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Proposals for Universal Health Care in Massachusetts ***Do They Exceed the Recommended Dosage?***

Health-care reform has become an increasingly common topic of debate in Massachusetts. All reforms under consideration would alter the Massachusetts economy. Some, however, carry such a heavy economic burden that they risk offsetting any benefits that they might offer.

Health-care reform has two main components:

- the provision of universal health care that would include coverage of those who are currently uninsured, and
- a Patients Bill of Rights that would change the relationships between patients, care providers, and managers.

The effects of these two components may be considered separately.

Universal Health Care

The Beacon Hill Institute has examined four commonly-proposed reforms to the health-care system for their economic effects on Massachusetts (on employment, the stock of productive capital, wage rates, payroll, and the state income tax rate).¹ The principal findings of the analysis are as follows:

- A *single-payer* system of universal government provision of health care would impose the heaviest burden, raising the state income tax to 13.76% in 2002 from its then current level of 5.75%. This huge increase would, in turn, cut employment in the state by 305,133 and reduce payroll payments by \$11.405 billion. The stock of private capital, including factories, office buildings, trucks and computers, would fall by \$11.056 billion. See Table 1 and Appendix A.
- A *50% subsidy for insurance policies for all who are currently uninsured* would require an increase in the income tax by 0.55 percentage points to 6.30%, in order to finance the expanded coverage. This would reduce the number of workers in Massachusetts by 57,310 and shrink payroll payments by \$4.189 billion. The outright provision of health coverage for those currently uninsured would cost at least double these amounts.
- An *employer mandate*, sometimes referred to as a *pay or play* system, would require firms either to provide health insurance to their employees or to pay an insurance premium to the state, which would then provide coverage. This would raise the cost of hiring workers; the income tax would also increase, to pay for medical insurance for the unemployed. The net

¹ BHI used its State Tax Analysis Modeling Program (STAMP), explained in more detail in Appendix A. See also, *Universal Health Care in Massachusetts: Does It Exceed the Recommended Dosage?* Beacon Hill Institute, forthcoming.

cost: employment would fall by 33,883, payrolls would fall by \$3.407 billion, the cost of hiring workers would rise by .345%; and the state income tax would go up by 0.216 percentage points to 5.97%.

- The least expensive option would be for the Commonwealth to provide insurance for the *high-risk pool* of those who are uninsurable, that small segment of the population (about 0.5%) that cannot get health insurance at any price. The \$285.1 million cost to the state would require an increase in the income tax rate of 0.20 percentage points to 5.95%, which in turn would cut employment by 20,437 and payrolls by \$1.494 billion.

These findings are relevant to Question 5 on the November 7 Massachusetts ballot. Question 5 would provide adequate access to health care for the 627,000 residents of Massachusetts who are currently uninsured. Proposed by the Committee to Defend and Improve Health Care, it calls for comprehensive, high quality health-care coverage for all Massachusetts residents, which must meet seven conditions:²

1. Barrier-free access to health-care services.
2. Patients' freedom to choose their health-care providers, get second opinions, and appeal denials of care.
3. Health-care professionals' freedom to act solely in the best interest of their patients.
4. Affordable coverage, with cost increases no greater than national averages.
5. Preserving and increasing the quality of care and encouraging research.
6. At least 90% of all premiums to be used for patient care, public health, and training/research, and no more than 10% for administrative costs, with simpler paperwork and administration.
7. A prohibition of financial incentives that limit patient access to health care, and limits on incentives for inappropriate care.³

Using its nationally-recognized State Tax Analysis Modeling Program (STAMP), the Beacon Hill Institute assessed the costs of the Question 5 proposal, including in that analysis the consequences of increasing taxes made necessary in order to pay for the expanded health-care coverage. That there would be tax consequences is not based on mere anecdote. The weight of evidence shows that state-level tax increases have significant negative effects on state economic activity.⁴ BHI developed STAMP in order to quantify the effects of tax changes on important economic indicators, particularly employment, wage rates, payrolls, the capital stock and tax revenues.

Here we apply STAMP to the tax changes and changes in payroll costs associated with the various health-care reform proposals identified above. The results are summarized in Table 1, which shows the economic effects of providing Massachusetts residents with universal, or at least most complete, health insurance.

The most striking result is the high economic cost of the single-payer approach. This arises because of the very high tax rates that would be required to pay for it, tax rates that would deter investors and businesses from growing in Massachusetts. The least costly alternative would be to insure those individuals who are high-risk, and who have been unable to obtain insurance from a private provider.

² See <http://www.state.ma.us/sec/ele/elebq00/bq005.htm>.

³ See <http://www.state.ma.us/sec/ele/elebq00/bq005.htm>.

⁴ Timothy J. Bartik, *Who Benefits from State and Local Economic Development Policies?* (Kalamazoo, Michigan: W.E. Upjohn Institute for Employment Research, 1991).

Table 1 — Summary of the Economic Effects of Universal Health Care

	Number of Workers	Capital Stock (\$ millions)	Payroll (\$ millions)	Tax Revenue for Massachusetts (\$ millions)		
				Static	Dynamic	Net
Single-Payer	-305,133	-11,056	-11,405	14,749	-618	14,131*
Total Uninsured Population Pooled (50% Subsidy)	-57,310	-546	-4,189	1,016	-217	799*
Employer Mandate	-33,883	-1,718	-3,407	398	-176	223
Pooling Only the Uninsured and Uninsurable	-20,437	-195	-1,494	362	-77	285
Incremental Costs of Patients Bill of Rights**	-31,301	-1,210	-2,883	422	-230	193
<p>* Original cost estimates were \$14,393 million and \$801 million respectively; the tax-induced emigration of population would reduce the costs somewhat from these initial levels, to the net amounts shown in the final column of the table.</p> <p>** Assumes Patients Bill of Rights is added to Employer Mandate.</p>						

Patients Bill of Rights

Although a Patients Bill of Rights was enacted in Massachusetts in August 2000, some believe that the measure does not go far enough. Ballot question 5 provides for a far more sweeping Patients Bill of Rights that would provide:

- The right of the individual patient to choose his or her physician, including the right to select an obstetrician or gynecologist as a primary-care physician.
- The right of the individual patient to continuity of care in the event a provider leaves the patient's health plan.
- The right of the individual patient to see a specialist.
- The right of the individual patient to emergency care, when indicated.
- The right of the individual patient to get what he or she paid for, through a requirement that HMOs/insurers limit their nonhealth expenditures (such as administration and overhead) to not greater than 10% of revenues.
- The right of physicians and nurses, in consultation with their patients, but free from third-party intervention, to make decisions regarding treatments and medication.
- The right of physician or other health-care professionals to communicate with patients about the terms of their coverage and to advocate on their behalf.
- Prohibition of financial inducements to reduce, delay or limit medically-necessary care and a requirement that all financial arrangements be publicly disclosed.
- Prohibition of HMO/insurer contracts that allow health-care providers to be terminated without cause.

These provisions would enormously change the way that health care is provided in the Commonwealth. They would also be expensive. The Congressional Budget Office estimates that a

national Patients Bill of Rights would raise premiums by 4.8%, and this is the estimate we apply to Massachusetts. It should be noted however that this is a very conservative figure, and one respected actuarial and consulting firm estimated the increase at 23%.⁵ Based largely on survey data collected by the Massachusetts Association of Health Maintenance Organizations (MAHMO), the Massachusetts Taxpayer Foundation argues that premium costs would rise by 7.3% for traditional indemnity plans, 23.3% for Preferred Provider Plans, and 43.4% for HMOs.⁶

Even with our conservative assumption that premium costs would rise by 4.8%, the economic effects are large. The number of jobs in Massachusetts would shrink by over 31,301 and payroll by \$2.883 billion annually. See Table 1. To pay for the change, the state personal income tax would have to rise by 0.22 percentage points. Employers would find that the cost of hiring would go up by 0.10 percentage points.

Appendix A: The Massachusetts STAMP model

The results of this analysis are based on the specification and estimation of a formal model of the economy of Massachusetts, designed specifically to address the question of how changes in taxes, and in the costs of hiring labor, affect economic activity.⁷ The State Tax Analysis Modeling Program (STAMP) was first developed for Massachusetts in 1994 and has since been refined and re-estimated almost annually. Over the past few years the Beacon Hill Institute has built STAMP models for ten other states; all are based on the same theoretical foundations, although they differ slightly in the details.

At the core of the STAMP models are two simple premises. First, households maximize their utility, so that they look at their after-tax earnings when deciding how much time to spend working and how much to spend on leisure. Second, firms maximize their profits. To achieve this they consider their need to hire labor and employ capital, but these decisions too are influenced by the taxes that are in place in the state.

From these first principles we develop a structural model, which we then transform into a set of reduced form equations that may be estimated using annual data stretching back to 1970. There is one reduced form equation for each of the variables of interest — employment, the capital stock, and the wage rate — and in each equation the independent variables are policy levers such as the sales tax, the property tax rate, and the average marginal tax on labor income. The equation estimates serve as inputs in the subsequent simulations.

Two steps are needed in order to simulate the effect of the tax changes on the variables of interest. First we must establish baseline values for the variables, projecting them out to 2002, the year in which we assume the health-care reforms are implemented (see Table 2). Then we have to use our estimated reduced form equations to determine how different health-care reforms affect the variables of interest. By comparing the projections with and without the tax cuts, we are able to identify the net economic effects of the alternative health-care proposals.

The costs of alternative health-care reforms are set out in tables 3 through 6. The essential results are:

1. A single-payer system would cost the state \$14,393 million; to finance this the income tax would need to rise by 8.01 percentage points, or to 13.76% in 2002.
2. A 50% subsidy for insurance provided to the unemployed (pooling) would cost the state \$801.0 million, and require the income tax to be raised by 0.55 percentage points.
3. An employer mandate (pay or play) coupled with state coverage of the unemployed would cost the state \$223.1 million, and cost employers a further \$939.0 million.
4. State provision of insurance for the high-risk pool would cost \$285.0 million, requiring an increase in the state income tax of 0.20 percentage points.

⁵ Timothy Lee, Mark Litow, Richard Hauboldt, and Michael Sturm, *Actuarial Analysis of the Patient Access to Responsible Care Act* (Minneapolis, Minnesota: Milliman and Robertson, 1997).

⁶ Massachusetts Taxpayers Foundation, *The Costs of Question 5 to Massachusetts Taxpayers, Employers and Consumers*, October 2000.

⁷ Beacon Hill Institute, *Massachusetts STAMP and Question 4*, 2000.

Table 2
Baseline projections for 2000-2002

	Status quo tax rate (%)	Employment	Wage Rate (\$ p.a.)	Capital Stock (\$ million)	Working Age Population
1999	5.95	3,554,464	60,821	203,514	4,051,427
2000	5.85	3,612,070	64,663	219,350	4,100,477
2001	5.80	3,665,502	68,747	236,371	4,149,250
2002	5.75	3,719,726	73,090	254,713	4,198,603

Notes:

- Working-age population is assumed to grow by 1.168%, in line with experience for 1994-97, with adjustment for effects of tax changes envisaged under the status quo.
- Employment grows at 1.34% (as experienced for 1995-2000) plus an adjustment for the effects of the status quo tax changes.
- Nominal annual wage growth of 6.32% is derived from growth of wages and salaries of 7.74% adjusted for employment growth of 1.34%, as experienced for 1995-2000. Source of historical figures on employment and payroll: Federal Reserve Bank of Boston.
- Capital stock grows in line with payroll, with adjustment for effects of legislated tax changes.

Once the cost of the reform is known, we may use the reduced-form equations to measure the impact on employment, the capital stock, and payroll payments. From the estimates of the reduced-form equations we know that when the tax on labor income, t_{sl} , falls by one percentage point, employment rises by 2.79%.

Then the change in employment, for instance due to raising the tax rate by 0.20 percentage points in order to pay for coverage for the high-risk pool, would be

$$\Delta L_{2002} = L_{\text{baseline}} * (-0.0279) * (\Delta t_{sl}) = 3.720\text{m} \times (-0.0279) * (0.20) = -20,437,$$

which means that the tax increase will cut employment by 20,437. Employment growth now continues as before, but from a smaller base. The effect of tax changes for the other health-care reforms are computed in analogous fashion, yielding the results that are shown in Table 1 above. Note that for the single-payer system, and for employer mandates, the reform would also change the cost of hiring labor, an effect we have taken into consideration in our calculations.

The computation of the increase in income tax rates that are needed to finance health reform is somewhat delicate. To illustrate the problem, consider the case of the single-payer proposal, which would cost \$14,393 million. To raise this amount of revenue it would appear to be necessary to increase the state personal income tax by 7.68 percentage points, which would have a static revenue impact of \$14,393 million, assuming that firms and households do not react to the tax change by altering their behavior.

Of course tax changes do affect behavior. The higher tax rate would reduce employment, which in turn would eat into state tax revenues — the dynamic revenue effect. So the actual tax rate would have to rise by 8.01 percentage points; the static increase in revenue of \$14,749 million would be offset by a dynamic revenue loss of \$618 million to achieve the necessary increment to state revenue of \$14,131 million. Note that it is not necessary to raise revenue by the original estimate of \$14,393 million, because the higher tax rate would have led some people to leave the Commonwealth, thereby reducing somewhat the number of people who need health coverage.

Table 3 — The Cost of a Single-Payer System

State Costs are: 100% of all health expenditures in Mass.	Estimated Cost of a Single-Payer System in 2002 <ul style="list-style-type: none"> • Current employer costs estimated at \$11,849 million,⁸ assuming employers pay 80% of premium for employees; • Current employee costs are 20% of the premium, or \$2,962 million; • Cost of purchasing individual insurance plans for the uninsured estimated at \$1,747 million ($\\$2785.83 \times 627,000 = 1,747$ million); • Cost of eliminating co-pays and deductibles estimated at \$3,200 million;⁹ Total additional costs = \$19,758 million.
less cost savings	Estimated Savings of a Single-Payer System <ul style="list-style-type: none"> • \$165 million from reduced emergency room visits; • \$5,200 million from decreased administrative paperwork and bulk prescription drug purchasing power by the state; Total cost savings = \$ 5,365 million.
State Total Cost	\$14,393.0 million, requiring a rise in the state income tax of 8.01 percentage points.

Table 4 — Cost of Pooling All the Uninsured

	Estimated Cost of Health Insurance in 2002
Total uninsured = 627,000. Of these: 269,195 are single adults; 357,805 are individuals in 112,517 families.	Cost to the state of an individual premia = $\$2785.83 \times 269,195 \times 0.50 = \375.0 million. Cost to the state for family premia = $\$7577.52 \times 112,517 \times 0.50 = \426.3 million.
State Total Cost for 50% of burden	\$801.0 million, requiring a rise in the state income tax of 0.55 percentage points.

Table 5 — Costs of Employer-Mandated Health Insurance

	Estimated Cost of Health Insurance in 2002
Employed, but uninsured: $627,000 \times (0.87) = 545,490$. Of these: 197,467 are single adults (36.2% of total) 348,022 are individuals, in 109,441 families	Cost to the firm of an individual premium = $\$2785.83 \times 0.80 = \2228.66 , for a total cost of \$440.1m ($=\$2228.66 \times 197,467$). Cost to the firm of a family premium = $\$7577.52 \times 0.80 = \6062.01 , for a total cost of \$663.4m ($=\$6062.01 \times 109,441$).
Employer Total Cost	\$1,104.0m - \$165.0m in cost savings = \$939.0m, requiring a 0.345% increase in payroll cost.
Unemployed, and uninsured: $627,000 \times (0.13) = 81,510$. Of these: 71,728 are single adults, and 9,782 are individuals, in 3,076 families	Cost to the state of an individual premium = $\$2785.83 \times 1.00 = \2785.83 , for a total cost of \$199.8m. Cost to the state for a family premium = $\$7577.52 \times 1.00 = \7577.52 , for a total cost of \$23.3 million.
State Total Cost	\$223.1 million, requiring a 0.216 percentage point rise in income tax.

Table 6 — Cost of Creating a Risk Pool

	Estimated Cost of Health Insurance in 2002
Total estimated 2002 population = 6,496,086. Of these, 0.5% are uninsured and uninsurable = 32,480.	Estimated cost per person = \$8,778.64.*
State Total Cost	32,480 _ \$8,778.64 = \$285.1 million, requiring a 0.20 percentage point rise in the income tax.
* This estimate is based on the cost per person of the Connecticut risk pool.	

⁸ We calculate this by projecting the growth of employer costs from 1998 (Table 2), the most recent year of data available, until 2002, using the average growth rate of health costs calculated by the Lewin Group (John F. Sheils, Randall A. Haight, and Theodore F. Kirby, *Massachusetts Comparative Projected Health Expenditure Model* (Fairfax, Virginia: The Lewin Group, 1998)).

⁹ Michael Lasalandra, Study: Universal Health Care Would Require Tax Hikes, *Boston Herald*, 26 April 1999, quoting Alan Sager.

