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ECONOMIC IMPACT OF THE CALIFORNIA CANCER RESEARCH ACT

Job creation and economic activity

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EXECUTIVE SUMMARY

- The California Cancer Research Act (CCRC) is an initiative on the June 2012 California ballot that, if passed by the voters, will increase the tax on cigarettes by \$1.00 per pack (with corresponding increases for other tobacco products) and allocate the money to reinvigorating the California Tobacco Control Program, cancer and other biomedical research, law enforcement to enforce sales to minors laws and ensure that the taxes are collected, administration.
- There will be a small increase in jobs and economic activity as funds are shifted from other activities into the tobacco control, cancer and other research and related activities specified by the CCRA.
- The combined effect of the price increase associated with the tax and the substantially reinvigorated tobacco control program the CCRA will create is projected to reduce tobacco consumption by an average of \$1.0 billion per year for the first five years after the CCRA passes.
- Of this total reduction in pre-tax tobacco sales, \$196 million will represent retail activity in California that is shifted to the general California economy and \$804 million will represent money remains in the state economy rather than being exported to out-of-state tobacco manufacturers and farmers.
- There will be a small loss in jobs as a result of lower retail activity accompanied by a small increase in total economic activity due to the \$196 million previously spent on tobacco products that remained in California shifting activities with higher economic multipliers.
- The major change will be the fact that \$804 million that previously left the California economy will remain in California, leading to corresponding increases in job creation and economic activity.
- Combining these two different effects of enacting the CCRA yields an estimate that enacting the CCRA will lead to a net increase of about 12,000 jobs and about \$1.9 billion in total economic activity, mostly because of the CCRA's effects on reducing smoking and other tobacco use.

Several health groups have placed an initiative, the California Cancer Research Act, on the June 2012 ballot. The Act would increase the tax on cigarettes by \$1.00 per pack (with corresponding increases for other tobacco products) and allocate the money to reinvestigating the California Tobacco Control Program, cancer and other biomedical research, law enforcement to enforce sales to minors laws and ensure that the taxes are collected, administration, and backfill lost revenues to the state's existing programs funded by tobacco taxes (tobacco control, early childhood education and breast cancer research).

This analysis uses the Department of Commerce's Regional Input-Output Modeling System* (RIMS II) multipliers to estimate the effects of enacting the CCRA on total employment and total economic activity in California resulting from the activities funded by the CCRA. This analysis is based on the RIMS II California Benchmark Series (2002/2008). These multipliers estimate the total number of jobs created for each million dollars of spending, both direct and indirect, as well as the total amount of economic activity created by the direct and indirect effects of the spending mandated by the CCRA.

These expenditures will come at the expense of other economic activities within California, so the estimated number of jobs and economic activity created by the CCRA will be offset by the effects of reduced economic activity in other areas that are shifted to CCRA-mandated activities.

The anticipated levels of spending associated with the CCRA were obtained from the California Legislative Analyst's evaluation of the CCRA.†

Table 1 shows the results of this analysis. There will be modest increases in total employment and economic activity because the activities funded by the CCRA have higher jobs and economic activity than the average for all activities in California.

As a check on the Department of Commerce's estimates for the Research Fund, I obtained information on the total amount of extramural funding at the University of California San Francisco, which, as a biomedical research center, conducts the kind of research that the CCRA would be expected to fund. In Fiscal Year 2011, UCSF received a total of \$926.5 million in extramural research support and employed total of 5508 full time equivalent people using these funds, meaning that there were 5.944 full time equivalent positions directly employed per \$1 million in total funding. The RIMS II multipliers indicate that a total of 3.3475 total people are employed for each person directly employed in Scientific Research and Development Services (code 541700), giving a total number of jobs of 19.898 for each million dollars spent on research, which is higher than the 13.9102 figure from the Department of Commerce estimate.

* <https://www.bea.gov/regional/rims/rimsii/>

† <http://www.lao.ca.gov/ballot/2009/090811.aspx> (Accessed December 27, 2011)

	Funding (millions)	Jobs Multiplier (per \$million)	Total Jobs	Economic Activity Multiplier	Total Economic Activity (millions)	RIMS II Code
Increased by CCRA						
Smoking Cessation Fund	\$156	18.3724	2,859	2.2410	\$378	813B00 & 541800 ¹
Research Fund	\$456	13.9102	6,343	2.3613	\$1,077	541700
Facilities Fund	\$117	16.3724	1,916	2.3378	\$274	7
Law Enforcement Fund	\$23	33.9322	780	2.2858	\$53	561600
Committee Account	\$16	13.3354	213	2.2958	\$37	550000
Total new CCRA activity	\$768		12,111		\$1,818	
Backfill of Propositions 99 and 10 and Breast Cancer Research Fund²	\$75					
Total	\$855		12,111		\$1,818	
Reduced in other areas	(\$768)	13.9653	(10,725)	2.1618	(\$1,660)	³
NET CHANGE			1,386		\$157	
¹ Assumes 70% spent on Civic, social and professional organizations and 30% on Advertising and related services (jobs multipliers 19.7144 and 15.0836 and total economic activity multipliers 2.5098 and 2.2241, respectively). ² Because the backfill funds simply change the funding source for current economic activities, they will not change existing economic activity. ³ Unweighted average of multipliers for all economic sectors						

In addition to the direct effects of the CCRA on employment and economic activity due to shifting existing economic activity within the California economy, the CCRA will have an important effect on the total magnitude of economic activities in California because it will reduce cigarette and other tobacco consumption and most of the money spent on tobacco products is exported from California to tobacco product manufacturers and farmers (80.4%*) outside California. The fact that this money will, for the most part, remain inside California is an important additional economic impact of the CCRA.†

* Capehart T. The Changing Tobacco User's Dollar. US Department of Agriculture. TBS-257-01 October 2004. Available at <http://www.ers.usda.gov/publications/tbs/OCT04/tbs25701/tbs25701.pdf> (Accessed January 5, 2012)

† Warner KE, Fulton GA, The Economic Implications of Tobacco Product Sales in a Nontobacco State, *JAMA* 1994; 271: 771-776 and Warner K, et al, Employment Implications of Declining Tobacco Product Sales for the Regional Economies of the United States, *JAMA* 1996; 275:1241—1246.

The combined effect of the price increase associated with the tax and the substantially reinvigorated tobacco control program the CCRA will create is projected to reduce tobacco consumption by a total of \$5.0 billion in the first five years after the CCRA passes, an average of \$1.0 billion per year.* Of this total reduction in pre-tax tobacco sales, \$282 million will represent retail activity in California that is shifted to the general California economy and \$804 million will represent money that is no longer sent out of California to tobacco manufacturers and farmers.

Table 2 shows the effects of these changes. There will be some loss in jobs as a result of lower retail activity, although there will be a small increase in total economic activity due to the money previously spent on tobacco products that remained in California shifting activities with higher economic multipliers. The major change, however, will be the fact that \$804 million that previously left the California economy will remain in California.

	Dollars (millions)	Jobs Multiplier (per \$million)	Total Jobs	Economic Activity Multiplier	Total Economic Activity (millions)
Reduction in dollars spent on tobacco (pre-tax)	\$1,00				
Of this, amount currently remaining in California	\$196	-5.2449 ¹	(1,028)	0.2296†	\$45
Balance which currently is leaving California that will represent new spending in California	\$804	13.9653 ²	11,228	2.1618†	\$1,738
Net change			10,200		\$1,783
¹ Difference in jobs/\$million between retail trade (RIIMS code 4A0000 excluding agriculture, mining and manufacturing, because these activities related to tobacco products occur outside California), 19.2012, and unweighted average jobs multiplier for all California industries, 13.9653 and corresponding economic output multipliers, 1.9322 and 2.1618.					
² Unweighted average jobs and economic multipliers for all industries in California.					

Combining these two different effects of enacting the CCRA yields an estimate that enacting the CCRA will lead to a net increase of about 12,000 jobs (1,386+10,200) and about \$1.9 billion (\$157 million + \$1,783 million) in total economic activity, mostly because of its effects on reducing smoking and other tobacco use.

*This estimated is an updated value developed in the February 1, 2012 addendum to the estimates described in Lightwood J, Glantz S. Predicted Effect of California Tobacco Control Funding on Smoking Prevalence, Cigarette Consumption, and Healthcare Costs, 2012-2016. Final Report. Center for Tobacco Control Research and Education University of California, San Francisco. March 21, 2011 (updated February 1, 2012). Available at <http://escholarship.org/uc/item/6j03515p> (Accessed February 1, 2012).