Analysis of the Costs and Impact of Universal Health Care Models for the State of Maryland: The Single-Payer and Multi-Payer Models

Final Report

Presented to:

The Maryland Citizens' Health Initiative Education Fund, Inc.

By:

John F. Sheils
Randall A. Haught

The Lewin Group, Inc.

May 2, 2000

Funded by:

The Aaron Straus and Lillie Straus Foundation, Inc.
The Jacob and Hilda Blaustein Foundation, Inc.

Table of Contents

APPENDIX B: THE FINANCIAL IMPACT OF A MULTI-PAYER UNIVERSAL COVERAGE PROGRAM FOR MARYLAND: DETAILED TABLES

EXECUTIVE SUMMARY

The purpose of this analysis was to explore the expected costs and impacts of two alternative universal health reform plans for Maryland. We analyzed a single-payer model in which all state residents are covered under a single public program funded primarily with an employer payroll tax. The second approach is similar to the single-payer program with the exception that employers have the option of opting-out of the government program and providing coverage to their workforce on their own. We call this second alternative the multi-payer model.

Our analysis indicates that the single payer model would cover all Marylanders, including the estimated 760,000 uninsured persons in the state, while actually reducing total health spending in Maryland by about $345.8 million (i.e., 1.7 percent). These savings are attributed primarily to the lower cost of administering coverage through a single government program with uniform coverage and payment rules. The multi-employer scenario would achieve less administrative savings because many employers are likely to continue to provide coverage through their own health plans. However, enough administrative savings are realized under this approach that the program would achieve universal coverage with an increase in statewide health spending of only about $207 million (about a 1.1 percent increase in spending) in 2001.

Both of these reform scenarios would greatly redistribute health care costs across families in various income groups by shifting from today's premium based system to a tax based system where individual payments for health coverage increase in proportion to income. For example, under the single-payer scenario, families with incomes below $100,000 would on average find that their new tax payments under the program are more than offset by the elimination of premium payments and reductions in out-of-pocket spending under the plan. However, under the tax based system, families with incomes of $100,000 or more will, on average, see a net increase in spending for health care.

In this report, we present our analyses of the financial impact of these health reform models on various payers for health care including state, local, and federal governments. We also estimate the financial impact of the proposal on employers by industry and firm size. In addition, we estimate the impact of the plan on household health spending by age, income level, and other characteristics.

The Universal Coverage Proposals

The single-payer model is one where all individuals in the state are covered under a single uniform health plan that is administered and funded by the state. The new single-payer system would replace all current public sector insurance systems including: Medicare, Medicaid, CHAMPUS and the Federal Employees Health Benefits Plan (FEHBP). It would also replace private health insurance plans in the state. The program would be financed with: current government health care funding for discontinued programs; and new taxes on employer payroll, tobacco products, alcohol products, and personal income.

The single-payer benefits package would be modeled on the benefits typically provided under employer health plans. The program would cover medically necessary inpatient hospital care,

physician services (including preventive care), hospital outpatient care, prescription drugs, lab tests, and mental health services (including substance abuse and tobacco cessation). Chiropractic services would be covered when referred by a physician. The program would cover preventive dental care and vision exams, but it would not cover orthodontia, private rooms, or eyeglasses.

To discourage over-use of services, there would be a $10.00 copayment for ambulatory care services. There would be no deductible. Also, the program would use a primary care provider referral (i.e., gatekeeper) model where patients face increased copayments for visits to specialists without referral. Benefits that are currently provided to Medicaid eligible persons which are not covered under the single-payer model, would be continued for low-income persons who qualify for Medicaid under current eligibility rules.

The multi-payer alternative is similar to the single-payer model in that a tax financed government program is established to cover all Marylanders. However, under the multi-payer approach, employers have the option of opting-out of the government program and provide coverage to their workers and their dependents through an employer-sponsored plan as long as the benefits under the plan are at least as comprehensive as those provided under the single-payer program. If necessary, a risk adjustment process would be used to correct for any employer selection behavior resulting in an accumulation of higher cost individuals in the government plan.

Health Spending Under Reform Alternatives

We estimate that total health spending for Maryland residents under the current system will be $20.8 billion in 2001. This includes spending for all health care services including benefits payments and insurer administration. We estimate that the single-payer program would achieve universal coverage while actually reducing total health spending by about $345.8 million in 2001 (***Table ES-1***). The primary reason for this is that the single-payer model substantially reduces the cost of administering health insurance coverage resulting in savings that can be used to pay for the care that would be provided to persons who are currently going without coverage.

Table ES-1

Changes in Health Spending in Maryland under the Single-Payer and the Multi-Payer Universal Coverage Proposals in 2001 (in millions) [a/]

	Single-Payer Model	Multi-Payer Model
CHANGES IN HEALTH SERVICES UTILIZATION		
Increase in Utilization Due to Expanded Coverage	**$675.9**	**$675.9**
Utilization Increase for Previously Uninsured	$449.4	$449.4
Expanded Coverage for Those Already Insured	$226.5	$226.5
CHANGES IN MANAGED CARE		
Changes in Use of Managed Care [b/]	$63.7	$36.3
CHANGE IN ADMINISTRATIVE COSTS		
Net Change in Administrative Costs	**($1,085.4)**	**($505.0)**
Insurer Administration (Includes Administration for Newly Insured)	($689.7)	($291.0)
Physician Administrative Savings	($220.4)	($119.2)
Hospital Administrative Savings	($175.3)	($94.8)
NET CHANGE IN HEALTH SPENDING		
Net Change in Health Spending	**($345.8)**	**$207.2**

a/ Includes all persons in the state including those with public and private coverage.
b/ Includes an increase in utilization for persons currently covered under HMO plans and an adjustment for higher prescription drug rebates under the government plan.
Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM)

We estimate that under current trends, about 760,000 Maryland residents would be without health insurance in 2001. We estimate that their use of health services would increase by $449.4 million if they were to become covered under the benefits package described above. Also, utilization would increase among currently insured persons who currently do not have coverage for certain services such as prescription drugs or preventive dental care by about $226.5 million. Thus, the total increase in utilization of heath services among the uninsured and the under-insured persons would be $675.9 million in 2000. In addition, there would be a net increase in spending of about $63.7 million due to changes in the use of managed care under the program.[1]

The cost of these increases in utilization for uninsured and under-insured persons would be more than offset by reduced administrative costs under the program. The single-payer system replaces the current system of multiple public and private insurers with a single source of payment for all covered services. This eliminates both the complexity of diverse insurer rules and patient billing

[1] Includes an increase in utilization for persons currently covered under HMO plans and an adjustment for higher prescription drug rebates under the government plan.

for unreimbursed amounts. The single-payer system also replaces hospital billing for individual patients with annual operating budgets which effectively eliminates claims filing functions for Maryland hospitals. (Claims filing would continue for out-of-state patients.)

The single-payer program would extend large-group economies of scale throughout the health care system by covering all individuals under a single insurance mechanism. This would eliminate the costs associated with underwriting, transition in coverage, and maintaining the linkage between employers and insurers. Overall, statewide insurer administrative costs would be reduced from $1.3 billion under current policy to $657 million under the single-payer model for a net savings of about $690 million in 2001.

The single-payer program would also reduce administrative costs for hospitals and physicians. Hospital administrative costs associated with filing claims would be all but eliminated for Maryland patients because under the single-payer model, hospitals are given an annual operating budget covering all services provided by the hospital. (Hospitals would still need to submit claims for out-of-state patients.) The single-payer approach would also substantially reduce claims-filing costs for physicians by standardizing the means of reimbursement through a single-payer and by providing full reimbursement through a single source using a standardized electronic claims-filling process. Standardization of coverage would also reduce physician costs related to adjudication of claims and negotiation of selective-contracting arrangements. Total savings to providers would be about $1.1 billion. We assume that provider payments are reduced by this amount so that these savings accrue to payers.

Under the multi-payer model, we estimate that total health spending in Maryland would increase by $207.2 million under the multi-payer model in 2001. This compares with an actual reduction in spending of $345.8 million under the single-payer model. Thus, health spending under the multi-payer model would be about $553 million higher than under the single-payer plan.

As shown in ***Table ES-1***, the net change in utilization of health services by uninsured and under-insured persons would be the same under both the multi-payer and the single-payer scenarios (i.e., an increase of $675.9 million). This reflects the fact that employers who opt-out are required to provide the same standard benefits package resulting in similar increases in utilization by insured and under-insured persons under the two plans. The higher costs under the multi-payer program are attributed primarily to the fact that administrative cost savings would be less than under the single-payer model. Administrative savings would be $505 million under the multi-payer proposal compared with $1.1 bullion under the single-payer program. This reflects the higher cost of maintaining separate health policies for multiple groups.

Impact on Employers

Health coverage for workers and their dependents under the single-payer model would be financed with a payroll tax, two-thirds of which would be paid by the employer with the rest paid by the worker. There would be no premiums for the benefits provided under the standard benefits package. We estimate that the payroll tax rates required to fully fund benefits for workers and dependents under the single-payer model would be 6.3 percent for employers and 3.2 percent for employees.

Under these tax rates, total employer health spending in Maryland would increase by $406.5 million in 2001. This includes $457.0 million in payments by firms that currently do not offer coverage, which would be partly offset by savings of about $50.5 million among firms that now offer coverage. Much of these savings for currently insuring firms would be attributed to reduced spending for retirees as Medicare beneficiaries are shifted from their current Medicare benefits plan to the more comprehensive benefits package provided under the single-payer model. Employer costs would increase by an average of $1,162 per worker for workers in firms that do not now offer coverage while costs for firms that currently offer coverage would see an average savings of $28 per worker.

Employer costs are higher under the multi-payer plan than they would be under the single-payer model. The primary reason for this is that allowing firms to opt-out of the single-payer plan would eliminate much of the administrative savings that result from moving to a single source of coverage for all Marylanders. However, many employers may decide to continue to provide their own health plan despite the higher costs in the initial years of the program in response to employee and union preferences to maintain their current coverage. We estimate that due to the higher cost of administering multiple plans, employer costs under the multi-employer model would increase by an average of $508 per worker, compared with an average increase of only $187 per worker under the single-payer model.

However, economic theory and research indicates that over time increases in employer costs for health and other benefits are typically passed on to workers in the form of reduced wage growth. Thus, we assume that over the long-term, all of the changes in employer costs for workers under either of these plans will be passed on to workers in their wages as labor markets adjust to reflect changes in total employee compensation costs under health reform. However, employers are expected to retain any savings in benefits costs for retirees. This is because these savings are attributed to compensation packages for prior workers, which does not affect the labor market for current workers. Overall, private employers would save about $346.5 million in retiree costs under either the single-payer or multi-payer models.

Table ES-2

Change in Employer Costs Under the Single-payer and Multi-Payer Models In Maryland in 2001

	Change In Health Spending (in millions)		Change in Health Spending Per Worker	
	Single-payer	Multi-Payer	Single-payer	Multi-Payer
Before Wage Effects				
Firms That Now Offer Insurance	($50.5)	$736.2	($28)	$415
Firms That Do Not Now Offer Insurance	$457.0	$366.3	$1,162	$932
All Firms	$406.5	$1,102.5	$187	$508
After Wage Effects				
Firms That Now Offer Insurance	($346.5)	($346.5)	($138)	($138)
Firms That Do Not Now Offer Insurance	$0.0	$0.0	$0.0	$0.0
All Firms	($346.5)	($346.5)	($83)	($83)

a/ Employers are assumed to pass-on the savings and/or increases in cost under the health reforms to workers in the form of changes in wages as labor markets adjust to these changes in employee compensation.
Source: Lewin Group Estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

Household Impacts

Under a single-payer program, Marylanders would no longer pay health insurance premiums for the basic benefits package and would face only $10.00 copayments for health services. Instead, households would pay taxes on earnings, tobacco, alcohol and total personal income. In addition, household incomes would be affected by wage adjustments resulting from increased employer spending for health care (i.e., the employer payroll tax). These changes in the way in which care is financed would substantially alter the distribution of health care costs across households of various age and income groups.

We estimate that household health spending would decline by $161.0 million under the single-payer program. This includes the elimination of household premium payments for private health insurance ($2.5 billion); and reduced household out-of-pocket payments for health services ($2.0 billion). These savings would be offset by increased tax payments of $3.8 billion. In addition, we estimate a loss of wages to households (after tax offsets) of about $556.6 million as employers pass-on the increased cost of complying with the payroll tax to workers in the form of reduced wages.

Overall, we estimate that households would see health spending decrease by an average of about $261 per family under the single-payer model in 2001 ***(Table ES-3).*** In general, the single-payer

plan would tend to reduce health care costs for lower- and middle-income families. For example, families with under $100,000 in annual income would, on average, see savings. However, health spending for families with $150,000 or more in income would increase by about $4,195 per family. This reflects the fact that the program shifts Marylanders away from a premium financed system, to a tax financed system where total health spending would be in proportion to family earnings.

On average, families would spend more for health care under the multi-payer model than under the single-payer plan at all income levels. Family health spending would increase by an average of $57 per family under the multi-payer model compared with savings of ($261) per family under the single-payer program. Family costs under the multi-payer model would be higher than under the single-payer model for all income groups except those with incomes of $150,000 or more. This is because these high-income families are expected to benefit the most from the lower payroll tax under the multi-payer program.

Table ES-3

Change in Average Household Health Spending in Maryland Under the Single-Payer Model and the Multi-Payer Model in 2001: After Wage Effects [a/ b/]

Family Income	Single-Payer	Multi-Payer
Less than $10,000	($872)	($769)
$10,000 - $14,999	($1,605)	($1,354)
$15,000 - $19,999	($1,757)	($1,429)
$20,000 - $29,999	($1,287)	($917)
$30,000 - $39,999	($1,056)	($778)
$40,000 - $49,999	($941)	($551)
$50,000 - $74,999	($662)	($80)
$75,000 - $99,999	($48)	$480
$100,000 - $149,999	$381	$684
$150,000 or More	$4,195	$3,920
All Families	($261)	$57

a/ Excludes institutionalized persons.
b/ Includes changes in premiums, out-of-pocket expenses, taxes earmarked to fund health reform, and after-tax wage effects.
Source: Lewin Group Estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

Savings under both the single-payer and multi-payer plans would tend to be greatest for older individuals. For example, under the single-payer plan, families headed by an individual age 65 or older would save about $2,251 per family ***(Table ES-4)***. By contrast, average health spending would increase by up to $685 per family for younger age groups. On average, household savings would be greatest for married couples and individuals facing high out-of-pocket costs under current policy.

Table ES-4
Change in Average Family Spending on Health Care in Maryland Under the Single-Payer Proposal and the Multi-Payer Model in 2001 by Family Income and Age of Household Head: After Wage Effects [a/ b/]

	Average Change by Age of Household Head					
	Single-Payer Model			Multi-Payer Model		
Family Income	Under Age 65	Age 65 and Older	All Families	Under Age 65	Age 65 and Older	All Families
Less than $10,000	($604)	($1,366)	($872)	($441)	($1,374)	($769)
$10,000 - $14,999	($1,088)	($2,114)	($1,605)	($577)	($2,120)	($1,354)
$15,000 - $19,999	($963)	($2,727)	($1,757)	($386)	($2,702)	($1,429)
$20,000 - $29,999	($744)	($2,738)	($1,287)	($291)	($2,590)	($917)
$30,000 - $39,999	($578)	($2,502)	($1,056)	($274)	($2,304)	($778)
$40,000 - $49,999	($532)	($2,711)	($941)	($122)	($2,413)	($551)
$50,000 - $74,999	($407)	($2,660)	($662)	$244	($2,461)	($80)
$75,000 - $99,999	$160	($2,193)	($48)	$709	($1,883)	$480
$100,000 - $149,999	$1,002	($2,056)	$381	$1,316	($1,795)	$684
$150,000 or More	$4,461	$82	$4,195	$4,185	($197)	$3,920
All Families	**$264**	**($2,251)**	**($261)**	**$636**	**($2,134)**	**$57**

a/ Excludes institutionalized persons.

b/ Includes changes in premiums, out-of-pocket expenses, taxes earmarked to fund health reform, and after tax wage effects.

Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

I. INTRODUCTION

The purpose of this analysis is to explore the expected costs and impacts of two alternative universal health reform plans for Maryland. We analyzed a single-payer model and a multi-payer approach, both of which would achieve universal health insurance coverage.

In general terms, the single-payer model is one where all individuals in the state are covered under a single uniform health plan that is administered and funded by the state. The new single-payer system would replace all current public sector insurance systems including: Medicare, Medicaid, CHAMPUS and the Federal Employees Health Benefits Plan (FEHBP). It would also replace private health insurance plans in the state. The program would be financed with: current government health care funding for discontinued programs; and new taxes on employer payroll, tobacco products, alcohol products, and personal income.

The multi-payer alternative is similar to the single-payer model in that a tax financed government program is established to cover all Marylanders. However, under the multi-payer approach, employers have the option of opting-out of the government program and provide coverage to their workers and their dependents through an employer-sponsored plan. If necessary, a risk adjustment process would be used to correct for any employer selection behavior resulting in an accumulation of higher cost individuals in the government plan.

In this report, we analyze the financial impact of these health models on various payers for health care including state, local, and federal governments. We also estimate the financial impact of the proposal on employers by industry and firm size. In addition, we estimate the impact of the plan on household health spending by age, income level, and other characteristics. We begin with a detailed analysis of the single-payer model and then show how the effects of such a plan would change if employers were permitted to opt-out of the government program as under the multi-payer model.

Our analysis is presented in the following sections:

- Overview of the Single-Payer Model;
- Maryland Health Spending under the Single-Payer Model;
- Government Spending under the Single-Payer Model;
- Changes in Employer Health Spending;
- Impact of a Single-Payer Model on Household Health Spending; and
- The Multi-Payer Universal Coverage Model

II. A SINGLE-PAYER PROGRAM FOR MARYLAND

The Maryland Citizens' Health Initiative Education Fund, Inc. has designed a single-payer program that would provide universal access to all Maryland residents. All Marylanders would obtain coverage through a single state operated program including those now covered under existing public and private health insurance programs.[2] Marylanders would no longer have to purchase private health insurance through their employer or on their own in the individual insurance market. Persons now covered under Medicare, Medicaid, CHAMPUS, and the Federal Employees Health Benefits Program (FEHBP) would be covered under the single-payer plan.

A. Benefits Package

The single-payer benefits package would be modeled on the benefits typically provided under employer health plans. The program would cover medically necessary inpatient hospital care, physician services (including preventive care), hospital outpatient care, prescription drugs, lab tests, and mental health services (including substance abuse and tobacco cessation). Chiropractic services would be covered when referred by a physician. The program would cover preventive dental care and vision exams, but it would not cover orthodontia, private rooms, or eyeglasses. To discourage over-use of services, there would be a $10.00 copayment for ambulatory care services and no deductible.

Benefits that are currently provided to Medicaid eligible persons which are not covered under the single-payer model, would be continued for low-income persons who qualify for Medicaid under current eligibility rules. These benefits include long-term care, eyeglasses, corrective dental care, orthodontia and transportation. Coverage for home health and nursing home services would also be continued as a benefit for persons who qualify under current Medicaid rules. (The existing Medicaid "spend down" rules for Medicaid would be retained for long-term care.)

We assume that all Medicare beneficiaries in Maryland would become covered under the state program. For Medicare recipients, the single-payer program would cover both services now covered under Medicare and a substantial portion of costs that are not now covered by Medicare such as outpatient prescription drugs, and Medicare cost sharing amounts. We assume that Medicare beneficiaries would continue to pay the Medicare Part-B premium.

We also assume that employers would continue to provide workers with coverage for those services that they now cover that would not be provided under the single-payer model. These will typically include orthodontia and eyeglasses.

B. Managed Care

The Maryland single-payer program would feature a primary care provider referral (i.e., gatekeeper) model. Primary care providers would be paid a fee to coordinate patient care for patients with chronic illnesses. Specialist visits without a referral would be covered subject to a 50 percent copayment. Women would be permitted to select a gynecologist as their primary care provider in recognition of their unique health care needs. With the exception of the primary care

[2] To minimize instances where out-of-state residents temporarily move to Maryland to obtain coverage when they become ill, individuals are required to have been a Maryland resident for at least one month.

provider referral model, most other managed care practices would be eliminated. This includes prior authorization, physician profiling, and network formation and recruitment. We assume that the program would continue to perform retrospective utilization review to protect against fraud and abuse as is done in modern indemnity plans.

The impact that these changes in the use of managed care would have on utilization, are mixed. Persons who are currently in fee-for-service plans may actually see a reduction in utilization due to the use of the primary care provider referral model. Conversely, persons enrolled in restrictive HMOs would probably tend to experience a net increase in utilization. Our assumptions on the impact of these changes in care delivery are discussed in Appendix A.

C. Program Administration

The single-payer model would streamline administration of health benefits by centralizing the source of payment for all covered health services under a single program with uniform coverage and reimbursement rules. This would reduce administrative costs for both the insurer function and for providers. We also assume that the Maryland single-payer model would replace hospital billing for individual patients with annual operating budgets. The hospital budgeting model is designed to eliminate the costs of negotiating selective-contracting discounts with providers and eliminate many of the utilization management programs now used by private insurers.

However, many of these costs would remain for care provided to non-state residents in Maryland and for services provided to Marylanders receiving services out-of-state. For example, Maryland hospitals operating in border areas such as the Washington, D.C. metropolitan area will still need to be able to engage in selective contracting in order to remain competitive in these regions for interstate patients.

D. Health Spending Budgets

In each year, the single-payer program would establish a global budget for health services covered under the program. In the first year of the program, we assume that health spending would equal what total health spending would have been in the state under current trends. However, these amounts would be adjusted to reflect the unique features of the program. These adjustments include:

- Health expenditures would be adjusted to reflect the increase in utilization for persons who otherwise would have been uninsured or underinsured;

- Spending would be adjusted to reflect the changes in utilization resulting from the fact that there would be no HMO coverage, under the program; and

- Spending also would be adjusted to reflect that fact that providers would now receive payment for services that otherwise would have been treated as uncompensated care, thus, eliminating the “cost shift” for uncompensated care.

Operating budgets for hospitals would be set equal to the amount of spending that would have occurred in Maryland hospitals under current trends plus an allowance for changes in utilization

under the single-payer program. These budgets would be adjusted downward to reflect the anticipated reduction in provider administrative costs under the single-payer model.

Fee-for-service (FFS) payments to physicians and other providers would be equal to the overall weighted average of payments to providers from all sources under the current system. However, payment to all FFS providers would be reduced to reflect the reduction in uncompensated care expences due to universal coverage and the expected reduction in provider administrative costs resulting from the use of a single-payer system.

By establishing a single-payer program, the state would effectively determine health spending levels in Maryland by setting hospital budgets and provide reimbursement levels. These budgets could be used as a means of capping the rate of growth in health spending throughout the state. However, for illustrative purposes, we assume that health spending is budgeting to increase at the same rate as it would have increased under current trends.

E. Financing

The program would have four sources of financing. First, the program would recover all state, local and federal funds used to provide health services under the current system that would become covered under the single-payer program. This would include state and federal funding for Medicaid, the State Children's Health Insurance Program (SCHIP), government sponsored clinics and government funding for public hospitals. It would also include federal funding for Medicare and CHAMPUS.

The second source of financing would be a payroll tax. The payroll tax rate would be set at the level required to fully fund program expenses for workers and their dependents. Two-thirds of the payroll tax would be paid by the employer with the remaining third paid by the worker. However, employers would be permitted to pay a larger share of the payroll tax. The payroll tax would vary automatically as program costs and the wage base change over time.

Third, state taxes on tobacco and alcohol would be increased. This includes increasing the tobacco tax to $1.25 per cigarette pack (with a comparable increase for other tobacco products) and raising alcohol tax rates to the national average (tax rates for alcoholic beverages in Maryland are currently substantially less than the average across all states).

Fourth, the remainder of the program would be funded with an increase in the state personal income tax. This increase would be structured in a way where the tax increase is progressive (i.e., tax percentage of income paid in taxes increases as income rises). The amount of the increase in taxes would be set at a level large enough to cover the amount of the program costs in excess of other dedicated tax revenues and funding recovered from other public programs.

F. Marylanders Employed Out-of-State

One problem with implementing a payroll tax finance program for Maryland is that about 430,000 Marylanders work for employers that are located out-of-state. This includes about 290,000 persons working in the District of Columbia and 140,000 persons working in Virginia, Pennsylvania, and Delaware. These employers are beyond the reach of the state's taxing

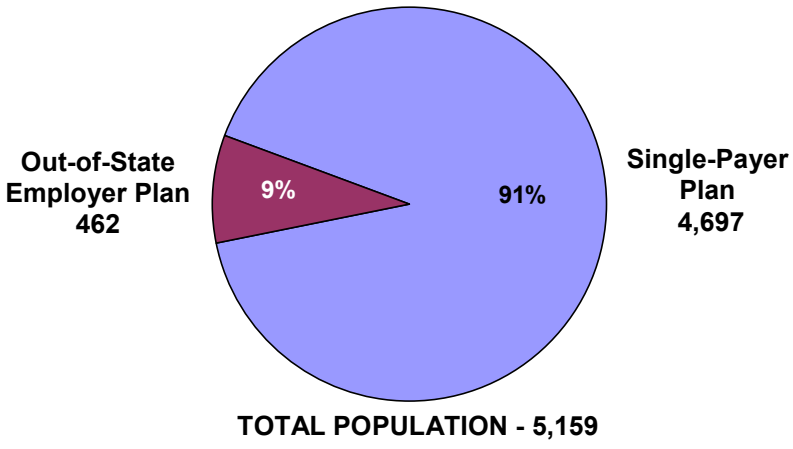
authority and cannot be required to pay the payroll tax. Therefore, the state cannot collect the employer's share of the payroll tax that would have been used to finance the single-payer program.

To address this problem, individuals who work outside of the state are permitted to take coverage for themselves and their dependents through their employer.[3] These individuals are excused from the employee share of the payroll tax and would not be eligible for coverage under the Maryland single-payer program. To assure that all persons take their employer's coverage, out-of-state workers would be required to present proof of coverage with their tax returns or be liable for both the employee and employer shares of the payroll tax.

However, workers who are employed outside of the state by an employer that does not provide coverage would be covered under the Maryland single-payer plan. These individuals would pay the employee's share of the payroll tax plus a portion of the employer's share of the payroll tax which would vary with income from zero dollars for families with incomes below $40,000 to the full amount of the employer payroll tax for persons in families with incomes above $100,000. We anticipate that there will be very few workers employed out-of-state with incomes over $40,000 whose employer does not provide coverage.

As discussed above, we assume that all Federal workers living in Maryland would be covered under the single-payer program. This includes federal workers who live in Maryland and work in Washington, D.C. We assume that the Federal Government would agree to pay the payroll tax for Maryland employees in exchange for no longer covering these individuals under the FEHBP. Thus, the only Maryland residents excluded from the single-payer program would be private sector workers (and their dependents) with out-of-state employers. As shown in ***Figure 1*****,** about 9.0 percent of the 5.2 million persons living in Maryland would obtain their coverage through an out-of-state employer plan.

Figure 1
Distribution of Persons in Maryland by Coverage Status Under the Single-Payer Program in 2001 (in thousands)



Source: Lewin Group Estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

[3] In two worker families where one workers is employed out-of-state and the other works in Maryland, the Maryland worker is required to be covered under the Maryland program and must pay the payroll tax.

III. ESTIMATING THE IMPACT OF THE SINGLE-PAYER MODEL IN MARYLAND

In this analysis, we estimated the financial impact of the single-payer model on major payers for health care in Maryland including state and local governments, employers, households and federal government. In particular, we estimated the distributional impact of this proposal on various subgroups of payers such as small employers and families in various age and income groups. These estimates were developed using the Lewin Group Health Benefits Simulation Model (HBSM) which is specifically designed to provide these detailed distributional impacts analyses for state-level health reform initiatives.

In this section, we describe the data and methods used in HBSM to develop estimates of the impact of the single-payer initiative in Maryland. We begin by describing the overall methodology used in the model. We then explain how the model was adapted to provide Maryland specific estimates of the impact of this bill on health spending by various payers in future years. Our discussion is presented in the following sections:

- Overview of HBSM
- Health Spending in Maryland
- Projections to Future Years

A. The Health Benefits Simulation Model

HBSM is a "microsimulation" model of health spending. The core for the model is a representative sample of Maryland households. For each household in the sample these data provide information on health insurance coverage, health spending, income employment and basic demographic characteristics. The model uses these data to show how expenditures for households will change as they become covered under a new health insurance system such as the Maryland single-payer initiative. This micro level approach of simulating changes in spending for individual households permits us to estimate both the aggregate impact of major health reform initiatives as well as the impact on households of various socioeconomic groups.

For example, the model estimates the increase in utilization which will occur as coverage is extended to previously uninsured persons. The model also determines which of the services for each individual are covered under the plan, the reimbursement amount for these services under the plan's cost sharing rules, and savings to the sources of payment for this care under current law (family out-of-pocket, employers, county hospitals, charity care, etc.). Because the model is based upon a representative sample of the population, it produces aggregate estimates of the impact of policy proposals on total number of persons affected, aggregate health spending, and program costs. However, because the model develops these estimates based upon analyses performed on an individual-by-individual basis, the model also provides estimates of the impact of these policies on various socioeconomic groups.

Using these data, HBSM produces estimates of program impacts by source of payment including:

- Employer Impacts

    - Number of workers and dependents affected
    - Cost to employers
    - Impact on firms that do not now insure
    - Number of firms affected
    - Uncompensated care cost shift savings
    - Tax savings (corporate deductions for health benefits, if applicable)

- Provider Impacts

    - Utilization by type of service/provider
    - Sources of payment for care
    - Expenditures for services by type of service/provider
    - Hospital uncompensated care

- Household Impacts

    - Number of insured by income, age, sex, etc.
    - Family premium payments
    - Family out-of-pocket spending

- Government Impacts

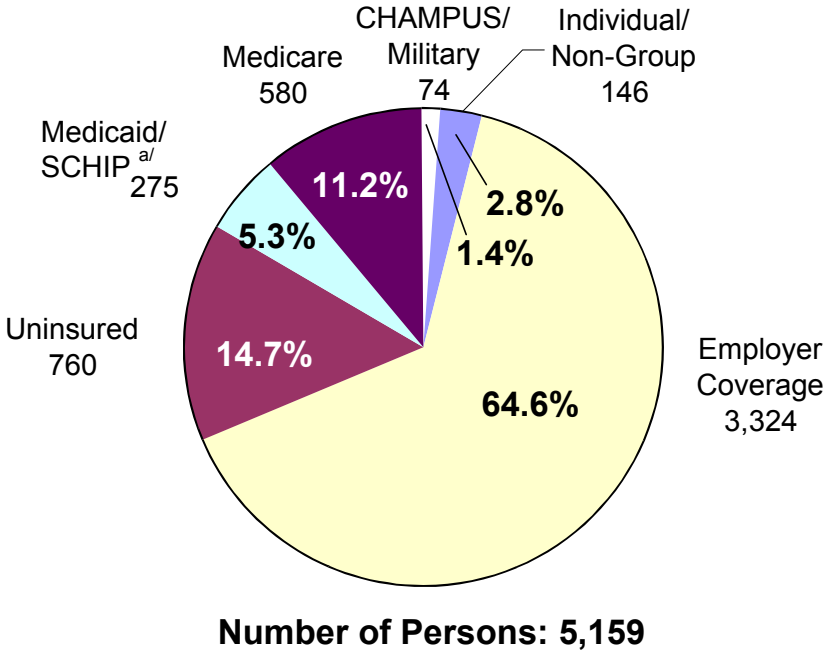
    - Expenditures under Medicaid expansions
    - Offsets to general assistance
    - Offsets to public hospitals
    - Corporate income tax losses
    - Tax revenues under various financing mechanism

The basic data source used in this analysis is the Maryland subsample of the March 1999 Current Population Survey (CPS) conducted by the Bureau of the Census. These data provide detailed information on Maryland residents by age, income, employment status and other demographic characteristics ***Figure 2*** shows our estimate of the distribution of Marylanders by primary source of insurance in 2001.

Because the CPS does not include health spending data, we merged the Maryland subsample of the CPS with the 1987 National Medical Expenditures Survey (NMES) data which includes health care utilization and expenditures data for households across various income, age and employment status groups. The population and income data in the database were adjusted to 2001 based upon the best available projections for that year. Health expenditures data were then controlled to replicate aggregate health expenditures estimates for 1998 by type of service and source of payment derived from state-wide health expenditures estimates developed by the Maryland Health Services Cost Review Commission.

Figure 2

Distribution of Persons in Maryland by Primary Source of Insurance Coverage in 2001 (Average Monthly Coverage Estimates: in thousands)



Source: Lewin Group Estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

B. Projections Through 2001

The household database was "aged" to be representative of the Maryland state population in 2001. This was accomplished by adjusting the population totals in these data to reflect trends in population growth by age and sex. The earnings and other income data reported in the household database were also adjusted to reflect income growth projections. Finally, health expenditures were adjusted to reflect projections of health spending by type of service and source of payment.

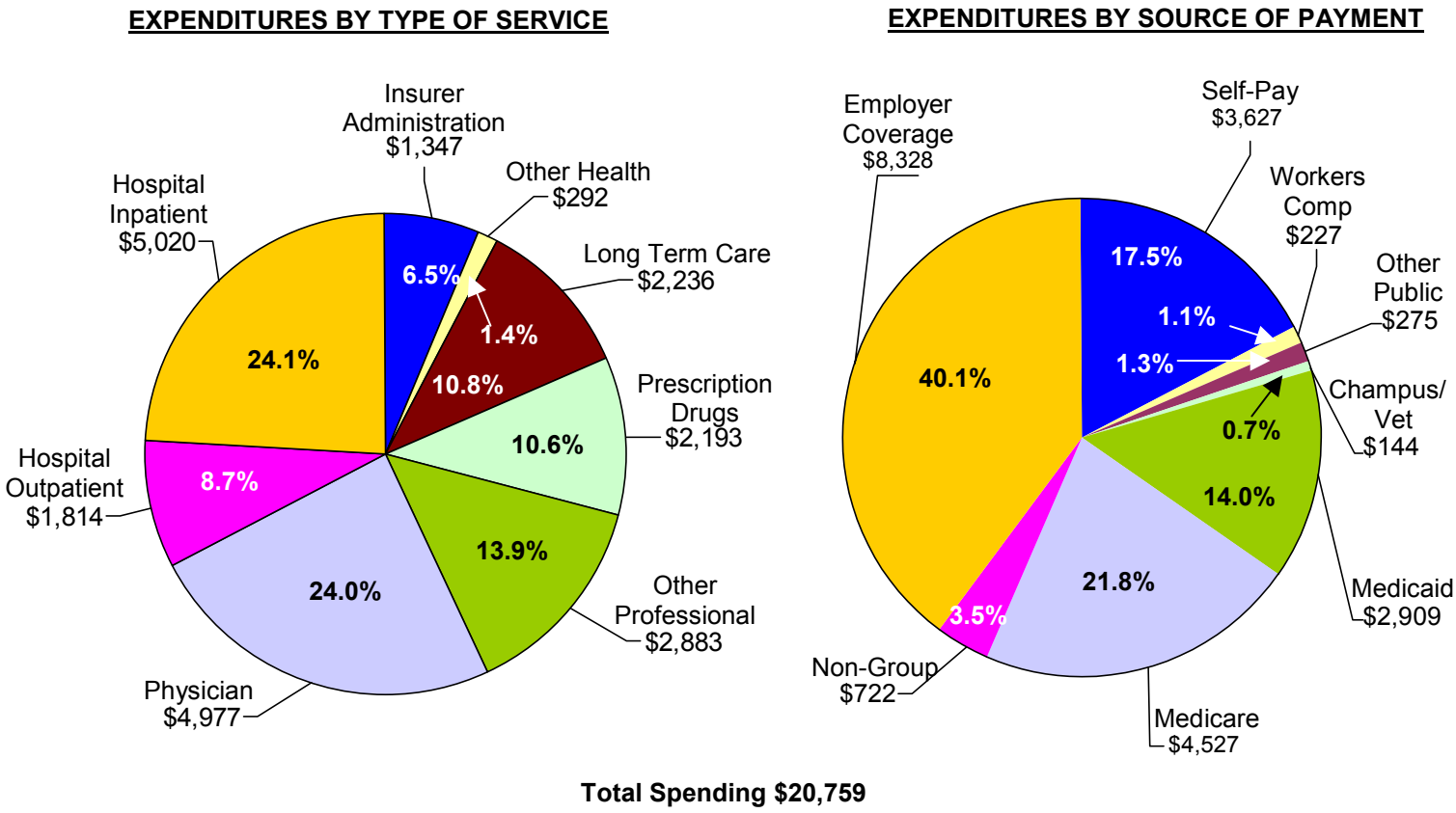
The population totals were adjusted to reflect Bureau of the Census projections of population levels by age and sex in Maryland through 2001. We also adjusted the Medicaid coverage data to reflect federally mandated expansions in coverage for children through 2001 using the Medicaid Simulation Module of HBSM.

We adjusted the incomes reported by individuals in the database to future years. Earnings were adjusted based upon historical data on real growth in earnings per worker. Non-earnings income was projected based upon the historical rate of growth in non-earnings income per person. These growth estimates were adjusted to be consistent with national income projections provided by the Congressional Budget Office (CBO).

Health expenditures were increased based upon projections of the growth in per-capita health spending by type of service provided by the Health Care Financing Administration (HCFA). Using this methodology, we estimate that health spending in Maryland will reach about $20.8 billion in 2001 (these estimates exclude expenditures for public health, research, and construction). ***Figure 3*** presents our estimates of health spending for Maryland residents in 2001 by type of service and source of payment.

Figure 3

Health Expenditures for Maryland Residents by Type of Service and Source of Payment in 2001 (in millions)



Source: Lewin Group estimates based upon data provided by the Maryland Health Services cost review commission projected to 2001 using the Maryland version of the Health Benefits Simulation Model (HBSM).

IV. CHANGES IN AGGREGATE HEALTH SPENDING UNDER A SINGLE-PAYER PROGRAM

As discussed above, we estimate that total spending for health care services would be $20.8 billion in 2001. This includes total spending for acute care and long-term care services including benefits payments and administration. In this analysis we estimated the change in overall spending for health services in Maryland under a single-payer plan over the 2001 through 2010 period. We estimated the change in provider revenues and insurer administrative costs as well as changes in spending for major payers for health care including employers, households and governments.

Our analysis of the impact of a single-payer plan on health spending in Maryland is presented in the following sections:

- Changes in Health Spending;
- Health Spending by Major Payers for Care; and
- Health Spending in Future Years.

A. Changes in Health Spending

We estimate total health spending in Maryland under the single-payer plan in 2001 would be about $345.8 million less than what spending would be under current trends (***Table 1***). This includes an increase in health services utilization for newly insured persons which would be more than offset by a net reduction in administrative costs and other savings.

Table 1
Changes in Health Spending in Maryland under the Single-Payer Proposal in 2001 (in millions) a/

		Changes in Spending
Changes in Health Services Utilization		
Increase in Utilization Due to Expanded Coverage		$675.9
Utilization Increase for Previously Uninsured [b/]	$449.4	
Expanded Coverage for Those Already Insured [c/]	$226.5	
Change in Administrative Costs		
Net Change in Administrative Costs		($1,085.4)
Insurer Administration (Includes Administration for Newly Insured) [d/]	($689.7)	
Physician Administrative Savings [e/]	($220.4)	
Hospital Administrative Savings [e/]	($175.3)	
Change in Provider Reimbursement		
Net Change in Provider Reimbursement [f/]		$0.0
New Revenue for Previously Uncompensated Care	$506.9	
Reduction in Cost Shift	($506.9)	
Managed Care Adjustment		
Managed Care Adjustment [g/]		$230.2
Prescription Drug Rebate		
Prescription Drug Rebate [h/]		($166.5)
Net Change in Health Spending		
Net Change in Health Spending		($345.8)

a/ Includes spending for acute care. Excludes research, construction long-term care and public health.

b/ Assumes that utilization of health services by previously uninsured persons will rise to the levels reported by insured persons with similar age, sex, income and health status characteristics.

c/ Assumes that utilization of newly covered health services for insured persons whose coverage is upgraded (prescription drugs, etc.) will rise to the levels reported by persons who have such coverage.

d/ Total insurer administrative costs are estimated to be $1,232 million in 2001. Insurer administrative costs will drop to $542.3 million under the single-payer model. We estimated single-payer program administrative costs based upon Medicare program administrative costs adjusted for the unique features of the single-payer plan.

e/ Savings in provider administrative costs result from: uniform billing procedures, elimination of patient billing, for cost sharing amounts, and the use of hospital capital and operating budgets. For a discussion of the methodology used see: John F. Sheils et al., "National Health Spending Under a Single Payer System: The Canadian Approach," Lewin-VHI, January 8, 1992.

f/ Under a universal coverage program, hospitals and physicians will receive payments for care formerly provided as uncompensated care. We assume that provider payments are adjusted to eliminate provider windfalls for care already paid for through cost shifting.

g/ Assumes a 4.0 percent increase in utilization for persons formerly enrolled in HMOs.

h/ Assumes a 17.7 percent rebate on prescription drug expenses covered under the program, which is the same percentage drug rebate received by the Maryland Medicaid Program. Rebates for privately insured persons under the current system are assumed to be equal to 8.3 percent.

Source:Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

1. Health Services Utilization

Health services utilization in Maryland would increase under a single-payer plan as comprehensive health care coverage is extended to all individuals. In particular, increased utilization is expected among the 760,000 persons who otherwise would be uninsured in 2001.

We assume that under a program of universal insurance coverage, use of health services for those who would otherwise be uninsured will increase to levels reported by insured persons with similar age, sex, income and self-reported health status characteristics. Based on this assumption, we estimate that the net increase in health spending for previously uninsured person would be about $449.4 billion. This is an estimate of the net change in utilization for this group which reflects reduced hospitalizations for preventable conditions offset by increased utilization of preventive care and increased use of elective procedures.

There also would be an increase in utilization for previously underinsured persons. Many insured individuals do not have coverage for some of the services that would be covered under the uniform benefits package. For example, many plans do not cover prescription drugs, psychiatric services, and preventive dental care. We assume that utilization of these services would increase to levels reported by persons who have coverage for these services with similar age, sex, income and health status characteristics. The net increase in spending for the underinsured would be $226.5 million in 2001.

2. Administrative Costs

The single-payer system streamlines health care administration by centralizing the source of payment for all covered health services under a single governmental program with uniform coverage and reimbursement rules. The proposal also eliminates patient cost-sharing (i.e., deductibles and coinsurance) for most services, thus, eliminating the cost of billing patients for amounts that are not covered by insurance. These potential savings are partly offset by the cost of administering cost controls and other functions performed under the program.

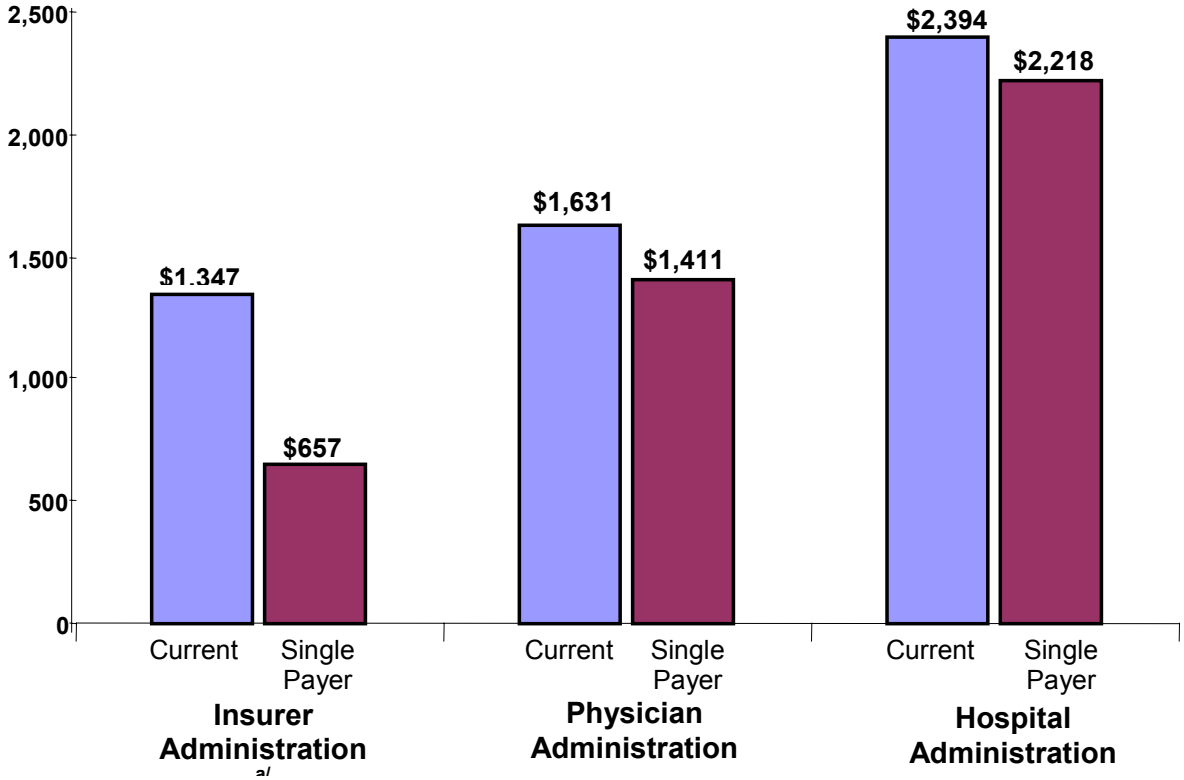
The single-payer system replaces the current system of multiple public and private insurers with a single source of payment for the full amount of covered services. This eliminates both the complexity of diverse insurer rules and patient billing for unreimbursed amounts. The single-payer system also replaces hospital billing for individual patients with annual operating budget which effectively eliminates claims filing functions for Maryland hospitals. (Claims filing would continue for out-of-state patients.)

We estimate that insurer administrative costs in Maryland would be $1.3 billion in 2001 under current law. This includes for administration for private insurance and public programs. The cost of insurance administration includes the cost of processing claims, research, utilization review, and determining eligibility under government programs. Administrative overhead for private insurers also includes these costs plus marketing costs, taxes, net reserve accumulations and profits.

The single-payer program would extend large-group economies of scale throughout the health care system by covering all individuals under a single insurance mechanism. This would eliminate the costs associated with underwriting, transition in coverage, and maintaining the administratively cumbersome linkage between employers and insurers. Overall, statewide insurer administrative costs would be reduced from $1.3 billion under current policy to $657 million under the single-payer model for a net savings of about $690 million in 2001 ***(Figure 4).*** These savings estimates have been prorated to reflect the fact that about 9.0 percent of Marylanders would continue to be covered under private insurance (i.e. those with coverage from out-of-state employers).

Figure 4

Changes in Administrative Costs Under the Maryland Single-Payer Program for Insurance and Health Care Providers: 2001 (in millions)



a/ Insurer administrative costs under current policy are based upon data provided by The Maryland Health Services Cost Review Commission for 1998 which we projected to 2001 using the Maryland version of the Health Benefits Simulation Model (HBSM).

b/ Estimates of provider administrative costs and savings are based upon John F. Sheils and Gary J. Young, "National Health Spending Under a Single payer System", The Lewin Group, January 8, 1992.

Source: Lewin Group Estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

The Lewin Group has conducted analyses of the impact of a single-payer program for the US, which were based upon a detailed analysis of the data available on physician practice expenses.[4] In this analysis, we estimated that about 32 percent of physician and other professional revenues ($1.6 billion in 2001) are devoted to administrative functions. Physician administrative costs include all physician overhead expenditures attributed to activities other than those directly related to patient care such as business office staff and the value of physician time devoted to practice management and insurer-related functions.

The single-payer approach would substantially reduce claims-filing costs for physicians by standardizing the means of reimbursement through a single-payer and by providing full reimbursement through a single source using a standardized electronic claims-filling process. Standardization of coverage would also reduce physician costs related to adjudication of claims and negotiation of selective-contracting arrangements. In a prior Lewin Group analysis of a single-payer program for the US, we estimated that the single-payer model would reduce physician administrative costs by about 19 percent under a plan with minimal copayments (e.g., $10.00 per visit). However, these estimates of provider administrative savings must be prorated to reflect the fact that many of those using Maryland hospitals would continue to have coverage through the current multi-payer system. This includes the 9.0 percent of Maryland residents that is expected to be covered under private insurance from out-of-state employers and persons from other states that use Maryland providers. Consequently, we estimate that physician administrative costs in Maryland would be reduced by about 14 percent ($220.4 billion) in 2001.

We estimate that Maryland hospitals would spend about $2.4 billion (33.4 percent of revenues) on administration in 1998. This is based upon a Lewin Group analysis of cost data for hospitals, which was conducted as part of our above-referenced single-payer study. In this analysis, we define hospital administrative costs to include all labor and overhead expenditures attributed to functions other than those directly related to patient care, such as accounting, credit and collections, and admitting. The single-payer proposal would all but eliminate hospital administrative costs associated with filing claims because under the single-payer model, hospitals are given an annual operating budget covering all services provided by the hospital. However, hospitals would still need to submit claims for out-of-state patients. Based upon our prior analyses of hospital data, we estimate that hospital administrative costs would be reduced by about 7 percent ($175.3 million) in 2001 under the single-payer model.

3. Changes in Provider Payment

Due to the fact that all Maryland residents would have coverage, uncompensated care costs would be virtually eliminated for all types of providers including hospitals, physicians and other professionals. We estimate that provider uncompensated care costs would be reduced by about $506.9 million in 2001 under the single-payer system (includes savings to hospitals and other providers). As discussed above, we assume that provider payment rates which currently reflect the cost of uncompensated care, would be reduced so that there is no net change in provider

[4] For a detailed discussion of the methods used in this analysis see: Sheils, et al., "O Canada: Do We Expect Too Much From Its Health System", *Health Affairs*, Spring 1992; and Sheils, et al., "National Health Spending Under a Single-Payer System: The Canadian Approach: Staff Working Paper", The Lewin Group, January 1992.

reimbursement. The global expenditures budget also would be adjusted to reflect the increase in utilization expected among persons who would have been covered under HMOs under current policy. This adjustment is assumed to be equal to an increase of about 4.0 percent among these individuals. This represents an increase in spending of about $230.2 million 2001.

Finally, we anticipate that the single-payer program would be able to secure increased rebates from prescription drug companies for prescriptions purchased for Marylanders. We assume that the program would receive the same percentage rebate that Medicaid receives under the current program which is 17.7 percent. This is more than double the average rebate typically negotiated by private carriers which we estimate to be about 8.3 percent. We estimate that net rebate savings would be about $166.5 million in 2001.

Table 2 presents our estimates of the net change in provider payments by type of provider under the single-payer model. Overall, payments to providers would increase by $345 million. This estimate reflects the increase in utilization for persons who are currently uninsured or under-insured and various adjustments in provider payments to reflect reduced provider administrative burdens and reduced uncompensated care costs. This net increase in provider payments would be offset by a reduction in insurer administrative costs of $691 million so that the net impact of the program would be a reduction in total health spending of $346 million.

Table 2
Changes in Provider Payments and Insurer Administrative Costs Under the Maryland Single-Payer Program: 2001 (in millions)

Type of Service	Current Spending	Change in Spending	Percent Change in Spending
Hospital Inpatient	$5,017	$158	3.2%
Hospital Outpatient	$1,814	$29	1.6%
Physician	$4,977	$153	3.1%
Other Professional	$2,883	$89	3.1%
Prescription Drugs	$2,193	($90)	(4.1%)
Long-Term Care	$2,236	—	—
Other Health Services	$292	$6	2.0%
Total Provider Payments	$19,412	$345	1.8%
Insurer Administration	$1,347	($691)	(51.2%)
Total	$20,759	($346)	(1.7%)

a/ See ***Table 1*** for detailed summary of changes in statewide health spending.
Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM)

B. Health Spending by Major Payers for Care

A single-payer plan would substantially change aggregate health spending for governments, employers, and households. As discussed above, we estimate that overall health spending in Maryland would be reduced under the single-payer model by $345.8 million in 2001 **(*Table 3*)**. Because the tax rates under the single-payer program would be set at levels sufficient to fund the

program, the state costs of the program would be roughly offset by revenue collections. We also estimate that there would be no net change in federal health spending. This is because we assume that the federal government would simply transfer to the program the full amount of what would have been spent under federal programs (i.e., Medicare, Medicaid, etc.) to the Maryland single-payer program with no net change in federal expenditures.

Private employers would see a net increase in health spending of $406.5 million. This includes an increase of $457.0 million for firms that do not now offer insurance. It also includes a $296.0 million increase in spending for workers and their dependent in firms that currently provide health insurance which means that payroll tax payments would on average be greater than what would have been paid for benefits under current policy. However, this increase in costs for workers and dependents for firms that now offer coverage would be more than offset by reduced spending for retirees. These savings occur because the single-payer program would cover most of the expenses for services that are now covered by retiree health plans (e.g., prescription drugs, Medicare copayments, etc.).

Aggregate household spending for health care would be reduced by $717.6 million under the program. Savings to households would be attributed to the elimination of premium payments ($2.6 billion) and reductions in household out-of-pocket payments ($2.0 billion). These savings would be largely offset by additional tax payments of about $3.8 billion resulting in net savings to households of $717.6 million.

Table 3

Changes in Health Spending in Maryland under the Single-Payer Proposal in 2001 (in millions)

	Before Wage Effects	After Wage Effects
Changes in Health Spending		
State Government Health Spending	($34.7)	- - -
Total Program Costs	$15,557.1	$15,557.1
Program Revenues	($15,591.8)	($15,591.8)
Tax Loss (Gain)	- - -	$34.7
Federal Government Health Spending	**- - -**	**$161.7**
Transfers to Program	$4,891.6	$4,891.6
Current Program Spending	($5,062.6)	($5,062.6)
Employee Benefits	$171.0	$171.0
Tax Loss (Gain)	- - -	$161.7
Private Employer Health Spending	**$406.5**	**($346.5)**
Firms that Now Insure	($50.5)	($346.5)
Workers and Dependents	$296.00	- - -
Retirees	($346.5)	($346.5)
Firms that Do Not Now Insure	$457.0	- - -
Household Health Spending	**($717.6)**	**($161.0)**
Premium Payments	($2,525.7)	($2,525.7)
Dedicated Tax Payments	$3,790.6	$3,790.6
Out-of-Pocket Payments	($1,982.5)	($1,982.51)
After-Tax Wage Loss (Gain)	- - -	$556.6
Net Change in Health Spending		
Net Change in Spending [a/]	**($345.8)**	**($345.8)**

a/ See ***Table 1*** above for a detailed summary of changes in statewide health spending. Includes changes in wages and tax revenues.
Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

Both economic theory and empirical research indicate that over time most of the increased costs to employers resulting from the payroll tax would be passed-on to employees in the form of reduced wages.[5] This wage loss would offset health expenditure savings for households which would reduce net savings to households to about $161.0 million under the program. We also estimate that the state and federal governments would lose income tax revenue as wages are reduced. However, savings for retiree coverage would accrue fully to the employer because these benefits are part of the company's compensation costs for past employees and should have no impact on wages for current employees.

[5] We assume that wages are reduced for all private sector employees but that there would be no change in wages for government workers.

The impact of a single-payer plan on major payers for health care is discussed in greater detail in the following sections.

Table 4

Analysis of Program Costs and Revenues under the Maryland Single-Payer Proposal in 2001 (in millions)

Uses of Funds		Sources of Funds		
Program Expenditures		**Inter-Governmental Transfer Revenues**		
Benefit Payments [a/]	**$16,081.0**	**CHAMPUS/Military** [e/]		**$135.5**
Payment Adjustments [b/]	**($838.9)**	**Medicare** [f/]		**$4,033.4**
Uncompensated Care Savings	($506.9)	**Medicaid**		**$1,787.3**
Provider Administration	($395.7)	State Share g/		$893.7
Managed Care Adjustment	$230.2	Federal Share h/		$893.7
Prescription Drug Rebate	($166.5)	**Other State** [i/]		$218.8
State and Local Employee Benefits [c/]	($93.4)	**Federal Employee Health Benefits Program**		($171.0)
Insurance Administration [d/]	$408.4	**TOTAL Government Transfers**		**$6,004.0**
		New Tax Revenues		
		Payroll Tax (Net of Wage Effect) [j/]		$8,913.2
		Employer (6.3%)	$5,797.2	
		Employee (3.2%)	$3,116.0	
		Tobacco and Alcohol Taxes [k/]		$200.6
		Personal Income Tax [l/]		$474.0
		Wage Effects of Payroll Tax [m/]		($34.7)
		TOTAL Tax Revenues		**$9,553.1**
TOTAL Expenses	**$15,557.1**	**TOTAL Revenues**		**$15,557.1**

a/ Includes provider payments for acute care health services that are covered under the program. Provider payments are estimated based upon overall average provider payment levels under current programs. Excludes patient copayments and spending for non-covered services.

b/ We assume that provider payment rates are reduced to reflect reduced uncompensated care expenses and savings in provider administrative costs.

c/ Reflects the net change in state and local employee benefits expenditures as a result of shifting from employer-based health coverage to the payroll tax.

d/ Includes the cost of administering benefits under the single-payer program. Estimates based upon the cost of administering benefits under the Medicare program.

e/ The program will be reimbursed for services provided to persons who are covered under the CHAMPUS program.

f/ Federal Medicare program funding for Maryland residents would be transferred to the Maryland single-payer program. This includes federal funding for Part-A and the federal share of funding for Part-B.

g/ The state share of funding for the Medicaid program is transferred to the single-payer program. Estimates exclude the state share of funding for disproportionate share hospital payments.

h/ The federal share of funding for the Medicaid acute care program would be transferred to the single-payer program. Includes benefits payments, administration and the federal share of disproportionate share hospital payments.

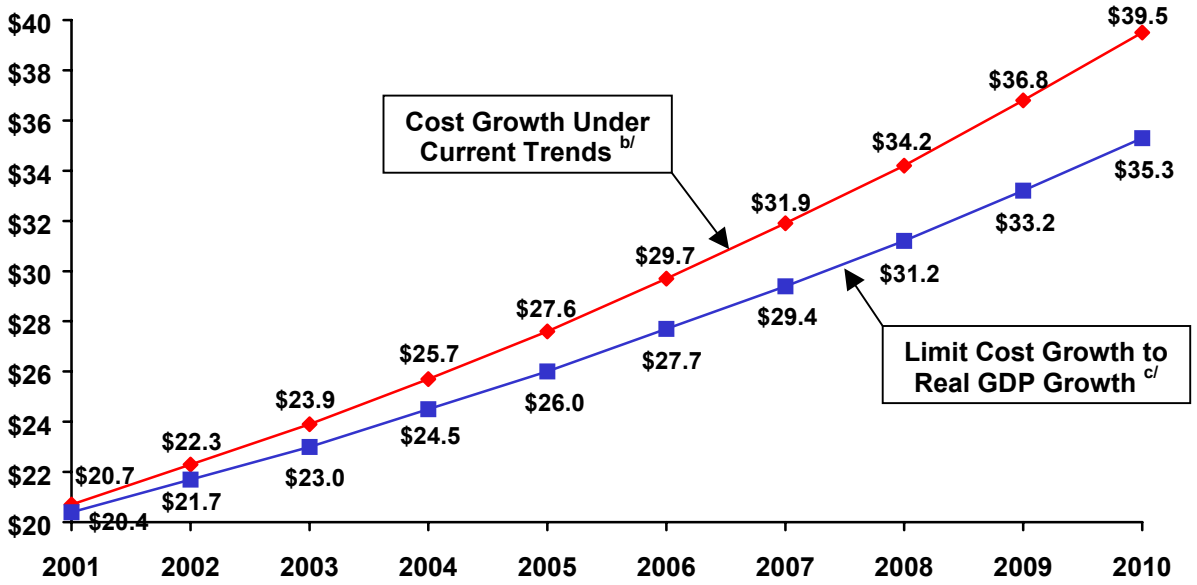
i/ Current state and local funding for mental health and various indigent care program would be transferred to the single-payer program. Includes funding only for state health programs, which are not also included under the state share of the Medicaid program.
j/ The program imposes a payroll tax on employers of 6.3 percent and employees of 3.2 percent.
k/ Assumes a net increase in revenues from the Maryland alcohol tax rates to the national average ($28.5 million) and a increase in the tobacco tax to $1.25 per pack of cigarettes ($172.1 million).
l/ The bill imposes a personal income tax equal to 11.0 percent of state income tax done on a progressive scale.
m/ Employers are assumed to pass-on the change in employer health care costs under the program as a change in wages resulting in corresponding changes in state personal income tax revenues.
Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

C. Health Spending in Future Years

Under the single-payer model, the state would effectively determine the level of spending for health care in Maryland. This is because the single-payer program would set hospital spending levels through explicit budgets for each hospital and would determine the levels of reimbursement for individual health services. Consequently, the state will need to develop a forum for determining the allowable rates of growth in spending under the program. Indeed, the budgeting process for the single-payer program is likely to emerge as a powerful cost containment tool.

For example, the Health Care Financing Administration (HCFA) projects that real per-capita health spending (i.e., cost growth in excess of population growth and general price inflation) will grow at a rate of 3.1 percent per year through 2010. This is about 1.2 percentage points faster than the projected rate of growth in income as measured by the real per-capita rate of growth in the GDP (expected to be about 1.9 percent). However, if costs are permitted to grow at the current rate, health spending in Maryland would increase from $20.7 billion in 2001 to $39.5 billion by 2010 (***Figure 5***). However, because health care costs are projected to grow faster than GDP (i.e., statewide income), the tax rates required to fully fund the program would increase each year. Under current cost growth assumptions, the payroll tax required to fund the single-payer model would increase from our estimate of 9.5 percent in 2001 to 10.6 percent by 2010. However, employer health insurance costs are projected to grow at the same rate under current law.

Figure 5
Health Spending in Maryland Under Alternative Cost Growth Scenarios



a/ Assumes current cost growth forecasts of real per-capita cost growth of 3.1 percent per year.
b/ Excludes spending for research and construction, public health and long-term care.
c/ Assumes that the rate of growth in health spending is constrained so that it does not exceed the rate of growth in real per-capita GDP (1.9 percent per year).
Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

To prevent this increase in tax rates, the state could set limits on provider reimbursement levels which slow the rate of growth in health spending. For example, reimbursement amounts could be set at levels where real per-capita state health spending grows no faster than the growth in real per-capita GDP (i.e., 1.9 percent per year). Under this scenario, health spending in Maryland in 2010 would be about $4.2 billion less than currently projected. At this slower rate of growth, the payroll tax rate would remain at 9.5 percent throughout the next decade.

However, it is unclear whether $4.2 billion can be removed from the health sector without slowing the adoption of medical technology or otherwise compromising the quality of care. Thus, the state will need to balance the need to control costs against the need to assure high quality health care in Maryland. This will require establishing a process for monitoring health care quality and a forum for discussing and adopting the appropriate levels of cost growth.

V. GOVERNMENT SPENDING UNDER THE SINGLE-PAYER MODEL

Under a single-payer program, a new state-run independent agency would be responsible for financing almost all acute care services in Maryland. This will have significant implications for health spending by all levels of government including the state, local governments and the federal government. The impact of a single-payer plan on government finances is discussed in the following sections:

- State Program Expenditures
- Federal Government Expenditures

A. State Program Expenditures

Table 3 presents our estimates of the sources and uses of funds under the government single-payer program. Total expenditures under the program would be about $15.6 billion in 2001. This includes the cost of all benefits payments and the cost of administering the program. The program would be fully funded with the funds that would have been spent for health care under existing government programs and revenues from dedicated taxes created to finance the program.

1. Program Expenditures

As discussed above, the program would be designed so that in the first year of the program, provider payment levels would be equal to the average payment levels for covered services in the current system (i.e., averaging across Medicare, private insurance, etc.), adjusted to reflect the unique features of the program. Total benefit payments before adjustments would be $16.1 billion, which reflects the increase in utilization for previously uninsured persons discussed above. However, payment levels would be adjusted as follows:

- Uncompensated Care Savings – Provider payment levels would be reduced to reflect the fact that providers will receive payments for services that would have been counted as uncompensated care under current policy. This adjustment lowers payment levels per unit of service so that the overall average payments for service remain the same as under current policy;
- Provider Administration – Payments to providers would be reduced to reflect the expected reductions in provider administration;
- Managed Care Adjustment – spending levels would be permitted to increase by $230.2 to reflect an expected increase in utilization of 4.0 percent among persons currently covered under HMOs;
- Prescription Drug Rebate – We assume that the program would receive the same percentage rebates from drug manufacturers currently received under the current Medicaid program,

which was 17.7 percent in 1998. This compares with an estimated average rebate of 8.3 percent for private insurers.

Total benefit payments after adjustments would be $15.2 billion. Also, the payroll tax for state and local workers would be less than the cost of their current coverage. Consequently, the state and local governments would save about $93.4 million under the program in the cost of providing coverage to state and local workers. Total administrative costs would be $408.4 million which is equal to about 2.7 percent of benefit payments.

2. Inter-Governmental Transfer Revenues

The program would receive funds that otherwise would have been used to fund health care benefits for Marylanders. Specifically, funds from Medicaid, Medicare, and various state and local health programs would be used to cover program costs. Total funding from these sources would be $6.0 billion in 1998. These funds include:

- ***Medicare Funds*** -- Federal Medicare program funding for Maryland residents would be transferred to the Maryland single-payer program. This includes federal funding for Part-A and the federal share of funding for Part-B (Medicare beneficiaries would continue to pay the Medicare Part-B premium);

- ***Federal Share of Medicaid Funds*** – The federal share of funding for the Medicaid program would be transferred to the single-payer program. Includes amounts for benefits payments, administration and the federal share of disproportionate share hospital (DSH) payments;

- ***State Share of Medicaid Funds*** – The state share of funding for the Medicaid program is transferred to the single-payer program;

- ***Other State Funds*** – Current state funding for mental health and various indigent care programs would be transferred to the single-payer program; and

- ***CHAMPUS/Military*** – Funding for services provided to Maryland residents covered under the CHAMPUS program would be used to fund the program.

3. Tax Revenues

The remainder of the program would be financed with new taxes created specifically for the program. In addition, there would be changes in personal income tax revenues as wage levels adjust in response to the payroll tax imposed on employers under the program. Total net tax revenues would be about $9.5 billion in 1998. These tax revenues include:

- ***Payroll Tax*** – The program imposes a payroll tax on employers and employees in Maryland. The tax rates in the first year of the program would be 6.3 percent for employers and 3.2 percent for employees;

- ***Tobacco Tax*** – The tobacco tax would be increased to $1.25 per pack with comparable increases in tax on other tobacco products;

- ***Alcohol tax –*** State taxes on alcoholic beverages, which are currently among the lowest in the nation, would be increased to the national average across states;

- ***Personal Income Tax*** – The plan would impose a personal income tax sufficient to raise the revenues required to cover costs in excess of the funding available from the sources listed above. We estimate that the amount of funding required in the first year of the program would be $474.0 million which is equal to an increase in personal income tax revenues of 10.8 percent. The structure of this additional tax would be progressive (i.e., the amount paid as a percentage of income increases as income rises);

- ***Wage Effects of Payroll Tax*** – Employers are assumed to pass-on the change in employer health care costs under the program as a change in wages resulting in corresponding changes in state personal income tax revenues. The personal income tax created under the program would be adjusted to compensate for this revenue loss.

B. Federal Health Spending in Maryland

Under the single-payer plan, all federal funding for health benefits provided to Marylanders would be transferred to the single-payer program. This includes funding for Medicare, Medicaid and the CHAMPUS/Military programs. Thus, the transfer of funding to the single-payer plan would have no net impact on federal expenditures.

Under the assumed tax rates, we estimated that there would still be a net cost to the federal government of about $161.7 million in 2001 (***Table 5***). This reflects a loss of federal income tax revenues as employers adjust wage levels in response to the payroll tax.

Table 5
Change in Federal Health Spending in Maryland under the Single Payer Proposal in 2001 (in millions)

Federal Employee Health Benefit [a/]	$171.0
Spending in Current Programs [b/]	($5,062.6)
Medicare Benefits ($4,033.4)	
Medicaid ($893.7)	
CHAMPUS/VA ($135.5)	
Transfers to State Program [c/]	$4,891.6
Federal Income and FICA Tax Loss [d/]	$161.7
Net Cost to Federal Government	
Net Cost to Federal Government	**$161.7**

a/ Includes reduction in costs for benefits to federal employees and retirees offset by the payroll tax.
b/ Benefits for Medicare recipients, Medicaid beneficiaries, and CHAMPUS/VA beneficiaries will be eliminated as those beneficiaries are enrolled in to the single-payer plan.
c/ The federal government will transfer to the state their share of savings to current federal programs.
d/ Tax loss due to reduced wage levels resulting from higher employer costs.
Source:Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

VI. EMPLOYER HEALTH SPENDING

Private employers would be one of the primary sources of financing under a single-payer plan through payroll tax payments. Current employer health benefits obligations would be replaced with a tax computed as a percentage of employee payroll. The net impact of this shift to a payroll tax for individual employers would vary depending upon the degree to which individual employers currently offer insurance, employee wage levels and whether they provide coverage for retirees. The impact of the single-payer program on employer health spending is discussed in the following sections:

- Impact on Employer Spending by Size of Firm and Industry;
- Distributional Impacts on Employers; and
- Wage Effects.

A. Impact on Total Private Employer Spending

The impact of the single-payer plan on employer health spending will differ for workers and retirees. Private employers will spend about $4.2 billion on coverage for workers and dependents under current trends in 2001 (***Table 6***). Under a single-payer plan employers no longer pay this cost, but instead pay a tax equal to 6.3 percent of payroll, which would be equal to about $4.4 billion in 1998. Of this $4.4 billion in tax payments, about $457 million would be paid by firms that currently do not provide coverage.

Table 6
The Impact of the Single Payer Proposal on Private Employer Health Spending for workers in Maryland in 2001: Before Wage Effects (in millions)

	Firms that Now Offer Insurance	Firms That Do Not Now Offer Insurance	All Firms
Spending Under Current Policy			
Workers and Dependents	$4,217.2	- - -	$4,217.2
Retirees	$406.7	- - -	$406.7
Current Spending	**$4,623.9**	**- - -**	**$4,623.9**
Spending Under Reform			
Wrap-Around Coverage			
Workers and Dependents [a/]	$650.3	- - -	$650.3
Retiree Premiums	$14.2	- - -	$14.2
Payroll Tax [b/]	$3,908.9	$457.0	$4,365.9
TOTAL	**$4,573.4**	**$457.0**	**$5,030.4**
Change in Employer Costs			
Net Change	**($50.5)**	**$457.0**	**$406.5**

a/ Employers in Maryland will no longer provide primary coverage for workers, dependents, and retirees, workers receiving their coverage from out-of-state employers are exempt from the single payer plan.
b/ Employers are required to pay a payroll tax to fund the single payer program.
Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

Our analysis indicates that employer costs associated with retirees would decline substantially under the program. This is because many of the services covered by these plans for retirees would become covered under the single-payer program. Overall, employers would save about $392.5 million on retiree benefits under the program.

The impact of a single-payer plan will differ for firms that now offer insurance and those that do not insure. Overall, firms that currently offer insurance actually would see a decline in health care spending of about $50 million in 2001, primarily due to savings in retiree benefit payments. Firms not now insuring would pay $457.0 million in payroll taxes under the program.

B. Impact on Employer Health Spending by Size of Firm and Industry

Overall, health spending for private employers would increase by 8.8 percent under the single-payer model. We estimate that employer health spending for the smallest firms (those with less than 10 employees) would increase by 50.8 percent under the single-payer program ***(Table 7)***. By comparison, firms with 5,000 or more workers would actually see a decline in health spending of 18.9 percent. This reflects the fact that larger employers are more likely to offer retiree coverage. The analysis of changes in health spending by industry indicates that only the manufacturing, and transportation sectors would see a net decrease in costs. ***Table 8*** shows the change in health spending per worker by industry and firm size.

Average employer payroll tax payments would equal about $1,162 for firms that do not now offer insurance ***(Figure 6)***. By contrast, firms that currently offer coverage would save an average of $28 per worker. These savings are not uniform across employers, however. For example, employers with between 100 and 499 workers who currently offer coverage would see an increase in costs averaging $616 per worker.

Figure 6

Change in Health Spending Per Worker by Firm Size and Current Insuring Status: Before Wage Effects

Percent of Workers by Firm Size						
19.3%	8.8%	12.8%	13.6%	5.8%	39.7%	100.0%

a/ Insufficient Data.
Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

Table 7
Employer Health Spending in Maryland under Current Policy and under the Single Payer Proposal by Firm Size and Industry in 2001: Before Wage Effects

	Spending under Current Policy (in millions) [a/]	Total Spending under the Single-Payer Plan (millions) [b/]	Percent Increase (Decrease)
Firm Size			
Under 10	$432.0	$651.5	50.8%
10 - 24	$269.7	$342.1	26.8%
25 - 99	$682.8	$846.2	23.9%
100 - 499	$670.5	$897.6	33.9%
500 - 999	$288.5	$318.1	10.3%
1,000 - 4,999	$656.7	$658.0	0.2%
5,000 or More	$1,623.6	$1,316.7	(18.9%)
Industry			
Construction	$286.7	$353.4	23.3%
Manufacturing	$1,121.2	$748.7	(33.2%)
Transportation	$548.6	$498.5	(9.1%)
Wholesale Trade	$219.4	$288.5	31.5%
Retail Trade	$342.2	$528.9	54.6%
Services	$1,729.7	$2,100.9	21.5%
Finance	$375.1	$511.6	36.4%
All Private Firms	**$4,623.8**	**$5,030.4**	**8.8%**

a/ Includes the employer contributions for benefits for workers, dependents and retirees.
b/ Includes payroll tax payments and the cost of continuing wrap around benefits for workers, dependents and retirees.
Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

Table 8
Impact of a Single Payer Program on Private Employers in Maryland by Firm Size and Industry in 2001: Before Wage Effects

	Total Change in Health Spending (millions)			Change in Health Spending Per Worker		
	Firms that Now Offer Insurance	Firms That Do Not Now Offer Insurance	All firms	Firms that Now Offer Insurance	Firms That Do Not Now Offer Insurance	All firms
Firm Size						
Under 10	($72.2)	$291.7	$219.5	($424)	$1,066	$494
10 - 24	($11.7)	$84.1	$72.4	($105)	$1,391	$419
25 - 99	$99.9	$63.5	$163.4	$317	$1,301	$449
100 - 499	$222.5	$4.6	$227.1	$616	$1,328	$623
500 - 999	$28.7	$1.0	$29.6	$240	$1,005	$246
1,000 - 4,999	($10.8)	$12.1	$1.3	($49)	$2,049	$6
5,000 or More	($306.9)	- - -	($306.9)	($645)	- - -	($645)
Industry						
Construction	($1.1)	$67.8	$66.7	($11)	$1,383	$452
Manufacturing	($390.8)	$18.3	($372.5)	($1,654)	$1,306	($1,488)
Transportation	($86.6)	$36.3	($50.4)	($632)	$1,587	($315)
Wholesale Trade	$54.6	$14.5	$69.1	$560	$1,457	$643
Retail Trade	$120.7	$66.0	$186.7	$446	$902	$543
Services	$132.8	$283.3	$371.2	$244	$1,153	$433
Finance	$120.78	$15.8	$136.5	$731	$1,043	$757
All Private Firms	**($50.5)**	**$457.0**	**$406.5**	**($28)**	**$1,162**	**$187**

Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

C. Wage Effects

Empirical evidence indicates that employers are likely to pass on much of the increase in employer costs to employees in the form of reduced wages or lost jobs.[6] Employers are typically limited in what they can charge in the market place necessitating changes in other compensation costs as employer payroll taxes are imposed. The economic literature indicates that much of the cost of increased health care spending has historically been passed on to workers.[7]

[6] See, for example, Jonathan Gruber and Alan B. Kreuger, "The Incidence of Mandated Employer-Provided Insurance: Lessons from Workers Compensation Insurance," in Tax Policy and the Economy (1991); Jonathan Gruber, "The Incidence of Mandated Maternity Benefits, " American Economic Review, (forthcoming); and Lawrence H. Summers, "Some Simple Economics of Mandated Benefits, " American Economic Review (May 1989).

[7] See, for example, James Heckman, "What Has Been Learned About Labor Supply in the Past Twenty years?" American Economic Review, (May 1993).

Based upon a review of the literature, we assume that 88 percent of the change in employer's cost due to the payroll tax will result in changes in wages to the employee.[8] Conversely, in firms that see net savings under the Act most of these savings are likely to result in wage increases as labor markets force adjustments to overall employee compensation packages in response to these changes in employer health benefits costs. We estimate a net reduction in wages of $703 million under the single-payer program for Maryland.

[8] This estimate is consistent with estimate found in the literature. For example, Gruber and Kreuger, op. cit., find that about 85 percent of the costs of mandated worker's compensation benefits are shifted to employees in the form of reduced wages, while Gruber, op. cit., found that virtually all of the employer's cost of mandated maternity benefits are shifted to the employee.

VII. HOUSEHOLD HEALTH SPENDING

Under a single-payer program, Marylanders would no longer pay health insurance premiums and would face only minimal copayments for health services. Instead, households would pay taxes on earnings, tobacco, alcohol and total personal income. In addition, household incomes would be affected by wage adjustments resulting from increased employer payroll taxes. These changes in the way in which care is financed would substantially alter the distribution of health care costs across households of various age and income groups.

Our estimates of the impact on household health spending are presented in the following sections:

- Impact on Total Household Health Spending;
- Impact on Average Household Health Spending;
- Distributional Impact on Households; and
- Impact on Households by Current Insurance Status.

A. Impact on Total Household Health Spending

We estimate that household health spending would decline by $161.0 million under the single-payer program (***Table 9***). This includes the elimination of household premium payments for private health insurance ($2.5 billion); and reduced household out-of-pocket payments for health services ($2.0 billion). These savings would be offset by increased tax payments of $3.8 billion. In addition, we estimate a loss of wages to households (after tax offsets) of about $556.6 million as employers pass on the increased cost of complying with the payroll tax to workers in the form of reduced wages. The factors affecting household spending include:

- ***Premium Reductions*** – Because a single-payer plan would eliminate premium payments for services covered under the program, we estimate a reduction in private insurance premiums of about $2.5 million;[9]
- ***Reduced Out-of-Pocket Spending*** – Household out-of-pocket spending for health care would be reduced under a single-payer plan because (1) there is little cost-sharing required (i.e., a $10.00 copayment), and (2) the program provides a comprehensive benefits package that would provide comprehensive coverage for services often excluded under existing plans. The reduction in out-of-pocket spending would be $2.0 billion;

[9] Many persons with employer sponsored coverage for services not covered under the single-payer program may still be required by the employer to make premium contributions for this supplemental coverage.

Table 9
Impact of the Single Payer Proposal on Households in Maryland in 2001
(in millions)

	Without Wage Effects	With Wage Effects
Premium Payments		
Premium Reductions	**($2,525.7)**	**($2,525.7)**
Direct Payments for Care		
Reduced Out-of-Pocket Spending for Acute Care [a/]	**($1,982.5)**	**($1,982.5)**
Tax Payments		
Dedicated Program Tax Payments	**$3,790.6**	**$3,790.6**
Income Tax Surcharge	$474.0	$474.0
Tobacco and Alcohol Tax	$200.6	$200.6
Payroll Tax	$3,116.0	$3,116.0
After-Tax Wage Effects		
After-Tax Wage Effects [b/]	**N/A**	**$556.6**
Net Change in Household Spending		
Net Impact on Household Spending	**($717.6)**	**($161.0)**

a/ Family out-of-pocket payments for acute care health services will be reduced under the program due to: 1) reduced patient cost-sharing requirements under the plan and 2) expanded coverage for services often excluded under existing plans.

b/ Employers are assumed to pass-on the cost (savings) resulting from shifting from employer-based insurance to the payroll tax in the form of changes in wages.

Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

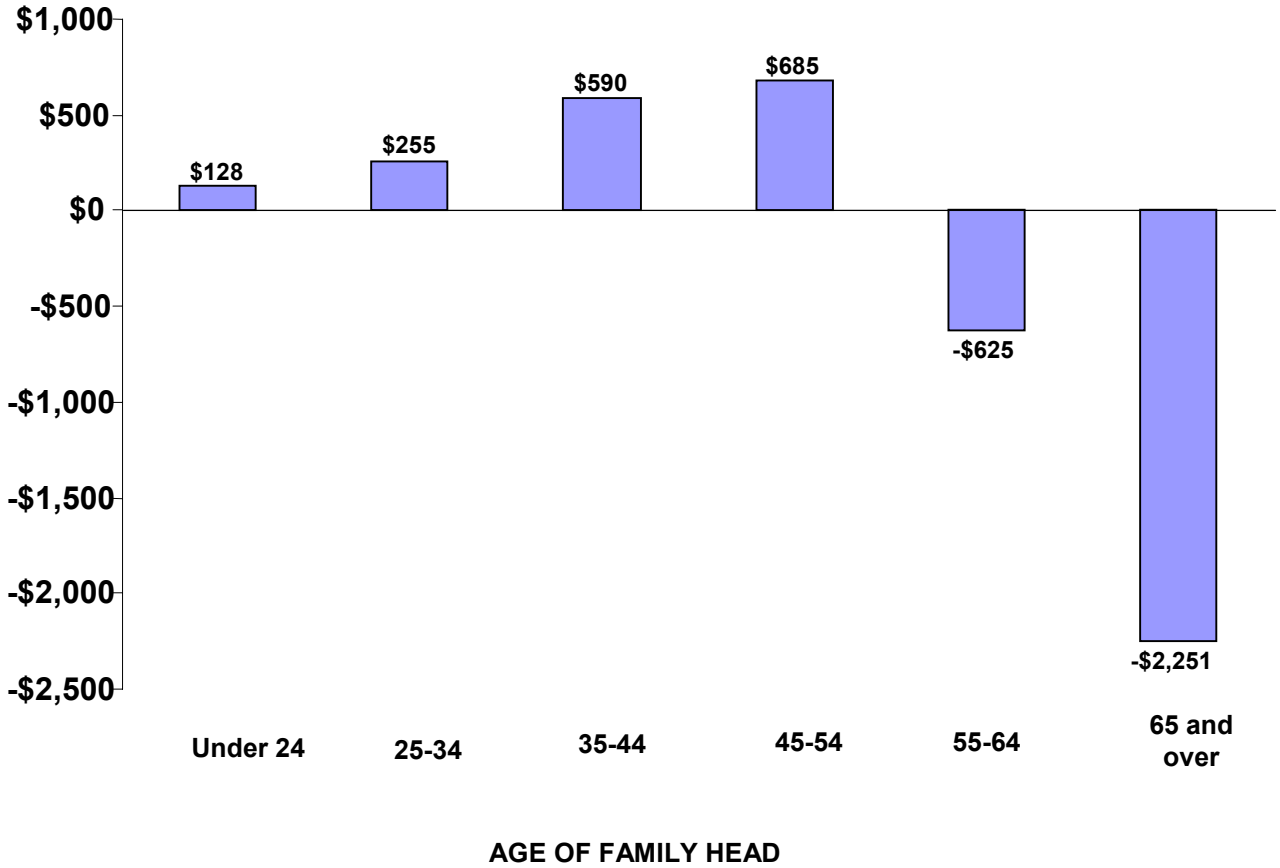
- ***New Tax Payments*** **–** Marylanders would pay several new taxes dedicated to financing the program including: the employee share of the payroll tax (i.e., 3.2 percent); an increase in tobacco and alcohol taxes; and an increase in personal income taxes of about 10.8 percent. Total new tax payments by households would be $3.8 billion;

- ***Wage Effects*** **–** As described in the previous section on employer health spending, we estimate that about 88 percent of increased employer costs would be passed-on to employees in the form of reduced wages.

B. Impact on Average Household Health Spending

Overall, we estimate that households would see health spending decrease by an average of about $261 per family under the single-payer model in 2001 ***(Table 10).*** Savings under a single-payer plan would tend to be greatest for older individuals. For example, families headed by an individual age 65 or older would save about $2,251 per family ***(Figure 7)***. By contrast, average health spending would increase by up to $685 per family for younger age groups. On average, household savings would be greatest for married couples and individuals facing high out-of-pocket costs under current policy (***Table 11)***.

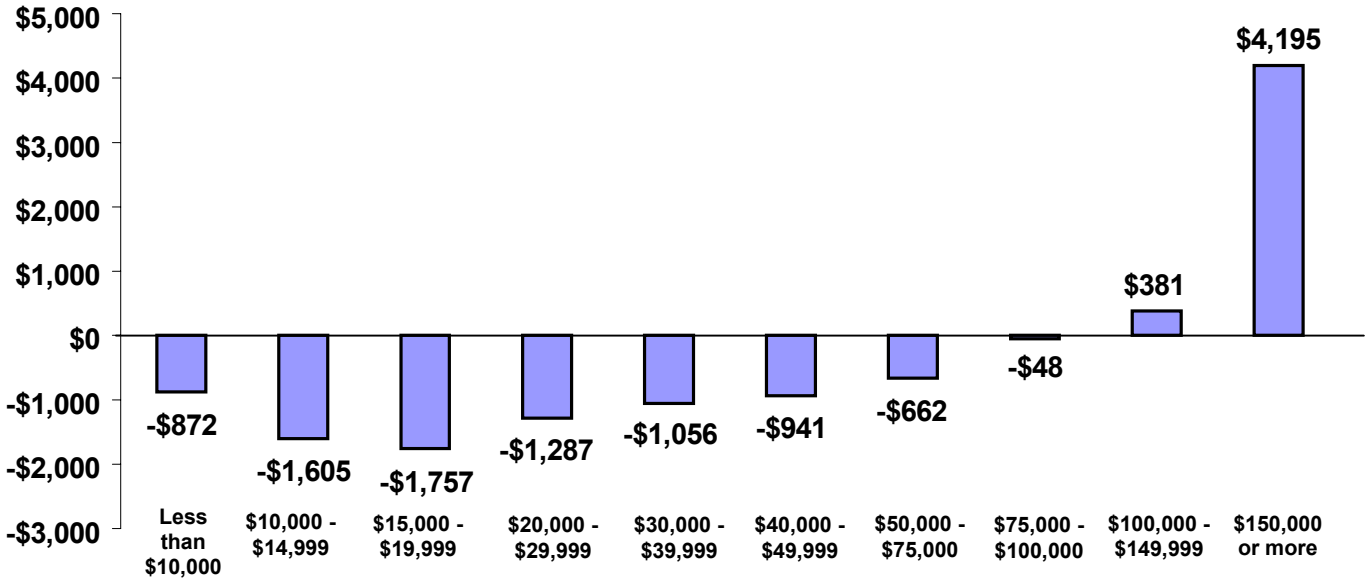
Figure 7
Change in Average Family Health Spending by Age of Family Head Under the Maryland Single-Payer Program in 2001: After Wage Effects



Source: Lewin Group Estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

In general, the single-payer plan would tend to reduce health care costs for lower- and middle-income families. For example, families with under $100,000 in annual income would, on average, see savings. However, health spending for families with $150,000 or more in income would increase by about $4,195 per family ***(Figure 8)***. This reflects the fact that the bill shifts Marylanders from a premium financed system. Where premium payments generally do not vary with income to a tax financed system where total health spending would be in proportion to family earnings. ***Table 10*** shows the change in average family health spending by age and income.

Figure 8
Change in Average Family Health Spending Per Family Under the Maryland Single-Payer Program in 2001: After Wage Effects



Source: Lewin Group Estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

Table 10
Change in Average Family Spending on Health Care in Maryland Under the Single-Payer Proposal in 2001 by Family Income and Age of Householder: After Wage Effects [a/ b/]

	Average Change by Age of Householder		
Family Income	**Under Age 65**	**Age 65 and Older**	**All Families**
Less than $10,000	($604)	($1,366)	($872)
$10,000 - $14,999	($1,088)	($2,114)	($1,605)
$15,000 - $19,999	($963)	($2,727)	($1,757)
$20,000 - $29,999	($744)	($2,738)	($1,287)
$30,000 - $39,999	($578)	($2,502)	($1,056)
$40,000 - $49,999	($532)	($2,711)	($941)
$50,000 - $74,999	($407)	($2,660)	($662)
$75,000 - $99,999	$160	($2,193)	($48)
$100,000 - $149,999	$1,002	($2,056)	$381
$150,000 or More	$4,461	$82	$4,195
All Families	**$264**	**($2,251)**	**($261)**

a/ Excludes institutionalized persons.

b/ Includes changes in premiums, out-of-pocket expenses, taxes earmarked to fund health reform, and after tax wage effects.

Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

C. Distributional Impacts

The net impact of a single-payer program on individual households would vary depending upon their current level of health spending, the extent to which they now have health coverage and their income. In general, households with little or no health coverage and/or high out-of-pocket costs will tend to benefit under the plan. Conversely, many persons who now have comprehensive coverage would pay more as Maryland shifts to a tax financed system. Moreover, by shifting to an income related tax to finance health care, higher income persons would tend to pay more while lower income persons would tend to pay less. Thus, there would be extensive variability in the net impact on households.

About half of all Maryland families would see a net increase in family health spending of $20 or more while most of the remaining families would see a reduction of $20 or more ***(Table 12)***. Only about 1.5 percent of families would see a net change in spending of less than $20.

About 26.5 percent of households would see a net increase in health spending of $1,000 or more while about 32.4 percent would see a net reduction in spending of $1,000 or more. Families at the lowest income levels would tend to have the greatest savings. For example, up to 49.7 percent of families with incomes of less than $20,000 would see savings of $1,000 or more. By contrast, families in the highest income groups would tend to see the largest increases in health spending. For example, about 75.7 percent of families with incomes of $150,000 or more would see an increase in health related costs of $1,000 or more.

Table 11
Change in Average Household Spending on Health Care in Maryland Under the Single-Payer Proposal in 2001: After Wage Effects [a/]

	Number of Families	Average Household Spending Under Current Policy	Change in Spending Under Single-Payer Plan [b/]
Age of Head			
Under 24	64,653	$2,417	$128
25 - 34	465,680	$2,126	$255
34 - 44	452,297	$2,751	$590
45 - 54	344,858	$3,157	$685
55 - 64	315,588	$3,124	($625)
65 and Over	433,456	$3,884	($2,251)
Marital Status			
Married	1,107,112	$3,802	($277)
Single	969,419	$1,960	($243)
Male	337,267	$1,270	$524
Female	632,152	$2,328	($652)
Income			
Less than $10,000	178,619	$1,264	($872)
$10,000 - $14,999	120,662	$2,338	($1,605)
$15,000 - $19,999	101,059	$2,719	($1,757)
$20,000 - $29,999	237,526	$2,437	($1,287)
$30,000 - $39,999	226,747	$2,483	($1,056)
$40,000 - $49,999	183,504	$2,879	($941)
$50,000 - $74,999	405,391	$3,192	($662)
$75,000 - $99,999	276,828	$3,337	($48)
$100,000 - $149,999	122,838	$4,006	$381
$150,000 or More	223,358	$4,238	$4,195
Income as a Percentage of the Federal Poverty Level (FPL)			
Below FPL	202,803	$1,412	($987)
100% - 149%	160,840	$2,432	($1,477)
150% - 199%	149,249	$2,795	($1,648)
200% - 249%	139,421	$2,894	($1,395)
250% - 299%	143,886	$3,088	($1,366)
300% or More	1,280,333	$3,254	$415
Current Out-of-Pocket Costs			
Less than $500	883,166	$1,248	$637
$500 - $999	364,292	$2,538	$417
$1,000 - $2,499	504,866	$3,461	($459)
$2,500 - $4,999	221,054	$5,454	($1,692)
$5,000 - $9,999	80,880	$8,908	($4,257)
$10,000 or More	22,274	$18,370	($13,783)
TOTAL	**2,076,531**	**$2,942**	**($261)**

a/ Excludes institutionalized persons.

b/ Includes changes in premiums, out-of-pocket expenses, taxes earmarked to fund health reform and after-tax wage effects.

Source:Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

Table 12
Distribution of Families in Maryland by Change in Household Spending under the Single-Payer Proposal in 2001: After Wage Effects [a/]

		Increase in Family Health Costs					Change of Less than $20	Reduction in Family Health Costs				
Family Income	All Families (in thousands)	$1,000 or More	$500 - $999	$250 - $499	$100 - $249	$20 - $99		$20 - $99	$100 - $249	$250 - $499	$500 - $999	$1,000 or More
Family Income												
Less than $10,000	178.6	1.7	7.6	13.8	15.2	8.0	5.4	2.3	3.0	6.0	6.9	30.2
$10,000 - $14,999	120.6	2.1	10.2	5.6	3.7	2.4	1.7	3.2	3.5	7.8	10.7	49.0
$15,000 - $19,999	101.0	3.4	8.8	7.1	4.7	2.5	0.4	1.0	3.4	8.6	10.2	49.7
$20,000 - $29,999	237.5	9.5	12.0	7.9	5.3	2.1	1.2	2.2	4.5	5.8	8.4	41.2
$30,000 - $39,999	226.7	14.8	15.7	5.5	5.9	1.8	1.9	3.0	3.0	2.7	8.3	37.4
$40,000 - $49,999	183.5	21.3	11.3	4.1	2.3	2.4	1.8	1.8	5.4	5.5	6.9	37.2
$50,000 - $74,999	405.3	27.8	7.8	4.8	3.9	2.0	1.2	1.8	4.3	5.8	7.9	32.7
$75,000 - $99,999	276.8	37.2	10.0	5.2	3.3	1.5	0.6	1.6	2.8	4.8	6.4	26.7
$100,000 – 149,999	122.8	49.7	6.9	3.2	1.3	1.3	1.2	0.5	2.3	4.6	4.4	24.5
$150,000 or More	223.3	75.7	5.3	2.3	1.7	0.4	0.4	0.1	0.8	1.2	2.3	9.8
Age of Family Head												
Head Under Age 65	(1,643.1)	32.3	11.3	6.5	5.1	2.5	1.6	2.0	3.7	5.0	6.3	23.9
Head Age 65 or Older	(433.4)	4.6	3.2	3.0	3.0	1.6	1.3	1.1	2.2	5.2	10.2	64.6
TOTAL	**2,076.5**	**26.5**	**9.6**	**5.8**	**4.7**	**2.3**	**1.5**	**1.6**	**3.4**	**5.0**	**7.1**	**32.4**

a/ Includes changes in premiums, out-of-pocket expenses, taxes earmarked to fund health reform and after-tax wage effects. Excludes institutionalized persons.
Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

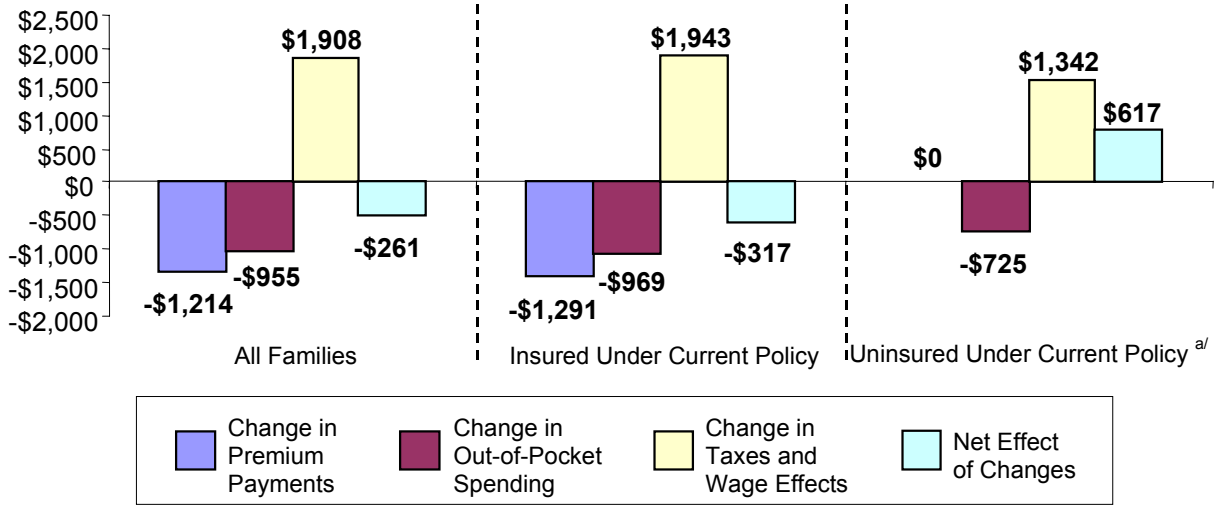
D. Impact on Households by Current Insurance Status

The effects of a single-payer program would vary between currently insured and currently uninsured households. This is because the currently uninsured pay no premiums and would therefore see no premium savings. For non-aged households in 2001, we estimate health spending would decrease by about $317 for the currently insured individuals and families while increasing spending by about $617 per family for the currently uninsured population (***Figure 9***).

The net increase in spending for the uninsured reflects the fact that a disproportionate share of the uninsured are young and comparatively healthy. Consequently, the taxes paid by these individuals tend to be greater than the amounts of out-of-pocket health spending that would become covered under the program for these individuals. This would result in a net increase in spending for those who would have been uninsured in the absence of the program.

Figure 9

Change in Health Spending for Families Headed by an Individual Under Age 65 in Maryland by Current Insured Status in 2001



a/ Includes uninsured single individuals and families with one or more uninsured members.

VIII. THE MULTI-PAYER UNIVERSAL COVERAGE MODEL

The multi-payer model is designed to give employer groups the option of staying with their current coverage while still creating a government program to insure persons without employer-sponsored coverage. The government program would be identical to the single-payer model discussed above with the sole exception that employers would have the option of providing coverage for their group. Employers who provide coverage would credit the cost of the coverage they are providing against the payroll tax that they would be required to pay. All persons not covered by an employer plan would become covered under the government plan.

Providing the option of continuing with existing employer coverage is likely to be popular in the initial years of the program until the government program has had an opportunity to prove itself. Also, many employers with employees across one or more states may find that it is more efficient for them to opt-out of the government program so that they can have a uniform benefits plan for all of their employees. Because the idea is to give employer groups the option of remaining with what they now have, employers who opt-out of the government plan would be permitted to continue with existing managed care and indemnity plan models. The multi-payer option is discussed in the following sections:

- The Multi-Payer Opt-Out;
- Impact on State Health Spending; and
- Impact by Payer Group

A. The Multi-Payer Opt-Out

Under the multi-payer model, a single government program would be established to provide coverage that is identical to that created under the single-payer model discussed above. The benefits package would be the same as that created under the single-payer program and would be financed in the same way. Fee schedules also would be developed and used to control health care cost growth as under the single-payer scenario. Also, as under the single-payer model, employers would be required to pay two-thirds of the total payroll tax with the employee paying the remainder.

The sole difference in the multi-payer scenario is that employers would be able to opt-out of the government program to continue providing coverage through their own health plans. The coverage provided under these plans must be at least as comprehensive as the standard benefits package established under the government program. Also, the employer must pay at least two-thirds of the premium for such coverage, which corresponds to the percentage of the total payroll tax that individuals would pay if they participated in the government plan. Employers who opt-out would be permitted to continue offering coverage through existing managed care models including capitation arrangements.

Under this program, eligible employees would be required to accept the coverage offered to them. Employers would have the option of covering their part-time and temporary workers separately under the government plan by paying the full payroll tax for their workers.

Employers who do not opt-out of the government program would pay the employer share of the payroll tax required to fund the program as under the single-payer scenario. Employers who choose to opt-out would be exempt from the payroll tax if the employer's actuarially determined expected cost of providing the basic benefits package is equal to or greater than the payroll tax amount that the employer would have paid if they had not chosen to continue their health plan. However, firms whose expected costs are less than the payroll taxes that they would have paid would owe the difference to the government program.

1. Calculating the Payroll Tax for Employers that Opt-Out

The payroll tax for an employer who decides to provide coverage would be calculated in two steps. First, the expected cost of covering the employer's work force would be estimated actuarially based upon the demographic and geographic characteristics of their workers and their dependents. Second, the tax payment would be calculated as the difference between the payroll tax that they would have paid under the government program (i.e., including employer and employee share) and the estimated cost of covering the workers who would be covered under the employers plan (including employer premium share and employee premium contribution). This process would be repeated each year.

The method for computing the expected cost of coverage would be based upon costs under the government program. Thus, any increase in a health plan's costs in excess of allowable spending growth under the public plan could not be applied to offset the tax payment amount for the firm. Also, the higher cost of administering health benefits under a multi-payer model could not be offset against the firm's payroll tax liability. This would create an additional incentive for employers to adopt efficient health plans. Due to the higher administrative costs of providing coverage through an employer plan, most firms would find it less costly to simply pay the payroll tax, thus, covering their workers under the government program.

As discussed above, in cases where a firm's payroll tax payment exceeds the expected cost of covering the group, the employers and the employees would pay the difference to the government program. Employers are required to pay two-thirds of these costs with the employee paying the remainder. However, employers would be permitted to pay a greater percentage of these costs. (This will typically occur in firms with collective bargaining agreements.) There would be no tax payments in cases where the expected cost of coverage exceeds the payroll tax obligation.

2. Potential Gaming By Employers

Another potential problem with the opt-out model is "gaming" by employers. For example, employers with a disproportionately healthy population (even after adjusting for demographics and geography) would typically find that the cost of covering their group is less than the actuarially determined expected cost. These employers would find it less costly to insure their own group and pay the difference between the payroll tax amount and the actuarially determined

expected cost.[10] This would drive per-capita costs up in the government program because the employers with healthier individuals would insure on their own, leaving only the higher cost employer groups in the government program (i.e., this phenomenon is know as adverse selection).

However, it is also possible that some employers would continue to insure on their own even if they have higher than average costs. This is most likely to occur in unionized firms and in firms with highly compensated workers who may be willing to pay more to retain private coverage. This behavior is particularly likely to occur in the early years of the program when many consumers are likely to be cautious about shifting to the government plan. Moreover, some employers may feel that they can provide coverage at lower costs through managed care arrangements. Thus, it is difficult to predict whether employer behavior would result in an increase in per-capita costs in the government program due to adverse selection.

This issue could be addressed by using actuarial methods to determine whether the public program is accumulating a disproportionate share of high cost individuals. If so, the additional cost attributed to this could be recovered by requiring an additional tax payment from firms that opt-out of the public program.

3. Assumptions

To the maximum extent possible, the assumptions that we used to model this scenario were the same as those used in our single-payer scenario discussed above. For example, the increase in health services utilization among newly insured persons under this scenario would be the same as under the single-payer plan scenario.

Employer behavior under the multi-payer model is extremely difficult to predict. In general, employers of low-wage workers would find it less costly to pay the payroll tax, which is computed as a percent of income, than to continue providing coverage. We also anticipate that most employers of higher wage workers would find participation in the single-payer program less costly than continuing to provide employer coverage due to the lower administrative costs under the government plan. However, some employers may be able to save by adopting managed care plans with aggressive cost controls that are less costly than the expected costs for their workers and dependents under the government plan. It is unclear how employers would respond to these incentives.

In general, employers facing a payroll tax in excess of what they now pay for coverage will find it less costly to discontinue their employer plan because of the higher cost of administering private coverage. As discussed above, this is because the employer pays the difference between their actuarially determined expected costs assuming single-payer plan cost levels (for benefits and administration) and the payroll tax, which causes the employer to pay the full amount of any of the higher administrative costs associated with the employer sponsored plan. Also, as discussed above, the tax paid by firms that opt-out of the single-payer plan would be adjusted to correct for any adverse selection into the single-payer plan resulting from employer "gaming" of

[10] Under this scenario, the employer savings are equal to the actuarially determined expected costs and their actuarially determined costs.

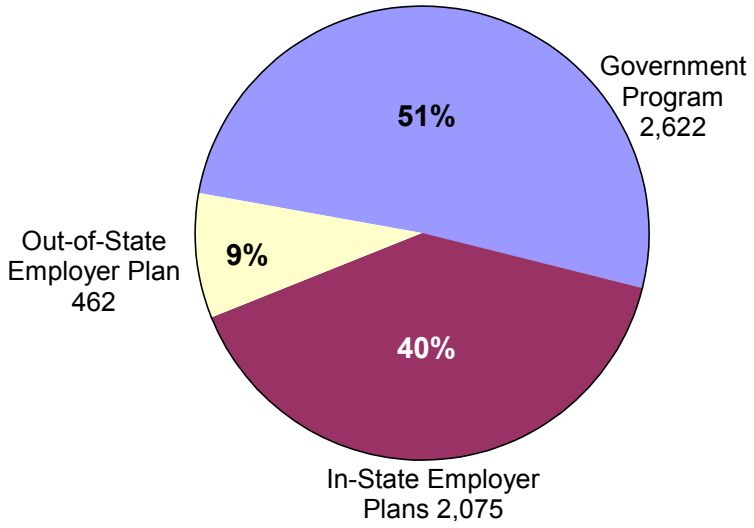
the program. Consequently, most employers will find it less costly to cover their workers under the single-payer program. However, employers who are willing to sponsor managed care plans with aggressive cost controls may still find it less costly to insure on their own.

Despite these cost incentives, many employers may still opt-out of the single-payer program to continue providing coverage due to a potential preference on the part of workers and unions to remain with their current employer coverage. For illustrative purposes, we assume that employers would be willing to pay the higher administrative cost of continuing their current plan. However, we assume that all employers will discontinue their coverage if the payroll tax is less than the expected cost of covering their workers.

Under these assumptions, about 49 percent of Maryland residents would be covered under a private employer plan (***Figure 10***). These include Marylanders covered by out-of-state employers (9 percent) and persons covered by Maryland employers who chose to continue to provide coverage (40 percent). About 51 percent of Maryland's population would be covered under the government plan.

Figure 10

Distribution of Persons in Maryland by Coverage Status Under the Multi-Payer Universal Coverage Program in 2001 (in thousands)



Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM)

The assumption that some employer plans would continue to offer coverage would have the effect of changing the amount of administrative savings realized by shifting to the single-payer model. Our cost savings assumptions were adjusted as follows:

- Insurer Administrative Costs: There would be no insurer administrative savings for persons who remain in employer sponsored plans;

- Provider Administrative Costs: The amount of hospital and physician administrative savings that we estimated under the single-payer scenario would be reduced in proportion to the amount of spending that would continue to be covered under employer sponsored plans; and

- HMO Expenditures: The increase in spending resulting from the elimination of HMOs under the single-payer model would be reduced in proportion to the number of persons remaining in HMOs under the opt-out scenario.

We assume that total health expenditure levels under the multi-payer model would be identical to those used under the single-payer scenario. We also assume that these expenditure controls on hospitals would be fully effective for both private plans and the government plan through continued use of Maryland's all-payer hospital rate setting system.

B. Impact on State Health Spending

Total health spending in Maryland would increase by $207.2 million under the multi-payer model in 2001 (***Table 13***). This compares with an actual reduction in spending of $345.8 million under the single-payer model. Thus, health spending under the multi-payer model would be about $553 million higher than under the single-payer plan.

The higher costs under the multi-payer program are attributed primarily to the fact administrative cost savings would be less than under the single-payer model. As shown in ***Table 13,*** administrative savings would be $505 million under the multi-payer proposal compared with $1.1 bullion under the single-payer program. Also, prescription drug rebate savings would be about $71.7 million less than under the single-payer program, reflecting the fact that the rebates received by the plan (i.e., Medicaid rebate levels) are greater than can be obtained by private insurers in general. However, the increase in costs resulting from reduced reliance on HMOs would be smaller than under the single-payer model because many employers are expected to continue their HMO plans.

The net change in utilization of health services would be the same under both scenarios (i.e., an increase of $675.9 million). This reflects the fact that both programs require the same standard benefits package resulting in increased utilization by insured and under-insured persons. Also, the reduction in uncompensated care costs under these two universal coverage programs also would be the same due to the use of a standard benefits package.

Table 13

Changes in Health Spending in Maryland under the Single-Payer and the Multi-Payer Universal Coverage Proposals in 2001 (in millions) [a/]

	Single-Payer Model	Multi-Payer Model
Changes in Health Services Utilization		
Increase in Utilization Due to Expanded Coverage	**$675.9**	**$675.9**
Utilization Increase for Previously Uninsured	$449.4	$449.4
Expanded Coverage for Those Already Insured	$226.5	$226.5
I. CHANGE IN ADMINISTRATIVE COSTS		
Net Change in Administrative Costs	**($1,085.4)**	**($505.0)**
Insurer Administration (Includes Administration for Newly Insured)	($689.7)	($291.0)
Physician Administrative Savings	($220.4)	($119.2)
Hospital Administrative Savings	($175.3)	($94.8)
II. CHANGE IN PROVIDER REIMBURSEMENT		
Net Change in Provider Reimbursement	**$0.0**	**$0.0**
New Revenue for Previously Uncompensated Care	$506.9	$506.9
Reduction in Cost Shift	($506.9)	($506.9)
III. **MANAGED CARE ADJUSTMENT**		
Managed Care Adjustment	**$230.2**	**$131.1**
IV. PRESCRIPTION DRUG REBATE		
Change in Prescription Drug Spending Due to Rebates	**($166.5)**	**($94.8)**
V. NET CHANGE IN HEALTH SPENDING		
Net Change in Health Spending	**($345.8)**	**$207.2**

a/ Includes all persons in the state including those with public and private coverage.
Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM)

1. Expenditures by Payer Group

Total expenditures under the government plan would be $10.7 billion in 2001 under the multi-payer program (***Table 14***). This includes net benefits payments of 10.4 billion and about $271 million in program administrative costs. Total federal and state revenues transferred to the single-payer plan (i.e., Medicare, Medicaid, etc.) would be $6.1 billion. The program would also collect $4.6 billion in new tax revenues from the various dedicated taxes created under the plan.

Table 14

Analysis of Program Costs and Revenues under the Maryland Multi-Payer Universal Coverage Proposal in 2001 Employers Have the Option to Continue to Offer Insurance (in millions) [a/]

Uses of Funds		Sources of Funds	
Program Expenditures		**Inter-Governmental Transfer Revenues**	
Benefit Payments [b/]	**$11,342.8**	**CHAMPUS/Military** [f/]	**$135.5**
Payment Adjustments [c/]	**($684.6)**	**Medicare** [g/]	**$4,033.4**
Uncompensated Care Savings	($506.9)	**Medicaid**	**$1,787.3**
Provider Administration	($214.0)	State Share [h/]	$893.7
Managed Care Adjustment	$131.1	Federal Share [i/]	$893.7
Prescription Drug Rebate	($94.8)	**Other State** [j/]	$218.8
State and Local Employee Benefits [d/]	($240.4)	**Federal Employee Health Benefits Program**	($34.2)
Insurance Administration [e/]	$271.4	**TOTAL Government Transfers**	**$6,140.8**
		New Tax Revenues	
		Payroll Tax (Net of Wage Effect) [k/]	$4,240.5
		Employer (5.9%) $2,947.1	
		Employee (2.9%) $1,293.4	
		Tobacco and Alcohol Taxes [l/]	$200.6
		Personal Income Tax [m/]	$171.6
		Wage Effects of Payroll Tax [n/]	($64.3)
		TOTAL Tax Revenues	**$4,548.4**
TOTAL Expenses	**$10,689.2**	**TOTAL Revenues**	**$10,689.2**

a/ Includes only persons in public programs.

b/ Includes provider payments for acute care health services that are covered under the program. Provider payments are estimated based upon overall average provider payment levels under current programs. Excludes patient copayments and spending for non-covered services.

c/ We assume that provider payment rates are reduced to reflect reduced uncompensated care expenses and savings in provider administrative costs.

d/ Reflects the net change in state and local employee benefits expenditures as a result of shifting from employer-based health coverage to the payroll tax. Assumes all state and local government employers are enrolled in the single-payer program.

e/ Includes the cost of administering benefits under the single-payer program. Estimates based upon the cost of administering benefits under the Medicare program.

f/ The program will be reimbursed for services provided to persons who are covered under the CHAMPUS program.

g/ Federal Medicare program funding for Maryland residents would be transferred to the Maryland single-payer program. This includes federal funding for Part-A and the federal share of funding for Part-B.

h/ The state share of funding for the Medicaid program is transferred to the single-payer program. Estimates exclude the state share of funding for disproportionate share hospital payments.

i/ The federal share of funding for the Medicaid acute care program would be transferred to the single-payer program. Includes benefits payments, administration and the federal share of disproportionate share hospital payments.

j/ Current state and local funding for mental health and various indigent care program would be transferred to the single-payer program. Includes funding only for state health programs, which are not also included under the state share of the Medicaid program.
k/ The program imposes a payroll tax on employers of 5.9 percent and employees of 2.9 percent.
l/ Assumes a net increase in revenues from the Maryland alcohol tax rates to the national average ($28.5 million) and a increase in the tobacco tax to $1.25 per pack of cigarettes ($172.1 million).
m/ The bill imposes a personal income tax equal to 4.0 percent of state income tax done on a progressive scale.
n/ Employers are assumed to pass-on the change in employer health care costs under the program as a change in wages resulting in corresponding changes in state personal income tax revenues.
Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

As discussed above, we estimate that about 40 percent of Marylanders would continue to receive coverage through a Maryland employer health plan. Consequently, total spending under the multi-employer plan would be $10.7 billion compared with $15.6 billion under the single-payer model (***Table 15***).

Table 15

Summary Comparison of Tax Rates and Costs Under the Single-Payer Model and the Multi-Payer Universal Coverage Model

	Single-Payer Model	Multi-Payer Opt-Out Model
Public Program Expenditures (in millions)	$15,577.1	$10,689.3
Spending Outside Public Programs (in millions)	$4,835.8	$10,276.6
Payroll Tax Rates		
Employer	6.3%	5.9%
Employee	3.2%	2.9%
Percent Increase in Income Tax Revenues	10.8%	3.9%
Change in Employer Spending (Before Wage Effects; in millions)	$406.5	$1,102.5
Change in Household Health Spending (after wage effects: in millions)	($161.0)	$199.2
Change in Total Health Spending (in millions)	($345.8)	$207.2

Source: Lewin Group Estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

The tax rates under the multi-payer plan would be lower than under the single-payer model. For example, the payroll tax rate for employers would drop from about 6.3 percent to 5.9 percent. Similarly, the payroll tax rates for employees would decline from 3.2 percent under the single-payer model to 2.9 percent under the multi-employer plan. This decline in the payroll tax rates required to fund the program occurs because employers who do not offer insurance must pay the payroll tax for all workers including those covered under a spouse's employer plan even in cases where the employee would receive no benefits under the government plan. This tends to have the effect of spreading the cost of the program across a larger participant payroll base .

The percentage increase in personal income taxes would also drop from 10.8 percent under the single-payer model to 3.9 percent under the multi-payer model. This is largely explained by the fact the lower payroll tax rate would effectively reduce the states payments to the fund for state and local workers.

2. Employer Health Spending

We estimate that employer health spending under the multi-payer proposal would be higher than under the single-payer proposal by about $696.0 million (***Table 16***). Employer spending under the multi-payer plan would increase by $1.1 billion compared to an increase of $406.5 million under the single-payer model (i.e., before wage effects). This reflects our assumption that

employers would continue with their health plan as long as this does not result in higher costs to the employer. However, it is difficult to estimate the net impact of the multi-payer plan on employers due to the difficulties in predicting employer behavior.

Table 16

Change in Employer Costs Under the Single-payer and Multi-Payer Models In Maryland in 2001

	Change In Health Spending (in millions)		Change in Health Spending Per Worker	
	Single-payer	Multi-Payer	Single-payer	Multi-Payer
Before Wage Effects				
Firms That Now Offer Insurance	($50.5)	$736.2	($28)	$415
Firms That Do Not Now Offer Insurance	$457.0	$366.3	$1,162	$932
All Firms	$406.5	$1,102.5	$187	$508
After Wage Effects				
Firms That Now Offer Insurance	($346.5)	($346.5)	($138)	($138)
Firms That Do Not Now Offer Insurance	$0.0	$0.0	$0.0	$0.0
All Firms	($346.5)	($346.5)	($83)	($83)

a/ Employers are assumed to pass-on the savings and/or increases in cost under the health reforms to workers in the form of changes in wages as labor markets adjust to these changes in employee compensation.
Source: Lewin Group Estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

Households would pay about $366.2 million more for health care under the multi-payer model than under the single-payer plan. This reflects the fact that workers ultimately pay the cost of employer sponsored insurance either through tax payments or wage effects associated with employer health spending.

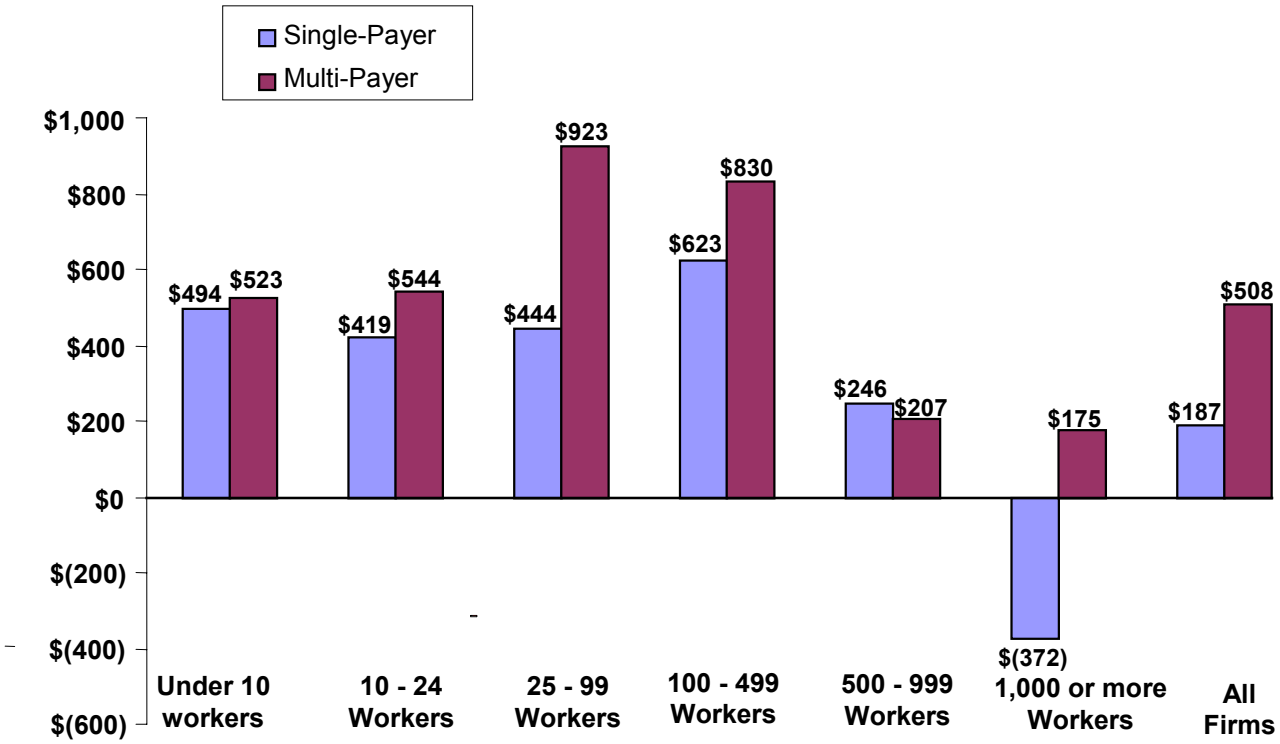
As discussed above, the multi-payer model would result in higher employer health spending than would the single-payer model. For example, the average increase in health spending per worker would be $508 under the multi-payer model (***Figure 11***). Per worker health spending would on average be higher under the multi-payer model than under the single-payer model for all firm size groups.

The increase in employer costs under the multi-payer model for firms that do not offer insurance would be lower under the multi-payer model than under the single-payer model. Employer costs in firms that currently do not offer insurance would increase by $366.3 million under the multi-payer program compared with an increase of $457.0 million under the single-payer plan. This reflects the fact that the employer payroll tax rate under the multi-payer model would be less than under the single-payer plan. However, over time, we expect these changes in health care

costs to be passed on to workers in the form of corresponding changes in wages as labor markets respond to these changes in employee compensation costs.

Figure 11

Change in Health Spending Per Worker Under the Single-Payer Model and the Multi-Payer Model in 2001: Before Wage Effects



Source: Lewin Group Estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

3. Impact on Family Health Spending

On average, families would spend more for health care under the multi-payer model than under the single-payer plan at all income levels. Family health spending would increase by an average of $57 under the multi-payer model compared with savings of ($261) per family under the single-payer program. Family costs under the multi-payer model would be higher than under the single-payer model for all income groups except those with incomes of $150,000 or more. This is because these high-income families are expected to benefit the most from the lower payroll tax under the multi-payer program.

Table 17

Change in Average Household Health Spending in Maryland Under the Single-Payer Model and the Multi-Payer Model in 2001: After Wage Effects [a/ b/]

Family Income	Single-Payer	Multi-Payer
Less than $10,000	($872)	($769)
$10,000 - $14,999	($1,605)	($1,354)
$15,000 - $19,999	($1,757)	($1,429)
$20,000 - $29,999	($1,287)	($917)
$30,000 - $39,999	($1,056)	($778)
$40,000 - $49,999	($941)	($551)
$50,000 - $74,999	($662)	($80)
$75,000 - $99,999	($48)	$480
$100,000 - $149,999	$381	$684
$150,000 or More	$4,195	$3,920
All Families	($261)	$57

a/ Excludes institutionalized persons.
b/ Includes changes in premiums, out-of-pocket expenses, taxes earmarked to fund health reform, and after-tax wage effects.
Source: Lewin Group Estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

IX. CAVEATS

A single-payer program such as that described in this report, has never been attempted on a broad scale in the United States. Consequently there are little data on the likely outcomes of such a program that can be used to estimate its impacts. In particular, the dramatic restructuring of the health care financing system in Maryland could substantially alter consumer, employer and provider incentives, which could have a significant impact on program costs. Our analysis also does not address any potential changes in the quality of care provided under these reform proposals.

Although the analysis in this paper is based upon the best data and research now available, the estimates should be considered illustrative of potential impacts rather than point estimates of actual outcomes. In fact, our analysis indicates that the ultimate impact of the plan on government health spending, employer health spending and wages is very sensitive to assumptions on employer and consumer behavioral responses under the new incentives created by a single-payer program.

Furthermore, the estimates are based on projections of the rate of growth in health spending which are themselves especially sensitive to a number of factors including general economic growth and health care cost trends. Moreover, our analysis assumes that the global budgets under the program would be effective in controlling health care cost growth in Maryland, even though such a large scale global budgeting program is untested in the United States. Consequently, policy makers should recognize that any major health initiative is likely to require continued refinements in program design and financing over time.

Appendix A

Data and Methods Used in Analysis of the Single-Payer Program for Maryland

Data and Assumptions

The Lewin Group developed a model of health spending in Maryland to be used to simulate the impact of alternative health reform proposals including the single-payer model. This model is designed to estimate the potential impacts of alternating health reform proposals on insurance coverage and health expenditures in Maryland over the 2001 through 2010 period. Estimates of the net impact of these reform options on costs and coverage are determined by comparing estimates under the single-payer plan to our estimates of spending under current trends. The model presents estimates of total program costs, net changes in total state health spending, changes in spending by type of service, and changes in administrative costs.

The model is based upon Lewin Group's "best assumptions on the impact of a single-payer program on health spending in Maryland. The model provides outputs that show the impact of the single-payer program on health care expenditures by type of service and type of spending. It also shows changes in spending for employers by type of firm and for households in various income groups.

A. Baseline Projections

The baseline in this analysis is a projection of the amount of health spending by type of service for each year between 2001 and 2010 under the existing health care system in Maryland. The Lewin Group first used estimates health expenditures for Maryland in 1998 developed by the Maryland Health Services Cost Review Commission. We then inflated these cost estimates to future years based upon estimates of the rate of growth in health spending developed by the Health Care Financing Administration (HCFA) by type of service and source of payment.

Estimates of health spending by type of service and source of payment are based upon estimates provided by the Maryland Health Services Cost Review commission. We adjusted these data to include expenditures for dental care in "carve-out" plans which are not fully represented in the Commission's data. Our estimates of Maryland health spending by type of service and source of payment in 2001 are presented in ***Table A-1***.

Table A-2 presents HCFA estimates of the growth in health spending annually for 1998 through 2010.

Table A-1
Baseline Real Growth In Per Capita Health Care Expenditures

	Average Annual Rate of Growth in Per Capita Health Spending
1998	2.3
1999	3.1
2000	3.1
2001	3.1
2002	3.5
2003	3.5
2004	3.5
2005	3.5
2006	3.5
2007	3.5
2008	3.5
2009	3.5
2010	3.5

a/ Based upon HCFA projected growth rates for the nation adjusted to reflect the historical relationship between health care cost growth in Maryland and the rate of growth in costs nationwide.
Source: Lewin Group estimates.

Table A-2
Estimated Health Spending in Maryland by Type of Service and Source of Payment in 2001 (in thousands)

1999 Data	Total	Hosp Inpat	Physician	Dentist	Other Prof	Drugs & Med	Eye Glasses	Nursing Home	Other Health	Hosp ER/Out	Home Health	
Out-of-Pocket	3,626,611	116,368	760,772	612,494	589,511	595,672	135,995	521,961		144,898	148,939	
Emp Workers	6,067,439	1,414,859	2,356,205	686,259	576,436	871,029	54,446	11,331		747,060	88,820	739,007
Retirees	674,213	164,949	198,304	17,021	27,303	236,168	4,982	1,299		68,091	10,182	54,085
Non-Group	722,316	162,697	187,997	8,673	14,704	73,741	4,309	991		72,177	7,768	189,271
Medicare	4,536,949	2,279,671	844,502		207,748		29,401	229,863		532,028	187,300	176,737
Medicaid	2,909,211	674,732	469,936	25,981	29,247	319,875		689,722	30,150	187,851	314,257	167,459
CHAMPUS/Vet	144,430	80,570	15,750			15,880		2,804	2,035	23,659	557	3,176
Other Public	274,641	88,587	19,303	5,018	31,702	62,701	2,147	8,187	27,145	26,136	1,625	2,092
Workers Comp	226,728	38,019	84,081		50,580	15,203	1,462	8,203		11,871	1,628	15,681
Total	20,758,72	5,020,452	4,976,840	1,355,447,	1,527,231	2,190,268	232,740	1,474,361	59,330	1,813,771	761,076	1,347,208

Source: Lewin Group estimates based upon estimates provided by the Maryland Health Services Cost Review Commission.

B. Single-payer Assumptions

Under the single-payer program, all Maryland residents would be covered under a single government-financed insurance program. The benefits package would cover nearly all health care costs except cosmetic surgery, non-prescription drugs, private hospital rooms and orthodontia. The plan would require $10 copayments for health services but would not require a deductible.

Hospitals would be placed on annual budgets, which limit the rate of growth in hospital costs. Spending for other services also would be controlled through global budgets on health spending that cap health expenditure growth at a predetermined level. We assume that there will be no HMOs in the program. However, the program would use a primary care referral model (i.e., gatekeeper model) which could help limit the use of specialists.

The single-payer model would have several impacts on statewide health spending. For example, there would be an increase in health services utilization as persons who are uninsured or under insured under the current system become covered. Utilization is also likely to increase due to the fact that HMOs will not be used in the program. However, these increases in costs would be largely offset by reductions in administrative costs for insurers and providers. Costs will also fall over-time due to the use of health spending budgets, which reduce the rate of growth in health spending.

Figure A-1 presents our assumptions on the cost impacts of the various factors affecting utilization and expenditures under a single-payer system. These are based upon prior Lewin Group analyses of the impacts of converting from the current system to a single-payer system.[11] These assumptions include:

[11] Sheils, John F., Young, Gary J., "National Health Spending under a Single-Payer System: The Canadian Approach," Staff Working Paper, The Lewin Group, Inc., January 1992.

Figure A-1
Assumptions Concerning the Cost Impacts of a Single-Payer System in Maryland

Insurer Administrative Costs

- Single-payer administrative costs as a percentage of benefits: 2.1 percent

Provider Administrative Costs

- Hospital administrative costs as a percentage of hospital net revenues: 34.2 percent
- Percentage of hospital administrative costs saved under single-payer model: 14.0 percent
- Net savings: 4.7 percent
- Physician administrative costs as a percentage of physician revenues: 32.0 percent
- Percentage of physician administrative costs saved under single-payer model: 19.0 percent
- Net savings: 6.1 percent

Utilization for Newly Insured

- Utilization increase for newly insured and newly covered services for under insured: 70.1 percent

Increased Utilization For Persons Formerly HMOs

- Percentage of Maryland residents in HMOs: 38.4 percent
- Percentage increase in utilization: 4.0 percent

Maryland Rebate Prescription Drug Assumptions

Single-payer Negotiated Rebate: 17.7 percent

Insurer Administration

- **Single-Payer Administrative Costs as a Percentage of Benefits:** We estimated administrative costs under a Maryland single-payer system by extrapolating from the administrative costs for the US Medicare program after adjusting for key differences between the Medicare program and the single-payer model for Maryland, including the elimination of hospital claims filing (hospital claims are eliminated under the single-payer by placing hospitals on annual budgets). Based upon these assumptions, we estimate that administrative costs under the Maryland single-payer program will equal about 2.1 percent of claims.

Provider Administration

- **Hospital Administrative Cost Savings:** We estimate that currently, hospitals spend 34.2 percent of net revenues on administration, which includes all labor and overhead expenditures attributed to functions other than those directly related to patient care, such as accounting, credit and collections, and admitting. The single-payer proposal would all but eliminate hospital administrative costs associated with filing claims because under the this model, hospitals are given an annual operating budget covering all services provided by the hospital. Based upon our analysis of the hospital data, we estimate that hospital administrative costs would be reduced by about 14 percent in 2001 under the single-payer model: 14 percent of 33.7 percent equals a net saving of 4.7 percent.

- **Physician Administrative Costs Savings:** Based upon Lewin Group analyses of physician practice expenses, we estimate that 32 percent of revenues for all physicians and other professionals are devoted to administrative functions such as practice management and insurer-related functions (this includes the cost of physician time devoted to administration). Based upon our earlier research on the single-payer system, we estimated that physician administrative costs would be reduced by about 19 percent under the single-payer model: 26 percent of 32 percent equals a net savings of 6.1 percent.

Newly Insured

- **Increase in Utilization for Newly Insured Persons.** Uninsured persons are expected to increase their utilization of health services once they become insured under the single-payer program. In prior studies, we have estimated the increase in health services utilization for the uninsured population by assuming that utilization for uninsured persons would increase to the levels reported by insured persons with similar age, sex and health status characteristics.[12] Based upon this analysis, we estimate that health services utilization among those who are currently without insurance would increase by 70.1 percent. Utilization of Prescription Drugs, Dental Care and Mental Health Services are assumed to increase in similar proportions for persons who currently are not covered for these services (i. e., the under insured).

[12] "The Financial Impact of *The Health Security Act*," The Lewin Group, Inc., December 9, 1993.

Patient Cost Sharing (Out-of-Pocket Expenses)

- **Change in Utilization Due to Patient Cost Sharing:** The single-payer model would include a $10 copayment requirement which is comparable to what many individuals face in their existing health plans. Consequently, we assume no change in utilization due to cost sharing design.

Managed Care

- **Utilization Increase Due to Elimination of HMO Capitation Model:** The single-payer system that we are modeling will be a fee-for-service insurance program. There will be no Health Maintenance Organizations (HMOs) in the program. However this single-payer program would feature a primary care referral program (i.e., gatekeeper model) similar to that used in many preferred provider organizations (PPOs) and point-of-service (POS) plans. This would result in increased utilization as the utilization controls under HMOs are lifted. About 38.4 percent of Maryland's residents are now covered under an HMO.[13] Studies have been conducted showing that HMOs reduce utilization by about four percent (much of the savings in HMOs is associated with price discounts).[14] In this analysis, we assume that the elimination of managed care would increase utilization for persons in HMOs to the level observed in PPOs, which translates into a four percent increase in spending for HMO enrollees.

Prescription Drug Rebate Program

- **Rebate Amount:** We assume that the program will negotiate rebates with prescription drug manufacturers equal to what Maryland now receives under their Medicaid Program, which is about 17.7 percent. By comparison, we estimate that average drug manufacturer rebates are about 8.3 percent for currently insured persons who currently have private coverage.

C. Global Budgeting Assumptions

Under the single-payer global budgeting system, policymakers set the level of total spending for the State of Maryland. We assume that the budget for spending in the first year of the program (2001) would be equal to the amount that would have been spent in that year under current policy with certain adjustments. For illustrative purposes, we assume that growth in health expenditures over time would be the same as would occur under current trends, adjusted to reflect the changes in utilization and the savings in administration that would occur under the system.

[13] The Interstudy Competitive Edge: HMO Industry Report.

[14] Stapleton, David, "New Evidence on Savings from Managed Care," (A report to the Healthcare Leadership Council), Washington, DC, May 1994.

Appendix B

The Financial Impact of a Multi-Payer Universal Coverage Program for Maryland: Detailed Tables

Table B-1
Changes in Health Spending in Maryland under the Multi-Payer Universal Coverage Proposal in 2001 (Employers Have the Option to Continue to Offer Insurance) (in millions)

	Before Wage Effects	After Wage Effects
Changes in Health Spending		
State Government Health Spending	($64.3)	- - -
Total Program Costs	$10,689.2	$10,689.2
Program Revenues	($10,753.5)	($10,753.5)
Tax Loss (Gain)	- - -	$64.3
Federal Government Health Spending	- - -	**$354.5**
Transfers to Program	$5,028.4	$5,028.4
Current Program Spending	($5,062.6)	($5,062.6)
Employee Benefits	$34.2	$34.2
Tax Loss (Gain)	- - -	$354.5
Private Employer Health Spending	**$1,102.5**	**($346.5)**
Firms that Now Insure	$736.2	($346.5)
Workers and Dependents	$1,082.7	- - -
Retirees	($346.5)	($346.5)
Firms that Do Not Now Insure	$366.3	- - -
Household Health Spending	**($831.0)**	**$199.2**
Premium Payments	($514.1)	($514.1)
Dedicated Tax Payments	$1,665.6	$1,665.6
Out-of-Pocket Payments	($1,982.5)	($1,982.5)
After-Tax Wage Loss (Gain)	- - -	$1,030.2
Net Change in Health Spending		
Net Change in Spending [a/]	**$207.2**	**$207.2**

a/ See ***Table 2*** for a detailed summary of changes in statewide health spending. Includes changes in wages and tax revenues.

Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

Table B-2
Changes in Health Spending in Maryland under the Multi-Payer Universal Coverage Proposal in 2001 (Employers Have the Option to Continue to Offer Insurance) (in millions) [a/]

	Change in Spending
Changes in Health Services Utilization	
Increase in Utilization Due to Expanded Coverage	**$675.9**
Utilization Increase for Previously Uninsured [b/]	$449.4
Expanded Coverage for Those Already Insured [c/]	$226.5
Change in Administrative Costs	
Net Change in Administrative Costs	**($505.0)**
Insurer Administration (Includes Administration for Newly Insured) [d/]	($291.0)
Physician Administrative Savings [e/]	($119.2)
Hospital Administrative Savings [e/]	($94.8)
Change in Provider Reimbursement	
Net Change in Provider Reimbursement [f/]	**$0.0**
New Revenue for Previously Uncompensated Care	$506.9
Reduction in Cost Shift	($506.9)
Managed Care Adjustment	
Managed Care Adjustment [g/]	**$131.1**
Prescription Drug Rebate	
Prescription Drug Rebate [h/]	**($94.8)**
Net Change in Health Spending	
Net Change in Health Spending	**$207.2**

a/ Includes spending for acute care. Excludes research, construction long-term care and public health.

b/ Assumes that utilization of health services by previously uninsured persons will rise to the levels reported by insured persons with similar age, sex, income and health status characteristics.

c/ Assumes that utilization of newly covered health services for insured persons whose coverage is upgraded (prescription drugs, etc.) will rise to the levels reported by persons who have such coverage.

d/ Total insurer administrative costs are estimated to be $1,232 million in 2001. Insurer administrative costs will drop to $941 million under the single-payer model. We estimated single-payer program administrative costs based upon Medicare program administrative costs adjusted for the unique features of the single-payer plan.

e/ Savings in provider administrative costs result from: uniform billing procedures, elimination of patient billing, for cost sharing amounts, and the use of hospital capital and operating budgets. For a discussion of the methodology used see: John F. Sheils et al., "National Health Spending Under a Single Payer System: The Canadian Approach," Lewin-VHI, January 8, 1992.

f/ Under a universal coverage program, hospitals and physicians will receive payments for care formerly provided as uncompensated care. We assume that provider payments are adjusted to eliminate provider windfalls for care already paid for through cost shifting.

g/ Assumes a 4.0 percent increase in utilization for persons formerly enrolled in HMOs.

h/ Assumes a 17.7 percent rebate on prescription drug expenses covered under the program, which is the same percentage drug rebate received by the Maryland Medicaid Program. Rebates for privately insured persons under the current system are assumed to be equal to 8.3 percent.

Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

Table B-3
Changes in Provider Payment Under the Multi-Payer Universal Coverage Proposal in 2001 (Employers have the option to continue to offer coverage.) (in millions)

Type of Service	Current Spending	Change in Spending	Percent Change in Spending
Hospital Inpatient	$5,017	$188	3.8%
Hospital Outpatient	$1,814	$40	2.2%
Physician	$4,977	$188	3.8%
Other Professional	$2,883	$109	3.8%
Prescription Drugs	$2,193	($30)	(1.4%)
Long-Term Care	$2,236	—	—
Other Health Services	$292	$4	1.4%
Total Provider Payments	$19,412	$499	2.6%
Insurer Administration	$1,347	($292)	(21.6%)
Total	$20,759	$207	1.0%

a/ See ***Table B-2*** for detailed summary of changes in statewide health spending.
Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

Table B-4
Analysis of Program Costs and Revenues under the Maryland Multi-Payer Universal Coverage Proposal in 2001 (Employers Have the Option to Continue to Offer Insurance) (in millions)

Uses of Funds		Sources of Funds	
Program Expenditures		**Inter-Governmental Transfer Revenues**	
Benefit Payments [a/]	**$11,342.8**	**CHAMPUS/Military** [e/]	**$135.5**
Payment Adjustments [b/]	**($684.6)**	**Medicare** [f/]	**$4,033.4**
Uncompensated Care Savings	($506.9)	**Medicaid**	**$1,787.3**
Provider Administration	($214.0)	State Share g/	$893.7
Managed Care Adjustment	$131.1	Federal Share h/	$893.7
Prescription Drug Rebate	($94.8)	**Other State** [i/]	$218.8
State and Local Employee Benefits [c/]	($240.4)	**Federal Employee Health Benefits Program**	($34.2)
Insurance Administration [d/]	$271.4	**TOTAL Government Transfers**	**$6,140.8**
		New Tax Revenues	
		Payroll Tax (Net of Wage Effect) [j/]	$4,240.5
		Employer (5.9%) $2,947.1	
		Employee (2.9%) $1,293.4	
		Tobacco and Alcohol Taxes [k/]	$200.6
		Personal Income Tax [l/]	$171.6
		Wage Effects of Payroll Tax [m/]	($64.3)
		TOTAL Tax Revenues	**$4,548.4**
TOTAL Expenses	**$10,689.2**	**TOTAL Revenues**	**$10,689.2**

Notes for Table B-4
Analysis of Program Costs and Revenues under the Maryland Multi-Payer Universal Coverage Proposal in 2001

a/ Includes provider payments for acute care health services that are covered under the program. Provider payments are estimated based upon overall average provider payment levels under current programs. Excludes patient copayments and spending for non-covered services.

b/ We assume that provider payment rates are reduced to reflect reduced uncompensated care expenses and savings in provider administrative costs.

c/ Reflects the net change in state and local employee benefits expenditures as a result of shifting from employer-based health coverage to the payroll tax. Assumes all state and local government employers are enrolled in the single-payer program.

d/ Includes the cost of administering benefits under the single-payer program. Estimates based upon the cost of administering benefits under the Medicare program.

e/ The program will be reimbursed for services provided to persons who are covered under the CHAMPUS program.

f/ Federal Medicare program funding for Maryland residents would be transferred to the Maryland single-payer program. This includes federal funding for Part-A and the federal share of funding for Part-B.

g/ The state share of funding for the Medicaid program is transferred to the single-payer program. Estimates exclude the state share of funding for disproportionate share hospital payments.

h/ The federal share of funding for the Medicaid acute care program would be transferred to the single-payer program. Includes benefits payments, administration and the federal share of disproportionate share hospital payments.

i/ Current state and local funding for mental health and various indigent care program would be transferred to the single-payer program. Includes funding only for state health programs, which are not also included under the state share of the Medicaid program.

j/ The program imposes a payroll tax on employers of 5.9 percent and employees of 2.9 percent.

k/ Assumes a net increase in revenues from the Maryland alcohol tax rates to the national average ($28.5 million) and a increase in the tobacco tax to $1.25 per pack of cigarettes ($172.1 million).

l/ The bill imposes a personal income tax equal to 4.0 percent of state income tax done on a progressive scale.

m/ Employers are assumed to pass-on the change in employer health care costs under the program as a change in wages resulting in corresponding changes in state personal income tax revenues.

Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

Table B-5
Change in Federal Health Spending in Maryland under the Multi-Payer Universal Coverage Proposal in 2001 (Employers Have the Option to Continue to Offer Insurance) (in millions)

Federal Employee Health Benefit [a/]	$34.2
Spending in Current Programs [b/]	($5,062.6)
Medicare Benefits ($4,033.4)	
Medicaid ($893.7)	
CHAMPUS/VA ($135.5)	
Transfers to State Program [c/]	$5,028.4
Federal Income and FICA Tax Loss [d/]	$354.5
Net Cost to Federal Government	
Net Cost to Federal Government	**$354.5**

a/ Includes reduction in costs for benefits to federal employees and retirees offset by the payroll tax. Assumes all Federal government employees living in Maryland are enrolled in the single-Payer program.
b/ Benefits for Medicare recipients, Medicaid beneficiaries, and CHAMPUS/VA beneficiaries will be eliminated as those beneficiaries are enrolled in to the single-payer plan.
c/ The federal government will transfer to the state their share of savings to current federal programs.
d/ Tax loss due to reduced wage levels resulting from higher employer costs.
Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

Table B-6
The Impact of the Multi-Payer Universal Coverage Proposal on Private Employer Health Spending for workers in Maryland in 2001: Before Wage Effects (Employers Have the Option to Continue to Offer Insurance) (in millions)

	Firms that Now Offer Insurance	Firms That Do Not Now Offer Insurance	All Firms
Spending Under Current Policy			
Workers and Dependents	$4,217.2	- - -	$4,217.2
Retirees	$406.7	- - -	$406.7
Current Spending	**$4,623.9**	**- - -**	**$4,623.9**
Spending Under Reform			
Wrap-Around Coverage			
Workers and Dependents [a/]	$3,902.3	- - -	$3,902.3
Retiree Premiums	$14.2	- - -	$14.2
Payroll Tax [b/]	$1,443.6	$366.3	$1,809.9
TOTAL	**$5,360.1**	**$366.3**	**$5,726.4**
Change in Employer Costs			
Net Change	**$736.2**	**$366.3**	**$1,102.5**

a/ Includes employers' share of premium payments for employers that continue to provide insurance to workers and wrap around coverage for those employers that discontinue providing primary coverage.

b/ Employers are required to pay a payroll tax to fund the single payer program. Employers that continue to provide coverage pay a payroll tax for each worker equal to 5.9 percent of wages less the employer share of the premium payment.

Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

Table B-7
Employer Health Spending in Maryland under Current Policy and under the Multi-Payer Universal Coverage Proposal by Firm Size and Industry in 2001: Before Wage Effects (Employers Have the Option to Continue to Offer Insurance)

	Spending under Current Policy (in millions) [a/]	Total Spending under the Multi-Payer Plan (millions) [b/]	Percent Increase (Decrease)
Firm Size			
Under 10	$432.0	$664.1	53.8%
10 - 24	$269.7	$363.7	34.9%
25 - 99	$682.8	$1,019.3	49.3%
100 - 499	$670.5	$973.2	45.1%
500 - 999	$288.5	$313.4	8.6%
1,000 - 4,999	$656.7	$709.9	8.1%
5,000 or More	$1,623.6	$1,682.5	3.6%
Industry			
Construction	$286.7	$403.4	40.7%
Manufacturing	$1,121.2	$1,026.5	(8.4%)
Transportation	$548.6	$627.0	14.3%
Wholesale Trade	$219.4	$285.7	30.2%
Retail Trade	$342.2	$493.1	44.1%
Services	$1,729.7	$2,369.6	36.9%
Finance	$375.1	$521.1	38.9%
All Private Firms	**$4,623.8**	**$5,726.4**	**23.8%**

a/ Includes the employer contributions for benefits for workers, dependents and retirees.
b/ Includes payroll tax payments and the cost of continuing full insurance benefits and wrap around benefits for workers, dependents and retirees.
Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

Table B-8
Impact of a Multi-Payer Universal Coverage Proposal on Private Employers in Maryland by Firm Size and Industry in 2001: Before Wage Effects (Employers Have the Option to Continue to Offer Insurance)

	Total Change in Health Spending (millions)			Change in Health Spending Per Worker		
	Firms that Now Offer Insurance	Firms That Do Not Now Offer Insurance	All firms	Firms that Now Offer Insurance	Firms That Do Not Now Offer Insurance	All firms
Firm Size						
Under 10	($1.5)	$233.8	$232.3	($9)	$855	$523
10 - 24	$26.5	$67.4	$94.0	$236	$1,115	$544
25 - 99	$285.5	$50.9	$336.4	$905	$1,043	$923
100 - 499	$299.1	$3.7	$302.8	$828	$1,065	$830
500 - 999	$24.1	$0.8	$24.9	$202	$805	$207
1,000 - 4,999	$43.4	$9.7	$53.1	$197	$1,643	$235
5,000 or More	$59.1	- - -	$59.1	$124	- - -	$124
Industry						
Construction	$62.1	$54.3	$116.4	$631	$1,109	$790
Manufacturing	($109.4)	$14.7	($94.7)	($463)	$1,047	($378)
Transportation	$49.1	$29.1	$78.2	$359	$1,272	$489
Wholesale Trade	$54.6	$11.7	$66.3	$560	$1,168	$616
Retail Trade	$98.0	$52.9	$150.9	$362	$723	$439
Services	$448.4	$191.0	$639.4	$582	$914	$653
Finance	$133.3	$12.7	$146.0	$807	$836	$810
All Private Firms	**$736.2**	**$366.3**	**$1,102.5**	**$415**	**$932**	**$508**

Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

Table B-9
Impact of the Multi-Payer Universal Coverage Proposal on Households in Maryland in 2001: (Employers Have the Option to Continue to Offer Insurance)
(in millions)

	Without Wage Effects	With Wage Effects
Premium Payments		
Premium Reductions [a/]	**($514.1)**	**($514.1)**
Direct Payments for Care		
Reduced Out-of-Pocket Spending for Acute Care [b/]	**($1,982.5)**	**($1,982.5)**
Tax Payments		
Dedicated Program Tax Payments	**$1,665.6**	**$1,665.6**
Income Tax Surcharge	$171.6	$171.6
Tobacco Tax	$200.6	$200.6
Payroll Tax	$1,293.4	$1,293.4
After-Tax Wage Effects		
After-Tax Wage Effects [c/]	**N/A**	**$1,030.2**
Net Change in Household Spending		
Net Impact on Household Spending	**($831.0)**	**($199.2)**

a/ Assumes that the increased cost of the premium for employers upgrading to the minimum benefits package is passed on in full to the workers.

b/ Family out-of-pocket payments for acute care health services will be reduced under the program due to: 1) reduced patient cost-sharing requirements under the plan and 2) expanded coverage for services often excluded under existing plans.

c/ Employers are assumed to pass-on the cost (savings) resulting from shifting from employer-based insurance to the payroll tax in the form of changes in wages.

Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

Table B-10
Change in Average Household Spending on Health Care in Maryland Under the Multi-Payer Universal Coverage Proposal in 2001: After Wage Effects [a/]
(Employers Have the Option to Continue to Offer Insurance)

	Number of Families (in thousands)	Average Household Spending under Current Policy	Change in Spending under the Multi-Payer Proposal [b/]
Age of Head			
Under 24	64.6	$2,417	$440
25 - 34	465.6	$2,126	$670
34 - 44	452.2	$2,751	$959
45 - 54	344.8	$3,157	$1,063
55 - 64	315.5	$3,124	($305)
65 and Over	433.4	$3,884	($2,134)
Marital Status			
Married	1,107.1	$3,802	$242
Single	969.4	$1,960	($154)
Male	337.2	$1,270	$385
Female	632.1	$2,328	($441)
Income			
Less than $10,000	178.6	$1,264	($769)
$10,000 - $14,999	120.6	$2,338	($1,354)
$15,000 - $19,999	101.0	$2,719	($1,429)
$20,000 - $29,999	237.5	$2,437	($917)
$30,000 - $39,999	226.7	$2,483	($778)
$40,000 - $49,999	183.5	$2,879	($551)
$50,000 - $74,999	405.3	$3,192	($80)
$75,000 - $99,999	276.8	$3,337	$480
$100,000 - $149,999	122.8	$4,006	$684
$150,000 or More	223.3	$4,238	$3,920
Income as a Percentage of the Federal Poverty Level (FPL)			
Below FPL	202.8	$1,412	($787)
100% - 149%	160.8	$2,432	($1,168)
150% - 199%	149.2	$2,795	($1,191)
200% - 249%	139.4	$2,894	($859)
250% - 299%	143.8	$3,088	($764)
300% or More	1,280.3	$3,254	$683
Current Out-of-Pocket Costs			
Less than $500	883.1	$1,248	$610
$500 - $999	364.2	$2,538	$611
$1,000 - $2,499	504.8	$3,461	($108)
$2,500 - $4,999	221.0	$5,454	($773)
$5,000 - $9,999	80.8	$8,908	($2,526)
$10,000 or More	22.2	$18,370	($9,553)
TOTAL	**2,076.5**	**$2,942**	**$57**

a/ Excludes institutionalized persons.

b/ Includes changes in premiums, out-of-pocket expenses, taxes earmarked to fund health reform and after-tax wage effects.

Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

Table B-11
Change in Average Household Per-Capita Spending on Health Care in Maryland Under the Multi-Payer Proposal in 2001 by Family Income and Age of Householder: After Wage Effects (Employers Have the Option to Continue to Offer Insurance)

	Average Change by Age of Householder		
Family Income	**Under Age 65**	**Age 65 and Older**	**All Families**
Less than $10,000	($441)	($1,374)	($769)
$10,000 - $14,999	($577)	($2,120)	($1,354)
$15,000 - $19,999	($386)	($2,702)	($1,429)
$20,000 - $29,999	($291)	($2,590)	($917)
$30,000 - $39,999	($274)	($2,304)	($778)
$40,000 - $49,999	($122)	($2,413)	($551)
$50,000 - $74,999	$244	($2,461)	($80)
$75,000 - $99,999	$709	($1,883)	$480
$100,000 - $149,999	$1,316	($1,795)	$684
$150,000 or More	$4,185	($197)	$3,920
All Families	**$636**	**($2,134)**	**$57**

a/ Excludes institutionalized persons.

b/ Includes changes in premiums, out-of-pocket expenses, taxes earmarked to fund health reform, and after tax wage effects.

Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

Table B-12
Distribution of Families in Maryland by Change in Household Spending under the Multi-Payer Proposal in 2001: After Wage Effects [a/]

		Increase in Family Health Costs					Reduction in Family Health Costs					
		Family Income										
Family Income	All Families	$1,000 or More	$500 - $999	$250 - $499	$100 - $249	$20 - $99	Change of Less than $20	$20 - $99	$100 - $249	$250 - $499	$500 - $999	$1,000 or More
Less than $10,000	178,619.0	1.9%	8.8%	13.1%	15.3%	6.7%	5.8%	2.0%	3.1%	4.8%	6.8%	31.7%
$10,000 - $14,999	120,661.8	5.3%	8.9%	5.4%	3.8%	1.2%	1.2%	1.5%	2.2%	4.9%	13.2%	52.5%
$15,000 - $19,999	101,059.3	7.4%	5.9%	5.3%	4.3%	1.5%	0.0%	0.3%	2.4%	5.1%	11.9%	55.8%
$20,000 - $29,999	237,525.7	12.7%	8.5%	6.3%	5.5%	2.7%	0.2%	2.7%	2.2%	4.3%	8.7%	46.4%
$30,000 - $39,999	226,746.9	11.9%	18.6%	6.6%	2.5%	2.1%	0.4%	1.6%	2.0%	4.3%	7.3%	42.8%
$40,000 - $49,999	183,504.3	20.1%	10.5%	4.0%	2.6%	1.1%	1.0%	0.8%	3.1%	2.5%	7.8%	46.5%
$50,000 - $74,999	405,391.0	27.1%	6.9%	4.0%	2.4%	1.7%	0.7%	1.9%	1.2%	3.8%	8.3%	41.9%
$75,000 - $99,999	276,827.6	34.2%	7.4%	3.5%	3.3%	1.0%	0.5%	2.1%	2.4%	3.4%	6.9%	35.3%
$100,000 or More	346,195.7	67.7%	4.8%	2.1%	0.9%	0.5%	0.1%	0.4%	1.3%	2.0%	3.5%	16.7%
Head Under Age 65	1643.1	32.7%	12.6%	8.2%	8.1%	3.7%	2.8%	6.0%	5.4%	4.0%	3.3%	13.2%
Head Age 65 or Older	433.4	5.0%	3.3%	3.2%	0.9%	2.4%	1.5%	3.6%	3.5%	3.5%	9.2%	60.6%
TOTAL	**2,076,531.2**	**26.5%**	**8.6%**	**5.1%**	**4.0%**	**1.9%**	**0.9%**	**1.6%**	**2.0%**	**3.7%**	**7.5%**	**38.2%**

a/ Includes changes in premiums, out-of-pocket expenses, taxes earmarked to fund health reform and after-tax wage effects. Excludes institutionalized persons.
Source: Lewin Group estimates using the Maryland version of the Health Benefits Simulation Model (HBSM).

Figure B-1
Change in Health Spending for Non-Aged Families in Maryland under the Multi-Payer Universal Coverage Proposal by Current Insured Status in 2001 (Employers Have the Option to Continue to Offer Insurance) (Families Headed by an Individual under Age 65)