## **FINTestimony**

ွဲက: ်င်္ဂt: mailinglist@capitol.hawaii.gov

Wednesday, April 06, 2011 2:48 PM

To:

FINTestimony

Cc: Subject: lcwilliams@williamsaerospace.com

Testimony for SB753 on 4/6/2011 4:00:00 PM

Testimony for FIN 4/6/2011 4:00:00 PM SB753

Conference room: 308

Testifier position: support Testifier will be present: No Submitted by: Leilani Williams

Organization: Williams Aerospace, Inc.

Address: Phone:

E-mail: <a href="mailto:lcwilliams@williamsaerospace.com">lcwilliams@williamsaerospace.com</a> Submitted on: 4/6/2011

Comments:

LATE TESTIMONY

## **FINTestimony**

From:

mailinglist@capitol.hawaii.gov

Sent:

Wednesday, April 06, 2011 7:53 PM

To:

FINTestimony

Cc:

ceo@htdc.org

Subject: Attachments: Testimony for SB753 on 4/6/2011 4:00:00 PM

Sen Fr

Sen Fukunaga SB753 SD2, HB1642 HD2 4-4-11 corrected copy[1].pdf

Testimony for FIN 4/6/2011 4:00:00 PM SB753

Conference room: 308

Testifier position: support
Testifier will be present: Yes
Submitted by: Yuka Nagashima
Organization: HTDC/DBEDT

Address: Phone:

E-mail: <a href="mailto:ceo@htdc.org">ceo@htdc.org</a>
Submitted on: 4/6/2011

## Comments:

At this evening's hearing, a question was asked by a FIN Committee member re: result of DBEDT's economic impact analysis for this R&D tax credit. Attached is DBEDT's analysis embedded in a letter responding to Sen. Fukunaga's direct inquiry to DBEDT regarding the same topic.





## DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

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April 4, 2011

To:

The Honorable Carol Fukunaga

Through:

Richard C. Lim, Director

From:

Eugene Tian, Acting Economic Research Administrator

Subject:

Revenue and Economic Impact of SB753, SD2 and HB1642, HD2

Following your recommendations, we have met with the technology industry group at the Hawaii Chamber of Commerce and have been in communication with them over the last two weeks. Following are the assumptions developed for this analysis which were agreed to by the industry group:

- Current level of annual R&D spending = \$150M
- Percent of expenditures that qualify for R&D tax credit = 40%
- Percent of expenditures do not qualify for tax credit but exist due to the credit = 60%
- R&D expenditures that would exist w/o the credit (the free-riding amount) = \$30M
- Percent of the expenditures that are from out-of-state investment =100%
- Annual average growth of R&D expenditures between 2010 and 2015=3.0% (assuming same growth rate as job growth which is from EMSI Database)
- Annual average labor productivity growth = 3%
- Lag in tax credit claim = 1 year

Given the above assumptions and the tax multipliers from the DBEDT Input-Output Model (tax multiplier for R&D spending = 9.7%; and for State government spending=7.9%), the impacts on State revenue are presented in Table 1 below. The results show that there will be a loss in State revenue for the years tax credits are claimed. However, due to the one year lag in claiming the tax credit, taxes generated from the first year would be much bigger than the combined tax revenue loss during the five years of when the tax credit is in effect.

As presented in Table 1, the average annual cost to the State from 2011 to 2016 would be \$11.46 million (\$10.62 million direct tax credit cost + \$0.84 million indirect tax revenue lost). With the average annual State revenue gain of \$12.78 million due to R&D spending, the net revenue impact is a gain of \$1.32 million per year over the six year period, providing the above assumptions stay valid.

When looking at the economy-wide impacts, the R&D spending attracted by the tax credit would add income to Hawaii's households and generate sustained employment in the State. Table 2 presents the methodology and results of the economy-wide impact. These impacts are calculated using the following multipliers from the DBEDT Input-Output Model:

Household income multiplier:

R&D spending = 0.73; State Gov. spending = 0.77

Job multiplier:

R&D spending = 14.2; State Gov. spending = 18.1

On average, Hawaii households will gain \$97.2 million total income per year from the R&D spending, and 1,755 jobs will be supported within and beyond the technology industry.

Please note that the results are very sensitive to the assumptions. For example, if the percentage of qualified R&D spending is 50% rather than 40%, State revenue impact would be negative.

Table 1. State Revenue Impact of 20% R&D Tax Credit (in \$M)

Table 1. State Revenue impact of 20 % R&D Tax Credit (iii \$10)										
Year	R&D Spending 1/	Qualified R&D Spending	Tax Credit Paid	State Taxes Generated from R&D Spending	State Revenue Loss due to Reduction in Gov Spending	Net Impact on State Revenue				
Α	B=See footnote	C=B×40%	D=C×20%	E=B×80%×9.7%	F=(E-D) ×7.9%	G=E-D-F				
2011	150.0	60.0	0.00	11.64	0.00	11.64				
2012	154.5	61.8	12.00	12.08	0.95	-0.87				
2013	159. <b>1</b>	63.7	12.36	12.53	0.98	-0.81				
2014	163.9	65.6	12.73	12.99	1.01	-0.75				
2015	168.8	67.5	13.11	13.47	1.04	-0.68				
2016	173.9	69.6	13.51	13.96	1.07	-0.62				
Average	161.7	64.7	10.62	12.78	0.84	1.32				

<sup>1/</sup> Starting in 2012, applying 3.0% growth from previous year.

Table 2. Economy-Wide Impacts of 20% R&D Tax Credit (Income in \$M)

labie Z.	Economy-value	IIIIpacia vi	Tax Credit (Income in pin)			
Year	Household Income Generated from R&D Spending	Household Income Reduction due to Decrease in Gov. Spending	Net Impact on Household Income	Number of Jobs Generated from R&D Spending 1/	Number of Jobs Reduction due to Decrease in Gov. Spending	Net Impact on Jobs
	By Cal Bin	C=Col. G in		E≃Col. B in TB1	F=Col. G in TB1 ×	
Α	B= Col. B in TB1×80%×0.73	TB1 ×0.77	D=B+C	×80%×14.2	×18.1	G=E+F
2011	87.6	9.0	96.6	1,704	211	<u>1</u> ,915
2012	90.9	-0.7	90.2	1,715	-15	1,700
2013	94.3	-0.6	93.6	1,725	-14	1,712
2014	97.8	-0.6	97.2	1,735	-12	1,723
2015	101.3	-0.5	100.8	1,745	-11	1,734
2016	105.0	-0.5	104.6	1,755	-10	1,745
Average	96.1	1.0	97.2	1,730	25	1,755

<sup>1/</sup> Also applied 3% annual growth in productivity for jobs.