



## **The Economic Impact of House Bill 2408: An Act Relative to the Taxation of Telecommunications Companies**

A Research White Paper to Mayor Thomas M. Menino  
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### **Overview**

House Bill 2408, An Act Relative to the Taxation of Telecommunications Companies, would close loopholes and end outdated property tax subsidies that benefit telecommunications providers. While the industry has claimed that passage of the bill would have serious negative repercussions on the industry and the economy, empirical evidence shows the contrary is closer to the truth.

To demonstrate this concept, the impact of ending the telecommunications industry's favored tax status was simulated in an econometric model of Massachusetts.

### **Summary Results**

Three scenarios were considered, each demonstrating a possible outcome from terminating the exemptions:

- local government will raise and spend the entire \$138 million tax from the additional levy capacity generated by the measure;
- communities will forgo all the additional revenue and instead leverage the additional telecommunications assessments to reduce taxes for other business and residential taxpayers;
- the additional levy capacity will be split equally between new revenue and tax relief.

Each scenario projects no material economic consequences for any industry or for the state economy. In fact it is probable that a positive economic outcome will result from implementing this proposed legislation. This is not surprising, given that a level playing field, where all industries benefit from a competitively neutral tax structure, provides the most favorable environment for economic growth.

The table below illustrates the range of economic effects from the three scenarios. All three scenarios produce a net increase of jobs in Massachusetts and barely affect Gross State Product (GSP) at all. At a minimum, several hundred jobs would be added to all industries statewide, with no more than 15 jobs lost in the telecomm industry. Job gains for the state would outpace the industry's losses 26-to-1 at worst, and possibly 6 times that under the best case. Meanwhile, Gross State Product would see no more than a 0.02% change plus or minus. Finally, telecomm industry sales would not decline by more than 0.05% as a result of the proposed legislation, while prices of their services would increase by roughly 1/2 to 1 percent.

Change to:	Range of Impact Under 3 Scenarios
<b>Massachusetts Jobs</b>	
Total	394 to 1,657
Telecomm Industry	-10 to -15
Percent of Total	0.01% to 0.05%
Percent of Telecomm Industry	-0.04% to -0.06%
<b>Massachusetts Economy</b>	
Percent of Gross State Product (GSP)	-0.02% to 0.02%
<b>Prices &amp; Sales &amp; Investment</b>	
Price of Telecomm Services	0.48% to 1.04%
Percent of Telecomm Industry Sales	-0.04% to -0.05%

## Conclusions

The combination of tax reductions for other taxpayers and/or an increase in local government spending leads to consumption increases in other industries. This in turn stimulates employment in those industries. By contrast, prices of telecommunications products and services would increase only slightly and the industry would lose only a handful of jobs and annual sales.

Policy makers should weigh support for all industries over support for just one industry in considering this legislation. Removing special exemptions from tax policy removes economic distortions and increases competition. It also promotes fairness in taxation among residents and businesses that are not in competition with each other and provides capacity to fund needed local services.

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## Methodology of Research and Detailed Model Inputs and Outputs

As we discuss the detailed estimates below, it is important to note that the use of any model, by its nature a grouping of statistical relationships and data based on statistical samples, is somewhat of a blunt instrument. As such, the larger an estimated impact, positive or negative, the more likely it is that the model is identifying a likely outcome. Therefore, with specific changes in variables below so small as a percentage of their related bases, one could assume that there is a strong probability of absolutely no impact at all on many of these variables.

As stated above, three different scenarios were studied to simulate the economic impact of House bill 2408. Using the econometric model, REMI<sup>1</sup> Policy Insight, the three scenarios were simulated for each of the following regions in Massachusetts: Suffolk County, the “four county region” representing Middlesex, Norfolk, Essex, and Plymouth Counties, and the “rest of Massachusetts” representing all the other counties in the state. The sum of the three regions represents the entire Commonwealth of Massachusetts. Below is a description of each scenario and the inputs that went into the simulations (shown in the appendix).

## Inputs

Scenario 1 – 100% government spending: This scenario assumes that all the value added to the local property tax base by H. 2408 will be included in the levy and spent by local governments. Under this scenario, there are only two variables entered into the model for each region (shown in Table I-1 of the appendix). 1.) *Production costs* (representing the added tax value) is increased for the telecomm industry in each region by the amount of tax revenue that is estimated to be collected from the industry by all cities and towns within each region. 2.) *Local government spending* is increased by the same amount in each of the three regions, assuming that local governments will spend all the revenues raised by the tax.

Scenario 2 – 50% government spending<sup>2</sup>: This scenario assumes that 50% of the value added to the local property tax base by H. 2408 will be included in the levy and spent by local governments. The remaining 50% provides tax relief to all other businesses and to residents in each of the three regions. The 50% that is allocated to other industry and residential taxpayers is apportioned by the average proportion of total property tax collection that is from commercial or industrial versus residential uses in each region.

The inputs for this simulation are shown in Table I-2 of the appendix. As with the first scenario, production costs are used to simulate the added tax value – which can be an increase or decrease in this scenario. *Production costs* are raised for the telecomm industry by the full amount of the tax value and they are decreased in all other industries that have employment in each of the three regions. The only exception is for hospitals and educational services which were not allocated any tax reduction since they are exempt from paying property taxes in Massachusetts. To simulate the reduction in residential property taxes, *personal taxes*<sup>3</sup> were reduced in the model for each region.

Scenario 3 – 0% government spending: This scenario assumes that none of the value added to the local property tax base by H. 2408 will be included in the levy and spent by local governments. Instead the full value is used to lower the taxes of all other businesses and residents in the regions. This is similar to scenario 2 above, except that all 100% of the tax revenue will be used to reduce taxes and there in turn will be no government spending. The inputs for this simulation are shown in Table I-3 of the appendix.

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<sup>1</sup> Regional Economic Models, Inc. Amherst, Massachusetts.

<sup>2</sup> In fiscal 2004, 158 of 351 cities and towns in Massachusetts (45%) had excess property taxing capacity of .25% or more of their levy limit.

<sup>3</sup> The value of tax reduction to households is net an estimated increase in federal taxes.

## Outputs

Detailed results by scenario, region and state as a whole are shown in the Appendix. All three scenarios show that the direct impact on the telecomm industry itself is minimal and the overall impact on the regional economy is immaterial whether positive or negative. The following is an explanation of the results of each scenario:

Scenario 1 – 100% government spending: Table O-1 in the appendix shows the results for scenario 1. Of the three, scenario 1 has the greatest positive impact on the government sector, as the cities and towns throughout the Commonwealth benefit from an increase in tax revenue which can be used to improve vital public services such as education, public safety, and public works. The results of the analysis show that if all additional value from H. 2408 were added to levies and were spent by the local governments in Massachusetts, a total of 2,037 public sector jobs would be created in the state.

Conversely, scenario 1 has the largest negative impact on the private sector economy. The added tax on the telecomm industry leads to minor increases in the cost of production of most industry sectors and drop in consumption. This added cost pressure results in a decline in gross state product (GSP) of roughly \$47 million (or -0.02% of 2003 GSP) and a loss of 558 private sector jobs. Most of the private sector jobs loss is in the services sector where telecomm use is heavy.

The economic impact across the Massachusetts regions is spread relatively even. All three regions enjoy employment gains, due to public sector hiring. The losses in the private sector are greatest in the four-county region since that region contains the largest economy and population and the largest concentration of telecomm dependent service sector industries. The four-county region gains a net total of 510 jobs and its gross regional product decreases by \$23.2 million. In Suffolk County a net total of 527 jobs are created and gross regional product shrinks by a total of \$14.2 million. The region comprising the rest of Massachusetts shows similar results. A net total of 445 jobs are created here as gross regional product decreases by almost \$9.6 million.

The impact on the telecomm industry itself in Massachusetts, as mentioned above, is minor. Under this scenario, a total of 13 telecomm jobs are lost and the industry's total output (sales) declines by just \$7.2 million or -0.05%. The relative cost of production in telecomm (Massachusetts compared to the U.S. as a whole) increases by about 1.5% and its relative delivered price increases by 1.04%. This leads to a drop in demand of roughly \$3.9 million.

Scenario 2 – 50% government spending: As a whole, scenario 2 has the greatest positive impact on the regional economy. Employment gains are spread out across all sectors of the economy, gross state product rises as do all other economic indicators. The collective benefit of having increased government spending, although only half as much as scenario 1, a reduction in the production costs from reduced taxes to all industries except telecomm, and a reduction in residential taxes, leads to the net positive impact on the economy. The detailed results of the scenario are found in Table O-2 of the appendix.

Under this scenario, gross state product increases by \$63.7 million, Massachusetts employment increases by 1,030 in the public sector and another 627 in the private sector, and total output goes up by \$110 million. Wage and salary income also rises by \$73.3 million and total consumption by \$68.6 million.

Economic gains were found across all regions, with the largest benefit felt in the four-county region, where the reduction in taxes for both businesses (outside of telecom) and residents were a boon to the local economy in this highly commercialized and populated area of the state. The four-county region gains a net total of 846 jobs and its gross regional product increases by \$46.7 million. In Suffolk County a net total of 426 jobs are created and gross regional product grows by a total of \$12.1 million. The region comprising the rest of Massachusetts shows similar gains. A net total of 386 jobs are created here and gross regional product increases by \$4.9 million.

The impact on the telecom industry itself in Massachusetts, under this scenario, is slightly less negative than in scenario one. A total of 10 telecom jobs are lost and the industry's total output (sales) declines by just \$5.6 million or -0.04%. The relative cost of production in telecom (Massachusetts compared to the U.S. as a whole) increases by about 1.4% and its relative delivered price increases by just .75%. Total demand in the telecom industry drops by only \$1.8 million.

Scenario 3 – 0% government spending: Scenario 3, in which there is no increased government spending, shows a more modest impact than in scenario 2, however, is still positive for all sectors of the economy. The detailed results of the scenario are found in Table O-3 of the appendix.

Under this scenario, gross state product increases by \$25 million, Massachusetts employment increases by 18 in the public sector and another 376 in the private sector, and total output goes up by \$39.5 million. Wage and salary income also increases by \$13.4 million and total consumption by \$55.6 million.

Economic gains were again found across all regions, with the largest benefit this time in Suffolk County, which has the greatest concentration of businesses in the state, and will benefit the greatest proportionally from the reduction in taxes for businesses (outside of telecom). In Suffolk County a net total of 151 jobs are created and gross regional product grows by a total of \$13.4 million. The four-county region gains a net total of 92 jobs and its gross regional product increases by \$5.1 million. In the region comprising the rest of Massachusetts, a net total of 151 jobs are created and gross regional product increases by almost \$6.4 million.

The impact on the telecom industry itself in Massachusetts, under this scenario, is slightly worse than in scenario 2 and roughly the same as scenario 1. A total of 15 telecom jobs are lost and the industry's total output (sales) declines by just \$5.5 million or -0.04%. The relative cost of production in telecom (Massachusetts compared to the U.S. as a whole) increases by about 1.5% and its relative delivered price increases by just .48%. Total demand in the telecom industry drops by only \$3 million under scenario 3.

## Appendix – REMI Input/Output Tables

REMI Inputs - Table I-1					
Scenario 1 - 100% Value Added to Local Tax Levies					
Variable	Detail	2005 Massachusetts	2005 Suffolk Co.	2005 Four County Region	2005 Rest of Mass.
Production Cost (amount)	Broadcasting, exc Int; Telecomm	138,233,741	45,722,462	52,899,066	39,612,213
Government Spending (amount)	Local	138,233,741	45,722,462	52,899,066	39,612,213

## REMI Inputs - Table I-2

## Scenario 2 - 50% Value Added to Local Tax Levies

Variable	Detail	2005		2005	2005
		Massachusetts	Suffolk Co.	Four County Region	Rest of Mass.
Government Spending (amount)	Local	\$68,739,456	\$22,995,288	\$26,258,075	\$19,486,093
Personal Taxes (amount)	Applicable Personal Income	-\$44,782,582	-\$14,344,814	-\$17,665,046	-\$12,772,722
Production Cost (amount)	Broadcasting, exc Int; Telecomm	\$32	\$46	-\$53	\$39
"	Forestry et al.	-\$27,250	-\$3,370	-\$9,522	-\$14,358
"	Agriculture	-\$15,619	\$0	-\$3,311	-\$12,308
"	Oil, gas extraction	\$0	\$0	\$0	\$0
"	Mining (except oil, gas)	-\$7,175	-\$2,212	-\$2,540	-\$2,423
"	Support activities for mining	-\$73	\$0	-\$37	-\$36
"	Utilities	-\$68,123	-\$35,804	-\$11,812	-\$20,507
"	Construction	-\$907,387	-\$273,696	-\$340,305	-\$293,386
"	Wood product mfg	-\$16,409	-\$2,420	-\$4,445	-\$9,544
"	Nonmetallic mineral prod mfg	-\$34,327	-\$5,240	-\$7,845	-\$21,242
"	Primary metal mfg	-\$30,450	-\$401	-\$6,513	-\$23,536
"	Fabricated metal prod mfg	-\$205,391	-\$64,082	-\$55,115	-\$86,194
"	Machinery mfg	-\$107,795	-\$4,008	-\$54,364	-\$49,423
"	Computer, electronic prod mfg	-\$288,848	-\$33,459	-\$204,578	-\$50,811
"	Electrical equip, appliance mfg	-\$69,068	-\$16,106	-\$24,090	-\$28,872
"	Motor vehicle mfg	-\$13,051	\$0	-\$10,287	-\$2,764
"	Transp equip mfg. exc. motor veh	-\$35,799	\$0	-\$27,700	-\$8,099
"	Furniture, related prod mfg	-\$37,081	-\$8,446	-\$12,540	-\$16,095
"	Miscellaneous mfg	-\$119,344	-\$8,758	-\$41,710	-\$68,876
"	Food mfg	-\$114,878	-\$51,658	-\$35,263	-\$27,957
"	Beverage, tobacco prod mfg	-\$13,432	-\$4,201	-\$4,790	-\$4,441
"	Textile mills	-\$39,137	-\$3,132	-\$11,691	-\$24,314
"	Textile prod mills	-\$16,950	-\$5,225	-\$3,441	-\$8,284
"	Apparel mfg	-\$31,274	-\$15,809	-\$2,716	-\$12,749
"	Leather, allied prod mfg	-\$7,837	-\$371	-\$5,897	-\$1,569
"	Paper mfg	-\$64,280	-\$4,156	-\$17,292	-\$42,832
"	Printing, rel supp act	-\$93,861	-\$32,509	-\$33,977	-\$27,375
"	Petroleum, coal prod mfg	-\$3,451	\$0	-\$2,552	-\$899
"	Chemical mfg	-\$67,840	-\$17,071	-\$33,399	-\$17,370
"	Plastics, rubber prod mfg	-\$88,589	-\$9,619	-\$19,357	-\$59,613
"	Wholesale trade	-\$662,582	-\$188,699	-\$297,821	-\$176,062
"	Retail trade	-\$1,825,682	-\$507,284	-\$640,482	-\$677,916
"	Air transportation	-\$157,987	-\$154,810	-\$521	-\$2,656
"	Rail transportation	-\$9,009	\$0	-\$5,270	-\$3,739
"	Water transportation	-\$3,857	-\$950	-\$1,720	-\$1,187
"	Truck transp; Couriers, msngrs	-\$189,415	-\$73,211	-\$63,046	-\$53,158
"	Transit, ground pass transp	-\$178,894	-\$84,908	-\$42,633	-\$51,353
"	Pipeline transportation	-\$254	\$0	-\$69	-\$185
"	Scenic, sightseeing transp; supp	-\$84,795	-\$70,049	-\$8,460	-\$6,286
"	Warehousing, storage	-\$52,598	-\$21,717	-\$17,137	-\$13,744
"	Publishing, exc Internet	-\$253,223	-\$118,798	-\$102,529	-\$31,896
"	Motion picture, sound rec	-\$44,790	-\$26,141	-\$10,578	-\$8,071
"	Internet serv, data proc, other	-\$109,522	-\$48,451	-\$48,591	-\$12,480
"	Broadcasting, exc Int; Telecomm	-\$213,463	-\$118,456	-\$57,290	-\$37,717
"	Monetary authorities, et al.	-\$392,808	-\$205,977	-\$110,061	-\$76,770
"	Sec, comm contracts, inv	-\$933,199	-\$837,952	-\$76,958	-\$18,289
"	Ins carriers, rel act	-\$392,260	-\$178,976	-\$103,113	-\$110,171
"	Real estate	-\$532,673	-\$254,518	-\$147,737	-\$130,418
"	Rental, leasing services	-\$79,654	-\$26,334	-\$37,185	-\$16,135
"	Prof, tech services	-\$2,057,028	-\$1,134,760	-\$651,552	-\$270,716
"	Mgmt of companies, enterprises	-\$364,962	-\$159,456	-\$130,160	-\$75,346
"	Administrative, support services	-\$1,151,865	-\$592,741	-\$339,203	-\$219,921
"	Waste mgmnt, remed services	-\$44,650	-\$17,368	-\$15,612	-\$11,670
"	Educational services	\$0	\$0	\$0	\$0
"	Ambulatory health care services	-\$796,734	-\$300,816	-\$256,854	-\$239,064
"	Hospitals	\$0	\$0	\$0	\$0
"	Nursing, residential care facilities	-\$431,458	-\$126,635	-\$139,616	-\$165,207
"	Social assistance	-\$458,580	-\$219,322	-\$119,407	-\$119,851
"	Performing arts, spectator sports	-\$272,355	-\$159,456	-\$52,825	-\$60,074
"	Museums et al.	-\$27,452	-\$14,651	-\$5,075	-\$7,726
"	Amusement, gambling, recreation	-\$132,214	-\$14,963	-\$70,183	-\$47,068
"	Accommodation	-\$271,997	-\$173,721	-\$43,381	-\$54,895
"	Food services, drinking places	-\$1,175,115	-\$534,404	-\$309,708	-\$331,003
"	Repair, maintenance	-\$183,782	-\$45,408	-\$74,240	-\$64,134
"	Personal, laundry services	-\$259,020	-\$113,676	-\$83,019	-\$62,325
"	Membership assoc, organ	-\$393,852	-\$222,751	-\$81,080	-\$90,021
"	Private households	-\$145,937	-\$37,021	-\$47,863	-\$61,053

## REMI Inputs - Table I-3

## Scenario 3 - 0% Value Added to Local Tax Levies

Variable	Detail	2005 Massachusetts	2005 Suffolk Co.	2005 Four County Region	2005 Rest of Mass.
Government Spending (amount)	Local		-	-	-
Personal Taxes (amount)	Applicable Personal Income	-\$89,565,164	-\$28,689,629	-\$35,330,092	-\$25,545,443
Production Cost (amount)	Broadcasting, exc Int; Telecomm	\$137,478,912	\$45,990,577	\$52,516,150	\$38,972,185
"	Forestry et al.	-\$54,498	-\$6,739	-\$19,044	-\$28,715
"	Agriculture	-\$31,237	\$0	-\$6,622	-\$24,615
"	Oil, gas extraction	\$0	\$0	\$0	\$0
"	Mining (except oil, gas)	-\$14,350	-\$4,424	-\$5,080	-\$4,846
"	Support activities for mining	-\$147	\$0	-\$75	-\$72
"	Utilities	-\$136,247	-\$71,608	-\$23,624	-\$41,015
"	Construction	-\$1,814,775	-\$547,393	-\$680,610	-\$586,772
"	Wood product mfg	-\$32,815	-\$4,839	-\$8,889	-\$19,087
"	Nonmetallic mineral prod mfg	-\$68,653	-\$10,480	-\$15,690	-\$42,483
"	Primary metal mfg	-\$60,900	-\$802	-\$13,026	-\$47,072
"	Fabricated metal prod mfg	-\$410,781	-\$128,164	-\$110,230	-\$172,387
"	Machinery mfg	-\$215,591	-\$8,016	-\$108,729	-\$98,846
"	Computer, electronic prod mfg	-\$577,695	-\$66,917	-\$409,156	-\$101,622
"	Electrical equip, appliance mfg	-\$138,134	-\$32,212	-\$48,179	-\$57,743
"	Motor vehicle mfg	-\$26,102	\$0	-\$20,574	-\$5,528
"	Transp equip mfg. exc. motor veh	-\$71,599	\$0	-\$55,400	-\$16,199
"	Furniture, related prod mfg	-\$74,161	-\$16,893	-\$25,079	-\$32,189
"	Miscellaneous mfg	-\$238,686	-\$17,516	-\$83,419	-\$137,751
"	Food mfg	-\$229,755	-\$103,315	-\$70,526	-\$55,914
"	Beverage, tobacco prod mfg	-\$26,863	-\$8,402	-\$9,579	-\$8,882
"	Textile mills	-\$78,275	-\$6,264	-\$23,382	-\$48,629
"	Textile prod mills	-\$33,899	-\$10,450	-\$6,881	-\$16,568
"	Apparel mfg	-\$62,547	-\$31,618	-\$5,431	-\$25,498
"	Leather, allied prod mfg	-\$15,674	-\$742	-\$11,795	-\$3,137
"	Paper mfg	-\$128,561	-\$8,313	-\$34,584	-\$85,664
"	Printing, rel supp act	-\$187,722	-\$65,017	-\$67,954	-\$54,751
"	Petroleum, coal prod mfg	-\$6,900	\$0	-\$5,103	-\$1,797
"	Chemical mfg	-\$135,681	-\$34,142	-\$66,798	-\$34,741
"	Plastics, rubber prod mfg	-\$177,178	-\$19,238	-\$38,715	-\$119,225
"	Wholesale trade	-\$1,325,164	-\$377,397	-\$595,643	-\$352,124
"	Retail trade	-\$3,651,363	-\$1,014,567	-\$1,280,965	-\$1,355,831
"	Air transportation	-\$315,971	-\$309,619	-\$1,041	-\$5,311
"	Rail transportation	-\$18,018	\$0	-\$10,540	-\$7,478
"	Water transportation	-\$7,716	-\$1,900	-\$3,441	-\$2,375
"	Truck transp; Couriers, msngrs	-\$378,832	-\$146,423	-\$126,093	-\$106,316
"	Transit, ground pass transp	-\$357,788	-\$169,817	-\$85,266	-\$102,705
"	Pipeline transportation	-\$507	\$0	-\$138	-\$369
"	Scenic, sightseeing transp; supp	-\$169,592	-\$140,099	-\$16,921	-\$12,572
"	Warehousing, storage	-\$105,195	-\$43,434	-\$34,273	-\$27,488
"	Publishing, exc Internet	-\$506,447	-\$237,595	-\$205,059	-\$63,793
"	Motion picture, sound rec	-\$89,579	-\$52,281	-\$21,155	-\$16,143
"	Internet serv, data proc, other	-\$219,044	-\$96,903	-\$97,181	-\$24,960
"	Broadcasting, exc Int; Telecomm	-\$426,927	-\$236,912	-\$114,580	-\$75,435
"	Monetary authorities, et al.	-\$785,617	-\$411,955	-\$220,121	-\$153,541
"	Sec, comm contracts, inv	-\$1,866,397	-\$1,675,903	-\$153,916	-\$36,578
"	Ins carriers, rel act	-\$784,521	-\$357,952	-\$206,227	-\$220,342
"	Real estate	-\$1,065,345	-\$509,035	-\$295,474	-\$260,836
"	Rental, leasing services	-\$159,305	-\$52,667	-\$74,369	-\$32,269
"	Prof, tech services	-\$4,114,057	-\$2,269,521	-\$1,303,104	-\$541,432
"	Mgmt of companies, enterprises	-\$729,924	-\$318,912	-\$260,320	-\$150,692
"	Administrative, support services	-\$2,303,731	-\$1,185,483	-\$678,406	-\$439,842
"	Waste mgmnt, remed services	-\$89,299	-\$34,735	-\$31,224	-\$23,340
"	Educational services	\$0	\$0	\$0	\$0
"	Ambulatory health care services	-\$1,593,470	-\$601,633	-\$513,708	-\$478,129
"	Hospitals	\$0	\$0	\$0	\$0
"	Nursing, residential care facilities	-\$862,916	-\$253,271	-\$279,232	-\$330,413
"	Social assistance	-\$917,160	-\$438,644	-\$238,814	-\$239,702
"	Performing arts, spectator sports	-\$544,711	-\$318,912	-\$105,651	-\$120,148
"	Museums et al.	-\$54,904	-\$29,302	-\$10,149	-\$15,453
"	Amusement, gambling, recreation	-\$264,430	-\$29,926	-\$140,367	-\$94,137
"	Accommodation	-\$543,994	-\$347,442	-\$86,762	-\$109,790
"	Food services, drinking places	-\$2,350,230	-\$1,068,808	-\$619,416	-\$662,006
"	Repair, maintenance	-\$367,563	-\$90,816	-\$148,479	-\$128,268
"	Personal, laundry services	-\$518,041	-\$227,353	-\$166,039	-\$124,649
"	Membership assoc, organ	-\$787,704	-\$445,502	-\$162,161	-\$180,041
"	Private households	-\$291,875	-\$74,043	-\$95,726	-\$122,106

## REMI Output - Table O-1 - all industries

**Scenario 1 - 100% Value Added to Local Tax Levies**

Variable	Massachusetts	Suffolk County	4 County Region	Rest of MA
	2005 (2004 \$'s)	2005 (2004 \$'s)	2005 (2004 \$'s)	2005 (2004 \$'s)
Total Employment	1,480	527	510	444
Nat Res, Mining, Util, Const	81	24	29	29
Manufacturing	-10	0	-7	-2
Trade	-88	-9	-51	-29
Transp, Inform, Fin Act	-97	-27	-43	-26
Services	-444	-118	-206	-120
State & Local Gov	2,037	657	789	591
Total GRP	-\$44,234,736	-\$13,354,848	-\$21,887,112	-\$8,997,893
Total GRP	-\$46,997,808	-\$14,186,328	-\$23,230,272	-\$9,554,345
Total Consumption	-\$85,361,016	-\$15,580,656	-\$48,724,728	-\$21,055,632
Total Fixed Investment	-\$13,035,048	-\$1,847,165	-\$7,112,352	-\$4,081,927
CBI net IVA+MISC	-\$115,282	-\$3,612	-\$90,580	-\$20,889
Exogenous Final Demand	\$0.000	\$0.000	\$0.000	\$0.000
Total Government	\$151,841,040	\$49,095,696	\$58,651,320	\$44,030,064
Total Exports	-\$2,420,246	\$5,396,945	-\$9,467,359	\$1,654,006
Total Imports	\$97,833,216	\$51,244,752	\$16,488,888	\$30,073,992
Wage & Salary Disbursements	\$76,249,044	\$24,648,740	\$27,895,249	\$23,693,054
PCE-Price Index	\$0.040	\$0.066	\$0.040	\$0.032
Real Disp Pers Inc	-\$88,482,264	-\$15,887,664	-\$50,848,200	-\$21,759,192
Demand	-\$74,168,016	-\$9,320,251	-\$49,505,040	-\$15,375,984
Output	-\$85,655,232	-\$25,801,464	-\$42,315,936	-\$17,525,040
Labor Productivity	\$7	\$16	\$9	\$3
Relative Delivered Price	0.0003223	0.0005362	0.0003062	0.0002238
Relative Cost of Production	0.0004084	0.0005604	0.0003295	0.0004353
Imports from Multiregions	\$0	-\$241,513	-\$10,887,271	-\$2,475,252
Imports from Rest of Nation	-\$9,613,188	\$1,012,487	-\$7,529,371	-\$3,098,222
Imports from Rest of World	\$3,025,308	\$564,255	\$1,693,661	\$773,404
Self Supply	-\$66,761,448	-\$10,637,827	-\$32,785,896	-\$10,599,451
Exports to Multiregions	\$0	-\$10,115,914	-\$607,492	-\$2,009,623
Exports to Rest of Nation	-\$16,143,504	-\$4,479,758	-\$7,153,286	-\$4,493,830
Exports to Rest of World	-\$2,605,730	-\$528,182	-\$1,627,142	-\$448,999
Population	-136	-49	-173	-96
Labor Force	-274	-35	-157	-82

## REMI Output - Table O-1 (cont'd) - Broadcasting &amp; Telecommunications Industries

**Scenario 1 - 100% Value Added to Local Tax Levies**

Variable	Massachusetts 2005 (2004 \$'s)
Private Non-Farm Employment	-13
Intermediate Demand Emp	-4
Local Consumption Demand Emp	-4
Government Demand Emp	1
Investment Activity Demand Emp	0
Exports to Multiregions Emp	-4
Exports to Rest of Nation Emp	-2
Exports to Rest of World Emp	0
Exogenous Industry Sales Emp	0
Exogenous Industry Demand Emp	0
Relative Composite Price	0.00878
Relative Composite Labor Costs	0.000007749
Relative Fuel Costs	0
Relative Capital Costs	0.0001289
Relative Composite Input Costs	0.004056
Relative Delivered Price	0.01058
Relative Cost of Production	0.0148
Demand	-\$3,933,540
Imports from Multiregions	-\$638,960
Imports from Rest of Nation	\$42,162
Imports from Rest of World	\$209,533
Self Supply	-\$3,545,942
Exports to Multiregions	-\$2,381,870
Exports to Rest of Nation	-\$1,192,214
Exports to Rest of World	-\$105,828
Output	-\$7,226,201
Value-Added	-\$3,735,264
Wage & Salary Disbursements	-\$937,200
Labor Productivity	-\$4

## REMI Output - Table O-2 - all industries

**Scenario 2 - 50% Value Added to Local Tax Levies**

Variable	Massachusetts 2005 (2004 \$'s)	Suffolk County 2005 (2004 \$'s)	4 County Region 2005 (2004 \$'s)	Rest of MA 2005 (2004 \$'s)
Total Employment	1,657	426	846	386
Nat Res, Mining, Util, Const	118	20	68	30
Manufacturing	50	6	33	11
Trade	152	22	94	36
Transp, Inform, Fin Act	71	7	70	-6
Services	236	33	183	20
State & Local Gov	1,030	338	397	295
Total GRP	\$60,007,272	\$11,398,951	\$44,017,272	\$4,625,587
Total GRP	\$63,704,160	\$12,111,466	\$46,741,968	\$4,909,570
Total Consumption	\$68,565,120	\$11,282,544	\$48,456,096	\$8,822,642
Total Fixed Investment	\$8,305,846	\$613,632	\$7,333,654	\$351,396
CBI net IVA+MISC	\$286,413	\$27,132	\$214,010	\$45,360
Exogenous Final Demand	\$0.000	\$0.000	\$0.000	\$0.000
Total Government	\$76,675,248	\$24,995,568	\$29,741,400	\$21,951,072
Total Exports	\$29,396,016	\$13,866,528	\$12,394,169	\$3,142,994
Total Imports	\$119,451,696	\$38,670,216	\$51,372,672	\$29,396,016
Wage & Salary Disbursements	\$73,296,360	\$20,699,550	\$36,345,689	\$16,224,215
PCE-Price Index	\$0.002	\$0.034	-\$0.012	\$0.017
Real Disp Pers Inc	\$70,624,632	\$11,328,595	\$50,285,352	\$8,997,893
Demand	\$151,457,280	\$28,820,376	\$101,658,024	\$21,004,464
Output	\$110,011,200	\$19,111,248	\$83,032,872	\$7,886,268
Labor Productivity	-\$4	-\$8	-\$6	-\$4
Relative Delivered Price	0.00003397	0.0003018	-0.00008738	0.0001193
Relative Cost of Production	0.00005424	0.0004129	-0.0002238	0.0003405
Imports from Multiregions	\$0	\$6,555,900	\$7,881,151	\$2,847,499
Imports from Rest of Nation	\$39,002,808	\$6,252,730	\$23,921,040	\$8,827,759
Imports from Rest of World	-\$156,190	\$265,306	-\$785,685	\$365,979
Self Supply	\$113,017,320	\$15,746,952	\$70,739,760	\$8,959,517
Exports to Multiregions	\$0	\$6,080,038	\$8,941,608	\$2,528,978
Exports to Rest of Nation	-\$3,084,151	-\$2,459,902	\$2,810,402	-\$3,415,464
Exports to Rest of World	\$248,804	-\$207,358	\$631,925	-\$173,204
Population	271	40	183	47
Labor Force	246	29	173	43

## REMI Output - Table O-2 (cont'd) - Broadcasting &amp; Telecommunications Industries

**Scenario 2 - 50% Value Added to Local Tax Levies**

Variable	Massachusetts 2005 (2004 \$'s)
Private Non-Farm Employment	-10
Intermediate Demand Emp	-3
Local Consumption Demand Emp	-2
Government Demand Emp	0
Investment Activity Demand Emp	0
Exports to Multiregions Emp	-3
Exports to Rest of Nation Emp	-2
Exports to Rest of World Emp	0
Exogenous Industry Sales Emp	0
Exogenous Industry Demand Emp	0
Relative Composite Price	0.00634
Relative Composite Labor Costs	0.000007033
Relative Fuel Costs	0
Relative Capital Costs	0.00004208
Relative Composite Input Costs	0.002891
Relative Delivered Price	0.007639
Relative Cost of Production	0.01424
Demand	-\$1,829,256
Imports from Multiregions	\$603,143
Imports from Rest of Nation	\$228,337
Imports from Rest of World	\$201,602
Self Supply	-\$2,862,850
Exports to Multiregions	-\$1,490,268
Exports to Rest of Nation	-\$1,172,387
Exports to Rest of World	-\$101,786
Output	-\$5,627,201
Value-Added	-\$2,908,901
Wage & Salary Disbursements	-\$726,600
Labor Productivity	-\$0.27

REMI Output - Table O-3 - all industries				
Scenario 3 - 0% Value Added to Local Tax Levies				
Variable	Massachusetts 2005 (2004 \$'s)	Suffolk County 2005 (2004 \$'s)	4 County Region 2005 (2004 \$'s)	Rest of MA 2005 (2004 \$'s)
Total Employment	394	151	92	151
Nat Res, Mining, Util, Const	11	4	-1	8
Manufacturing	23	6	10	8
Trade	153	39	53	61
Transp, Inform, Fin Act	-9	3	-8	-4
Services	198	91	36	72
State & Local Gov	18	9	2	6
Total GRP	\$23,460,528	\$12,628,262	\$4,821,305	\$6,069,804
Total GRP	\$24,982,776	\$13,418,808	\$5,114,242	\$6,440,772
Total Consumption	\$55,632,408	\$24,586,224	\$10,686,437	\$20,339,280
Total Fixed Investment	\$1,659,122	\$1,263,210	-\$685,651	\$1,083,354
CBI net IVA+MISC	\$102,784	\$27,452	\$39,348	\$35,907
Exogenous Final Demand	\$0.000	\$0.000	\$0.000	\$0.000
Total Government	\$1,068,644	\$395,912	\$202,497	\$472,153
Total Exports	-\$2,537,933	\$19,521	\$19,521	-\$2,557,121
Total Imports	\$30,918,264	\$12,868,752	\$5,133,430	\$12,919,920
Wage & Salary Disbursements	\$13,406,370	\$6,508,998	\$3,094,443	\$3,801,020
PCE-Price Index	\$0.0302	\$0.0444	\$0.0312	\$0.0219
Real Disp Pers Inc	\$56,233,632	\$24,752,520	\$10,667,249	\$20,812,584
Demand	\$75,191,376	\$34,205,808	\$15,030,600	\$25,942,176
Output	\$39,501,696	\$21,157,968	\$8,236,769	\$10,100,563
Labor Productivity	-\$10	-\$29	-\$5	-\$9
Relative Delivered Price	0.0002527	0.0004075	0.0002501	0.0001626
Relative Cost of Production	0.0003207	0.0004119	0.0002718	0.0003403
Imports from Multiregions	\$0	\$5,682,206	\$912,453	\$2,172,082
Imports from Rest of Nation	\$21,401,016	\$6,443,330	\$4,826,422	\$10,129,985
Imports from Rest of World	\$1,723,082	\$266,585	\$1,063,783	\$397,703
Self Supply	\$52,344,864	\$21,823,152	\$8,276,424	\$13,239,720
Exports to Multiregions	\$0	\$1,804,951	\$6,921,751	\$281,168
Exports to Rest of Nation	-\$11,360,575	-\$2,253,950	-\$5,856,178	-\$3,221,026
Exports to Rest of World	-\$1,409,678	-\$196,357	-\$1,019,906	-\$192,775
Population	230	82	47	10
Labor Force	187	57	45	9

## REMI Output - Table O-3 (cont'd) - Broadcasting &amp; Telecommunications Industries

**Scenario 3 - 0% Value Added to Local Tax Levies**

Variable	Massachusetts 2005 (2004 \$'s)
Private Non-Farm Employment	-15
Intermediate Demand Emp	-3
Local Consumption Demand Emp	-3
Government Demand Emp	0
Investment Activity Demand Emp	0
Exports to Multiregions Emp	-2
Exports to Rest of Nation Emp	-7
Exports to Rest of World Emp	0
Exogenous Industry Sales Emp	0
Exogenous Industry Demand Emp	0
Relative Composite Price	0.005216
Relative Composite Labor Costs	0.000008464
Relative Fuel Costs	0
Relative Capital Costs	0.00002992
Relative Composite Input Costs	0.002378
Relative Delivered Price	0.00489
Relative Cost of Production	0.01488
Demand	-\$3,031,704
Imports from Multiregions	-\$621,563
Imports from Rest of Nation	-\$397,703
Imports from Rest of World	\$260,445
Self Supply	-\$2,273,138
Exports to Multiregions	-\$713,666
Exports to Rest of Nation	-\$2,402,338
Exports to Rest of World	-\$78,044
Output	-\$5,466,022
Value-Added	-\$2,825,753
Wage & Salary Disbursements	-\$704,000
Labor Productivity	-\$1