or retention of at least one full-time equivalent permanent job for every \$35,000 of funds received.

Using the HUD standard for activities in the aggregate and applying it to the City of LA WIB Layoff Aversion Program to evaluate the program’s public benefit reveals that the program far exceeds the minimum level required, as shown in the exhibit below.

<b>Exhibit 1 Layoff Aversion Program Performance Using HUD Standards for Evaluating Public Benefit</b>	
<b>Direct Impact</b>	
LAP jobs saved – directly attributable to program	872
Additional jobs saved LA City WIB SDA due to ancillary activities	2,631
Total jobs saved in LA City WIB SDA	3,503
Layoff Aversion Program contract amount	\$ 1,150,000
<b>Public Benefit Evaluation</b>	
<b>HUD Criteria</b>	
Requires one job per funded amount of	\$ 35,000
Required total jobs saved for the LA WIB LAP to equal or exceed	33
<b>City of LA WIB Layoff Aversion Program</b>	
Saved one job per funded amount of	\$ 1,319
Jobs saved in excess of HUD requirement	839
Jobs saved per \$35,000 funded	26.5
<b>City of LA WIB SDA – LAP and Leveraged Jobs Saved</b>	
Saved one job per funded amount of	\$ 328
Jobs saved in excess of HUD requirement	3,470
Jobs saved per \$35,000 funded	106.6

Source: Analysis by LAEDC

The Layoff Aversion Program was funded at \$1,150,000. According to the HUD standard, the minimum level of public benefit for this contract amount would be the creation of 33 permanent full-time equivalent jobs. The efforts of the Layoff Aversion Program directly yielded 872 jobs, or one job for every \$1,319 of the funded contract, a retention rate of nearly 27 times that of the HUD minimum level required.

When considering the total efforts of the LAEDC in the LA City WIB SDA, through both the Layoff Aversion Program and the Business Assistance Program, a total of 3,503 jobs were saved, one job for every \$328 of the funded contract; a retention rate *over one hundred times over* that of the HUD minimum level required.

## The Geography of the Jobs Saved

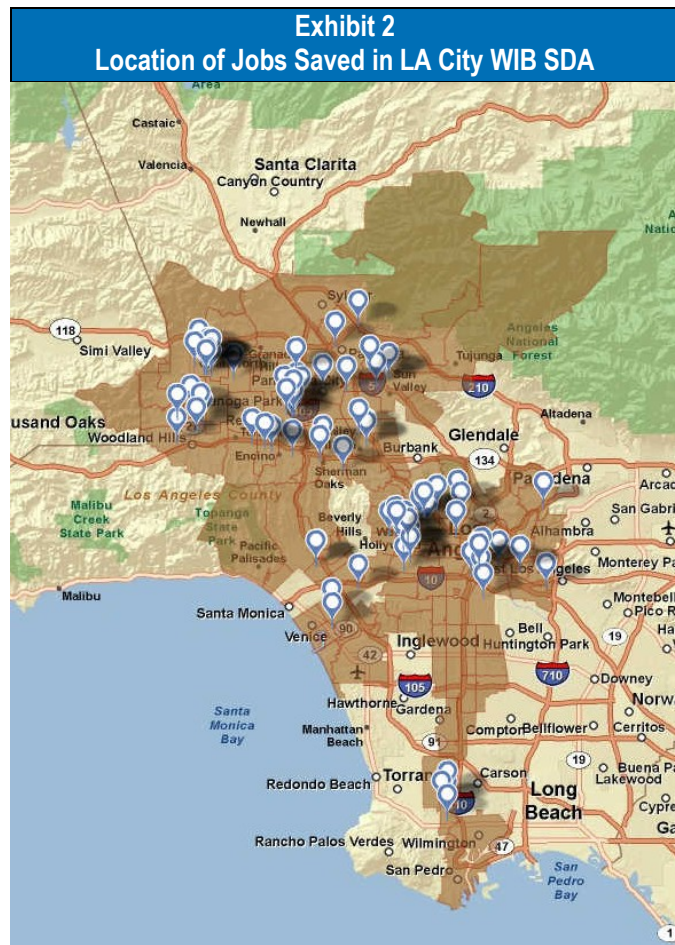
The City of Los Angeles Workforce Investment Board service delivery area (City WIB SDA) stretches across vast areas of Los Angeles County encompassing a variety of socio-economically diverse communities, from the Port of Los Angeles in the south to Sylmar in the north, and from West Hills in the west to the I-710 in the east.

The Layoff Aversion Program included coordination with the LA City WIB, businesses, and several economic development partners: the Valley Economic Alliance (VEA), Valley Economic Development Corporation (VEDC), and California Manufacturing Technology Consulting (CMTC). These teams also utilized resources and services of local and regional agencies to assist in potential layoff aversions for businesses in the City of LA WIB Service Delivery Area.

Through these layoff aversion services, which include outreach phone calls, in-person consultations, action plans, financial and lean manufacturing assessments, funding assistance, and layoff aversion workshops, the LAEDC and its partners have helped to retain a total of 3,503 jobs throughout the LA WIB Service Delivery Area during the contract period.

Exhibit 2 shows the geographic location of the 86 businesses within the City of LA WIB Service Delivery Area which have utilized these layoff aversion services to successfully retain jobs.

A description and enumeration of the services delivered is presented below.





## Layoff Aversion Program Metrics

The Layoff Aversion Program was a yearlong collaborative effort between the LAEDC and its partners, the Valley Economic Alliance (VEA), Valley Economic Development Corporation (VEDC), and California Manufacturing Technology Consulting (CMTC), which was funded by the LA City WIB to create and retain jobs within the City WIB SDA.



Reportable goals were set for the LAEDC and its partners as a way of tracking the progress of the Layoff Aversion Program. Exhibit 3 outlines the program metrics and the goals set for each and compares that to what was achieved over the life of the contract. The LAEDC and its partners have made over 5,800 outreach phone calls and helped 86 businesses to create or retain a total of 3,503 jobs throughout the LA WIB Service Delivery Area through their efforts during the contract period. A total of \$1,875,842 in funding was garnered by businesses in the LA City WIB SDA with the assistance of the Layoff Aversion Program team.

Exhibit 3			
City of Los Angeles WIB SDA Layoff Aversion Program Performance Metrics			
	Goal	Layoff Aversion Program	Success Rate (%)
At risk businesses identified	12,000	30,087	251
Number of companies where we marketed of the Layoff Aversion Program	12,000	27,975	233
In-person consultations	1,200	1,397	116
Referrals to Mayor's Business Team	300		
Retention goals	150	195	130
Expansion goals	150	182	121
Financial assessments to businesses (VEDC)	600	636	106
In-depth business assessments of lean manufacturing needs (CMTC)	70	82	117
Workshops participation	12	66	550
Customer service satisfaction rating	90%	95%	106
<b>Average Success Rate for All Measures</b>			<b>192</b>

Sources: LAEDC; VEA; VEDC

City of Los Angeles WIB SDA Layoff Aversion Program Performance Metrics (cont'd)			
	Goal	Layoff Aversion Program	Success Rate (%)
<b>Additional Layoff Aversion Program Measures:</b>			
Outreach phone calls		5,866	
LAP Jobs Saved (HUD public benefit standard)	33	872	2,642
Leveraged Jobs Saved (HUD public benefit standard)	33	2,631	7,973
Total Jobs Saved (HUD public benefit standard)	33	3,503	10,615
Businesses with jobs saved		86	
Loans funded		\$ 1,875,842	
Monthly follow-up emails to businesses contacted without an action plan		completed	
Industry Cluster Report		completed	
Development of the Business Resource Toolkit		completed	
<b>Develop Three-Pronged Layoff Aversion Marketing Program:</b>		completed	
Created and sent three E-newsletters to at-risk businesses	"Cost Containment" sent to 10,547 at-risk businesses		
	"Revenue Generation" sent to 8,692 at-risk businesses		
	"Building a 21 <sup>st</sup> Century Workforce" sent to 8,584 at-risk businesses		
Develop and print Layoff Aversion Program brochure	25,000 copies distributed		
	Electronic brochure on LAEDC website		
Develop a mini-website of resources targeting at-risk businesses	<a href="http://laworks4biz/home.aspx">http://laworks4biz/home.aspx</a>		

Sources: LAEDC; VEA; VEDC

The Layoff Aversion Program consisted of outreach efforts made to businesses deemed “at risk” within the LA WIB SDA. The goal for identified “at risk” businesses and the goal for marketing the available Layoff Aversion Program services to these businesses were both set at 12,000. Both goals were met and exceeded, by an additional 151 percent and 133 percent respectively.

Once an identified “at risk” businesses expressed an interest in using the Layoff Aversion Program services, further outreach efforts including in person consultations and assisting businesses with the creation of an implementable action plan. The goals for these measures were also met and exceeded, a total of 1,397 in person consultations were conducted, 197 more than the goal. Customer Satisfaction Surveys completed by the businesses assisted by the Layoff Aversion Program reflect a 95 percent satisfaction rate with the services provided by the LAEDC and its partners.

Monthly referral goals for the Mayor’s business team were required as part of the Layoff Aversion Program, 150 retention referrals and 150 expansion referrals were set as the goal for the Program. Through the LAEDC and its partners’ outreach efforts; 195 retention leads and 182 expansion leads were identified and referred to the Mayor’s business team during the life of the contract.

The LAEDC's partners in the Layoff Aversion Program met or exceeded their Program goals as well. The VEDC was required to perform 600 financial assessments for at risk businesses, a goal that they exceeded. CMTIC was to perform 70 in-depth business assessments for lean manufacturing needs and they successfully performed 82 lean manufacturing assessments.

The provision of Layoff Aversion Workshops was required as part of the program. A goal of 12 workshops was to be hosted by the LAEDC and its partners. Over 60 workshops were carried out, four times more than the set goal.

Additional completed components of the Layoff Aversion Program included: loan assistance; monthly follow-ups to "at risk" businesses that were contacted but chose not to develop an action plan; the completion of the Industry Cluster Report for the City WIB entitled *The Next Decade: Industries and Occupations for the Los Angeles Workforce*, examining the industry makeup and occupational composition of the WIB SDA; and the development and launch of the Business Toolkit, designed to provide an electronic source of the business incentives, service providers, educational institutions, venture capital sources and annual conferences dedicated to the support of businesses. The Toolkit is available at <http://www.laedc.org/businessassistance/lacitywib.html>.

## The Industries and Industry Clusters of the Jobs Saved

With an economic base as diverse as the one in the City of LA WIB SDA, the jobs saved through these retention efforts occurred across a wide variety of industries. The classification of the direct jobs saved according to industry is presented in Exhibit 4.

<b>Exhibit 4 Jobs Saved by Industry</b>		
<b>NAICS</b>	<b>Industry title</b>	<b>Direct jobs saved</b>
238	Specialty Trade Contractors	19
311	Food Manufacturing	83
315	Apparel Manufacturing	51
322	Paper Manufacturing	31
325	Chemical Manufacturing	57
326	Plastics and Rubber Products Manufacturing	8
327	Nonmetallic Mineral Product Manufacturing	20
331	Primary Metal Manufacturing	40
332	Fabricated Metal Product Manufacturing	95
333	Machinery Manufacturing	45
334	Computer and Electronic Product Manufacturing	12
336	Transportation Equipment Manufacturing	33
337	Furniture and Related Product Manufacturing	13
339	Miscellaneous Manufacturing	41
424	Merchant Wholesalers, Nondurable Goods	64
445	Food and Beverage Stores	12
451	Sporting Goods, Hobby, Book, and Music Stores	14
453	Miscellaneous Store Retailers	5
454	Nonstore Retailers	8
492	Couriers and Messengers	4
511	Publishing Industries	2
512	Motion Picture and Sound Recording Industries	175
515	Broadcasting	35
519	Other Information Services	6
522	Credit Intermediation and Related Activities	4
531	Real Estate	66
532	Rental and Leasing Services	264
541	Professional, Scientific, and Technical Services	63

Exhibit 4 (cont'd)		
NAICS	Industry title	Direct jobs saved
551	Management of Companies and Enterprises	2
561	Administrative and Support Services	20
562	Waste Management and Remediation Services	2
611	Educational Services	1
621	Ambulatory Health Care Services	40
622	Hospitals	1,964
623	Nursing and Residential Care Facilities	4
624	Social Assistance	76
713	Amusement, Gambling and Recreation Industries	4
722	Food Services and Drinking Places	58
811	Repair and Maintenance	5
812	Personal and Laundry Services	3
<b>Total of All Industries</b>		<b>3,503</b>

Source: Estimates by LAEDC

## The Industry Clusters of the Jobs Saved

In the *The Next Decade: Industries and Occupations for the Los Angeles Workforce*, we reviewed the overall size, performance and characteristics of the economic base of Los Angeles County by analyzing its industrial structure as organized into industry clusters, including fifteen export-oriented industry clusters that are the key drivers of the regional economy, and six population-serving industry clusters which, while not traditionally considered targets for development, are significant employment generators.

The exhibit below presents the employment and relative size of the industry clusters in the City of LA WIB SDA. The jobs saved through the efforts of the Layoff Aversion Program are classified according to industry and are presented according to their respective cluster.



Exhibit 5 Cluster Employment (2008) and Layoff Aversion Program Jobs Saved			
City of LA WIB SDA	Jobs in cluster	Jobs saved	% of total
<b>Export-Oriented Industry Clusters</b>			
Health Services and Biomedical	148,750	2,008	1.36
Professional and Business Services	142,389	61	0.04
Entertainment	155,987	210	0.13
Wholesale Trade	52,664	-	-
Technology	47,489	18	0.04
Higher Education	63,761	-	-
Materials and Machinery	32,933	180	0.57
Goods Movement	57,946	29	0.05
Fashion Design, Manufacturing,	59,263	127	0.21
Financial Services	50,503	4	0.01
Tourism and Hospitality	36,699	1	0.00
Food Products	22,596	122	0.54
Furniture and Home Furnishings	11,024	13	0.12
Automotive Manufacturing and	6,503	33	0.51
Jewelry Manufacturing and Wholesaling	5,306	41	0.77
<b>Export-Oriented Clusters Total</b>	<b>893,812</b>	<b>2,825</b>	<b>0.32</b>

Cluster Employment (2008) and Lavoff Aversion Program Jobs Saved (cont'd)			
City of LA WIB SDA	Jobs in cluster	Jobs saved	% of total
<b>Population-Serving Clusters</b>			
Retail Trade	160,370	39	0.02
Food Services and Drinking Places	121,356	112	0.09
Construction	56,523	19	0.03
Real Estate	26,314	66	0.25
Repair and Maintenance	16,479	5	0.03
Waste Management and Remediation	2,874	2	0.07
<b>Population-Serving Clusters Total</b>	<b>383,916</b>	<b>243</b>	<b>0.06</b>
<b>Non-classified industries</b>	614,970	405	0.07
<b>Total *</b>	<b>1,892,698</b>	<b>3,503</b>	<b>0.19</b>

\* May not sum due to rounding  
 Sources: CA EDD; LAEDC; VEDC

## Matching Jobs Saved to Target Industries



In the *The Next Decade: Industries and Occupations for the Los Angeles Workforce*, we identified potential target industries in the City WIB SDA for job retention and expansion efforts by deriving two composite indices for private industries: one indicative of industry performance in Los Angeles County, the other indicative of industry performance in the City WIB SDA.

The City of LA WIB Layoff Aversion Program was marketed to businesses deemed to be at risk, and through their services the team enabled 86 businesses to save 3,503 jobs across varying industries.

Exhibit 6 lists the target industries identified in *The Next Decade: Industries and Occupations for the Los Angeles Workforce*, and shows how the jobs saved through the Layoff Aversion Program compare with those industries targeted. From the table you can see that almost three-quarters of the jobs saved were included within the

industries that the LAEDC Economic and Policy Analysis Group classified as target industries. Most notably, the largest number of jobs saved occurred within hospitals, the motion picture and sound recording industry and the manufacturing of fabricated metals. All three industries are those with relatively high wages and large multiplier effects within Los Angeles County as opposed to lower wage, lower multiplier effect industries such as retail or food and beverage jobs.

<b>Exhibit 6 Identified Target Industries and the Jobs Saved</b>		
<b>NAICS</b>	<b>Industry title</b>	<b>Direct jobs saved</b>
541	Professional and Technical Services	63
621	Ambulatory Health Care Services	40
622	Hospitals	1,964
623	Nursing and Residential Care Facilities	4
624	Social Assistance	76
512	Motion Picture and Sound Recording Industries	175
332	Manufacturing: Fabricated Metal Products	95
333	Manufacturing: Machinery	45
334	Manufacturing: Computer and Electronic Products	12
335	Manufacturing: Electrical Equipment and	-
423	Wholesalers: Durable Goods	-
424	Wholesalers: Nondurable Goods	64
425	Electronic Markets and Agents and Brokers	-
493	Warehousing and Storage	-
236	Construction of Buildings	-
237	Heavy and Civil Engineering Construction	-
238	Specialty Trade Contractors	19
561	Administrative and Support Services	20
562	Waste Management and Remediation	2
611	Educational Services	1
811	Repair and Maintenance	5
<b>Total in Targeted Industries</b>		<b>2,585</b>
<b>Outside Targeted Industries</b>		<b>918</b>

Source: Estimates by LAEDC



## The Economic Impact of the Jobs Saved

The impacts of the jobs saved circulate throughout the regional economy. Had these jobs been lost, wages would not have been paid, businesses would not have purchased supplies and equipment from other regional firms, and households that had depended on incomes from these jobs would not have been able to make their own purchases or pay their rent. All of this spending would have been lost, resulting in job losses in addition to those jobs not retained.



The exhibit below shows the total economic impact of the jobs saved through the Layoff Aversion Program.

Exhibit 7 Economic Impact of Jobs Saved			
	Employment (jobs)	Labor income (\$ millions)	Output (\$ millions)
Direct effects	3,503	\$ 269.2	\$ 670.0
Indirect effects	1,612	93.1	286.6
Induced effects	2,234	112.4	328.8
<b>Total Impact</b>	<b>7,348</b>	<b>\$ 474.6</b>	<b>\$ 1,285.4</b>

Source: Estimates by LAEDC

These jobs saved will generate \$1.3 billion in economic activity in Los Angeles County and support 7,348 jobs with labor income of \$475 million.

This activity will generate tax revenues for all levels of fiscal authorities. The total estimated fiscal impact of the jobs saved is shown in Exhibit 8 on the next page. Total federal, state and local tax revenues are estimated to reach \$160 million.

<b>Exhibit 8 Fiscal Impact of Jobs Saved (\$ millions)</b>	
Sales taxes	\$ 15.6
Property taxes	17.8
Income taxes (including profits taxes)	14.1
Fees and fines	5.9
Social insurance	8.3
Other taxes	3.2
<b>Total Local and State Taxes*</b>	<b>\$ 64.8</b>
<b>Total Federal Taxes</b>	<b>94.8</b>
<b>Total Fiscal Impact</b>	<b>\$ 159.7</b>

\* May not sum due to rounding  
Source: Estimates by LAEDC

## Industry Sector Impacts

The economic impact spills across industries in Los Angeles County through indirect and induced effects. Not all industries would have been directly impacted. A list of the top ten industries most directly impacted (ranked by employment that would have been lost) is shown in Exhibit 9.

<b>Exhibit 9 Top Ten Industries Affected by the Jobs Saved</b>				
<b>NAICS</b>	<b>Industry title</b>	<b>Employment (jobs)</b>	<b>Labor income (\$ millions)</b>	<b>Output (\$ millions)</b>
397	Private hospitals	2,062	\$ 176.3	\$ 339.9
360	Real estate establishments	434	8.9	90.8
413	Food services and drinking places	378	10.2	26.1
363	General and consumer goods rental	260	17.5	30.0
382	Employment services	223	6.8	10.0
346	Motion picture and video industries	218	24.2	81.0
319	Wholesale trade businesses	200	15.1	36.4
394	Offices of physicians, dentists and other practitioners	137	10.9	18.9
185	Handtool manufacturing	88	4.7	17.3
401	Community food, housing and other relief services	87	2.5	4.2

Source: Estimates by LAEDC

Nevertheless, the employment impacts would be felt in other sectors. The distribution of the total impact by industry sector is shown in Exhibit 10. The values in the exhibit should be interpreted as illustrative of industry effects rather than precise given model and data limitations.

<b>Exhibit 10 Economic Impact of Jobs Saved by Industry Sector</b>			
	<b>Employment (jobs)</b>	<b>Labor Income (\$ millions)</b>	<b>Output (\$ millions)</b>
Agriculture	1	\$ 0.1	\$ 0.2
Mining	6	0.6	2.3
Utilities	6	0.9	6.7
Construction	51	3.2	7.1
Manufacturing	646	38.3	229.4
Wholesale trade	200	15.1	36.4
Retail trade	449	17.3	32.9
Transportation and warehousing	164	8.5	22.0
Information	344	44.4	127.2
Finance and insurance	254	21.1	68.2
Real estate and rental	729	30.1	175.8
Professional, scientific and technical services	407	29.3	61.3
Management of companies	80	8.7	17.1
Administrative services and waste remediation	447	16.1	29.5
Educational services	110	4.6	8.3
Health care and social assistance	2,581	201.7	386.0
Arts, entertainment and recreation	120	4.6	10.1
Accommodation and food services	383	10.4	26.7
Other services	314	14.0	26.2
All others	59	5.6	12.0
<b>Total *</b>	<b>7,348</b>	<b>\$ 474.6</b>	<b>\$ 1,285.4</b>

\* May not sum due to rounding

Source: Estimates by LAEDC

Most of the impacts will occur in the health care and social assistance sector since it had the largest direct effects. However, other sectors will reap substantial employment from the spending by hospitals and other types of health care and social assistance establishments. A description of these industries found in Exhibit 10 is provided in the Appendix.

## Occupational Analysis of the Jobs Saved

For each of the industries in which jobs were saved, we examine the occupational composition by their occupational code. Ninety-three descriptive categories such as production occupations, management occupations and business and financial operations are identified. The distribution of the direct employment and the total employment (which includes direct, indirect and induced employment) are detailed in Exhibit 11 along with their average annual salary in Los Angeles County.



Exhibit 11				
Aggregated Occupational Distribution for Jobs Saved in the City of LA WIB Service Delivery Area				
SOC Code	Occupational Description	Direct Employment	Total Employment	Average Annual Wage (LAC)
11-1000	Top executives	39	103	\$140,347
11-2000	Advertising, marketing, promotions, public relations, and sales managers	11	31	124,871
11-3000	Operations specialties managers	29	72	118,082
11-9000	Other management occupations	55	125	99,594
13-1000	Business operations specialists	47	151	71,862
13-2000	Financial specialists	26	135	75,562
15-1000	Computer specialists	33	115	80,716
15-2000	Mathematical science occupations	1	4	82,740
17-1000	Architects, surveyors, and cartographers	0	4	91,576
17-2000	Engineers	15	37	98,314
17-3000	Drafters, engineering, and mapping technicians	6	18	58,780
19-1000	Life scientists	5	9	69,346
19-2000	Physical scientists	2	8	76,054
19-3000	Social scientists and related occupations	8	22	77,241
19-4000	Life, physical, and social science technicians	5	10	47,118
21-1000	Counselors, social workers, and other community and social service specialists	70	118	48,648
21-2000	Religious workers	3	7	66,493
23-1000	Lawyers, judges, and related workers	1	23	164,976
23-2000	Legal support workers	1	16	59,575
25-1000	Postsecondary teachers	5	34	86,936

Exhibit 11 (cont'd)				
SOC Code	Occupational Description	Direct Employment	Total Employment	Average Annual Wage (LAC)
25-3000	Other teachers and instructors	3	18	47,437
25-4000	Librarians, curators, and archivists	3	5	56,013
25-9000	Other education, training, and library occupations	3	20	33,370
27-1000	Art and design occupations	15	36	65,508
27-2000	Entertainers and performers, sports and related occupations	45	75	110,392
27-3000	Media and communication occupations	23	48	69,006
27-4000	Media and communication equipment occupations	28	41	68,860
29-1000	Health diagnosing and treating practitioners	702	813	99,359
29-2000	Health technologists and technicians	326	400	48,564
29-9000	Other healthcare practitioners and technical occupations	10	12	65,457
31-1000	Nursing, psychiatric, and home health aides	184	239	24,534
31-2000	Occupational and physical therapist assistants and aides	15	20	41,206
31-9000	Other healthcare support occupations	77	121	31,437
33-1000	First-line supervisors/managers, protective service workers	1	3	49,782
33-2000	Fire fighting and prevention workers	0	0	95,000
33-3000	Law enforcement workers	1	5	83,289
33-9000	Other protective service workers	19	75	28,114
35-1000	Supervisors, food preparation and serving workers	12	38	32,494
35-2000	Cooks and food preparation workers	50	133	21,586
35-3000	Food and beverage serving workers	86	276	20,086
35-9000	Other food preparation and serving related workers	12	52	19,485
37-1000	Supervisors, building and grounds cleaning and maintenance workers	4	15	44,077
37-2000	Building cleaning and pest control workers	84	221	25,289
37-3000	Grounds maintenance workers	5	48	28,887
39-1000	Supervisors, personal care and service workers	4	9	45,348
39-2000	Animal care and service workers	1	8	25,188
39-3000	Entertainment attendants and related workers	25	49	22,641
39-4000	Funeral service workers	-	1	30,277
39-5000	Personal appearance workers	2	18	27,011
39-6000	Transportation, tourism, and lodging attendants	1	8	26,159
39-9000	Other personal care and service workers	29	115	26,102
41-1000	Supervisors, sales workers	31	73	49,269
41-2000	Retail sales workers	182	431	24,504
41-3000	Sales representatives, services	17	71	68,932
41-4000	Sales representatives, wholesale and manufacturing	34	78	67,567
41-9000	Other sales and related workers	19	91	44,778
43-1000	Supervisors, office and administrative support workers	30	76	54,040

Exhibit 11 (cont'd)				
SOC Code	Occupational Description	Direct Employment	Total Employment	Average Annual Wage (LAC)
43-2000	Communications equipment operators	11	18	31,194
43-3000	Financial clerks	81	207	36,244
43-4000	Information and record clerks	129	326	33,961
43-5000	Material recording, scheduling, dispatching, and distributing occupations	56	167	32,799
43-6000	Secretaries and administrative assistants	111	263	42,260
43-9000	Other office and administrative support workers	96	266	31,310
45-1000	Supervisors, farming, fishing, and forestry workers	0	0	46,800
45-2000	Agricultural workers	1	6	20,454
45-3000	Fishing and hunting workers	-	0	-
45-4000	Forest, conservation, and logging workers	0	0	20,270
47-1000	Supervisors, construction and extraction workers	3	8	72,880
47-2000	Construction trades and related workers	20	60	48,790
47-3000	Helpers, construction trades	1	3	32,559
47-4000	Other construction and related workers	1	5	64,185
47-5000	Extraction workers	0	1	58,401
49-1000	Supervisors of installation, maintenance, and repair workers	8	23	68,760
49-2000	Electrical and electronic equipment mechanics, installers, and repairers	4	20	50,580
49-3000	Vehicle and mobile equipment mechanics, installers, and repairers	21	67	43,990
49-9000	Other installation, maintenance, and repair occupations	63	173	44,151
51-1000	Supervisors, production workers	22	32	55,850
51-2000	Assemblers and fabricators	42	71	28,560
51-3000	Food processing occupations	15	28	25,993
51-4000	Metal workers and plastic workers	91	115	33,387
51-5000	Printing occupations	4	12	36,228
51-6000	Textile, apparel, and furnishings occupations	41	64	22,212
51-7000	Woodworkers	4	6	27,635
51-8000	Plant and system operators	4	7	67,692
51-9000	Other production occupations	96	151	29,384
53-1000	Supervisors, transportation and material moving workers	6	18	52,800
53-2000	Air transportation occupations	0	3	70,908
53-3000	Motor vehicle operators	41	161	34,760
53-4000	Rail transportation occupations	-	1	-
53-5000	Water transportation occupations	0	6	48,294
53-6000	Other transportation workers	3	14	23,281
53-7000	Material moving occupations	82	226	26,308
<b>Total</b>	<b>All Occupations</b>	<b>3,503</b>	<b>7,348</b>	<b>50,240</b>

Source: Estimates by LAEDC, VEDC

These estimates are based on the national employment distribution by detailed occupational classification within each industry. This direct allocation of the jobs saved in the LA City WIB SDA through the Layoff Aversion Program has been used to estimate the indirect and induced employment effects for each detailed occupational classification.

Detailed occupations are differentiated according to the job skills, abilities and work activities required. They are not generally industry-specific but are common to several industries. For example, retail salespersons are employed in a full spectrum of industries.

Each detailed occupation may be common to many industries. As such we aggregated all of the occupations according to their detailed occupational classification, regardless of the industry they are in. Total employment effects capture the direct jobs saved through the Layoff Aversion Program (the 3,503 jobs) and the indirect and induced employment effects within each occupational classification (the additional 3,845 jobs).

Further education and training requirements along with median annual earnings in Los Angeles County for more detailed occupational classifications are provided in the initial industry and occupational analysis conducted by the Economic and Policy Analysis Group of the LAEDC (formerly the Consulting Practice) for the City WIB entitled *The Next Decade: Industries and Occupations for the Los Angeles Workforce*.





## Methodology

The total estimated economic impact includes direct, indirect and induced effects. *Direct activity* includes the employees employed by “at risk” firms. *Indirect effects* are those which stem from the employment and business revenues motivated by the purchases made by the “at risk” firms and their contractors. For example, indirect jobs are sustained by the suppliers of the office supplies and insurance purchased. *Induced effects* are those generated by the spending of employees whose wages are sustained by both direct and indirect spending.

We estimated the direct, indirect and induced effects using models developed with data and software from MIG, Inc. MIG’s IMPLAN system is a robust, widely-used set of modeling tools that provide economic resolution from the national level down to the ZIP code level. Our estimates here were applied to the county as a whole.

In our analysis, we have assumed that the operations of the companies assisted are representative of the industries in which they have been classified, and that their continued operations will occur for the current year. Our analysis does not measure profitability and assumes that the inter-industry linkages and economic impacts will continue regardless of individual company performance or outlook.

Our estimates for labor income and output are reported in 2010 dollars to correspond with the majority of the contract period. Job estimates are measured on a job-count basis for both wage-and-salary workers and proprietors regardless of the number of hours worked, and are measured on an annual basis, i.e., the number of full and part time jobs supported in one year.



## Description of Industry Sectors

The industry sectors used in this report are established by the North American Industry Classification System (NAICS). NAICS divides the economy into twenty sectors, and groups industries within these sectors according to production criteria. Listed below is a short description of each sector as taken from the sourcebook, *North American Industry Classification System*, published by the U.S. Office of Management and Budget (2007).

*Agriculture, Forestry, Fishing and Hunting:* Activities of this sector are growing crops, raising animals, harvesting timber, and harvesting fish and other animals from farms, ranches, or the animals' natural habitats.

*Mining:* Activities of this sector are extracting naturally-occurring mineral solids, such as coal and ore; liquid minerals, such as crude petroleum; and gases, such as natural gas; and beneficiating (e.g., crushing, screening, washing and flotation) and other preparation at the mine site, or as part of mining activity.

*Utilities:* Activities of this sector are generating, transmitting, and/or distributing electricity, gas, steam, and water and removing sewage through a permanent infrastructure of lines, mains, and pipes.

*Construction:* Activities of this sector are erecting buildings and other structures (including additions); heavy construction other than buildings; and alterations, reconstruction, installation, and maintenance and repairs.

*Manufacturing:* Activities of this sector are the mechanical, physical, or chemical transformation of material, substances, or components into new products.

*Wholesale Trade:* Activities of this sector are selling or arranging for the purchase or sale of goods for resale; capital or durable non-consumer goods; and raw and intermediate materials and supplies used in production, and providing services incidental to the sale of the merchandise.

*Retail Trade:* Activities of this sector are retailing merchandise generally in small quantities to the general public and providing services incidental to the sale of the merchandise.

*Transportation and Warehousing:* Activities of this sector are providing transportation of passengers and cargo, warehousing and storing goods, scenic and sightseeing transportation, and supporting these activities.

*Information:* Activities of this sector are distributing information and cultural products, providing the means to transmit or distribute these products as data or communications, and processing data.

*Finance and Insurance:* Activities of this sector involve the creation, liquidation, or change of ownership of financial assets (financial transactions) and/or facilitating financial transactions.

*Real Estate and Rental and Leasing:* Activities of this sector are renting, leasing, or otherwise allowing the use of tangible or intangible assets (except copyrighted works), and providing related services.

*Professional, Scientific, and Technical Services:* Activities of this sector are performing professional, scientific, and technical services for the operations of other organizations.

*Management of Companies and Enterprises:* Activities of this sector are the holding of securities of companies and enterprises, for the purpose of owning controlling interest or influencing their management decision, or administering,

overseeing, and managing other establishments of the same company or enterprise and normally undertaking the strategic or organizational planning and decision-making of the company or enterprise.

*Administrative and Support and Waste Management and Remediation Services:* Activities of this sector are performing routine support activities for the day-to-day operations of other organizations, such as: office administration, hiring and placing of personnel, document preparation and similar clerical services, solicitation, collection, security and surveillance services, cleaning, and waste disposal services.

*Educational Services:* Activities of this sector are providing instruction and training in a wide variety of subjects. Educational services are usually delivered by teachers or instructors that explain, tell, demonstrate, supervise, and direct learning. Instruction is imparted in diverse settings, such as educational institutions, the workplace, or the home through correspondence, television, or other means.

*Health Care and Social Assistance:* Activities of this sector are operating or providing health care and social assistance for individuals.

*Arts, Entertainment and Recreation:* Activities of this sector are operating facilities or providing services to meet varied cultural, entertainment, and recreational interests of their patrons, such as: (1) producing, promoting, or participating in live performances, events, or exhibits intended for public viewing; (2) preserving and exhibiting objects and sites of historical, cultural, or educational interest; and (3) operating facilities or providing services that enable patrons to participate in recreational activities or pursue amusement, hobby, and leisure-time interests.

*Accommodation and Food Services:* Activities of this sector are providing customers with lodging and/or preparing meals, snacks, and beverages for immediate consumption.

*Other Services (except Public Administration):* Activities of this sector are providing services not specifically provided for elsewhere in the classification system. Establishments in this sector are primarily engaged in activities, such as equipment and machinery repairing, promoting or administering religious activities, grant-making, advocacy, and providing dry-cleaning and laundry services, personal care services, death care services, pet care services, photofinishing services, temporary parking services, and dating services.



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