

Appendix M: Results of economic and revenue impact analyses

The economic impact analysis for each incentive involved modeling (1) the additional economic activity that occurred because of the incentive and (2) the simultaneous increase in taxes that was used to “pay” for the incentive. Increasing taxes has the general effect of decreasing employment and other economic activity. Thus, increasing taxes to pay for the incentive reduced the incentive’s total effect on the economy. Each table in this appendix provides estimates of the total economic activity induced by the incentive and the net impact (total activity adjusted for the reduction). Economic activity reported in the tables is defined as follows

- Total employment – private and public employment,
- Private employment – private non-farm employment,
- Virginia GDP – Gross domestic product for Virginia (the market value of goods and services produced by labor and property in Virginia), and
- Personal income – real disposable personal income or available income after taxes.

TABLE M-1
Impact of major R&D tax credit to the Virginia economy

Impact	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Economic activity induced by incentive										
Total employment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.5	27.6	93.1
Private employment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.1	25.7	88.1
Virginia GDP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,796,746	\$4,430,013	\$14,266,018
Personal income	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,990,727	\$2,676,343	\$9,023,319
Reduction in economic activity because of the tax increase to fund the incentive										
Total employment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-43.4	-38.8	-120.0
Private employment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-41.2	-35.7	-112.0
Virginia GDP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	-\$5,205,989	-\$5,400,287	-\$15,996,008
Personal income	\$0	\$0	\$0	\$0	\$0	\$0	\$0	-\$3,515,229	-\$3,543,232	-\$11,078,461
Net economic impact of incentive										
Total employment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.9	-11.2	-26.8
Private employment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.1	-10.0	-23.9
Virginia GDP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	-\$409,243	-\$970,273	-\$1,729,989
Personal income	\$0	\$0	\$0	\$0	\$0	\$0	\$0	-\$524,502	-\$866,889	-\$2,055,142

TABLE M-2
Revenue collections from the major R&D tax credit and its return in revenue

Impact	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Revenue tax collections induced by incentive										
General sales tax	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$44,936	\$52,772	\$188,893
Selective sales tax	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$33,185	\$30,342	\$143,525
License taxes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,631	\$4,100	\$14,543
Individual income tax	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$99,475	\$89,112	\$301,620
Corporate income tax	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,491	\$7,150	\$34,167
Other taxes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,374	\$5,243	\$11,134
Total revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$193,093	\$188,718	\$693,882
Program cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,082,317	\$4,812,582	\$17,153,766
Net revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	-\$5,889,224	-\$4,623,864	-\$16,459,884
Return on investment										
Return per \$1 spent	--	--	--	--	--	--	--	\$0.03	\$0.04	\$0.04

TABLE M-3
Impact of R&D expenses tax credit to the Virginia economy

Impact	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Economic activity induced by the incentive										
Total employment	0.0	0.0	13.7	31.3	38.5	41.8	37.0	35.0	32.9	39.1
Private employment	0.0	0.0	13.1	29.7	36.0	38.8	33.8	31.8	29.7	35.7
Virginia GDP	\$0	\$0	\$1,633,257	\$3,992,654	\$5,229,493	\$5,949,339	\$5,563,646	\$5,430,480	\$5,303,325	\$6,385,101
Personal income	\$0	\$0	\$997,038	\$2,400,962	\$3,164,023	\$3,685,938	\$3,556,704	\$3,617,443	\$3,669,297	\$4,443,690
Reduction in economic activity because of the tax increase to fund the incentive										
Total employment	0.0	0.0	-12.2	-29.6	-38.3	-42.2	-38.1	-35.3	-31.9	-36.3
Private employment	0.0	0.0	-11.6	-27.8	-35.5	-38.6	-34.2	-31.3	-28.0	-32.1
Virginia GDP	\$0	\$0	-\$1,267,511	-\$3,287,883	-\$4,546,913	-\$5,252,828	-\$4,992,036	-\$4,744,258	-\$4,420,139	-\$5,046,937
Personal income	\$0	\$0	-\$841,870	-\$2,138,695	-\$2,976,252	-\$3,554,448	-\$3,554,745	-\$3,612,615	-\$3,614,456	-\$4,209,531
Net economic impact of the incentive										
Total employment	0.0	0.0	1.5	1.7	0.1	-0.4	-1.2	-0.3	0.9	2.8
Private employment	0.0	0.0	1.6	1.9	0.6	0.2	-0.4	0.5	1.7	3.6
Virginia GDP	\$0	\$0	\$365,746	\$704,771	\$682,580	\$696,511	\$571,610	\$686,223	\$883,186	\$1,338,165
Personal income	\$0	\$0	\$155,168	\$262,267	\$187,771	\$131,491	\$1,959	\$4,827	\$54,841	\$234,159

TABLE M-4
Revenue collections from the R&D expenses tax credit and its return in revenue

Impact	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Revenue tax collections induced by the incentive										
General sales tax	\$0	\$0	\$16,701	\$37,369	\$49,510	\$58,315	\$53,137	\$51,292	\$66,761	\$87,431
Selective sales tax	\$0	\$0	\$11,188	\$25,975	\$35,265	\$43,728	\$39,429	\$37,879	\$38,385	\$66,432
License taxes	\$0	\$0	\$1,762	\$3,998	\$5,186	\$5,787	\$5,445	\$5,286	\$5,186	\$6,731
Individual income tax	\$0	\$0	\$31,364	\$71,558	\$97,807	\$113,210	\$110,192	\$114,244	\$116,640	\$141,060
Corporate income tax	\$0	\$0	\$2,653	\$6,122	\$8,596	\$8,778	\$8,737	\$8,480	\$8,559	\$15,292
Other taxes	\$0	\$0	\$1,273	\$2,689	\$3,522	\$4,208	\$4,154	\$4,081	\$7,188	\$5,483
Total revenue	\$0	\$0	\$64,942	\$147,711	\$199,886	\$234,027	\$221,092	\$221,263	\$242,719	\$322,430
Program cost	\$0	\$0	\$1,481,282	\$3,412,963	\$4,210,012	\$4,670,767	\$4,236,720	\$4,193,083	\$4,149,789	\$5,188,869
Net revenue	\$0	\$0	-\$1,416,340	-\$3,265,251	-\$4,010,127	-\$4,436,741	-\$4,015,628	-\$3,971,820	-\$3,907,070	-\$4,866,438
Return on investment										
Return per \$1 spent	--	--	\$0.04	\$0.04	\$0.05	\$0.05	\$0.05	\$0.05	\$0.06	\$0.06

TABLE M-5
Impact of R&D exemption to the Virginia economy

Impact	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Economic activity induced by the incentive										
Total employment	24.9	30.2	34.9	41.3	42.9	40.2	42.1	51.8	56.7	60.8
Private employment	23.7	28.1	32.0	37.7	38.9	36.0	37.6	46.5	50.8	54.3
Virginia GDP	-\$710,163	\$1,329,971	\$2,289,683	\$2,820,592	\$3,699,815	\$4,352,727	\$4,391,395	\$4,553,037	\$5,824,316	\$6,996,232
Personal income	\$1,650,136	\$2,166,060	\$2,643,335	\$3,301,411	\$3,682,315	\$3,757,243	\$4,152,537	\$5,211,609	\$6,036,032	\$6,807,897
Reduction in economic activity because of the tax increase to fund the incentive										
Total employment	-31.5	-29.3	-31.2	-35.9	-33.0	-25.9	-27.4	-37.8	-37.9	-37.7
Private employment	-29.9	-27.0	-28.4	-32.6	-29.5	-22.6	-24.0	-33.8	-33.6	-33.1
Virginia GDP	-\$3,067,409	-\$3,296,323	-\$3,601,452	-\$4,211,120	-\$4,042,790	-\$3,318,248	-\$3,476,687	-\$4,812,407	-\$5,111,002	-\$5,240,067
Personal income	-\$2,135,131	-\$2,174,663	-\$2,447,922	-\$2,954,668	-\$2,951,451	-\$2,630,474	-\$2,903,046	-\$3,908,650	-\$4,217,635	-\$4,457,406
Net economic impact of the incentive										
Total employment	-6.6	0.9	3.7	5.4	10.0	14.3	14.7	14.0	18.8	23.1
Private employment	-6.2	1.1	3.7	5.1	9.4	13.4	13.5	12.8	17.2	21.1
Virginia GDP	-\$3,777,572	-\$1,966,353	-\$1,311,769	-\$1,390,527	-\$342,975	\$1,034,479	\$914,707	-\$259,370	\$713,314	\$1,756,166
Personal income	-\$484,995	-\$8,602	\$195,413	\$346,743	\$730,864	\$1,126,769	\$1,249,491	\$1,302,959	\$1,818,397	\$2,350,491

TABLE M-6
Revenue collections from the R&D exemption and its return in revenue

Impact	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Revenue tax collections induced by the incentive										
General sales tax	-\$69,085	-\$36,250	-\$28,990	-\$35,547	-\$28,611	-\$15,203	-\$28,397	-\$65,177	-\$87,628	-\$99,076
Selective sales tax	-\$47,706	-\$24,669	-\$19,421	-\$24,709	-\$20,380	-\$11,400	-\$21,072	-\$48,133	-\$50,382	-\$75,280
License taxes	-\$7,257	-\$3,724	-\$3,059	-\$3,803	-\$2,997	-\$1,509	-\$2,910	-\$6,717	-\$6,808	-\$7,628
Individual income tax	\$47,197	\$61,568	\$80,642	\$95,522	\$110,491	\$111,540	\$125,516	\$163,105	\$191,690	\$214,519
Corporate income tax	-\$1,264	\$2,416	\$3,720	\$4,325	\$6,081	\$6,422	\$6,896	\$7,110	\$9,400	\$16,756
Other taxes	\$1,940	\$2,414	\$3,376	\$3,698	\$4,099	\$4,290	\$4,849	\$5,880	\$11,824	\$8,400
Total revenue	-\$76,175	\$1,755	\$36,268	\$39,486	\$68,683	\$94,140	\$84,883	\$56,068	\$68,097	\$57,691
Program cost	\$3,856,672	\$3,026,112	\$3,050,452	\$3,735,781	\$3,492,882	\$2,870,118	\$3,433,287	\$5,108,491	\$5,214,169	\$5,296,377
Net revenue	-\$3,932,847	-\$3,024,357	-\$3,014,185	-\$3,696,295	-\$3,424,199	-\$2,775,977	-\$3,348,404	-\$5,052,423	-\$5,146,072	-\$5,238,686
Return on investment										
Return per \$1 spent	-\$0.02	\$0.00	\$0.01	\$0.01	\$0.02	\$0.03	\$0.02	\$0.01	\$0.01	\$0.01

TABLE M-7
Impact of angel investment tax credit to the Virginia economy

Impact	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Economic activity induced by the incentive										
Total employment	8.2	13.5	15.5	18.5	18.3	19.3	18.3	20.2	21.8	24.9
Private employment	8.7	14.0	16.1	19.4	19.3	20.6	19.8	22.2	24.0	27.4
Virginia GDP	-\$1,013,941	-\$334,326	\$677,368	\$921,732	\$1,685,107	\$1,767,183	\$2,218,739	\$1,913,792	\$2,171,261	\$2,339,700
Personal income	\$474,728	\$836,731	\$1,024,811	\$1,303,527	\$1,414,314	\$1,595,962	\$1,634,420	\$1,868,305	\$2,136,321	\$2,519,089
Reduction in economic activity because of the tax increase to fund the incentive										
Total employment	-13.2	-18.6	-19.4	-22.8	-20.1	-20.8	-18.2	-21.5	-23.0	-26.8
Private employment	-12.5	-17.3	-17.8	-20.7	-18.0	-18.5	-15.9	-19.1	-20.3	-23.8
Virginia GDP	-\$1,286,073	-\$2,016,689	-\$2,244,237	-\$2,665,044	-\$2,483,993	-\$2,593,056	-\$2,358,640	-\$2,779,880	-\$3,080,392	-\$3,685,474
Personal income	-\$895,195	-\$1,343,113	-\$1,495,024	-\$1,841,941	-\$1,790,059	-\$1,969,295	-\$1,899,528	-\$2,285,421	-\$2,571,817	-\$3,065,639
Net economic impact of the incentive										
Total employment	-5.0	-5.1	-4.0	-4.3	-1.9	-1.5	0.1	-1.3	-1.2	-1.9
Private employment	-3.8	-3.3	-1.7	-1.4	1.3	2.1	3.9	3.1	3.7	3.6
Virginia GDP	-\$2,300,014	-\$2,351,015	-\$1,566,869	-\$1,743,312	-\$798,886	-\$825,873	-\$139,901	-\$866,088	-\$909,131	-\$1,345,774
Personal income	-\$420,468	-\$506,381	-\$470,213	-\$538,414	-\$375,745	-\$373,332	-\$265,109	-\$417,116	-\$435,495	-\$546,551

TABLE M-8
Revenue collections from the angel investment tax credit and its return in revenue

Impact	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Revenue tax collections induced by the incentive										
General sales tax	-\$10,901	-\$9,057	-\$3,636	-\$4,001	-\$109	-\$1,463	\$875	-\$4,671	-\$9,084	-\$17,122
Selective sales tax	-\$7,528	-\$6,164	-\$2,436	-\$2,781	-\$77	-\$1,097	\$649	-\$3,449	-\$5,223	-\$13,010
License taxes	-\$1,145	-\$930	-\$384	-\$428	-\$11	-\$145	\$90	-\$481	-\$706	-\$1,318
Individual income tax	\$13,620	\$23,930	\$31,230	\$37,585	\$42,070	\$47,134	\$48,626	\$57,127	\$66,153	\$77,763
Corporate income tax	-\$1,805	-\$607	\$1,100	\$1,413	\$2,770	\$2,607	\$3,484	\$2,989	\$3,504	\$5,604
Other taxes	\$558	\$932	\$1,309	\$1,460	\$1,574	\$1,822	\$1,909	\$2,108	\$4,185	\$3,108
Total revenue	-\$7,200	\$8,103	\$27,184	\$33,249	\$46,216	\$48,858	\$55,633	\$53,622	\$58,830	\$55,024
Program cost	\$1,616,988	\$2,062,140	\$1,932,017	\$2,361,657	\$2,096,539	\$2,382,504	\$2,183,736	\$2,837,611	\$3,184,603	\$3,852,577
Net revenue	-\$1,624,188	-\$2,054,037	-\$1,904,833	-\$2,328,408	-\$2,050,323	-\$2,333,646	-\$2,128,103	-\$2,783,989	-\$3,125,773	-\$3,797,553
Return on investment										
Return per \$1 spent	\$0.00	\$0.00	\$0.01	\$0.01	\$0.02	\$0.02	\$0.03	\$0.02	\$0.02	\$0.01

NOTE: Angel investment tax credit is the Qualified Equity and Subordinated Debt Investment Tax Credit.

TABLE M-9
Impact of the capital gains subtraction to the Virginia economy

Impact	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Economic activity induced by the incentive										
Total Employment	0.0	0.2	0.9	8.5	17.9	15.0	16.4	13.4	10.6	9.1
Private Employment	0.0	0.2	0.8	8.1	16.9	13.7	15.0	12.0	9.3	7.8
Virginia GDP	-\$3,639	-\$8,253	-\$51,889	-\$624,460	-\$622,392	\$855,673	\$753,344	\$1,223,634	\$1,247,687	\$1,056,902
Personal Income	\$3,004	\$10,772	\$57,594	\$581,705	\$1,303,790	\$1,223,205	\$1,439,017	\$1,315,019	\$1,180,765	\$1,101,488
Reduction in economic activity because of the tax increase to fund the incentive										
Total employment	-0.1	-0.2	-1.3	-13.7	-26.0	-15.5	-16.9	-10.6	-6.5	-5.2
Private employment	-0.1	-0.2	-1.2	-13.0	-24.3	-13.8	-15.1	-9.1	-5.3	-4.2
Virginia GDP	-\$6,945	-\$23,884	-\$139,923	-\$1,476,778	-\$2,998,122	-\$2,074,824	-\$2,176,829	-\$1,492,483	-\$940,862	-\$723,845
Personal income	-\$4,834	-\$16,084	-\$92,571	-\$975,329	-\$1,954,387	-\$1,362,688	-\$1,591,342	-\$1,202,071	-\$935,285	-\$836,977
Net economic impact of the incentive										
Total employment	0.0	-0.1	-0.5	-5.2	-8.0	-0.5	-0.5	2.8	4.1	3.9
Private employment	0.0	-0.1	-0.4	-4.9	-7.4	-0.1	-0.2	2.9	4.0	3.7
Virginia GDP	-\$10,584	-\$32,137	-\$191,812	-\$2,101,238	-\$3,620,515	-\$1,219,151	-\$1,423,485	-\$268,849	\$306,825	\$333,057
Personal income	-\$1,831	-\$5,312	-\$34,977	-\$393,624	-\$650,596	-\$139,483	-\$152,324	\$112,948	\$245,480	\$264,511

TABLE M-10
Revenue collections from the capital gains subtraction and its return in revenue

Impact	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Revenue tax collections induced by the incentive										
General sales tax	-\$59	-\$158	-\$966	-\$10,372	-\$15,983	\$1,059	-\$2,051	\$3,931	\$6,824	\$4,521
Selective sales tax	-\$41	-\$107	-\$647	-\$7,210	-\$11,384	\$794	-\$1,522	\$2,903	\$3,924	\$3,435
License taxes	-\$6	-\$16	-\$102	-\$1,110	-\$1,674	\$105	-\$210	\$405	\$530	\$348
Individual income tax	\$86	\$312	\$1,805	\$17,439	\$40,549	\$37,236	\$44,480	\$40,995	\$36,593	\$33,438
Corporate income tax	-\$6	-\$15	-\$84	-\$958	-\$1,023	\$1,262	\$1,183	\$1,911	\$2,014	\$2,531
Other taxes	\$4	\$12	\$74	\$652	\$1,451	\$1,397	\$1,681	\$1,484	\$2,313	\$1,359
Total revenue	-\$23	\$27	\$79	-\$1,559	\$11,936	\$41,854	\$43,561	\$51,628	\$52,198	\$45,633
Program cost	\$8,732	\$27,379	\$155,594	\$1,665,669	\$3,006,200	\$1,465,775	\$1,868,740	\$1,170,000	\$841,000	\$854,311
Net revenue	-\$8,755	-\$27,352	-\$155,515	-\$1,667,227	-\$2,994,264	-\$1,423,921	-\$1,825,179	-\$1,118,372	-\$788,802	-\$808,678
Return on investment										
Return per \$1 spent	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.03	\$0.02	\$0.04	\$0.06	\$0.05

NOTE: Capital gains subtraction is the Qualified Business Long-term Capital Gains Subtraction.

TABLE M-11
Impact of GAP Funds program to the Virginia economy

Impact	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Economic activity induced by the incentive										
Total employment	0.6	7.9	22.0	36.9	46.0	57.5	78.7	75.9	95.3	67.1
Private employment	0.5	7.5	20.7	34.4	42.4	52.7	72.3	68.9	87.0	59.7
Virginia GDP	\$85,272	\$1,086,032	\$3,225,948	\$5,850,759	\$7,857,376	\$10,405,228	\$14,201,291	\$13,696,034	\$17,248,992	\$12,165,349
Personal income	\$40,118	\$601,101	\$1,716,535	\$3,045,040	\$4,036,095	\$5,332,427	\$7,637,395	\$7,947,783	\$10,492,217	\$8,735,147
Reduction in economic activity because of the tax increase to fund incentive costs										
Total employment	-1.6	-3.3	-3.7	-3.6	-1.8	-1.0	-0.3	0.3	0.4	0.4
Private employment	-1.5	-3.0	-3.4	-3.3	-1.5	-0.8	-0.2	0.3	0.4	0.4
Virginia GDP	-\$152,204	-\$345,480	-\$425,346	-\$431,929	-\$243,171	-\$138,431	-\$48,783	\$33,877	\$59,318	\$64,376
Personal income	-\$105,944	-\$231,549	-\$279,836	-\$295,291	-\$185,489	-\$137,089	-\$86,472	-\$35,520	-\$18,189	-\$8,721
Net economic impact of incentive										
Total employment	-1.0	4.7	18.2	33.3	44.2	56.5	78.4	76.2	95.6	67.5
Private employment	-1.0	4.5	17.3	31.1	40.9	51.9	72.1	69.2	87.4	60.1
Virginia GDP	-\$66,932	\$740,552	\$2,800,602	\$5,418,830	\$7,614,204	\$10,266,797	\$14,152,509	\$13,729,912	\$17,308,311	\$12,229,726
Personal income	-\$65,826	\$369,552	\$1,436,699	\$2,749,749	\$3,850,605	\$5,195,338	\$7,550,923	\$7,912,263	\$10,474,029	\$8,726,426

TABLE M-12
Revenue collections from the GAP Funds program and its return in revenue

Impact	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Revenue tax collections induced by incentive										
General sales tax	\$406	\$5,631	\$17,743	\$30,079	\$41,642	\$56,712	\$74,470	\$72,631	\$119,104	\$93,589
Selective sales tax	\$280	\$3,832	\$11,886	\$20,908	\$29,661	\$42,525	\$55,259	\$53,637	\$68,480	\$71,111
License taxes	\$43	\$578	\$1,872	\$3,218	\$4,362	\$5,628	\$7,630	\$7,486	\$9,253	\$7,206
Individual income tax	\$1,152	\$17,524	\$53,760	\$90,477	\$124,745	\$164,634	\$241,127	\$256,291	\$344,268	\$279,051
Corporate income tax	\$152	\$1,973	\$5,241	\$8,972	\$12,915	\$15,352	\$22,300	\$21,388	\$27,838	\$29,136
Other taxes	\$47	\$670	\$2,192	\$3,411	\$4,492	\$6,088	\$8,919	\$8,967	\$20,554	\$10,778
Total revenue	\$2,080	\$30,209	\$92,694	\$157,064	\$217,816	\$290,939	\$409,707	\$420,400	\$589,498	\$490,871
Program cost	\$191,367	\$377,575	\$380,830	\$361,789	\$152,332	\$106,632	\$56,363	\$0	\$0	\$0
Net revenue	-\$189,288	-\$347,366	-\$288,136	-\$204,725	\$65,484	\$184,307	\$353,344	\$420,400	\$589,498	\$490,871
Return on investment										
Return per \$1 spent	\$0.01	\$0.08	\$0.24	\$0.43	\$1.43	\$2.73	\$7.27	--	--	--

TABLE M-13
Impact of CRCF grant to the Virginia economy

Impact	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Economic activity induced by the incentive										
Total employment	0.0	0.0	2.0	9.1	23.1	31.0	38.5	52.4	52.2	62.2
Private employment	0.0	0.0	1.9	8.6	21.8	28.9	35.6	48.3	47.5	56.6
Virginia GDP	\$0	\$0	\$292,579	\$1,350,398	\$3,448,553	\$4,968,655	\$6,681,718	\$9,256,941	\$9,980,558	\$12,243,377
Personal income	\$0	\$0	\$145,039	\$696,403	\$1,933,877	\$2,780,987	\$3,703,825	\$5,313,528	\$5,702,869	\$7,144,825
Reduction in economic activity because of the tax increase to fund incentive costs										
Total employment	0.0	0.0	-17.8	-11.7	-8.0	-7.0	-4.8	-6.3	-4.3	-0.2
Private employment	0.0	0.0	-16.9	-10.7	-7.1	-6.1	-4.0	-5.6	-3.6	0.2
Virginia GDP	\$0	\$0	-\$1,854,198	-\$1,458,005	-\$1,034,652	-\$899,920	-\$645,643	-\$811,266	-\$598,196	-\$59,449
Personal income	\$0	\$0	-\$1,231,544	-\$908,336	-\$724,658	-\$699,461	-\$568,161	-\$717,333	-\$588,426	-\$245,854
Net economic impact of incentive										
Total employment	0.0	0.0	-15.9	-2.7	15.1	24.0	33.7	46.0	47.9	62.0
Private employment	0.0	0.0	-15.0	-2.1	14.7	22.7	31.5	42.7	43.8	56.8
Virginia GDP	\$0	\$0	-\$1,561,620	-\$107,607	\$2,413,901	\$4,068,735	\$6,036,074	\$8,445,675	\$9,382,361	\$12,183,928
Personal income	\$0	\$0	-\$1,086,504	-\$211,933	\$1,209,219	\$2,081,527	\$3,135,664	\$4,596,194	\$5,114,442	\$6,898,971

TABLE M-14
Revenue collections from the CRCF grant and its return in revenue

Impact	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Revenue tax collections induced by the incentive										
General sales tax	\$0	\$0	\$2,385	\$8,739	\$19,039	\$27,846	\$36,702	\$49,164	\$72,755	\$98,915
Selective sales tax	\$0	\$0	\$1,598	\$6,074	\$13,561	\$20,881	\$27,234	\$36,307	\$41,831	\$75,158
License taxes	\$0	\$0	\$252	\$935	\$1,994	\$2,764	\$3,761	\$5,067	\$5,652	\$7,616
Individual income tax	\$0	\$0	\$4,565	\$20,831	\$60,361	\$86,472	\$117,203	\$172,964	\$187,255	\$232,845
Corporate income tax	\$0	\$0	\$475	\$2,071	\$5,668	\$7,331	\$10,492	\$14,456	\$16,108	\$29,323
Other taxes	\$0	\$0	\$185	\$780	\$2,152	\$3,175	\$4,325	\$5,995	\$11,172	\$8,816
Total revenue	\$0	\$0	\$9,461	\$39,430	\$102,776	\$148,468	\$199,717	\$283,953	\$334,773	\$452,673
Program cost	\$0	\$0	\$2,166,916	\$1,112,563	\$699,421	\$738,608	\$565,727	\$892,183	\$640,412	\$75,000
Net revenue	\$0	\$0	-\$2,157,455	-\$1,073,133	-\$596,645	-\$590,140	-\$366,010	-\$608,230	-\$305,639	\$377,673
Return on investment										
Return per \$1 spent	--	--	\$0.00	\$0.04	\$0.15	\$0.20	\$0.35	\$0.32	\$0.52	\$6.04

Impact of the Spaceport Users Exemption and Zero G resupply subtraction to the Virginia economy

Impact	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Economic activity induced by the incentives										
Total employment	0.0	0.0	2.3	5.8	7.2	3.3	4.2	6.3	7.0	7.4
Private employment	0.0	0.0	2.2	5.4	6.6	2.9	3.7	5.6	6.2	6.5
Virginia GDP		\$0	-\$147,231	-\$143,616	\$163,325	\$654,580	\$290,779	\$159,682	\$340,855	\$467,934
Personal income	\$0	\$0	\$170,100	\$436,002	\$573,927	\$299,958	\$403,565	\$610,020	\$712,710	\$792,923
Reduction in economic activity because of the tax increase to fund incentive costs										
Total employment	0.0	0.0	-3.9	-8.9	-9.5	-1.7	-4.2	-7.7	-7.9	-8.0
Private employment	0.0	0.0	-3.7	-8.3	-8.7	-1.2	-3.7	-7.0	-7.1	-7.1
Virginia GDP	\$0	\$0	-\$410,694	-\$991,516	-\$1,145,409	-\$314,540	-\$517,405	-\$972,275	-\$1,077,321	-\$1,120,784
Personal income	\$0	\$0	-\$272,779	-\$644,076	-\$748,670	-\$233,268	-\$439,075	-\$744,225	-\$828,822	-\$893,540
Net economic impact of the incentives										
Total employment	0.0	0.0	-1.6	-3.1	-2.3	1.6	0.0	-1.4	-1.0	-0.6
Private employment	0.0	0.0	-1.5	-2.9	-2.1	1.7	0.0	-1.4	-0.9	-0.6
Virginia GDP	\$0	\$0	-\$557,924	-\$1,135,132	-\$982,084	\$340,041	-\$226,626	-\$812,593	-\$736,466	-\$652,850
Personal income	\$0	\$0	-\$102,679	-\$208,074	-\$174,743	\$66,690	-\$35,510	-\$134,205	-\$116,112	-\$100,618

TABLE M-16

Revenue collections from the Spaceport Users Exemption and the Zero G resupply subtraction and its return in revenue

Impact	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Revenue tax collections induced by the incentives										
General sales tax	\$0	\$0	\$1,743	\$4,605	\$6,754	\$4,679	\$4,712	\$6,460	\$10,214	\$12,381
Selective sales tax	\$0	\$0	\$1,168	\$3,201	\$4,811	\$3,509	\$3,497	\$4,770	\$5,872	\$9,408
License taxes	\$0	\$0	\$184	\$493	\$707	\$464	\$483	\$666	\$793	\$953
Individual income tax	\$0	\$0	\$5,347	\$12,944	\$17,566	\$8,620	\$12,146	\$19,224	\$22,665	\$24,887
Corporate income tax	\$0	\$0	-\$239	-\$220	\$268	\$966	\$457	\$249	\$550	\$1,121
Other taxes	\$0	\$0	\$217	\$488	\$639	\$342	\$471	\$688	\$1,396	\$978
Total revenue	\$0	\$0	\$8,420	\$21,512	\$30,746	\$18,581	\$21,766	\$32,058	\$41,490	\$49,729
Program cost	\$0	\$0	\$479,959	\$1,020,408	\$1,008,341	\$0	\$516,904	\$1,057,076	\$1,079,007	\$1,096,083
Net revenue	\$0	\$0	-\$471,539	-\$998,896	-\$977,595	\$18,581	-\$495,139	-\$1,025,019	-\$1,037,517	-\$1,046,355
Return on investment										
Return per \$1 spent	--	--	\$0.02	\$0.02	\$0.03	--	\$0.04	\$0.03	\$0.04	\$0.05