Analysis of the Impact of an Illustrative Single-Payer System for Hawai‘i

Final Report

Prepared for:
The Hawai‘i Uninsured Project

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I. EXECUTIVE SUMMARY

In this study we estimated the impact of covering all Hawai’i residents under a single-payer program as outlined in HB 1617. The program would cover all Hawai’i residents except Medicare beneficiaries, federal workers and military spouses, dependents and retirees covered under TRICARE. Medicaid would be folded into the single-payer program except for those also eligible for Medicare.

The program would provide a comprehensive benefit package that we assume would be modeled on the state and local workers health benefits package. We assume there would be a 6-month residency requirement unless employed in the state as a disincentive for people to move to the state to take advantage of the comprehensive single-payer program.

The program would be financed with three sources of funds including

- State and federal funding for Medicaid enrollees shifted to the program would be transferred to the single-payer program.
- Employers would pay a premium for full-time workers comparable to the cost of the Prepaid Health Care Act.
- All workers would pay a payroll tax estimated to be 9.5 percent of earnings up to about $95,000.

Major findings include:

- There are currently about 97,700 uninsured people in Hawai’i, which is about 7.6 percent of the state’s population.
- We estimate that state-wide health spending for Hawai’i residents will be about $7.1 billion in 2006 under current law, which is an average of about $5,522 per person.
- Private employers will spend $1.9 billion on health benefits for workers, dependents and retirees in 2006 (excludes employee premium contributions and all costs for government employers).

Single-payer impacts include:

- Total spending for healthcare in Hawai’i would increase from $7.1 billion under current law to $7.4 billion due to increased utilization for newly insured people and increases in provider payment levels.
- Health insurance and provider administrative costs would be reduced by about $282 million.
- Total spending under the single-payer program would be $4.3 billion.
- Private employers would on average spend no more on worker health benefits than under current policy although some would pay more while other would pay less.
- Employers would save about $30 million for early retirees who become covered under the single-payer program.
- State and local governments would save about $94.0 million on insurance coverage for workers and retirees as a result of enrolling these beneficiaries in the single-payer.
- The federal government would loose about $30.6 million in tax revenues due to increased use of the health benefits tax exclusion for worker health benefits.
- Provider incomes would increase due to a general increase in provider payment levels and increased utilization for the newly insured:
  - Hospital revenues would increase by about 16 percent; and
  - Physician revenues would increase by about 7 percent.
- Families would on average spend $840 more per family on health care, primarily due to the payroll tax that workers would be required to pay.
- The payroll tax rate would need to increase each year to reflect that health care costs are growing faster than the rate of growth in earnings. The tax rate would reach 11.5 percent by 2005.

Impact on Insurance Industry

- Insurers and health plans would lose most or their current business, although one of the existing insurers in the state is likely to be contracted to administer claims, utilization review and peer review under the program.
- About 3,500 health care administrative personnel would lose their jobs under the single-payer program. Effects include:
  - Doctors and nurses currently performing administrative functions could become re-employed as health care providers;
  - Some of this would be achieved through normal attrition; and
  - Many will be unemployed and require retraining.

The program's impact is very sensitive to the design of the benefits package and the levels of payment used for providers under the program.

We provide a detailed description of the data and methods used in this analysis in Appendix A.
II. INTRODUCTION.

The Lewin Group was hired by the Hawai‘i Institute for Public Affairs (HIPA), to perform a comprehensive evaluation of the costs and benefits of a single-payer system as outlined in HB 1617. The Institute is an independent, nonpartisan organization devoted to fact-based research, issues education and community collaboration. The evaluation is intended to assist the Hawai‘i Health Care Task Force in developing a comprehensive health care coverage plan for the citizens of Hawai‘i.

Hawai‘i is in a unique position to play a leadership role in shaping the future of health care reform for the nation in providing universal coverage. It already has a broad employer mandate which pre-dates enacted of the federal Employee Retirement Income Security Act of 1974 (ERISA). The Prepaid Health Care Act (PHCA), the employer mandate implemented in 1974 made Hawai‘i the first state to implement a requirement for employers to provide health insurance to their workers. Since the PHCA pre-dates the Employee Retirement Income Security Act (ERISA), Congress exempted Hawai‘i from the provisions that prohibit states from requiring employers to cover their workers.

The PHCA assures that over one-half of the state’s population is covered under an employer health plan. However, part-time workers and some dependents of full-time workers remain uninsured as the PHCA does not mandate coverage for these groups. The state’s public programs, particularly Medicaid, cover low income families and children. However, low-income adults who do not have children are not eligible for Medicaid regardless of income, except if disabled.

The single-payer program analyzed here is based upon the program described under HB 1617. However, the bill does not include all of the details required to estimate the cost impacts of a single-payer program, thus we worked together with the Institute and the Task Force to develop specifications that most closely conform to the provisions of HB 1617. The guiding principles of our evaluation were to develop specifications of a single-payer plan that affords comprehensive coverage to all citizens, and a financing mechanism which leverages current employer contributions to health care coverage. Certain populations were specifically excluded by HB 1617 including federal employees, military retirees and dependents and Medicare beneficiaries.

We assumed that the single-payer program would cover Hawai‘i residents under the same benefits package currently offered to public employees through the Hawai‘i Employer-Union Benefits Trust Fund (EUBTF) which is more comprehensive than the benefit package offered under the PHCA. The resulting single-payer plan model offers comprehensive health insurance benefits to about 75 percent of the State population at no additional cost to employers, in the aggregate.

We developed an extensive financial analysis of this single-payer program in Hawai‘i using the Lewin Group Health Benefits Simulation Model (HBSM). HBSM is a model of the US health care system designed to provide estimates of health reform initiatives at the state level. We adapted this model to be representative of the Hawai‘i health care system based upon extensive analysis of Hawai‘i-specific population and health spending data from public sources. We then
used HBSM to estimate the impact of the proposal on coverage and costs, using premium estimates developed by the actuaries of the Kaiser Foundation Health Plan.¹

The HBSM population data are based upon the Hawaiʻi survey of the uninsured and the Hawaiʻi sub-sample of the Current Population Survey (CPS) collected by the Bureau of the Census. We also used data from the household component of the Medical Expenditure Panel Survey (MEPS) on household spending and the Hawaiʻi sub-sample of the MEPS survey of employers. We supplement these data with data on state and federal spending in Hawaiʻi under Medicare, Medicaid, workers compensation (medical), and safety-net programs. A description of how HBSM was adapted for analyses in Hawaiʻi is presented in Appendix A.

Our study is presented in the following sections:

- Healthcare coverage and spending in Hawaiʻi;
- An Illustrative Single-payer program for Hawaiʻi;
- Summary of key assumptions;
- Impact of the single-payer program on state-wide health spending;
- Government health spending under the single-payer program
- Impact on Employers;
- Impact on Households;
- Provider Impacts;
- Preparing for Future Program Growth; and
- Caveats.

¹ For a complete description of HBSM see: "Documentation of the Health Benefits Simulation Model (HBSM)", (report to the Robert Wood Johnson Foundation (RWJF)), The Lewin Group, October 2004
III. HEALTH CARE COVERAGE AND SPENDING IN HAWAI'I

We estimate that total health spending in Hawai‘i will be about $7.1 billion in 2006, which is about $5,522 per Hawai‘i resident. Public programs such as Medicare and Medicaid cover 27.6 percent of the state’s population and account for 36.5 percent of all health spending in Hawai‘i. About 64.8 percent of Hawai‘i residents have private coverage through an employer or through individually purchased non-group coverage. We estimate that there are approximately 97,700 without insurance, which is 7.6 percent of the state’s population.

In this section we present data on health spending and coverage. We also discuss the characteristics of the uninsured and describe existing programs for serving the medically indigent in the state. This is presented in the following sections:

- State-Wide Health Spending;
- Insurance Coverage and the Uninsured;
- Employer Coverage and the Pre-paid Health Care Act (PHCA);
- Medicaid and State Children’s Health Insurance Program (SCHIP) Coverage and Spending.

A. State-Wide Health Spending

We developed detailed estimates of health spending in Hawai‘i using the most recent data available. The most comprehensive accounting of health spending in Hawai‘i was developed by the Office of the Actuary of the Centers for Medicare and Medicaid Services (CMS) for 2000. These data are based on several sources, including public programs, hospital association data, various Bureau of the Census surveys of businesses and tax return information.

These data indicate that health spending in Hawai‘i was about $4.7 billion in 2000 (Figure 1). This includes expenditures for hospitals, physicians, dentists, long term care, durable medical equipment and prescription drugs. Per-capita spending was about $3,848, compared with a national average of $4,041.

For this analysis, we needed to develop projections of health spending in the state for 2006. This required us to obtain Hawai‘i specific data from various sources including Medicare hospital cost reports, public program spending, safety-net programs, employer health spending and spending from other sources. For most of these data sources, 2004 is the most recent year for which data was available, although some data sources are less up to date. These data were projected to 2006 based upon CMS projections of health spending by type of service, which we adjusted to reflect the fact that historically, health care costs in Hawai‘i have grown more slowly than the national average. The average growth rate used was about 6.6 percent, which is based
upon CMS projections of health spending growth for 2004 through 2006. Where available, we substituted state government spending projections for public programs in 2006.2

Figure 1
Total Health Expenditures in Hawai‘i and the US in 2000
(Most Recent Year Available) a/

<table>
<thead>
<tr>
<th>Type of Healthcare Provider</th>
<th>Spending in Hawai‘i in 2000 (millions)</th>
<th>Spending per Resident</th>
<th>Amount Per Resident in Hawai‘i</th>
<th>Amount Per Resident Nationally</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>$1,759</td>
<td>$1,452</td>
<td>$1,499</td>
<td></td>
</tr>
<tr>
<td>Physician</td>
<td>1,451</td>
<td>1,198</td>
<td>1,079</td>
<td></td>
</tr>
<tr>
<td>Dental</td>
<td>300</td>
<td>247</td>
<td>220</td>
<td></td>
</tr>
<tr>
<td>Other Professional</td>
<td>197</td>
<td>162</td>
<td>142</td>
<td></td>
</tr>
<tr>
<td>Home Health</td>
<td>66</td>
<td>54</td>
<td>114</td>
<td></td>
</tr>
<tr>
<td>Prescription Drugs</td>
<td>420</td>
<td>346</td>
<td>441</td>
<td></td>
</tr>
<tr>
<td>Medical Durables</td>
<td>100</td>
<td>82</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>Nursing Home</td>
<td>203</td>
<td>167</td>
<td>345</td>
<td></td>
</tr>
<tr>
<td>Other Personal Care</td>
<td>164</td>
<td>135</td>
<td>133</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$4,660</strong></td>
<td><strong>$3,848</strong></td>
<td><strong>$4,041</strong></td>
<td></td>
</tr>
</tbody>
</table>

a/ Estimates exclude insurer and program administration, research and construction, and public health spending, except direct patient services such as vaccinations.
Source: Office of the Actuary of the Centers for Medicare and Medicaid Services (CMS).

We estimate that total health spending in 2006 will be about $7.1 billion (Figure 2). Spending for hospital care will be about $2.3 billion, which is about 32 percent of total health care spending. Spending for physician and other health professional services will account for 36 percent of health spending ($2.6 billion). Total spending for long-term care will be $359 million. This includes nursing home, skilled nursing facility care, and home and community based health services. Prescription drug spending will be about $736 million, which is about 10.4 percent of total health care costs.

Figure 2
2006 Estimated Spending in Hawai‘i by Source of Coverage and Type of Service

Total Spending = $7,108.0 Million

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

We estimate that out-of-pocket spending for health services (i.e., coinsurance, deductibles and self-pay) will be $841 million. Total private insurance expenditures are projected to be $3.24 billion, of which $2.813 billion will be for employer coverage of workers (including government workers) and $427 million will be for employer coverage of retirees (including government retirees). Medicare spending for Hawai‘i is estimated to be $1.318 billion. Total spending under Medicaid is estimated to be $988 billion and spending for all other government programs is projected to be about $293 million.

B. Insurance Coverage and the Uninsured

We estimate the number of people in the state by source of coverage using the 2005 Current Populations Survey (CPS) data conducted by the Bureau of the Census. We then compared the coverage estimates developed with these data with coverage information from other sources such as Medicaid, and Medicare program data and the Hawai‘i sub-sample of the employer component of the Medical Expenditures Panel Survey (MEPS) data. Because the CPS typically under-reports the number of people with Medicaid coverage, we corrected the data to reflect the number of people on Medicaid. These adjustments reduced the number of people without insurance reported in the 2005 CPS for Hawai‘i from 120,000 people to about 97,700 people.

Figure 3 presents our estimates of the distribution of Hawai‘i residents by source of health insurance coverage. Employer sponsored coverage is the largest source of health insurance for Hawai‘i residents. It provides coverage for 58.8 percent of the total state population. Medicaid is the second largest source of coverage, providing health care for low income families and children. Medicaid covers 13.9 percent of the population. Medicare is the third largest source of coverage at 11.6 percent of the total population.
Figure 3
Sources of Health Care Coverage in Hawai‘i under Current Law in 2006 a/
(in thousands)

Total Population = 1,287.3 thousands

a/ Estimates exclude people in institutions including Medicare beneficiaries in Nursing Homes.
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM)

Other surveys provide information on the number of uninsured in Hawai‘i. The 2004 Hawai‘i Health Survey conducted by the State found that 5.2 percent of the Hawai‘i population was uninsured. The Behavioral Risk Factor Surveillance System (BRFSS) data collected by the Centers for Disease Control estimate that there are about 82,000 uninsured people in Hawai‘i, which is about 6.4 percent of the state’s population.

The 2004 Hawai‘i health survey indicates that the percentage of people without coverage is greatest among young adults. About 10.4 percent of adults age 18 to 24 are uninsured and about 8.3 percent of adults age 25 to 34 are uninsured. About 4.9 percent of people ages 55 to 64 are without coverage. In addition, 1.0 percent to 2.0 percent of people age 65 or older are without coverage. These are likely to include recent immigrants into the country who do not have enough years of work experience to be eligible for Medicare.
These data sources indicate that a significant proportion of the children of Hawai‘i are uninsured, despite the implementation of the State Children’s Health Insurance program, which covers children with incomes up to 200 percent of the FPL. The Hawai‘i health survey indicates that between 3.2 percent and 3.8 percent of children are uninsured. This reflects the fact that the PHCA does not require employers to cover dependents. The recently approved 1115 waiver, which expands eligibility under CHIP from 200 percent to 250 percent of the federal poverty level, will help reduce the number of uninsured children in future years. The impact of the waiver is not reflected in our model since the waiver was not in effect in the base year.

The uninsured are found at all income levels (Figure 5). About 12 percent of people living below the federal poverty line (14,000 people) are uninsured. The percentage of people without insurance declines as income grows. However, even among people living above 300 percent of the FPL, about 3 percent are uninsured. In fact, nearly a third of the uninsured have incomes in excess of 300 percent of the FPL.
While the Hawai‘i’s employer mandate plays a significant role in providing coverage, many employed individuals are still not covered. We earmark that almost one out of every four (18.49 percent) uninsured people in Hawai‘i earn between $40,000 and $50,000 in 2005(Figure A-3). Part time workers (PHICA exempts those working 20 hours or less from the mandate) and non-working dependents not covered by a working parent or spouse often remain without insurance. The Hawai‘i survey showed that 67 percent of the uninsured are working.  

C. Employer Coverage and the Pre-paid Health Care Act (PHCA)

Hawai‘i is unique among the states because it has a mandate for employers to cover full-time workers under the Prepaid Health Care Act (PHCA). The PHCA is one of the reasons that so much of the state is covered under employer-sponsored health insurance (ESI). As discussed above, about 58.8 percent of all Hawai‘i residents have ESI. Historically, this has helped keep the number of uninsured in Hawai‘i below the national average.

Hawai‘i’s PHCA, implemented in 1974, requires most employers to provide group health insurance coverage for their employees who work at least twenty (20) hours a week. The employee’s share of the premium cannot exceed 1.5 percent of the employee’s wages. If the premium is less than 1.5 percent of wages, then the employer is required to pay the entire premium. Coverage is to be effective after one month of employment. The Act also establishes a premium supplementation fund for employers with less than eight eligible workers if the employer’s share of the premium exceeds 1.5 percent of an employee’s wages and the

3 http://www.healthcoverageHawai‘i.org/research
employer's premium payments exceed five percent of the employer's income before taxes. However, these subsidies have not been provided to employers.

PHCA mandated benefits include: in-patient and outpatient hospital benefits; surgical benefits; physician services and consultations; diagnostic laboratory, x-ray service, and radio-therapeutic services; maternity benefits; and, substance abuse and detoxification benefits.

While private employers shoulder about 95 percent of health insurance costs for employees, public sector employers (state and local governments) contribute about 60 percent of such costs. Public employers also provide a more generous benefit package under the Hawai'i EUBTF benefit package, than the minimum required under the PHCA.

Figure 6 shows estimated premiums and enrollment in ESI in Hawai'i for single and family coverage. The health insurance premium data is based upon the Hawai'i sub-sample of the employer component of the MEPS data for 2003 by firm size. The number of people with coverage by firm size was taken from the Hawai'i sub-sample of the 2005 CPS. Data from the Office of the Insurance Commissioner indicates that premiums in the state have been growing at about 5.57 percent for individual coverage and 6.3 percent for family coverage since 2003, which is less than the national average of 9.9 percent.  

These data indicate that there are about 413,200 workers with about 316,300 dependents who have ESI, including private and government employers. We estimate that in 2006, the average premium would be $3,526 for single coverage and $9,618 for family coverage. The percentage of the premium paid by employers is 90.2 percent for single coverage and 72.8 percent for family coverage. Premiums generally decline as firm size increases, reflecting the higher cost of administering coverage for small groups. We estimate total ESI premiums, including administration, will be about $2.8 billion in 2006.

D. Medicaid and SCHIP Coverage and Spending

As discussed above, we estimate that the Medicaid and SCHIP programs will cover about 204,700 people in 2006, including 26,500 people who are dually eligible for Medicaid and Medicare. The program is budgeted for total spending of about $988 million in 2006. This includes the state and federal shares of spending. It also includes all Medicaid spending recorded in the budgets of various state health agencies. It includes the Med-Quest program, QUEST-Net, QUEST spend-down, state-funded coverage for individuals with breast and cervical cancer, special programs for Medicare beneficiaries, and state-funded services for legal immigrant populations.

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5 Department of Human Services, FB 2005-2007 Budget by Major Activity
6 Some of the services that qualify for federal matching funds are recorded under other state departments including the Departments of Mental Health, Developmental Services, Social Services and other programs. Federal Medicaid matching funds for these other programs are recorded in the MedQUEST budget while State funding for these services are budgeted in departments outside of MedQUEST.
Figure 6
Estimated Total and Average Spending for Employer-Sponsored
Insurance (ESI) Under Current Law in Hawai‘i in 2003 and 2006

<table>
<thead>
<tr>
<th>Number of Insured Workers CPS</th>
<th>Number of Dependents CPS</th>
<th>Total 2006 Employer Premiums ($1,000s)</th>
<th>Estimated 2006 Premium Per Worker</th>
<th>Employer Contribution Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Coverage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 10</td>
<td>31,860</td>
<td>$139,253</td>
<td>$4,371</td>
<td>96.9%</td>
</tr>
<tr>
<td>10-24</td>
<td>18,895</td>
<td>$73,919</td>
<td>$3,912</td>
<td>94.7%</td>
</tr>
<tr>
<td>25-99</td>
<td>26,563</td>
<td>$89,285</td>
<td>$3,361</td>
<td>96.2%</td>
</tr>
<tr>
<td>100-999</td>
<td>34,673</td>
<td>$110,960</td>
<td>$3,200</td>
<td>97.1%</td>
</tr>
<tr>
<td>1000 or more</td>
<td>88,787</td>
<td>$295,223</td>
<td>$3,325</td>
<td>98.9%</td>
</tr>
<tr>
<td>Total</td>
<td>200,778</td>
<td>$708,641</td>
<td>$3,529</td>
<td>99.5%</td>
</tr>
<tr>
<td>Family Coverage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 10</td>
<td>28,785</td>
<td>$321,030</td>
<td>$11,153</td>
<td>96.5%</td>
</tr>
<tr>
<td>10-24</td>
<td>15,710</td>
<td>$147,043</td>
<td>$9,360</td>
<td>93.6%</td>
</tr>
<tr>
<td>25-99</td>
<td>26,962</td>
<td>$251,784</td>
<td>$9,338</td>
<td>96.3%</td>
</tr>
<tr>
<td>100-999</td>
<td>34,944</td>
<td>$301,579</td>
<td>$8,630</td>
<td>97.1%</td>
</tr>
<tr>
<td>1000 or more</td>
<td>106,055</td>
<td>$1,022,018</td>
<td>$9,637</td>
<td>99.1%</td>
</tr>
<tr>
<td>Total</td>
<td>413,234</td>
<td>$2,043,455</td>
<td>$9,618</td>
<td>99.5%</td>
</tr>
</tbody>
</table>

a/ Includes both public and private employers. Also includes both employer and employee share of premiums.
b/ Data taken from the employer component of the MEPS data for Hawai‘i in 2003. The 2006 estimates are based on Hawai‘i’s growth estimates for single premiums (5.57 percent) and family premium (6.27 percent) provided in the Hawai‘i SPG 1/20/06 presentation.
Source: Lewin Group estimates using HBSM.

Figure 7 summarizes eligibility for the Hawai‘i Medicaid FFS, Hawai‘i QUEST Managed Care (Medicaid/SCHIP), Medicaid Expansion (QUEST-Net), and the waiver expansion for parents of Medicaid-eligible children. Individuals who are age 65 and over, blind or disabled are covered in the FFS Medicaid program. However, for all other individuals, coverage is provided through managed care.7 Aged and disabled people are eligible for coverage under FFS if their income is less than 100 percent of the FPL. Pregnant women and children are eligible for coverage.

**Figure 7**
Summary of Income Eligibility Levels in Hawai’i Medicaid and QUEST-Net

![Graph showing eligibility levels for various groups.]

**Eligibility Group in 2005**

a/ Source: Institute for AARP, November 2003


The Quest program is an 1115 Medicaid waiver that covers children and parents through 200 percent of the FPL. The program provides medical and behavioral health services through managed care delivery systems, with dental coverage provided through a fee-for-service model (FFS). Families with children enrolled in Hawai’i’s QUEST program are not required to pay premiums.8

QUEST-Net is a buy-in to Medicaid covering people with incomes between 200 percent and 300 percent of the FPL; QUEST-Net provides full Medicaid benefits for children and a limited benefit package for parents.9 Children and parents who are enrolled in QUEST-Net must have previously been enrolled in QUEST to receive subsidized coverage.10

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9 Ibid.

In January of 2005, Hawai‘i submitted an 1115 waiver to the Center for Medicaid and Medicare Services (CMS) to expand coverage for children and families under SCHIP. The waiver, approved in February 2006, makes the following changes:11

- Extends eligibility for SCHIP to 250 percent of the FPL. SCHIP-eligible children will be covered up to 250 percent of FPL and have no premium. Other children at this income level will be eligible for Medicaid services with state-only funds. Some of these children (those who were previously enrolled in QUEST) will now be eligible for QUEST-Net.

- Reduced premiums for children between SCHIP eligibility and 300 percent of the FPL. Children with family income between 250 percent and 300 percent FPL are eligible for QUEST-Net without the current requirement for prior enrollment in the QUEST program. They will continue to pay a premium for their coverage, but the premium amount is reduced.

IV. AN ILLUSTRATIVE SINGLE-PAYER PROGRAM FOR HAWAI’I

In this study, we developed a detailed specification of an illustrative single-payer program for Hawai’i. To the extent possible, we conformed to the details provided in HB 1617. However, we needed to specify a series of details in order to be able to model the effect of the program. This includes the approach used to finance the program and its interface with existing health programs.

We assumed that the program would cover all Hawai’i residents except those covered under Medicare, TriCare or federal employees. We assumed that the benefits provided would be the same as are now provided to state and local workers under the Employer-Union Health Benefits Trust Fund (EUBTF). The plan would be financed with public funds now used to fund existing public programs in the state. We also assume that employers would pay a premium that is designed to be no greater than the premium for the minimum benefits required under the PHCA. The remainder would be funded with a payroll tax to be paid by the worker, although the employer would be permitted to pay the tax on behalf of the worker.

A. Governance

HB 1617, SECTION 2 establishes a State Health Authority within the Department of Budget and Finance, as the designated state Medicaid agency. The State Health Authority is responsible for seeking federal waivers, adopting rules for the single-payer plan, and for the following functions:

- Providing state-funded health insurance for all Hawai’i residents.
- Maximizing federal funds.
- Adopting optional Medicaid services.
- Reimbursing health care providers.
- Collecting funding to purchase health care including: individual contributions; state general fund appropriations; federal Medicaid funds; individual monthly dues; and, the medical payment portions of auto insurance policy premiums, public liability insurance premiums, and homeowner’s insurance policy premiums.

The above funds, including payroll deductions and other single-payer plan financing options, discussed in this chapter, will be deposited into the State Health Authority Fund.

Per HB 1617, SECTION 17, the Authority must be ready to implement the plan no later than July 1, 2015. Our analysis provides changes in health spending in the implementation year of the single-payer plan and aggregate projections through 2015. Aggregate projections include projections of Singe payer costs and revenues, and payroll tax rates required to fully fund the program.

Under HB 1617, SECTION 13, a five-member State Health Authority Commission, appointed by the governor, is responsible for the following:
• Determining financing costs of the State Health Authority.

• Determining contributions to the Fund, including, individual and employee contributions, personal income and corporate income taxes, and other funds necessary to provide health care for Hawai‘i taxpayers.

• Reviewing all health benefits—we assume Hawai‘i EUBTF as the minimum benefits package for our analyses.

• Providing a detailed plan to the legislature of the costs required for the Commission to fulfill its duties and a detailed financing plan.

Under HB 1617, SECTION 14, a fifteen-member Review Panel on mandated health benefits is responsible for determining premium costs of health insurance benefits, and determining the financial impact of mandating coverage on total cost of health care, access to health care and utilization, demand for health care, impact on administrative costs, and impact on health care efficacy. HB 1617, SECTION 3, also establishes a 20-member Advisory Committee to advise the Health Authority and the legislature about the single payer plan. The number of policy-making bodies and their role in implementing a single payer plan (e.g., reviewing benefits, approving premium levels) would have minimal impact on program administrative costs particularly since there is no significant reimbursement to panel members.

According to HB 1617 SECTION 2-5, employers who pay monthly wages equivalent to at least 86.67 percent of the minimum wage are required to provide coverage to employees through a health plan qualified by the State Health Authority. The bill is silent with respect to coverage of family members. We assume, as in the PHCA, that employers will not be required to provide family coverage under the single-payer. However, adopting an employee tax to fund the program provides an opportunity for employers to continue offering family coverage by opting to pay the tax on behalf of workers.

B. Eligibility

We assumed that all Hawai‘i residents are enrolled in the plan, except those covered under Medicare, the Federal Employee Health Benefit Plan (FEHBP), or TriCare for military dependents and retirees. Covered groups would include unionized workplaces and state and local workers now covered under the (EUBTF). People who currently have employer-sponsored retiree coverage also would be included in the program until they qualify for Medicare.

In this study, we assumed that the program is available to all residents of Hawai‘i. We assume that part-year residents would be covered during the period of the year they reside in the state. However, the bill is silent on whether the program would cover undocumented immigrants. For illustrative purposes, we assume that undocumented immigrants are covered under the plan, and that they would be required to pay the payroll tax as well.

To avoid immigration of people seeking free medical care, we assume that there is a six-month waiting period before a new resident can qualify for coverage. The waiting-period would be waived for people who are moving to the state to take a job, and other special cases determined by the state.
C. Covered Services

Chapter 87A of the Hawai‘i Revised Statutes establishes the Hawai‘i EUBTF. The Trust Fund currently provides eligible state and county employees, retirees, and their dependents with health and other benefit plans at a cost affordable to both the public employers and employees. We assume that the services covered by the program would be the same as those covered under the Hawai‘i Employer Union Health Benefits Trust Fund (EUBTF). As shown in Figure 8, the EUBTF benefits packages covers a broad range of services including hospital care, physician services, mental health, prescription drugs and vision and dental care. Using the EUBTF benefit package for the Single payer provides a more comprehensive package that the PHCA minimum benefit package, also summarized in Figure 8.

**Figure 8**

PHCA and EUBTF Benefit Package Comparison

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Prepaid Health-Care Act</th>
<th>Employer-Union Health Benefits Trust Fund (EUBTF)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Plan A $^{a,b}$</td>
<td>Plan B $^{a,b}$</td>
</tr>
<tr>
<td>Maximum Benefit</td>
<td>$1 million per lifetime/renewable $10,000 per calendar year per member</td>
<td>$2 million per lifetime/renewable $10,000 per calendar year per member</td>
</tr>
<tr>
<td>Out-of-pocket limits</td>
<td>$1,500/yr (indiv); $4,500/yr (family)</td>
<td></td>
</tr>
<tr>
<td>Deductible</td>
<td>$100 indiv/$200 family per calendar year</td>
<td>$100 indiv/$300 (family)</td>
</tr>
<tr>
<td>Annual Copay Max</td>
<td>$2,500 indiv/$7,500 family per calendar year</td>
<td>$1,500/yr (indiv); $5,500/yr (family)</td>
</tr>
<tr>
<td>Medical Benefits</td>
<td>Participating Provider-No annual deductible</td>
<td></td>
</tr>
<tr>
<td>Office Visits</td>
<td>$14/visit copay</td>
<td></td>
</tr>
<tr>
<td>Hospitalization</td>
<td>90/10</td>
<td>100% covered (routine annual physicals); 90/10 (other office visits)</td>
</tr>
<tr>
<td>Skilled Nursing</td>
<td>90/10</td>
<td>90/10</td>
</tr>
<tr>
<td>Home Health</td>
<td>Covered 100 %</td>
<td>100% covered</td>
</tr>
<tr>
<td>Hospital ER visits</td>
<td>Within Hi: $25/visit copay Out: 80/20</td>
<td>90/10</td>
</tr>
<tr>
<td>Emergency Ambulance</td>
<td>80/20</td>
<td>90/10</td>
</tr>
<tr>
<td>Well-Child Visits</td>
<td>90/10</td>
<td>100% covered</td>
</tr>
<tr>
<td>Immunizations</td>
<td>-90/10 Covered 100% for immunizations in connection with well-child visits; no deductible</td>
<td>100% covered</td>
</tr>
<tr>
<td>Surgical &amp; Lab Benefits</td>
<td>Participating Provider-No annual deductible</td>
<td></td>
</tr>
<tr>
<td>In/Outpatient Surgery &amp; Procedures</td>
<td>Non-cutting: 80/20 Cutting: 90/10 Anesthesiology: 90/10</td>
<td>$14/visit copay</td>
</tr>
<tr>
<td>Diagnostic Lab, X-ray and radiology</td>
<td>80/20</td>
<td>90/10</td>
</tr>
</tbody>
</table>

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*The Lewin Group*
<table>
<thead>
<tr>
<th>Benefits</th>
<th>Prepaid Health-Care Act</th>
<th>Employer-Union Health Benefits Trust Fund (EUBTF)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maternity Benefits</strong></td>
<td></td>
<td>See physician and hospital benefits</td>
</tr>
</tbody>
</table>
| Pregnancy, childbirth, termination of pregnancy and related medical conditions | Physician & hospital benefits: 90/10  
Lab & x-ray: 80/20 | In-vitro: 80/20  
Elective abortion: $14 copay (2 per lifetime)  
Medically indicated: $14 copay |
| Birthing Centers                              | 90/10                   |                                                  |
| Contraception                                 | Varied copays: $5-$15-50% (does not count towards annual copay max) | 50/50                                             |
| **Mental Health & Chemical Dependency Benefits** | Preferred Provider-No Annual Deductible | SMI and chemical dependency services: $14 copay (outpatient), No charge (inpatient)  
All other mental health services: 80/20 |
| Outpatient psych testing                      | 80/20                   |                                                  |
| Inpatient psych testing                       | 90/10                   |                                                  |
| Inpatient physician, CSW or APN               | 90/10                   |                                                  |
| Outpatient physician, CSW or APN              | 90/10                   |                                                  |
| Inpatient psych                              | 90/10                   |                                                  |
| Hospice                                       | Covered 100%            | Covered 100%                                     |
| Medical Foods                                 | 80/20                   |                                                  |
| Therapy (PT, Speech, OT)                      | 90/10                   | Inpatient: No charge  
Outpatient: $14 copay |
| Organ/Tissue Transplants                      |                         | Covered 100%                                     |
| Drugs (Including diabetic supplies, oral contraceptives) | N/A                     | N/A                                              |
|                                          |                         | Varying copays                                    |
| Dental                                       | N/A                     | N/A                                              |
|                                          |                         | Varying copays                                    |
| Vision                                       | N/A                     | N/A                                              |
|                                          |                         | $10 copay (exam)/$25 copay (lenses or frames)    |
| Outpatient physician, CSW or APN             | 90/10                   |                                                  |
Long term care services are not covered under the Single payer Plan. Medicare covers rehabilitative nursing facility stays for disabled and elderly individuals. For dually-eligible individuals, Medicaid usually covers the cost of nursing facility stays after the individual exhausts Medicare benefits. This Medicaid benefit will continue for dually-eligible individuals. Medicaid also covers a limited number of low-income individuals who need nursing facility services but who are not Medicare-eligible. These Medicaid benefits will continue for this population.

D. Benefits Design

We assume the same cost-sharing requirements under the current EUBTF Preferred Provider Organization (PPO) model for active employees, which are also shown in Figure 8. They include:

- A copayment will apply to most services and is either a fixed percentage of the eligible charge or a fixed dollar amount depending on whether the member receives services from a participating or non-participating provider;
- An annual maximum copayment and deductible amount of $1,500 per person or $4,500 per family will apply, after which the member will no longer be responsible for any copayments or deductibles;
- A special annual deductible carry-over for individuals will apply for deductibles incurred in the last quarter of a given calendar year;
- A lifetime maximum benefit of $2 million will apply, which will be adequate for nearly all people covered under the program. The maximum is renewable for up to $10,000 annually thereafter beginning in January 1 of each calendar year. Unused "renewal" benefits will not carry over from year to year (these amounts are automatically recomputed annually by the plan); and
- Maximum benefits applicable to specific services under the existing plan will continue. Once a service maximum benefit is reached, no benefit is available for the service or supply regardless of whether the lifetime dollar maximum has or has not been reached.

We assume of a moderate level of managed care in accordance with HB 1617. We also assume this to exclude HMO models. As alternatives, there are a variety of prospective and retrospective utilization management (UM) strategies to assure more appropriate utilization of services, and to control costs. Some of the methods now used in typical PPO plans are summarized in Figure 9.
Figure 9
Summary of Utilization Management Strategies

Pre-Service Strategies

- **Pre-certification** - Program requiring prior determination by a payer’s agent that proposed medical services are appropriate for a particular patient.

- **Second Surgical Opinion** - Program requiring a patient to obtain an opinion about the appropriateness of a proposed treatment from a practitioner other than the one making the original recommendation.

- **Referral Controls** - Program in which a primary care physician or gatekeeper coordinates, manages and authorizes all health care services provided to a covered beneficiary.

In-Service Strategies

- **Case Management** - A process for identifying potentially high-cost patients and facilitating the development and implementation of less costly and more appropriate courses of care.

- **Concurrent Length-of-Stay Review** - An evaluation initiated during a patient’s hospitalization of both the appropriateness of the admission, for emergency admissions that could not be reviewed through prior authorization, and the need for continued hospital stay.

- **Discharge Planning** - Identification of a patient’s health care requirements and arrangement for the provision of services after discharge from the hospital.

Post-Service, Pre-Payment Strategies

- **Medical Policy Edits** - Based on standards of proper medical care, information presented on a hospital or physician claim is reviewed, and a determination is made about whether the claim should be paid as presented.

- **Central Medical Review** - Assessment by medical staff employed by the insurer of claims that were suspended by the claims processing system or resubmitted by beneficiaries or physicians for additional review.

- **Procedure Code Review** - A process by which claims are reviewed for correct coding by physicians. Code review software identifies and either recodes or suspends the claims for which the codes have been incorrectly used.

Post-Payment Strategies

- **Hospital Bill Audit** - Hospital bills are checked for billing and payment errors, as well as for appropriateness of itemized services. The focus usually is on large-dollar inpatient or outpatient hospital bills.

- **Medical Record Review** - Review of medical record data to determine the appropriateness of a particular course of treatment.

- **Retrospective Claims Review** - Statistical review of paid claims data to identify providers and beneficiaries with notably different patterns of health care utilization.

- **Fraud Detection** - Identification of fraudulent billing as submitted by hospitals, professionals, other providers, and insurance claims personnel.
E. Disposition of Existing Government-Sponsored Health Programs

Medicaid and other safety-net programs would continue to provide and cover services for needy people who would not become covered under the single-payer program. This includes the Medicare aged and disabled population, undocumented immigrants and others who have not yet met the program residency requirements. All funds currently used for services now provided by the programs to those who would become covered under the single-payer program would be transferred to the program.

The disposition of these programs under the single-payer program is discussed below.

1. **Medicaid and SCHIP**

As specified in HB 1617, we assume administration of all Medicaid programs will be subsumed into the State Health Authority under a single payer plan for people who become covered under the program. Affected programs include:

- Hawai‘i QUEST Managed Care for low income pregnant women, children and families.
- QUEST fee-for-service for aged, blind and disabled people.
- QUEST-Net, the limited benefit program for individuals with income up to 300 percent of the federal poverty level, who were formerly enrolled in QUEST managed care or FF5 programs, but who lost eligibility due to increases in income or assets. Members under this program pay a monthly premium.
- QUEST Spend-down program for families and children with income under 300 percent FPL who must spend-down their excess income or resources to qualify for coverage under QUEST programs above.
- Transitional Medical Assistance, the program for TANF and TANF-dependents.
- State Children's Health Insurance Program (SCHIP), which is the Hawai‘i Medicaid expansion program for children.
- Other programs currently under the responsibilities of the med-Quest division, (i.e., federal and state-funded coverage for individuals with breast and cervical cancer, and special programs for Medicare beneficiaries, as well as the fully state-funded immigrant programs).

We assume that Medicaid would provide “wrap around coverage” required to pay for services now available to these people that would not be covered under the program. Medicaid would continue to cover services for elderly and disabled individuals now eligible for the program who would not become covered under the single-payer.

Medicaid would continue to cover long-term care as it now does. Because nearly all of those now using long-term care services are Medicare eligible, there should be little or no effect on Medicaid coverage and funding for long-term care. This includes nursing home services, skilled nursing facilities, home health, personal care and other home care benefits usually available through section 1915 (c) of the Social Security Act (commonly referred to as home and community-based waivers) will be maintained. Spending for these programs will remain
unchanged as the population eligible for these services is exempt or the benefits are excluded from the Single payer Plan.

2. The Native Hawaiian Health Care Program

Native Hawaiian grant funds (federal and state/local portions) are excluded. The Native Hawaiian Health Care program was established in 1988 and provides health promotion, disease prevention and primary care services for Native Hawaiians through a network of community-based health systems within each Island community. The program’s goal is to improve the physical, mental and spiritual health status of Native Hawaiians.

3. Community Health Centers

We assume that all government funded health care programs will be subsumed into the single-payer plan, such as:

- The Immigrant Health Initiative which provides primary care services.
- Various prescription drug projects which provide donated drugs to uninsured individuals. By providing coverage to all, we anticipate reduced reliance on donated drugs as a means to access prescription coverage.
- Programs funded by ISDH or administered through the agency (e.g., Children with Special Health Care Needs, maternal and child health, Immunization, Rural Health programs, Immigrant Health Initiative).

4. Other Safety Net Programs

Safety net providers often serve as the primary source of care for health services for individuals who are currently uninsured or underinsured. While a Single-payer program would not cover 100 percent of all uninsured not cover 100 percent of all charges, it will significantly reduce the number of uninsured and the amount of uncompensated care that is currently provided. We acknowledge that there may still be some services that will be "uncompensated," such as services that are not covered under the single payer plan. Our estimates of changes in health spending take into account increased utilization of the uninsured and underinsured, and changes in utilization due to increase in primary care availability. We estimate a significant reduction in the number of uninsured which will reduce the amount of uncompensated care provided by safety net providers.

F. Provider Payments

We assume payment levels to be equal to the Medicare payment rate plus 30 percent. To estimate Medicare payment levels, we compare payment levels for commonly covered services across three payers, Medicare, Medicaid and private payers. Studies indicate that Medicaid
payments are on average, about 60 percent of payment levels by private payers. Medicare payment levels are on average 80 percent of payment levels by private payers.12

*Figure 10* shows the ratios for hospitals and physicians. To estimate payment levels under the single payer plan, we use the ratio of Medicare to private payment in Hawai‘i to determine the payment rate for services, which were adjusted to reflect 130 percent of Medicare payment levels.

<table>
<thead>
<tr>
<th></th>
<th>130 Percent of Medicare Rates as a Percent of Hawai‘i Medicaid</th>
<th>130 Percent of Medicare Rates as Percent of Hawai‘i Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>165%</td>
<td>113%</td>
</tr>
<tr>
<td>Physician</td>
<td>175%</td>
<td>105%</td>
</tr>
</tbody>
</table>


Because Medicare does not generally cover children (some disabled children are covered by Medicare), the state would need to develop payment rates for services provided to children. For this analysis, we assume that the program would use the same rates now used by HSMA, which the state would adjust based upon the average percentage difference between 130 percent of Medicare payment rates and the average rates for comparable services under the HSMA payment schedule.13

**G. Financing**

There would be three main sources of financing for the program. First, spending under existing public programs for people who would be covered under the single-payer program would be transferred to the program. Second, employers would pay a premium for each full-time worker equal to the cost of providing the coverage required under PHCA. Third, the balance of the program would be paid for with a payroll tax paid by workers.

Public funding includes money now used to fund Medicaid, SCHIP and various public safety-net programs. These would include only those funds that would have been used for services provided to those who would become covered under the single-payer program. Funding for these programs would remain for people who would not be shifted to the single-payer, which includes primarily aged and disabled people covered under Medicare. The state would apply for a Medicaid waiver converting the federal share of Medicaid and SCHIP to a block grant equal to what the federal share of spending would have been for people shifted to the program.

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13 HSMA has the largest market share at 66.9 percent in 2005.
Employers would continue to be obligated to pay for coverage for their full-time workers (i.e., 20 or more hours per week) just as they are now required to do so under the PHCA. Under the single-payer program, employers would be required to pay a premium that on average is equal to the average cost of the PHCA benefits package under current law for the workers they now cover. The amount of the premium contribution would be indexed each year based upon the average rate of growth in per-capita costs under the program. The objective of this is to assure that employers will be required to pay no more than they would have under current law.

The remainder of the program would be paid for with a payroll tax funded by workers. The tax would apply to wages for all workers covered under the single-payer program, including full-time and part-time workers. The tax would apply to wages up to the Social Security maximum taxable earnings amount (currently about $95,000). We estimate that the payroll tax rate for the program described above would be 9.55 percent in 2006.

**H. Program Spending in Future Years**

In future years, we assume budgeted spending to increase with the growth in health care costs throughout the nation. Transfers of funding for discontinued public programs are indexed to cost growth annually. Employer premiums also would be indexed to the growth in health care costs. The worker payroll tax would be automatically adjusted annually to the levels required to finance the balance of program spending.
V. SUMMARY OF KEY ASSUMPTIONS

Our analysis includes several key assumptions concerning the utilization of health services under the program and savings from administrative simplification. We also made several assumptions concerning the economic impacts of the program. The assumptions used to estimate spending under the single-payer program for Hawai‘i are summarized in the following sections:

- Utilization of Health Services;
- Bulk Purchasing Savings;
- Administrative Costs;
- Workers Compensation Program Costs;
- Health System Fraud; and
- Employer Response.

A. Utilization of Health Services

The expansions in coverage and benefits under the program would result in increased utilization of health services. Utilization of services for uninsured and under-insured people would generally increase due to expanded access to services under the program. Also, utilization of health services would increase for those who are shifted from HMOs to the fee-for-service single-payer model.

1. Utilization for Uninsured

We assume that uninsured people who become covered under the program would use health care services at the same rate as reported by currently insured people with similar age, sex and health status characteristics. This assumption encompasses two important effects. First, the increase in access to primary care for this population would result in savings due to a reduction in avoidable emergency room visits and hospitalizations. Second, there would be a general increase in the use of such services as preventive care, corrective orthopedic surgery, advanced diagnostic tests, and other care that the uninsured often forego or delay.

Using this methodology, we estimate that health spending among the currently uninsured population would increase. That is, savings from improved primary care would be more than offset by increased use of non-emergency care. We estimate that in Hawai‘i, the uninsured will consume about $257.2 million in health services in 2006, including free care (i.e., uncompensated care valued at cost) and services purchased out-of-pocket. We assume that utilization for these people would adjust to the levels reported by insured people with similar demographic and health status characteristics. Using these assumptions, we estimate that if these individuals were to become insured, utilization of health services would increase for these newly insured people by about 67 percent.
2. Utilization for Under-Insured

Many of the insured have insurance that does not cover certain services including prescription drugs, dental care, orthodontia and medical equipment. In this analysis, we assume that utilization of these services by people who are not currently covered for these services would increase to the levels observed among those with similar demographic and health status characteristics who do have coverage for these services.

However, we are not able to identify whether individuals in the HBSM household data, which partially based upon the Medical Expenditures Panel Survey (MEPS) data) have coverage for these services. It was necessary to impute coverage for prescription drugs and dental care based upon reporting of reimbursements for dental care in the MEPS data, and the employer health plans to which each worker is matched in the model, and reported payments for dental services. We imputed coverage for orthodontia based upon coverage data published by the Hay Group from their employer health benefits survey.\(^{14}\)

Utilization among those who do not have coverage for these services is assumed to increase by 67 percent. This is based upon our estimates of the percentage increase in utilization for all health services estimated above for those who are newly insured. This utilization was subject to the adjustment for the elimination of cost-sharing discussed below.

3. Change in Utilization for People Formerly in HMOs

Based upon the available evidence, we assume that the shift away from HMOs would result in an overall increase in utilization of about four percent for all Hawai‘i residents who are not already enrolled in an HMO. This assumption is based upon analyses of the utilization impacts of health plans placing increased emphasis on primary care. For example, one study showed that health services utilization in IPA HMOs is about four percent lower than in other types of health plans (IPA HMOs saved an additional 15 percent through selective contracting, which is not relevant to the program’s payment system).\(^{15}\) These savings are thought to be higher in staff and group model HMO models such as the Kaiser HMO.

B. Bulk Purchasing Savings

As discussed above, we assume that the state establishes central purchasing authorities responsible for negotiating favorable prices for prescription drugs and durable medical equipment. We assume this would be aided by establishing a drug formulary that favors the use of lower-cost drugs when possible and contracts with durable goods manufacturers for reduced prices.

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\(^{14}\) Respondents in the CPS/MEPS data who indicated that they had expenses for these services that were reimbursed by a health plan were assigned to a plan that covers these services.

\(^{15}\) The Lewin Group, “New Evidence on Savings from Network Models of Managed Care,” (a report to the Healthcare Leadership Council), Washington DC, May 1994
1. Prescription Drugs

The program would use a prescription drug formulary to negotiate price discounts with drug manufacturers. The formulary would be developed by the single-payer administrative authority. Under this system, specific drugs are selected for inclusion in the formulary for each type of medical therapy. This would typically include generic substitutes for brand-name drugs, and drugs selected by the state in negotiations with the pharmaceutical manufacturers. Providers would not be permitted to prescribe off-formulary (usually higher cost) medications unless the formulary medication is ineffective or inappropriate for the patient due to side-effects.

In this analysis, we assume that Hawai‘i would negotiate discounts with drug manufacturers that are equivalent to the discounts and rebates received by the Medicaid program for all people covered under the single-payer plan, which is about 20 percent. This compares with an estimated average discount of 8 percent for existing private insurance plans.16

2. Durable Medical Equipment Purchasing

The use of centralized purchasing for durable medical equipment could also reduce costs (i.e., wheelchairs, hearing aids, etc.). The state would negotiate volume discounts from the various manufacturers through a process similar to that used for purchasing prescription drugs. Here again, the key to effective price negotiations would be the credibility of the threat that if the manufacturer does not provide a competitive discount, they would lose out on virtually the entire Hawai‘i market.

Therefore a key element of the program is that medical durable products from higher cost suppliers would not be available to Hawai‘i residents unless they purchase these items themselves. However, the threat that certain equipment might not be covered is expected to cause suppliers to reduce prices to be competitive. This design is likely to give the state substantial leverage in negotiating prices with suppliers and manufacturers. In this analysis, we assume that the savings on durable medical equipment under the program would be similar to the percentage savings assumed for prescription drugs by source of payment discussed above.

C. Administrative Costs

In this analysis, we estimated savings in administration based upon administrative data available for the state of Hawai‘i and prior Lewin Group studies of the impact of a single-payer model on administrative costs. The methods used to estimate the administrative savings are were developed by the Lewin Group in a study of the single-payer system in Canada.17 These administrative savings are summarized below.

16 Medicaid law requires that prescription drug manufacturers charge Medicaid no more than the lowest amount charges to any customer nationwide.

1. **Insurer Administration**

The Act 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, transitions in coverage, and maintaining the administratively cumbersome linkage between employers and insurers.

We assumed that the cost of insurer administration is similar to administrative costs under the Medicare program (modified to reflect administrative simplification), which can be thought of as a single source insurer for the elderly. Medicare administrative costs are equal to about 1.8 percent of covered benefits compared with an average of about 14 percent under private insurance arrangements. We estimated the amount of insurer administrative savings based upon the difference between total insurer and government program administrative costs under the current system (see Attachment A) and estimated administrative costs under the program (private insurer administrative costs are assumed to continue at their current levels for services covered by employers that are not covered by the program as discussed below).

The Administrative cost estimates for Medicare (1.8 percent) and private insurance (14 percent) are fully comparable. The Medicare figure included claims processing, peer-review and other functions that are performed by contractors. It also includes costs for administrative operations performed by the federal government including wages and salaries, health and other fringe benefits, and a “fair market” valuation of all offices and equipment used by federal Medicare employees. It also includes research on quality, outcomes and provider payment systems.

In addition, Medicare claims and peer review functions are performed with a separate contractor in each state. Thus, the cost of administering Medicare is built-up from what are in effect fifty-one separate state programs (California has two fiscal agents). Thus the economies of scale in operating a Hawai‘i single-payer program would be comparable to the cost of administering Medicare for an individual state.

We estimated administrative costs based upon a breakdown of Medicare administrative costs by function. Medicare costs were about $115.44 per beneficiary, including both contracted costs and federal administration (Figure 11). We adjusted the claims processing and utilization review costs to reflect the lower levels of service utilization per-enrollee among the non-Medicare population. We assume no change in other agency administrative costs, which are related to overall project management, enrollment processing and tax functions. Using these assumptions, we estimate administrative costs averaging about $69.66 per enrollee under the Hawai‘i single-payer program.

2. **Physician Administration**

The single-payer program is designed to reduce administrative costs for physicians. It potentially reduces claims filing costs by standardizing the means of reimbursement through a single insurer 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. Also, under several of these proposals, co-payments are eliminated, which reduces billing collection costs. In a prior study for a single-payer program in California, we
estimated that physician administrative costs were equal to about 36 percent of physician revenue and that these costs would be reduced by about 30 percent under the single-payer model.\(^{18}\)

**Figure 11**

**Derivation of Insurer Costs Per-Enrollee**

*Under the Hawai‘i Single Payer Program in 2006* \(^a/\)

<table>
<thead>
<tr>
<th>Administrative Costs</th>
<th>Medicare Costs Per Enrollee in 2003</th>
<th>Adjustments to Covered Population</th>
<th>Adjustment to 2006 Wage and Input Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claims Processing</td>
<td>$64.27</td>
<td>$28.92</td>
<td>$32.34</td>
</tr>
<tr>
<td>Utilization Review</td>
<td>$29.05</td>
<td>$13.07</td>
<td>$14.62</td>
</tr>
<tr>
<td>Research and Demonstrations</td>
<td>$1.74</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>Agency Administration</td>
<td>$20.38</td>
<td>$20.38</td>
<td>$22.70</td>
</tr>
<tr>
<td>Total</td>
<td>$115.44</td>
<td>$62.37</td>
<td>$69.66</td>
</tr>
</tbody>
</table>

\(^a/\) Insurer administrative costs were extrapolated from administrative costs for current the Medicare program, using data supplied by CMS.

\(b/\) The number of health services used by the non-Medicare population is on average about 55 percent less than among the aged and disabled people covered under Medicare. We estimated this using the Medical Expenditures Panel Survey (MEPS) data for 1999 through 2001.

\(c/\) Assumes administrative per-enrollee cost growth of 3.8 percent per year between 2003 and 2006 based upon the HCFA Implicit Medical Price Deflator estimated by the Office of the Actuary of CMS. Source: Lewin Group estimates.

However, these savings would be much smaller in Hawai‘i than in many other states. This is because there are already a small number of carriers operating in the state. Also, the Hawai‘i provider markets are less competitive than in other parts of the country. Consequently, the costs of negotiating selective contracting arrangements with carriers are relatively small. Also, Medicare would continue as a separate payer and the program would have co-payments which would further limit the potential savings from the single-payer program analyzed in this study. Consequently, we assume savings in physician administrative costs of 8.3 percent. This is based upon estimated savings under a prior study of the Canadian single-payer model for the line-item functions affected by the Hawai‘i version of the program.

### 3. Hospital Administration

The single-payer programs that we have evaluated in other states would have all but eliminated hospital administrative costs associated with filing claims. These single payer programs were based upon the Canadian model where hospitals are given an annual operating budget covering all services provided by the hospital. This eliminates the costs associated with claims filing, bill generation, collections of unpaid amounts, service classification such as diagnostic

\[\text{We estimated administrative savings for physicians using data provided by the Medical Group Management Association (MGMA) which provides administrative cost data by function for physician practices.}\]
related groups (DRGs) and price negotiations with insurers and other selective contracting expenses.

The Canadian model also eliminates co-payments and while universal coverage eliminates the administrative costs of seeking Medicaid coverage for uninsured patients to obtain reimbursement, and the cost of uncompensated care. In a prior study of a single-payer model for California, we estimated that hospital administrative costs are equal to about 26 percent of revenues and that these costs would be reduced by 22 percent under the Canadian model.

Savings under the single-payer model that we analyzed for Hawai‘i would be substantially smaller than under a Canadian version of the single-payer model. This is because billing for services and co-payments would continue, thus negating much of the potential savings under a Canadian style model. We estimated savings in hospital administration under the Hawai‘i single-payer model would be about 6.6 percent of hospital administrative costs. This is based upon a review of savings by line-item function for hospital administrative costs developed in our prior analyses of the Canadian single-payer model, for those line-item functions that would be affected by the Hawai‘i single-payer model.

D. Workers Compensation Program Costs

As discussed above, the medical component of the workers compensation program would continue to operate separate from the Act. Consequently, we assume no change in spending under the medical component of the workers compensation program.

E. Health System Fraud

The single-payer could potentially reduce health system fraud through its subpoena powers. Government agencies typically have the power to subpoena provider records in investigations of possible fraud. Private carriers do not have these powers, so it is more difficult to investigate potentially fraudulent claims. This suggests that the single-payer program would be more effective than private insurers in detecting and deterring fraud.

The literature on this subject indicates that about five percent of all health claims are “inaccurate.”\textsuperscript{19} In this study, we assumed that fraud is reduced by about 20 percent among privately insured people who become covered under the Act for all services except hospital care. We assume that the savings would apply only to people who currently have private coverage because the state and federal governments already have subpoena powers for current government programs.

F. Employer Response

There are two major responses that employers could have to the program. These are employer supplements to coverage and wage changes in response to changes in employer costs. Both of these effects are estimated and presented in our financial analysis.

1. **Employer Supplemental Coverage**

As discussed above, the employer would be free to pay the tax on behalf of the worker. We anticipate that this would occur among firms that currently cover dependents and provide superior benefits. These firms would generally save under the program because the PHCA premium would be substantially lower than what they now pay for coverage of workers and dependents. Employers are likely to pay the tax for their employees to attract and retain workers, just as they now offer dependent coverage and higher benefits to attract workers. Also, if the employer pays the tax, it is exempt from federal taxes, which is a significant incentive for employer paid health benefits. Thus, we assume that employers pay worker payroll taxes up to the amount they save by moving to the single-payer program.

The employer would also be free to provide coverage for additional services. However, much of the savings for firms now offering coverage of dependents and additional services would largely be taken-up to assist in paying the payroll tax for their workers. Also, the EUBTF package is sufficiently comprehensive that few employers are offering significantly more than the EUBTF benefits package. Consequently, we estimate little or no employer supplemental coverage under the program.

2. **Wage Effects**

We assume that changes in employer costs for health benefits are passed-on to workers in the form of changes in wages. Thus, increases in employer costs are assumed to be passed-on to workers in the form of reduced wages while decreases in health benefits expenses are passed-back to employees in the form of increased wages. We assume that this wage adjustment would occur among government employers as well, assuming that government compensation packages over-time would be adjusted to remain competitive in the labor markets. Economists expect these wage adjustments will occur in both unionized and non-unionized workplaces.

Our pass-through assumption is based upon the economic principle that the total value of employee compensation, which includes wages, employer payroll taxes, health benefits and other benefits, is determined in the labor markets. Thus, for example, a reduction in the cost of one form of compensation would cause wages and other compensation to be bid up in the labor markets resulting in an eventual pass-through of these savings to the worker. Similarly, increases in compensation costs would lead to reductions in wage growth or other benefits to reflect the change in costs.

There is considerable agreement among economists that these wage adjustments would occur in response to changes in employer benefits costs. 30 However, there is disagreement over the period of time over which these adjustments would occur. It is likely that these adjustments would often take the form of reduced wage growth over-time. However, the full amount of the wage pass-through could take two or more years to fully materialize. For illustrative purposes,

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30 See, for example, James Heckman, "What Has Been Learned About Labor Supply in the Past Twenty years?" American Economic Review, (May 1993).
we assume that these wage effects occur in the first full year of the program.\textsuperscript{21} We also present our wage change estimates on an after-tax basis.

We assume that changes in employer costs for retiree health benefits would not be passed-through to workers as changes in wages. This is because retiree benefits costs are related to prior employer commitments that have little impact on the current labor markets. Thus, savings in retiree benefits are assumed to accrue to the employer. While these changes in employer profits could affect investor incomes, we do not model these effects here.

VI. IMPACT OF THE SINGLE-PAYER PROGRAM ON STATE-WIDE HEALTH SPENDING

As discussed above, we estimate that health spending for Hawai‘i residents will be about $7.1 billion in 2006. This includes spending for all health services by all payers including Medicare, Medicaid, ESI, non-group insurance, workers compensation and various safety-net programs. Spending includes both payments for services and insurance and program administration.

The single-payer model would have several impacts on statewide health spending. There would be an increase in health services utilization as persons who are uninsured or under insured under the current system become covered. Utilization will also increase slightly for those individuals previously covered in a less generous plan. However, these increases in costs would be largely offset by reductions in administrative costs for insurers and providers. There also would be savings due to bulk purchasing of prescription drugs and durable medical equipment.

Health spending in Hawai‘i would increase by about $328 million in 2006 under the single-payer program (Figure 12). This is an increase in state-wide health spending of about 4.6 percent. Provider payments would increase by about 726.1 million due to increased utilization of services by newly insured people and a net increase in provider reimbursement resulting from the use of provider payment level equal to about 130 percent of Medicare payments per service. This would be partially offset by $397.7 million in savings from administration and bulk purchasing of health services. The impact of the program on health spending is presented below.

A. Impact on Utilization of Health Services

The expansions in coverage and benefits under a single payer plan would result in increased utilization of health services. Utilization of services for uninsured and underinsured people would generally increase due to expanded access to services under the program. The elimination or reductions in patient cost-sharing would also increase utilization for those who now face substantial co-payments and deductibles. In addition, under mandated benefits, utilization for certain services would increase due to the expansion in coverage for those services.

However, these increases in utilization would be partly offset by the use of utilization management strategies, like case management for high cost individuals, resulting in reduced spending for avoidable complications in health conditions and reduced spending in avoidable health conditions resulting from increased primary care utilization. Below we discuss the utilization impacts of implementing a single payer plan.
Figure 12
Changes in State-Wide Health Spending Under the Single-payer Proposal in 2006

<table>
<thead>
<tr>
<th>Amount (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Spending in 2006 Under Current Law</td>
</tr>
<tr>
<td><strong>Changes in Utilization and Payments</strong></td>
</tr>
<tr>
<td>Increases in Utilization for Uninsured</td>
</tr>
<tr>
<td>Change for &quot;Underinsured&quot;</td>
</tr>
<tr>
<td>Change in Provider Reimbursement (130% of Medicare Rates')</td>
</tr>
<tr>
<td>Increased Utilization for People Leaving HMOs b/</td>
</tr>
<tr>
<td><strong>Total Utilization and Payments</strong></td>
</tr>
<tr>
<td><strong>Spending Offsets</strong></td>
</tr>
<tr>
<td>Bulk Purchasing</td>
</tr>
<tr>
<td>Prescription Drugs</td>
</tr>
<tr>
<td>Durable Medical Equipment</td>
</tr>
<tr>
<td>Administrative Costs</td>
</tr>
<tr>
<td>Insurer Administration</td>
</tr>
<tr>
<td>Hospital Administration</td>
</tr>
<tr>
<td>Physician Administration</td>
</tr>
<tr>
<td>Reduced Fraud and Abuse</td>
</tr>
<tr>
<td><strong>Total Offsets</strong></td>
</tr>
<tr>
<td><strong>Net Change in State-Wide Health Spending</strong></td>
</tr>
<tr>
<td>Net Change</td>
</tr>
</tbody>
</table>

a/ includes statewide spending for all Residents of Hawai‘i. These estimates exclude public health other than direct services and research and construction.

b/ Assumes a 4 percent increase in utilization for people currently enrolled in commercial HMOs.

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

1. Utilization for the Uninsured

Uninsured people who become covered under the program would use health care services at the same rate as reported by currently insured people with similar age, sex and health status characteristics. This assumption encompasses two important effects. First, the increase in access to primary care for this population would result in savings due to a reduction in avoidable emergency room visits and hospitalizations. Second, there would be a general increase in the use of such services like preventive care, advanced diagnostic tests, and other care that the uninsured often forego or delay.

Using this methodology, we estimate that health spending among the currently uninsured population would increase. That is, savings from improved primary care would be more than offset by increased use of non-emergency care. We estimate an increase in spending due to utilization increase to total $129.2 million in 2006.
2. **Utilization for the Under-insured**

Some insured have a benefit package that does not cover certain services including prescription drugs, dental care, orthodontia and medical equipment. Often times, these individuals access such services through government-funded clinics and health centers or forego services. In addition, a smaller under-insured population is covered through government programs that only offer a limited benefit package, like QUEST-Net which covers individuals up to 300 percent of the federal poverty level. Under a singe payer plan, these individuals will have access to a full range of comprehensive health care services which would increase utilization and costs.

In this analysis, we assume that utilization of these services by people who are not currently covered for these services would increase to the levels observed among those with similar demographic and health status characteristics who do have coverage for these services. Spending under the Singe payer will increase by $27.9 million of under-insured people in 2006.

3. **Managed Care Effects**

The single-payers system would be based upon a FFS payment system comparable to the Medicare payment system. This means that HMOs would be eliminated for the population covered under the single-payer program. However, the bill does call for a moderate use of managed care. In this analysis, we assume that the level of utilization review and benefits design would be comparable to that of PPOs, which is the primary type of health plan used for people not otherwise covered under an HMO.

The PPO model includes elements of managed care such as pre-certification for acute inpatient services and high-cost outpatient procedures. However, because all licensed providers are eligible to participate in the single-payer program. This means that several elements of the PPO model would not be used under the system including, including contracts with networks of providers. However, we do assume that many of the utilization management and review methods used by PPOs would be included in the program, including pre-certification of the use of high-cost procedures. This financial incentive allows for greater utilization management (by keeping policyholders with network practitioners) than in a pure fee-for-service environment, though not with as much control as in an HMO model.

Because PPOs are now used widely throughout the state, we assumed no change in utilization for these people. However, as discussed above, we do assume an increase in utilization for people who move from the HMO model to the single-payer program. Based upon research comparing costs under HMO and PPO models, we assume a four percent increase in overall utilization for people leaving HMOs. The increase in spending would be about $76.7 million, which reflects the fact that about 35 percent of Hawai‘i residents with private coverage are currently enrolled in HMOs.

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23 [http://moneycenral.msn.com/content/insurance/insureyourhealth/P35609.asp](http://moneycenral.msn.com/content/insurance/insureyourhealth/P35609.asp), February 2006.
B. Impact on Administrative costs

Adopting a single source of insurance would reduce insurer administrative costs by streamlining claims processing, standardizing coverage rules and eliminating costs associated with marketing and changes in sources of coverage. In this section, we estimate the changes in insurer administrative costs resulting from the single payer system.

In this analysis, we estimated savings in administration based on administrative data available for the state of Hawai'i and prior Lewin Group studies on the impact of a single payer model on administrative costs. The change in insurer administration is depicted in Figure 13. Program and insurer administration is reduced by 50 percent, physician administration by 8.3 percent and hospital administration by 6.6 percent under the Single payer plan. We estimate that total administrative costs under the Single payer for insurers, physicians and hospitals to be $282.8 million (see Figure 12 above).

These administrative savings are summarized below:

**Figure 13**

Changes in Administrative Costs for Insurance and Providers

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage Savings</th>
<th>Current Plan (in Millions)</th>
<th>Single Payer (in Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program and Insurer Administration</td>
<td>50%</td>
<td>$429.3</td>
<td>$211.9</td>
</tr>
<tr>
<td>Physician Administration</td>
<td>8.3%</td>
<td>$512.5</td>
<td>$470.0</td>
</tr>
<tr>
<td>Hospital Administration</td>
<td>6.6%</td>
<td>$347.1</td>
<td>$324.2</td>
</tr>
</tbody>
</table>

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

1. **Insurer Administration and Net Underwriting Gains**

Insurer administrative costs vary widely with the size of the group purchasing insurance. For example, private insurer administrative costs for small employer groups (i.e. 1 - 4 employees) and individually purchased non-group coverage can be equal to as much as 40 percent of benefit payments. By contrast, administrative costs are equal to only about 5.5 percent of
payments for fully insured groups with 10,000 or more employees. Large self-funded plans can have administrative costs equal to about 3.5 percent or less of benefits payments.

In this analysis, we estimated administrative costs for private insurance in Hawai‘i, which we define to include net underwriting gains (i.e., profits) using the data supplied by the Insurance Division, re-weighted based on market share.\textsuperscript{24} We obtained a summary of the Annual Financial Analysis of Health Plans from the Department of Insurance for the year 2005 which shows administrative costs and net underwriting income as a percentage of total expenses. Insurer administration includes administration and net underwriting gain. Using these data, we calculated insurer administration and net underwriting income to be about 9.6 percent of premiums.

A single-payer system would extend large-group economies of scale through the health care system by covering all individuals under a single insurance mechanism. This would eliminate the costs associated with underwriting, transitions in coverage, and maintaining the administratively cumbersome linkages between employers and insurers. Under a single-payer plan, insurers will no longer have marketing costs for members to sign up. There will be no transitions in coverage with job savings thereby reducing those administrative costs. There will also be reduced allowances for profit and risk.

For state programs such as Medicaid, we estimate program administrative costs based on CMS data to be 6.9 percent. Government-funded programs achieve reduced administrative costs from reduced income testing for eligibility and a consolidation of programs.

We estimated administrative costs under the single-payer program by extrapolating from administrative costs for the Medicare program. The Medicare experience was selected as the basis for our analysis because it is effectively a single source of insurance for aged and disabled people, which reflects the unique costs of health benefits administration in the US. The Medicare program is largely administered through contracts with private claims processing and utilization review firms so that overhead costs are reflected in the Medicare contract amounts. Implicitly, it also includes costs associated with quality improvement activities of the program. Also, the Medicare agency administration data (i.e., CMS Medicare operations) include a fair market valuation of wages, fringe benefits, rent and other facilities and materials costs.

Using HBSM, we estimate that total insurer and program administrative costs for the people who would become covered under the single-payer plan are about $287.1 million under current law. As discussed below, we estimate that total administrative costs for this population under the single-payer program would be about $69.7 million, resulting in net administrative savings for this population of $217.9 million. Our administrative cost estimate for the single-payer program of $69.7 compares with $25.0 million in administrative costs for Hawai‘i residents covered under Medicare (see Appendix A).

\textsuperscript{24} We assumed Kaiser’s administration percent to be the same as HMSA’s percent. This is because Kaiser’s administration expenses are reported partly as insurer administration and partly as hospital administration. Accordingly we assumed their insurer administration percent to be the same as Kaiser’s percent.
As discussed above, we assume that start-up costs for the program would be amortized over-time by the contractors selected to administer the program. In particular, the fiscal agents that currently administer Medicare and Medicaid benefits in Hawai‘i already have the infrastructure required to administer the single-payer program.

2. Physician Administration

We define physician administrative costs to include all overhead expenditures attributed to functions other than those directly related to patient care. A single payer plan would reduce physician administrative costs for those covered under the program resulting from standardized payment levels and reimbursement rules as well as cost-sharing requirements. The program would also eliminate the costs associated with many of the utilization management programs used by insurers.

In a prior study for a single-payer program in California, we estimated that physician administrative costs were equal to about 36 percent of physician revenue and that these costs would be reduced by about 30 percent under the single-payer model. However, these savings would be much smaller in Hawai‘i than in many other states. This is because there are already a small number of carriers operating in the state, and the Hawai‘i provider markets are less competitive than in other parts of the country. Thus we assumed savings in physician administration of about 8.3 percent.

3. Hospital Administration

We define hospital administrative costs to include all labor and overhead expenditures attributed to functions other than those directly related to patient care. These include fiscal services including general accounting, patient accounting, credit and collections, admitting and other fiscal services. Administration also includes general hospital administration, public relations, data processing, medical records functions, and rent and depreciation for facilities and equipment assigned to administration. For purposes of this discussion, we classify net-revenues (i.e., profits) as part of administrative overhead. Administrative costs do not include the cost of medical professional staff, medical supplies, laboratory and radiological services, and facilities and equipment directly related to direct patient care.

In a prior study of a single-payer model for California, we estimated that hospital administrative costs are equal to about 26 percent of revenues and that these costs would be reduced by 22 percent under the Canadian model. Savings under the single-payer model that we analyzed for Hawai‘i would be substantially smaller than under a Canadian version of the single-payer model. This is because billing for services and co-payments would continue, thus negating much of the potential savings under a Canadian style model. We estimated savings in hospital administration under the Hawai‘i single-payer model would be about 6.6 percent of hospital administrative costs.

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25 We estimated administrative savings for physicians using data provided by the Medical Group Management Association (MGMA) which provides administrative cost data by function for physician practices.
4. Employment Effects of Administrative Cost Savings

The program would result in a loss of employment for administrative personnel of about 3,500 people. This includes administrative personnel in insurance companies, hospitals and physician offices. Much of this loss of employment could be achieved through regular attrition. Also, many administrative personnel are nurses and physicians. With the increase in health services utilization expected once all Hawai’i residents become insured, many of these people could become re-employed in providing services.

However, as substantial share of these administrative personnel could become unemployed resulting in a short-term increase in unemployment insurance costs and would require some workers to retrain in other professions. Moreover, HMSA and Kaiser and other health plans would largely go out of business in Hawai’i, although one of these plans is likely to be awarded the contract to administer the single-payer program (Medicare and nearly all states contract with private fiscal agents to administer Medicare and Medicaid).

The short-term loss of employment is one of the costs of shifting to a single-payer health care system. These costs should be weighed against the expected benefits of a single-payer model.

C. Impact by Payer Group

*Figure 14* summarizes our estimates of changes in health spending under the program by payer group. State government spending would drop by about $94.0 million due to savings in covering state and local workers under the program. Aside from these savings, all costs under the single-payer program are fully financed with public program savings for people folded into the program, employer premiums and the payroll tax.

<table>
<thead>
<tr>
<th>Change in Spending (millions)</th>
<th>Before Wage Effects</th>
<th>After Wage Effects a/</th>
</tr>
</thead>
<tbody>
<tr>
<td>State &amp; Local Government</td>
<td>($96.4)</td>
<td>($94.0)</td>
</tr>
<tr>
<td>Federal Government</td>
<td>--</td>
<td>$30.6 b/</td>
</tr>
<tr>
<td>Private Employers</td>
<td>($39.3)</td>
<td>($36.1)</td>
</tr>
<tr>
<td>Households</td>
<td>$464.1</td>
<td>$427.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$328.4</strong></td>
<td><strong>$328.4</strong></td>
</tr>
</tbody>
</table>

a/ Changes in employer spending for workers and dependents are assumed to be passed back to workers in the form of changes in wages. Employers are assumed to retain savings for early retirees under the program.

b/ Includes net-loss of federal tax revenues due to wage-effects.

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

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28 About 80 percent of the 282.2 million in administrative savings under the proposal would be labor and fringe-benefits costs. Assuming an average wage and benefits cost of $65,000 per worker, the loss of employment would be roughly 3,500 people.
Employer costs would actually decline under the program primarily due to reduced spending for retirees who would become covered under the program. However, many employers will pay the payroll tax for the worker, with a corresponding reduction in wages, so the tax payments are made in pre-tax dollars rather than after-tax income. This would reduce tax revenues for the federal government by about $30.6 million.

Health spending by households would increase by about $427.9 million. This is because all of the new funding required to operate the system would be the payroll tax paid by workers. *Figure 14* presents these estimates with and without accounting for wage effects.
VII. GOVERNMENT HEALTH SPENDING UNDER THE SINGLE-PAYER PROGRAM

The single-payer program would cover about 1.0 million Hawai‘i residents, which is about 78.1 percent of the state’s population. The single-payer program would be the sole source of coverage for this population except for participants in the single-payer program who qualify for “wrap around” benefits under Medicaid. Also, some employers may provide supplemental coverage for services that are not covered under the single-payer program. But the single-payer program would be the primary source of coverage for covered individuals.

The program would have significant implications for both the state and federal governments. We present estimates of program operations costs and revenues for both the state and federal governments.

A. Sources and Uses of Funds under the Single-payer

Figure 15 presents our estimates of sources and uses of funds under the single-payer programs. These data include the operation of the single-payer plan and any elements of Medicaid or safety-net programs that would remain under the program. Overall state spending for these programs would be about 4.3 billion. This would be funded in-part with 1.2 billion in state and federal spending that would have occurred under current law. It is supplemented with about 1.1 billion in employer premium payments and about 1.8 billion in payroll tax revenues.

Figure 15
Sources and Uses of Funds for Health Services with the Single-payer Program in 2006 (millions)

<table>
<thead>
<tr>
<th>Uses of Funds</th>
<th>Sources of Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefits Payments</td>
<td>$988.0</td>
</tr>
<tr>
<td>Benefits at 130% of Medicare Rates</td>
<td></td>
</tr>
<tr>
<td>HMO Utilization</td>
<td>$407.0</td>
</tr>
<tr>
<td>Reduced Fraud and Abuse</td>
<td>$581.0</td>
</tr>
<tr>
<td>Bulk Purchasing Savings</td>
<td>$239.4</td>
</tr>
<tr>
<td>Prescription Drugs</td>
<td></td>
</tr>
<tr>
<td>Durable Medical Equipment</td>
<td></td>
</tr>
<tr>
<td>Adjustments to Provider Payment Rates</td>
<td>($174.7)</td>
</tr>
<tr>
<td>Allowance for Reduced Cost Shifting</td>
<td>($109.3)</td>
</tr>
<tr>
<td>Hospital Administrative Savings</td>
<td></td>
</tr>
<tr>
<td>Physician Administrative Savings</td>
<td></td>
</tr>
<tr>
<td>Continued Medicaid &amp; SCHIP</td>
<td>$444.0</td>
</tr>
<tr>
<td>Long Term Care &amp; Other</td>
<td></td>
</tr>
<tr>
<td>Dual Eligible</td>
<td>$847.6</td>
</tr>
<tr>
<td>Wrap Around Coverage</td>
<td></td>
</tr>
<tr>
<td>Administration</td>
<td>$30.9</td>
</tr>
<tr>
<td>Single Payer Administration</td>
<td>$69.7</td>
</tr>
<tr>
<td>Continued Safety Net Programs for Covered Population</td>
<td>$124.9</td>
</tr>
<tr>
<td>Total Program</td>
<td>$4,298.7</td>
</tr>
</tbody>
</table>

a/ Includes total safety-net funding for people who are ineligible for single-payer program.

Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).
Under the Single-payer program, total benefit payments to providers will be $3.925 billion in 2006. We estimate that $90.1 million will be saved in 2006 from bulk purchasing discounts on prescription drugs and durable medical equipment. We also estimate a savings of $174.7 million in provider payment adjustments. This includes physician and hospital administrative savings as well as an allowance for reduced cost shifting. Under the current system, uncompensated care from services to the uninsured and under-insured is shifted to other payer sources (primarily private payers). A single-payer plan will cover almost all residents, thereby reducing cost shifting which we estimate to be $109.3 million. This savings is included in our estimate of adjustments to provider payments.

We assume that Medicaid and SCHIP continued to provide wrap-around services not included in the single-payer for low-income individuals at a total cost of $30.9 million. Long-term care services are excluded from the plan, the cost of which we estimate to be $304 million. Coverage for Medicaid-Medicare dual-eligible people would be maintained under the Medicaid program at a cost of $78.4 million, and program administration will total $30.7 million. The estimated total costs for continued Medicaid and SCHIP is $444 million.

There will remain some safety net programs for the covered population the cost of which is estimated to be $124.9 million. Total program cost under the single-payer is $4.298 billion in 2006. The program will be funded with funding from Medicaid and SCHIP, current safety net programs funding totaling $1.227 billion. New revenues include employer premium payments, employee payroll tax at a rate of 9.5 percent in 2006, and voluntary payments of the payroll tax by employers on behalf of employees. Total new revenue to fully fund the program is $3.071 billion in 2006.

**B. Impact on State and Local Budgets**

Under the program that we analyzed, all state and local funding for programs now serving people shifted to the single-payer plan would be transferred to the single-payer program (except funding for Medicaid wrap-around benefits). State spending for Medicaid (i.e., state share) and state and local government spending for safety-net programs will be about $646.4 million under current law (Figure 16). Under the single-payer model, about $338.6 million would be transferred to the single-payer program. The remaining $307.8 million would be retained to pay for care provided to aged and disabled people not covered under the single-payer, including all funding for long-term care.

While there would be no net change in spending for public health benefits programs, there will be substantial savings for state and local worker coverage under the EUBTF. This results largely from the fact that early retirees (i.e., pre Medicare) would largely become covered under the single-payer program. Because employers are not required to pay premiums for the early retirees that they cover, the state saves the full cost of covering this population. Total savings, net of any wage adjustments will be about $94.0 million in 2006. The impact of the single-payer program on the EUBTF is presented in greater detail in the following section on employer impacts.
Figure 16
Change in Health Spending for State and Local Governments Under the Single-payer Program in 2006 (in millions)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>State Funding for Medicaid &amp; SCHIP</td>
<td>$407.0</td>
<td>$182.9</td>
<td>($224.1)</td>
</tr>
<tr>
<td>State &amp; Local Safety-net Programs</td>
<td>$239.4</td>
<td>$124.9</td>
<td>($114.5)</td>
</tr>
<tr>
<td>Transfer to Single-payer Program</td>
<td>--</td>
<td>$338.6</td>
<td>$338.6</td>
</tr>
<tr>
<td>Total Spending</td>
<td>$646.4</td>
<td>$646.4</td>
<td>$0.0</td>
</tr>
</tbody>
</table>

Changes in Spending for State and Local Worker Health Benefits

| Health Benefits for State & Local Government a/ Workers & Dependents | $231.1 | $228.5 | ($2.6) |
| Retirees                                                          | $255.8 | $162.0 | ($93.8) |
| Wage Adjustment for State and Local Workers/b                    | --     | $2.4   | $2.4   |
| Total State and Local Workers                                    | $486.9 | $392.9 | ($94.0) |

Net Impact on State and Local Government Health Spending

| Total State and Local Government Spending | $1,133.3 | $1,039.3 | ($94.0) |

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

C. Impact on Federal Health Spending in Hawai‘i

The single-payer model would require the federal government to agree to provide all of the funding for Medicaid and other programs in a lump sum that could be used as a source of revenue for the single-payer program. Turning the federal share of Medicaid spending into a "block grant" would eliminate the need to separately determine eligibility of each individual, resulting in substantial administrative savings. The amount of the funding would be indexed over time to reflect the expected growth in funding that would have occurred under current law.

The federal government recently approved a waiver in Vermont which effectively converts Medicaid to something quite similar to a block grant for that state. This suggests that federal approval of such a request for Hawai‘i may be feasible.

However, there would be a net loss of federal tax revenues for Hawai‘i residents due to the single-payer program. The reason for this is that employers will often pay the payroll tax for their workers so that the tax is paid in pre-tax rather than after-tax income. This would tend to occur in firms that currently provide coverage who will no-longer need to provide coverage for dependents. The resulting loss in revenue would be about $30 million (Figure 17).
Figure 17
Change In Health Spending for the Federal Government Under the Single-payer Program in 2006 (in millions)

<table>
<thead>
<tr>
<th>Federally Funded Health Coverage</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Funding for Medicaid &amp; SCHIP</td>
<td>$581.4</td>
<td>$261.4</td>
</tr>
<tr>
<td>Federal Funds Transfer to Program</td>
<td>--</td>
<td>$320.0</td>
</tr>
<tr>
<td><strong>Total Public Programs</strong></td>
<td>$581.4</td>
<td>$581.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Changes in Federal Tax Revenues Due to Wage Effects Under the Single-payer Proposal</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in Federal Income Tax Revenues</td>
<td>--</td>
<td>($35.5)</td>
</tr>
<tr>
<td>Change in Social Security/Medicare Payroll Tax Revenues</td>
<td>--</td>
<td>$4.9</td>
</tr>
<tr>
<td><strong>Total Change in Federal Tax Revenues</strong></td>
<td>--</td>
<td>($30.6)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Net Impact on Federal Government Health Spending</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Cost/(Savings)a/</strong></td>
<td>$581.4</td>
<td>$612.0</td>
</tr>
</tbody>
</table>

a/ Reductions in federal tax revenues are counted as a cost to the federal government.

D. Program Spending Using Alternative Provider Payment Levels

As discussed above, we assume that providers would be reimbursed for services at 130 percent of Medicare payment levels. This results in total program spending of about $4.3 billion (Figure 18). This is financed with funding for current government programs ($1.2 billion) and employer premium payments ($1.1 billion). The remaining $2.0 billion required would be raised with a payroll tax which we estimate would need to be about 9.5 percent to fully fund the program. Under the 130 percent of Medicare assumption, there is a net increase in health spending statewide of $328.4 million.

Figure 18
Impact of Alternative Payment Rates on Program Spending

<table>
<thead>
<tr>
<th>Program Costs</th>
<th>Net Change in State-Wide Health Spending</th>
<th>Require Tax Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>130% of Medicare Rates</td>
<td>$4,298</td>
<td>$328.4</td>
</tr>
<tr>
<td>110% of Medicare Rates</td>
<td>$3,686</td>
<td>($238.9)</td>
</tr>
<tr>
<td>100% of Medicare Rates</td>
<td>$3,393</td>
<td>($577.3)</td>
</tr>
<tr>
<td>Set to Match Current Spending Levels</td>
<td>$3,976</td>
<td>No Net Change</td>
</tr>
</tbody>
</table>

Source: Lewin Group Estimates using the Health Benefits Simulations Model (HBSM).
Program costs are very sensitive to the provider payment levels used. If we were to use 110 percent of Medicare rates, program costs would drop to $3.7 billion and the payroll tax rate would fall to 6.5 percent. Under this scenario, there would be a decline in statewide health spending of about $238.9 million. Using 100 percent of Medicare rates would reduce the payroll tax rate required to fund the program to 5.1 percent, with a net reduction in state-wide health spending of $577.3 million.

An alternative approach would be to set provider payment at a level where there is no net change in state-wide health spending. This would be equal to about 119.3 percent of Medicare payment levels. At that level of provider payments, the payroll tax rate would be about 7.9 percent.

E. Program Spending with Coverage for Alternative Medicine

As part of the project, we estimated the cost of adding alternative medicine to the list of covered services under the single-payer model. Chiropractic care is covered under the EUBTF benefits package, so while we define it as "alternative medicine" its impact is included in our estimates above. We estimated the cost of adding the following alternative medicine services:

- Chiropractic;
- Acupuncture;
- Nutritional Service;
- Massage Therapy;
- Herbal Remedies;
- Bio Feedback;
- Meditation Training;
- Homeopathic Therapy;
- Spiritual Healing;
- Hypnosis; and
- Other Alternative Medicine.

We estimated the cost of providing these services based upon the 1996 MEPS data, which is the most recent data providing information on the amount spent for these types of alternative medicine. These data indicate that total spending for these services nationwide was $4.2 billion in 1996, which is an average of about $16 per person per year. We assumed that utilization of these services would increase by about 67 percent once they become covered. (This is based upon analyses of the increase in health services utilization for the uninsured once they become covered). We also indexed spending growth by 5.0 percent per year since 1996.

This resulted in an estimated $43.50 in spending on alternative medicine per person. We used this as a basis for estimating the cost of covering these services under the Hawai‘i single-payer plan. Figure 19 presents our estimates of the impact of including these services in the benefits package. Adding these services would increase spending under the single-payer program by about $63 million. The payroll tax rate would need to be increased from 9.5 percent to 9.6 percent to pay for these added benefits.
Figure 19
Impact of Including Alternative Medicine in the Hawai'i Single-payer Program

<table>
<thead>
<tr>
<th></th>
<th>Program Costs</th>
<th>Net Change in State-wide Health Spending</th>
<th>Required Tax Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without Alternative Medicine</td>
<td>$4,298.7</td>
<td>$328.4</td>
<td>9.5%</td>
</tr>
<tr>
<td>With Alternative Medicine</td>
<td>$4,361.8</td>
<td>$391.5</td>
<td>9.6%</td>
</tr>
</tbody>
</table>

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

Information on utilization and spending for other alternative medicine services is virtually non-existent. The MEPS data is a decade old and is for the nation as a whole rather than Hawai'i specific. Due to the lack of data on spending for these services, our estimates may be far from the actual cost of covering these services. In particular, covering these services could result in larger increases in utilization over time. Therefore, these estimates should be considered to be illustrative only.
VIII. IMPACT ON EMPLOYERS

Employers would pay a premium for each full-time worker to finance the single-payer program. The premium has been calculated to on average be equal to the amount they would pay for the minimum level of coverage under PHCA. Employers would be permitted to pay the payroll tax for their workers if they wish. This is likely to occur in firms that no offer comprehensive coverage to both workers and dependents that would now be required to pay only the premium for the minimum PHCA benefits package. Also, the tax payment is in pre-tax dollars rather than after-tax dollars if paid by the worker.

Private and public sector employers would pay about $1.1 billion in premiums towards financing the single-payer plan. The net impact on the employer would vary depending upon the degree to which individual employers currently offer insurance, employee wage levels and what they provide coverage for. However, the objective is to use a premium that is comparable to what employers would pay now for the minimum benefits package under the PHCA.

The impact of the single-payer program on employer health spending is discussed in the following sections:

- Setting the premium for the single-payer program;
- Impact on private employer spending;
- Impact on private employers by firm size
- Impact on public employer spending;
- Wage effects.

A. Setting the Premium for the Single-payer Program

The goal that we adopted for this analysis is to set a premium that is on average the same as what would be paid under the minimum benefits package under PHCA.

We estimated the average premium for the PHCA minimum benefits package (described in Figure 8 above) for all full-time workers in the state. This was done using HBSM spending data for full time workers of all ages regardless of whether they have PHCA or other coverage sponsored by their employer. Excluded from the estimates were people covered under TRICARE, federal worker benefits and Medicare.

Using this approach, we estimated a premium of $271 per member per month (PMPM) (Figure 20). Some employers may pay more or less depending on current benefits provided and spending. But overall, there will be no new spending for employers under the single-payer.

However, we further adjusted the premium to reflect that the employer would be required to pay premiums for all workers not otherwise exempted, including many people who today have coverage from a spouse’s employer plan. Because the employer is not currently required to cover these individuals, the employer would often see a net increase in premium payments. To account for this, we lowered the premium so that aggregate revenues would on average be
roughly the same as they would be under current law. The required adjustment lowered the premium to about $233 PMPM.

![Figure 20](image)

**Comparison of Per Worker Premium**

<table>
<thead>
<tr>
<th>Minimum Package Under PHCA</th>
<th>State Employee Benefits</th>
<th>At 130% of Medicare Rates with Bulk Purchasing Discount</th>
</tr>
</thead>
<tbody>
<tr>
<td>$271 PMPM</td>
<td>$341 PMPM</td>
<td>$392 PMPM</td>
</tr>
</tbody>
</table>

Source: Lewin Group Estimates Using the Health Benefits Simulation Model (HBMSM).

By comparison, we estimate that the EUBTF benefits package provided in the single-payer plan, which is more comprehensive benefit, would costs about $341 PMPM for this population in today's market. At the payment rate of 130 percent of the Medicare rate used in the single-payer model, the cost is estimated to be $392.

**A. Impact on Private Employer Spending**

Private employers in Hawai'i will pay about $1.9 billion for health benefits in 2006, including $1.7 billion in benefits for workers and dependents and $171 million in retiree health benefits (Figure 21). These estimates include employer spending for all covered workers, dependents and retirees living in Hawai'i, even if the employer is based outside the state. It excludes federal workers and state and local government employees under the EUBTF, which is discussed below. This estimate includes the employer share of premiums only.

![Figure 21](image)

**Private Employer Health Spending for Workers and Retirees under Current Law and the Single-payer Program in 2006 (in millions)**

<table>
<thead>
<tr>
<th></th>
<th>Private Employer Health Spending Under Current Law</th>
<th>Private Employer Health Spending Under the Single-Payer Program</th>
<th>Change in Private Employer Health Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Private Employers</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worker and Dependent Benefits (excludes employee contributions)</td>
<td>$1,703.2</td>
<td>$151.8a/</td>
<td>($1,551.4)</td>
</tr>
<tr>
<td>Retiree Benefits</td>
<td>$171.2</td>
<td>$129.5b/</td>
<td>($41.7)</td>
</tr>
<tr>
<td>Premium Payments to Program</td>
<td>--</td>
<td>$966.1</td>
<td>$966.1</td>
</tr>
<tr>
<td>Voluntary Payments of Employee Payroll Tax</td>
<td>--</td>
<td>$587.7c/</td>
<td>$587.7</td>
</tr>
<tr>
<td><strong>Total Spending</strong></td>
<td>$1,874.4</td>
<td>$1,835.1</td>
<td>($39.3)</td>
</tr>
</tbody>
</table>

_a/ Employers are assumed to provide wrap around coverage for services currently covered by the employer plan that are not covered under the single-payer plan.  
b/ Employer benefit for retirees on Medicare are assumed to continue.  
c/ Employers are assumed to pay the payroll tax up to the amount paid for dependent benefits under current law.

Source: Lewin Group estimates using the Health Benefits Simulation Model (HBMSM).
Total spending for private employers would drop by about $39.3 million under the proposal. Benefits cost for workers and dependents would fall from $1.7 billion under current law to about $151.8 million. The $151.8 million in coverage remaining reflects our assumption that employers would continue to provide wrap around coverage for services currently covered by the employer plan that are not covered under the single-payer plan. It also reflects continued coverage for workers and dependents excluded from the single-payer plan because they are on Medicare. In addition, retiree benefits costs would decline by about $41.7 million as early retirees become covered under the single-payer plan.

Employer premium payments to the single-payer plan would be $966.1 million. In addition, we assume that employers that now provide dependent’s coverage would pay the single-payer payroll tax for the worker up to the point where the employer’s cost of coverage is roughly the same as under current law. We believe that employers will do this to help retain and attract workers, which is the same reason they provide coverage to dependents now. Also, if the employer pays the tax it is paid in pre-tax dollars rather then the individual paying the tax in after-tax dollars.

B. Impact on Private Employers by Firm Size and Industry

Private employer spending would drop by an average of about $76 per worker under the single-payer proposal. However, effects will vary by firm size. In general, costs would increase among lower wage firms. For example, costs per worker would increase by about $289 per worker in firms with fewer than 10 workers (Figure 22). This is because a disproportionate number of workers in these firms are already covered as a dependent on a spouse’s plan. When employers are required to pay the premium for these workers, their overall costs increase.

![Figure 22](image)

**Figure 22**

Average Change in Private Employer costs by Firm Size under the Single-payer Program in 2006

Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).
Costs would decline by an average of about $489 per worker among firms with 100 or more workers. This is largely because most of their workers are already taking coverage under current law so the amount they would have to pay for workers currently covered as a dependent on another employers plan would be relatively small. Also, nearly all retirees with health benefits are associated with larger firms.

It is difficult to restrict an employer’s costs under the single-payer plan to be the same as the minimum they would pay under current law. This is partly because the premiums employers pay will typically vary with the age and health status of workers. Also, once the single-payer program is established, it will not be possible to identify workers who would have been covered under a spouse’s employer, since employer health insurance would be eliminated.

*Figure* 23 presents estimates of changes in employer spending per worker under the single-payer model for selected industries. Analyses by additional industry grouping can not be presented due to data limitations.

*Figure 23*
Change in Spending Per-Worker under the Single-payer Program by Industry

![Bar chart showing change in spending per worker by industry](image)

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

**C. Impact on Public Employer Spending**

*Figure* 24 illustrates the change in health spending for public employees resulting from the single-payer plan. The state currently provides about $231 million in health benefits to covered workers and dependents, which is about $45.5 million less than the cost of the premium
payment for the single-payer program. However, the state would be required to pay premiums for workers who they currently do not cover at a cost of $42.9 million.

**Figure 24**  
Change in Spending Under the Hawai‘i Employer-Union Health Benefits Trust Fund (EUBTF)

<table>
<thead>
<tr>
<th></th>
<th>Number of Workers</th>
<th>Current State Spending (millions)</th>
<th>Spending Under Single-payer (millions)</th>
<th>Change in State Spending (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers Currently with Health Benefits (includes dental and vision costs)</td>
<td>51,983</td>
<td>$231.1</td>
<td>$185.6</td>
<td>($45.5)</td>
</tr>
<tr>
<td>Workers who have Waived Health Benefits</td>
<td>13,151</td>
<td>--</td>
<td>$42.9</td>
<td>$42.9</td>
</tr>
<tr>
<td>Non Medicare Retirees</td>
<td>9,925</td>
<td>$93.8</td>
<td>--</td>
<td>($93.8)</td>
</tr>
<tr>
<td>Medicare Retirees</td>
<td>25,431</td>
<td>$132.3</td>
<td>$132.3</td>
<td>--</td>
</tr>
<tr>
<td>Medicare Part B Payments</td>
<td>25,431</td>
<td>$29.7</td>
<td>$29.7</td>
<td>--</td>
</tr>
<tr>
<td><strong>Total Spending</strong></td>
<td><strong>100,490</strong></td>
<td><strong>$486.9</strong></td>
<td><strong>$390.5</strong></td>
<td><strong>($96.4)</strong></td>
</tr>
</tbody>
</table>

*a/ Enrollment and spending figures are based upon the annual report for fiscal year 2004-05, Hawai‘i Employer-Union Health Benefits Trust Fund (EUBTF). Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).*

There will be no change in health spending for Medicare retirees as they are excluded from single-payer coverage. However, early retirees who have not yet become eligible for Medicare would now become covered under the single-payer program resulting in savings of about $93.8 million.

Overall, we estimate a net savings to the state of about $96.4 million. We anticipate some wage adjustments, reducing the net savings to the state to about $94 million, which corresponds to our estimate of net savings to the state government presented above in Figure 16.

**D. Wage Effects**

As discussed above, we assume that changes in employer costs for workers would be passed back to employees as changes in wages. Thus, a worker in a firm where the employer sees an increase in costs would see their wages reduced by that amount, typically in the form of slowed wage growth. Similarly, in a competitive labor market, workers in firms that save under the program would pass these savings back to workers in the form of higher wages. The impact of these changes in wages on households is discussed in the following section.

As discussed above, we assume that changes in employer costs for retiree health benefits would not be passed-through to workers as changes in wages. This is because retiree benefits costs are related to prior employer commitments that have little impact on the current labor markets. Thus, savings in retiree benefits are assumed to accrue to the employer.
IX. IMPACT ON HOUSEHOLDS

The single-payer model would have significant impacts on household spending for health care. Nearly all of the non-Medicare population would be shifted to the single-payer. The program eliminates premium payments and would usually reduce out-of-pocket spending for services and co-payments. However, these expenses would be replaced with a new payroll tax payment that tends to redistribute health care costs from lower-income families to those in higher income brackets. Also, changes in employer costs can result in wage changes, which would also affect family income tax payments.

We summarize the effects that the program would have on Hawai‘i households in the following sections.

- Changes in Sources of Coverage;
- Changes in Household Spending; and
- Impacts by Demographic Group.

A. Changes in Sources of Coverage

As discussed above, about 1.0 million Hawai‘i residents would be covered under the single-payer program. Under current law, about 58.8 percent of all people in Hawai‘i had employer coverage as their main source of insurance (Figure 25). Under the single-payer model, only about 57,800 federal workers and dependents would continue to have separate coverage under the Federal Employees Health Benefits Program (FEHBP).

![Figure 25](image)

Hawai‘i Residents by Primary Source of Coverage under the Single-payer Program

<table>
<thead>
<tr>
<th>Current Law</th>
<th>Single Payer Proposal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employer</strong></td>
<td><strong>Dual Eligibles</strong></td>
</tr>
<tr>
<td>768.6</td>
<td>26.5</td>
</tr>
<tr>
<td><strong>Medicaid</strong></td>
<td><strong>Medicare</strong></td>
</tr>
<tr>
<td>178.2</td>
<td>149.9</td>
</tr>
<tr>
<td><strong>MCO</strong></td>
<td><strong>Tricare</strong></td>
</tr>
<tr>
<td>26.5</td>
<td>14.9</td>
</tr>
<tr>
<td><strong>Non-Group</strong></td>
<td><strong>FEHBP</strong></td>
</tr>
<tr>
<td>43.2</td>
<td>48.2</td>
</tr>
<tr>
<td><strong>Uninsured</strong></td>
<td><strong>Public Program</strong></td>
</tr>
<tr>
<td>97.7</td>
<td>1,004.9</td>
</tr>
</tbody>
</table>

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

408366
About 48,200 military dependents and retirees would continue to be covered under TriCare. Also, all Medicare beneficiaries would continue to have coverage from that source. These include about 176,400 beneficiaries, including about 26,500 Medicare eligible people who are also eligible for Medicaid.

There would be no uninsured under the single-payer model we have examined. However, there would still be uninsured people if the program restricts eligibility for undocumented immigrants. Also, some people excluded due to the 6-month residency requirement may go uninsured during that period. This suggests that there would still be some uncompensated care for the uninsured and a continuing need for some safety-net program services.

A. Changes in Household Spending

Currently, families in Hawai'i spend about $885.8 million on health insurance premiums. These include payments for non-group coverage, employee contributions for ESL Medicare Part-B premiums and Medicare supplemental coverage. Under the single-payer program, family premium payments would decline by about $615.3 million (Figure 26).

![Figure 26](image)

**Changes in Family Health Spending in Hawai'i under the Single-payer Program in 2006 (in millions)**

<table>
<thead>
<tr>
<th></th>
<th>Family Health Spending Under Current Law</th>
<th>Family Health Spending Under the Single-payer Proposal</th>
<th>Changes in Family Health Spending Under the Single-Payer Proposal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health Insurance Premiums</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Premium Contributions</td>
<td>$885.8</td>
<td>$270.5</td>
<td>($615.3)</td>
</tr>
<tr>
<td>Non-Group Insurance a/</td>
<td>$716.6</td>
<td>$178.5</td>
<td>($538.1)</td>
</tr>
<tr>
<td></td>
<td>$169.2</td>
<td>$92.0</td>
<td>($77.2)</td>
</tr>
<tr>
<td><strong>Family Out-of-pocket Spending (co-payments, uncovered services, etc.)</strong></td>
<td>$720.0</td>
<td>$489.6</td>
<td>($230.4)</td>
</tr>
<tr>
<td><strong>Increase in After-Tax Wages (shown as a reduction in family spending for health care)</strong></td>
<td>–</td>
<td>($36.2)</td>
<td>($36.2)</td>
</tr>
<tr>
<td><strong>Taxes to Fund Program</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worker Payroll Tax (9.55 percent)</td>
<td>–</td>
<td>$1,309.8</td>
<td>$1,309.8</td>
</tr>
<tr>
<td><strong>Total Family Health Spending</strong></td>
<td>$1,605.8</td>
<td>$2,033.7</td>
<td>$427.9</td>
</tr>
</tbody>
</table>

a/ Includes Medicare supplemental coverage which would not be affected by the proposal.
Source: Lewin Group Estimates using the Health Benefits Simulation Model (HBSM).

We estimate that family out-of-pocket spending will be about $720 under current law. This includes deductibles and co-payments under insurance plans, payments for services not covered by an insurance plan and out-of-pocket spending by uninsured people. Under the single-payer program, out-of-pocket spending would drop by about $230.4 million. We also estimate an overall increase in wages of $36.2 million (after taxes) that we count as an offset to family health spending.
These savings would be more than offset by increased tax payments. Payroll tax payments would be about $1.3 billion. This more than offsets the various reductions in health spending resulting in a net increase in health spending of $427.9 million.

Figure 27 summarizes the impact of the single-payer program on average family health spending. Under current law, Hawai’i residents will have an average of about $3,220 in health spending per family. Family premium payment would be largely eliminated under the program for the non-Medicare population, resulting in a savings of $1,180 per family. Because the EUBTF benefits package used in the single-payer program is more comprehensive than many employer plans (including PHCA plans), families will see an average reduction in out-of-pocket health spending of $438 per family. There also would be an increase in after-tax wage income of $32 per family, which we count as an offset to family health spending.

Figure 27
Change in Average Family Health Spending by Income as a Percent of the Poverty Level under the Single-payer Program in 2006

<table>
<thead>
<tr>
<th>Families by Income as a Percent of the Federal Poverty Level (FPL)</th>
<th>Changes in Family Health Spending Under Single-payer in 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Families</td>
</tr>
<tr>
<td>Below FPL</td>
<td>64,648</td>
</tr>
<tr>
<td>100%-150% FPL</td>
<td>39,392</td>
</tr>
<tr>
<td>150%-199% FPL</td>
<td>43,985</td>
</tr>
<tr>
<td>200%-249% FPL</td>
<td>41,757</td>
</tr>
<tr>
<td>250%-299% FPL</td>
<td>41,654</td>
</tr>
<tr>
<td>$300% or more FPL</td>
<td>295,412</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>All Families in California</th>
<th>Changes in Average Family Spending The Act by Income in 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>526,850</td>
</tr>
</tbody>
</table>

a/ Includes family premium payments and out-of-pocket spending for health services.
b/ Increases in wages resulting from the Act are counted as reductions in family health spending while decreases in wages due to the single-payer program are treated as increases in family health spending. For example, the average net change in family health spending for people living below the FPL (i.e., savings of $633) is computed as: -$256 - $383 + $192 - $181 = -$633 (i.e., the $181 increase in after-tax wages is counted as a reduction in family health spending).
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

These savings would on average be more than offset by family payroll tax payments under the bill averaging $2,490 per family, which reflects the 9.5 percent payroll tax rate required to fully fund the program. This results in an overall average net increase in health spending of $840 per family.
In general, people living below 300 percent of the FPL would see net reductions in spending. For example, people living below the FPL would save an average of about $633 per family. Costs would increase by an average of about $1,850 for families living above 300 percent of the FPL. This reflects the fact that payroll tax payments increase as income rises.

B. Impacts by Demographic Group

The $427.9 million increase in spending for families would be about $841 per family (Figure 28). Increases would be found in all age groups including families headed by someone age 65 or older, usually because the families include a spouse that is not yet eligible for Medicare and are therefore affected by the single-payer model.

The increase in spending would average only about $248 per family in the 55 to 64 year age group. This appears to be because these people often pay high premiums due to their age and often have high out-of-pocket expenses that would become covered under the single-payer program. Family health spending would increase by between $1,300 and $1,450 among families headed by people 24 to 54. This reflects the fact that these are prime-age workers who would be required to pay most of the payroll tax.

**Figure 28**

*Change In Average Family Health Spending by Age of Family Head under the Single-payer Program in 2006*

The increase in health spending is more dramatic for higher income families (Figure 29). Families earning more than $150,000 would spend $4,173 more on average. Families earning less than $50,000 a year will save. Those with incomes less than $10,000 save the most ($627 on average in 2006).
Figure 29
Change in Health Spending Per Family by Income Group under the Single-payer Program in 2006

Figure 30 presents estimates of the net change in family health spending by other family characteristics. Families who are now facing high out-of-pocket expenses would see savings under the single-payer model. For example, people with out-of-pocket spending of $5,000 or more under current law would see an average savings of about $4,880 under the single-payer plan. People with lower levels of spending under current law would tend to see increases in spending under the program.

Family health spending would actually increase for families who are currently uninsured by an average of about $1,760 per family under the program. Average health spending for these families is about $1,350 per uninsured family compared with an average of about $3,300 for families where most members are insured. This reflects the fact that the uninsured are on average younger than insured people and tend to use little care under current law. Under the single-payer model, spending for this group would increase by about $1,760 per family, primarily due to the payroll tax.

In addition, family health spending would increase by an average of about $810 for married couple families and an average of about $872 for single individuals under the program.
Figure 30
Change in Average Family Health Spending in Hawai'i under the Single-payer Program in 2006

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>$1,847</td>
<td>$2,857</td>
<td>$1,010</td>
</tr>
<tr>
<td>Single</td>
<td>$878</td>
<td>$1,750</td>
<td>$872</td>
</tr>
<tr>
<td>Male</td>
<td>$714</td>
<td>$1,978</td>
<td>$1,264</td>
</tr>
<tr>
<td>Female</td>
<td>$954</td>
<td>$1,644</td>
<td>$690</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Families Distributed by the Amount They Would Have Paid Out-of-Pocket for Health Services in 2006 Under Current Law</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $500</td>
</tr>
<tr>
<td>$500 - $999</td>
</tr>
<tr>
<td>$1,000 - $2,499</td>
</tr>
<tr>
<td>$2,500 - $4,999</td>
</tr>
<tr>
<td>$5,000 - or more</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current Insured Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currently Uninsured</td>
</tr>
<tr>
<td>Currently Insured</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>All Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3,220</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>$4,061</th>
</tr>
</thead>
<tbody>
<tr>
<td>$840</td>
</tr>
</tbody>
</table>

a/ Includes changes in premiums, out-of-pocket expenses, taxes to replace premium payments under the program and after-tax wage effects. These data excludes the institutionalized population.

b/ Includes families where all family members are uninsured all year.

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

C. Distributional Impacts

There is considerable variability in the effects that the program would have on health spending for individual families. The effect for any one family will depend upon the type of coverage they now have, premium levels, co-payments, the level of health services utilization and income level. While we project that family health spending would on average increase under the program, many families would see a reduction in spending.

We estimate that about 41.6 percent of families in Hawai'i would see a net increase in family health spending of $1,000 or more (Figure 31). These typically include families with relatively high wages who would pay a substantial amount of payroll tax. Conversely, about 15.0 percent of families would see a net reduction in family health spending. These include families paying large amounts in out-of-pocket spending under current law such as many uninsured, people with only limited coverage, and people who purchase non-group coverage. These people would see significant savings as they become covered under the more comprehensive coverage provided in the single-payer plan.
### Figure 31
Distribution of Families in Hawai’i by Amount of Change in Family Health Spending

<table>
<thead>
<tr>
<th></th>
<th>Number of Families</th>
<th>Percent of Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total with increase of $20 or more</td>
<td>265,532</td>
<td>50.4%</td>
</tr>
<tr>
<td>Increase of $1,000 or more</td>
<td>219,169</td>
<td>41.6%</td>
</tr>
<tr>
<td>Increase of $500 to $999</td>
<td>22,128</td>
<td>4.2%</td>
</tr>
<tr>
<td>Increase of $250 to $499</td>
<td>13,175</td>
<td>2.5%</td>
</tr>
<tr>
<td>Increase of $100 to $249</td>
<td>7,903</td>
<td>1.5%</td>
</tr>
<tr>
<td>Increase of $20 to $99</td>
<td>3,161</td>
<td>0.6%</td>
</tr>
<tr>
<td><strong>Change of less than $20</strong></td>
<td><strong>148,045</strong></td>
<td><strong>28.1%</strong></td>
</tr>
<tr>
<td>Decrease of $20 to $99</td>
<td>3,161</td>
<td>0.6%</td>
</tr>
<tr>
<td>Decrease of $100 to $249</td>
<td>5,795</td>
<td>1.1%</td>
</tr>
<tr>
<td>Decrease of $250 to $499</td>
<td>7,376</td>
<td>1.4%</td>
</tr>
<tr>
<td>Decrease of $500 to $999</td>
<td>13,171</td>
<td>2.5%</td>
</tr>
<tr>
<td>Decrease of $1,000 or more</td>
<td>83,769</td>
<td>15.9%</td>
</tr>
<tr>
<td><strong>Total with decrease of $20 or more</strong></td>
<td><strong>113,272</strong></td>
<td><strong>21.5%</strong></td>
</tr>
<tr>
<td><strong>All families</strong></td>
<td><strong>526,850</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

a/ Includes all families in Hawai’i, including those unaffected by the single-payer programs.

Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).
X. PROVIDER IMPACTS

As discussed above, state-wide health spending would increase by about $328.4 million, from $7.1 billion under current law to $7.4 billion under the single-payer program. This is composed of $209 million services that would be provided to the newly-insured and increases in utilization for currently under-insured people (Figure 32). There would be an additional increase in provider reimbursement of $402.2 million. These increases in provider income would be partially offset by administrative savings (insurer and provider) of about $282.8 million.

**Figure 32**
Changes in Health Spending by Type of Service Provider

<table>
<thead>
<tr>
<th>Changes Under Single-payer</th>
<th>Current Revenues</th>
<th>Change in Utilization</th>
<th>Changes in Reimbursement</th>
<th>Admin. Savings Recapture</th>
<th>Total Changes</th>
<th>Total Under Single-payer</th>
<th>Percent Change From Current Law</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>$2,279.4</td>
<td>$108.4</td>
<td>$286.1</td>
<td>($22.9)</td>
<td>$371.6</td>
<td>$2,651.0</td>
<td>16.0%</td>
</tr>
<tr>
<td>Physician and Other</td>
<td>$2,558.4</td>
<td>$56.3</td>
<td>$176.4</td>
<td>($42.5)</td>
<td>$190.2</td>
<td>$2,748.6</td>
<td>7.4%</td>
</tr>
<tr>
<td>Professionals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dental</td>
<td>$429.9</td>
<td>$23.2</td>
<td>$29.8</td>
<td>--</td>
<td>$53.0</td>
<td>$482.9</td>
<td>12.3%</td>
</tr>
<tr>
<td>Drugs</td>
<td>$736.0</td>
<td>$14.9</td>
<td>($76.2)</td>
<td>--</td>
<td>($61.3)</td>
<td>$874.7</td>
<td>(9.3%)</td>
</tr>
<tr>
<td>Durable Medical</td>
<td>$125.0</td>
<td>$6.3</td>
<td>($13.9)</td>
<td>--</td>
<td>($7.8)</td>
<td>$118.4</td>
<td>(6.0%)</td>
</tr>
<tr>
<td>Equipment (DME)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-Term Care</td>
<td>$379.9</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>$379.9</td>
<td>--</td>
</tr>
<tr>
<td>Other Health</td>
<td>$170.0</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>$170.0</td>
<td>--</td>
</tr>
<tr>
<td>Insurer Administration</td>
<td>$429.3</td>
<td>--</td>
<td>--</td>
<td>($217.4)</td>
<td>($217.4)</td>
<td>$211.9</td>
<td>(50.6%)</td>
</tr>
<tr>
<td>Total</td>
<td>$7,108.0</td>
<td>$209.0</td>
<td>$402.2</td>
<td>($282.8)</td>
<td>$328.4</td>
<td>$7,436.4</td>
<td>4.6%</td>
</tr>
</tbody>
</table>

Source: Lewin Group Estimates using the Health Benefits Simulation Model (HBSM)

Total hospital spending would increase by about $371.6 million, which is an increase of 16 percent. This includes increases in both inpatient and outpatient services. Income for physicians and other health professionals would increase by 7.4 percent. Income for dentist would increase by about 12.3 percent. The percentage increase in income for dentists is higher than for physicians primarily because many of those who are now insured do not have coverage for these services. Consequently, utilization of dental services increases for many currently insured people in addition to the newly insured.

Spending for prescription drugs would actually decline by about $61.3 million. There would be an initial increase of about $14.9 million for newly insured people. However, this would be more than offset by $76.2 in savings due to bulk purchasing of prescription drugs for all Hawai'i residents. We estimate that spending or durable medical equipment would also be reduced by 6.0 percent due to bulk purchasing discounts.
Figure 33 presents our estimates of the changes in health services utilization under the program. As discussed above, we assume that utilization of health services by the uninsured would increase to levels reported for insured people with similar income, demographic and health status characteristics. Similarly, utilization of newly covered services among under-insured people would also adjust to levels reported by people who are currently insured for these services, after adjusting for individual characteristics. There would be no change in reimbursement or administrative costs for long-term care including nursing homes, skilled nursing facilities, home health services and home and community-based care.

<table>
<thead>
<tr>
<th></th>
<th>Current Law</th>
<th>With Single-payer</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician visits per 1,000 people</td>
<td>2,765</td>
<td>2,822</td>
<td>2.0%</td>
</tr>
<tr>
<td>Dental visits per 1,000 people</td>
<td>912</td>
<td>979</td>
<td>7.4%</td>
</tr>
<tr>
<td>Hospital stays per 1,000 people</td>
<td>68</td>
<td>90</td>
<td>2.3%</td>
</tr>
<tr>
<td>Average length of hospital stays (days)</td>
<td>6.5</td>
<td>6.5</td>
<td>--</td>
</tr>
<tr>
<td>Outpatient visits per 1,000 people</td>
<td>487</td>
<td>506</td>
<td>3.9%</td>
</tr>
<tr>
<td>Emergency room visits per 1,000 people</td>
<td>159</td>
<td>161</td>
<td>1.3%</td>
</tr>
<tr>
<td>Percent Using Prescription Drugs</td>
<td>64.4%</td>
<td>65.6%</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

a/ Includes all Hawai‘i Residents
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

Under these assumptions, we estimate that state-wide utilization of physician services would increase by about 2.0 percent. Inpatient hospital utilization would increase by about 2.3 percent, while outpatient utilization (excluding emergency room visits) would increase by about 3.9 percent. Utilization of dental services would increase by about 7.4 percent, reflecting that many currently insured people are not now covered for dental services and would use more dental care once covered under the single-payer program. Emergency room visits would increase by only about 1.3 percent, while utilization of prescription drugs would increase by 1.9 percent.
XI. PREPARING FOR FUTURE PROGRAM GROWTH

A single-payer program would require careful management to assure efficient delivery of care while allowing for advances in medical technology that are sure to place a strain on the system’s financing mechanism. Because health spending is projected to grow faster than wages, the state will need to increase the tax rates on those earnings to collect the revenues required to fund the program. The state would also need to monitor the program’s effects on health care quality, the State’s economy and any immigration to the state resulting from the availability of a comprehensive health benefits program in Hawai’i.


A single-payer program would effectively eliminate private market forces in shaping health spending for the state. Theoretically, the prices paid for health services in the private sector can adjust to reflect provider competition and changes in consumer demand for the types of services used. The single-payer eliminates this market and replaces it with a system budgeted by the state.

Spending under the single-payer program can be largely controlled by setting provider payment rates at levels that would keep total spending to the amounts budgeted by the state; just as Congress adjusts provider reimbursement under Medicare to keep spending within the desired level of spending. However, this does nothing to limit the volume and intensity of services provided. The emergence of new medical technology and drugs will lead to increases in the volume of higher cost services that will be used by consumers. Providers can also react to limits on reimbursement by increasing the volume of services they prescribe or suggest to consumers.

In this analysis, we assume that the amount budgeted for the Hawai’i single-payer system would grow in proportion to the rate of increase in per-capita spending nationally. This allows the budget to grow with nationwide trends in service use and growth in medical technology. The effect this has on program spending is summarized below.

1. Spending Growth

We developed projections of the level of spending under the Hawai’i single-payer program for 2006 through 2015. We assume that per-capita health spending under the Hawai’i single-payer program would increase over-time based upon projections of the nation-wide rate of growth in per capita costs for the non-Medicare population derived from national health spending projections developed by the Office of the Actuary of CMS. In developing these projections, we adjusted spending growth to reflect that health care costs in Hawai’i have historically grown more slowly than the national average.

Under these assumptions, we project that spending under the single-payer program would increase from about $4.3 billion in 2006 to about $7.9 billion by 2015, which is an annual rate of growth of about 7.0 percent per year (Figure 34). This compares with CMS projections of gross domestic product (GDP) growth of 5.2 percent per year, which is a measure of the growth in
national income. Thus, single-payer health spending would continue to grow faster than the 
income base used to finance the program.

**Figure 34**
Projected Spending and Revenues under the Hawai‘i Single-payer Model

![Graph showing projected spending and revenues](image)

a/ Based upon national projections of health spending growth from the Centers for Medicare and Medicaid Services (CMS) Office of the Actuary, adjusted to reflect the historically lower rate of growth in health spending in Hawai‘i.

b/ Based upon CMS Gross Domestic Product (GDP) growth for 2007 through 2015.

Source: Lewin Group Estimates using the Health Benefits Simulation Model (HBSM)

2. **Revenue Growth**

The program that we studied is structured so that much of the revenues for the program would grow with health care costs. As discussed above, we assume that the state is able to negotiate a waiver with the federal government to convert Medicaid funding to a block grant that could be used to help fund the single-payer program. We have assumed that the state negotiates an annual increase in the block grant amount based upon the growth in federal Medicaid spending that would have occurred under current trends. Thus, that portion of program revenues would automatically grow with health care cost growth over time.

We also assume that the premium paid by employers for full-time workers is indexed to reflect expected health care cost growth. This is consistent with the growth in premiums that would have occurred under PHCA under current law, and should not represent a change from what employers would have paid in the absence of the single-payer program.

However, because the payroll tax is a fixed percentage of earnings, revenues from the payroll tax would increase with wage growth, which will not keep up with health care cost growth. Consequently, program revenues will be less than what is required to fund the program in future years unless the payroll tax rate is increased. As shown in Figure 34, program revenues
would increase from $4.3 billion in 2006 to $7.3 billion in 2015. Thus revenues in that year would be about $600 million less than program spending.

In order to fully fund the program, the payroll tax rate would need to be increased from 9.5 percent in 2006 to 11.5 percent by 2015 (Figure 35).

**Figure 35**

Payroll Tax Rates Required to Fully Fund the Hawai'i Single-payer Program

![Graph showing payroll tax rates from 2006 to 2015.]

Source: Lewin Group Estimates using the Health Benefits Simulation Model (HBSM)

**B. Under-Funding**

This analysis illustrates one of the greatest concerns with adopting a single-payer program. If lawmakers are unable to increase the payroll tax rate each year, the program would become under-funded. Similarly, it may be difficult for lawmakers to adjust the employer premium each year, despite the fact that premiums would have increased in the absence of the program anyway. This would also lead to additional shortfalls in funding. These issues would be particularly acute during an economic recession, where reductions in earnings would require an increase in the tax rate to maintain the budgeted level of health spending. In these circumstances, increasing the tax rate or the premium would be seen as a drag on economic recovery, and would be very unpopular.

In these circumstances the state would need to choose between eliminating coverage for certain services, slowing the adoption of new technology or reducing payment levels for providers. Because eliminating coverage for services will certainly be unpopular, lawmakers may be
inclined to adopt a policy of provider reimbursement cuts. This has been the experience in
Congress when there is pressure to reduce spending growth under the Medicare program.
The impact that these reductions in funding would have on the system is difficult to predict.
The high levels of health spending in the US suggest that reductions in the rate of growth in
health spending can be absorbed through increased efficiencies within the system. This would
be particularly true if the program were implemented with the general increase in provider
reimbursement included in the program analyzed here (i.e., payments at 130 percent of
Medicare levels). However, in a fee-for-service system, the incentives are for providers to
provide more services rather than less. This would limit incentives for providers to work
together to streamline the delivery of care.

An alternative outcome could be a general deterioration in the system and delays in adopting
new medical technology. For example, reductions in reimbursement to hospitals could cause
some of these facilities to close. While this might be a favorable outcome in areas where there is
excess capacity, it could diminish access in certain areas of the state. Prolonged limitations on
reimbursement could also slow the adoption of new technology and result in waiting lists for
patients as has occurred under the Canadian health care system.

Arguably, the cost-shift has prevented cutbacks in funding for public programs on access to
care. During periods where public program payment levels are permitted to decline in real
terms (i.e., inflation adjusted), providers have been able to shift a portion of uncompensated
costs to private payers in the form of higher charges. This cost-shifting has provided a cushion
against cutbacks in government programs. Thus, if private coverage is eliminated, there will be
no opportunity to cushion the effects of reduced reimbursement.

C. Coverage of New Services in Future Years

Under a single-payer plan, we assume Hawai‘i will adopt the EUBTF benefit package along
with all current copayment and deductible levels. The larger question is how to determine
which procedures will be covered in the future given scientific advancements and technological
breakthroughs in healthcare. Hawai‘i can adopt a number of options to determine which new
medical procedures or drugs should be covered. The state can decide to cover services that are
covered by private plans on the mainland or can follow Medicare coverage policies with respect
to new procedures.

The EUBTF has a preferred prescription drug list in place. Drugs that are not included in the
PDL are still covered, but with a higher copayment. In addition there is a drug benefit
management for certain drugs to assure appropriate utilization. Generic substitution is
required under the pharmacy benefit. As with medical services, Hawai‘i can decide to follow
the formulary of private insurers in the mainland or the Medicare Rx drug plan with the largest
market share in Hawai‘i. While Hawai‘i can establish its own drug review group to update the
formulary, doing so will add an administrative layer and adopting an existing formulary, as
recommended herein, will be less costly and more efficient. We assume bulk purchasing
discounts for drugs and durable medical equipment will be the same as under the Medicaid
program, an overall savings of 15 percent.
D. Impact on Immigration

As a general rule, if we make Hawai‘i a better place to live, more people will want to live there. The program may attract people from other states with high cost illnesses to take advantage of the comprehensive health coverage provided to all Hawai‘i residents. However, if the program is seen to be providing good quality care while controlling costs, some employers with high paying jobs might also wish to move to the state as well. Thus, the effects the program would have on migration are likely to be a mixture of the positive and the negative.

The extent to which a single-payer plan makes Hawai‘i attractive to non-Hawai‘i residents depends largely on the impact on total household spending as well as the impact it has on private sector employers. We have assumed that the Hawai‘i single-payer program would require a person to have lived in the state for six months before becoming eligible for coverage, with exceptions for people moving to take a job in the state.

The waiting period is likely to provide a significant deterrent to people who might be inclined to move to the state just to take advantage of single-payer coverage. In addition, the high cost of living in Hawai‘i is a barrier to moving to the state and is a great distance from family and support systems that are particularly important to people with serious illnesses.

While we cannot predict with accuracy the impact that the single-payer will have on migration of non-residents to Hawai‘i, the single-payer plan creates an environment which would be attractive to employers. Reduced spending on employer-sponsored healthcare would attract employers to the state. In addition, reduced administrative costs and burdens on the health care sector resulting in less time spend on administration which can be redirected to direct care would improve overall patient care.

We can presume that more employers moving to Hawai‘i would mean more jobs which would attract more workers. This would be tempered by the state’s accessibility to and from neighboring states, the fact that the state’s economy is primarily in the service industry (i.e., tourism), the high cost of living in the state, as well as the increased spending from residents in payroll tax to fund these. Overall, given these mitigating factors, it is doubtful that there will be a significant impact on migration of non-residents solely to take advantage of the single-payer program.
X. CAVEATS

A program such as that proposed in HB 1617 has never been attempted on a broad scale in the United States. Consequently there are few 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 Hawai‘i could substantially alter consumer, employer and provider incentives, which could either increase or decrease cost pressures under the program.

The analysis presented here implicitly assumes that federal waivers would be obtained to transfer funding for Medicaid and SCHIP to the single-payer program. Failure to obtain a waiver to channel Medicaid funds through the program would present problems because the state would still need to maintain a process for determining who meets the income eligibility requirements under the program.

Although the analyses in this paper are based upon the best data and research available, our estimates should be considered illustrative of potential impacts rather than point estimates of actual outcomes. Our 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 underlying 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 the state, 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.

Our analysis also does not consider the impact of the program on the quality of care. Expanding access to care should improve health status for those who are now uninsured or underinsured. Also, by focusing more resources health services rather than administration also could elevate health status. However, it is difficult to predict the impact that spending controls would have on the diffusion of new technology in the system, and whether this would have an impact on health status or the quality of care.
APPENDIX A
THE HAWAII VERSION OF THE HEALTH BENEFITS SIMULATION MODEL (HBSM)

The Health Benefits Simulation Model (HBSM) is a micro-simulation model of the U.S. health care system developed by The Lewin Group. For this study we adapted HBSM for use in modeling the Hawaii health care system. The model is designed to simulate the impact of a wide range of universal coverage proposals such as single-payer plans and employer mandates. HBSM is also designed to simulate more narrowly designed proposals such as Medicaid/SCHIP eligibility expansions for children or changes in the tax treatment of employer provided health benefits.

The key to the model is a database of households that is representative of the Hawaii population in 2006 under current law, which we refer to as the “baseline” data. This involves bringing together data from several sources to form a single database that replicate key known information on the Hawaii population and health system such as population demographics, income levels, employment status, sources of health insurance and health spending levels by type of service and source of payment.

In this Appendix, we describe HBSM and explain how it has been adapted to provide analyses of the cost and coverage impacts of proposals to expand insurance coverage. The methods used to develop the Hawaii version of HBSM are summarized below. We begin by summarizing how HBSM is used to simulate the impact of health reform proposals.\textsuperscript{27} The data and methods used for this analysis are presented in the following sections:

- Simulating the impact of health reform;
- Household data for Hawaii;
- Employer database; and
- Health expenditures in Hawaii.

A. Simulating the Impact of Health Reform

HBSM was created to provide comparisons of the impact of alternative health reform models on coverage and expenditures for employers, governments and households. The key to its design is a “baseline” scenario depicting the distribution of health services utilization and expenditures across a representative sample of households under current policy for a base-year such as 2006. In this analysis, the base line scenario is based on recent surveys of households in Hawaii. We also “aged” these data to be representative of the population in Hawaii in 2006 based upon recent economic, demographic and health expenditure trends. The resulting database provides detailed accounting of the Hawaii health care system. This baseline data serves as the reference point for our simulations of alternative health reform proposals.

\textsuperscript{27} A detailed documentation of the methods used to simulate the impact of major health reform proposals is presented in “The Health Benefits Simulation Model (HBSM): Uniform Methodology and Assumptions”, (report to the Robert Wood Johnson Foundation (RWJF)), October, 2002.
We estimate the impact of health reform initiatives using a series of methodologies that apply uniformly in all policy simulations. The model first simulates how these proposals would affect sources of coverage, health services utilization and health expenditures by source of payment (Figure A-1). Mandatory coverage programs such as employer mandates or single-payer models can be simulated based upon the detailed employment and coverage data recorded in the database. The model also simulates enrollment in voluntary programs such as tax credits for employers and employees, based upon multivariate models of how coverage for these groups varies with the cost of insurance (i.e., modeled as the premium minus the tax credit). In addition, the model simulates enrollment in Hawai‘i QUEST, the statewide Section 1115 demonstration project implemented in 1994 that combines its Medicaid program with its then General Assistance Program and SCHIP program under eligibility expansions, based upon a multivariate analysis of take-up rates under these programs, including a simulation of coverage substitution (i.e., “crowd out”).

HBSM is designed to facilitate comparisons of alternative health reform initiatives using uniform data and assumptions. For example, take-up rates for Medicaid and various tax credit/premium voucher policies are simulated using uniform take-up equations and modules.

Uniform methods are also used to simulate changes in health services utilization attributed to changes in coverage status and cost-sharing parameters. The model also uses a series of uniform figures for reporting the impacts of these policies on households, employers and governments. This uniform approach assures that we can develop estimates of program impacts for very different policies using consistent assumptions and reporting formats. The use of uniform processes also enables us to simulate the impact of substantially different policy options in a short period of time.

The model also simulates any “adverse selection” resulting from the design of these policy options. Adverse selection is the disproportionate accumulation of higher cost cases in a given insurance pool. Often, policies that give employers or consumers a choice between different types of coverage models create financial incentives that affect their choice of coverage. For example, there have been several proposals at the state and national level that would give employers the option of purchasing coverage under the Federal Employees Health Benefits Program (FEHBP) or a state worker health benefits plan at a community-rate. This would tend to attract employers with high health care costs who find that the FEHBP community-rated premium is less than the cost of an experience-rated plan for that group in the private market. HBSM simulates these incentives and estimates the cost impacts of these selection effects.

Once changes in sources of coverage are modeled, HBSM simulates the amount of covered health spending for each affected individual, given the covered services and cost-sharing provisions of the health plan provided under the proposal. This includes simulating the increase in utilization among newly insured people and changes in utilization resulting from the cost-sharing provisions of the plan. In general, we assume that utilization among newly insured people will increase to the level reported by insured people with similar characteristics.
Figure A-1
Flow Diagram of the Health Benefits Simulation Model (HBSM)

Coverage Simulation

Mandatory Coverage
- Employer Mandate
- Individual Mandate
- Universal Public Coverage

Optional Coverage
- Employer Subsidies
- Individual Subsidies
- Medicaid Expansion

Takeup
- Employer
- Individual

Enrollment in Managed Care

Health Services Utilization
- For Newly Insured
- Cost Sharing Effects
- Managed Care Effects

Expenditures for Health Services By Payer
- Provider Payments
- Administration

Payment Levels
- Provider Discounts
- Spending Controls

Financing
- Premiums
- Dedicated Taxes
- Savings to Existing Programs
- Tax on Employer Benefits/Cashouts

Spending Offsets
- Uncompensated Care
- Coverage Substitution

Impacts by Payer

Households
- Premiums
- Taxes
- Subsidies
- Out-of-Pocket
- Wage Effects
- “Winners/Losers”

Employers
- Minimum Benefit Standards
- Premiums
- Subsidies
- Wage Effects
- “Winners/Losers”

Governments
- Benefit Payment
- Subsidy Payments
- Revenue Offsets

Covered Services
- Drugs
- Hospital
- etc.

Insurance Pools
- Pooling Effect on Premiums
- Adverse Selection

Subsidies
- Premium Subsidies
- Tax Credits
We also simulate the impact of changes in cost-sharing provisions on health services utilization such as co-payments and deductibles.

In this analysis, HBSM is based upon a representative sample of households in Hawai’i, which include information on the economic and demographic characteristics of these individuals as well as their health services utilization and expenditures. These data are based upon the Medical Expenditures Panel Surveys (MEPS) of households for 1999 through 2005 that we used together with the Hawai’i sub-sample of the March Current Population Survey (CPS), and the 2005 Hawai’i Health Survey conducted by the Hawai’i State Department of Health, Office of Health Status Monitoring. We adjusted these data to show the amount of health spending in the state by type of service and source of payment as estimated by the Office of the Actuary of the Centers for Medicare and Medicaid Services (CMS) and various state agencies. The methods used to develop these baseline data are discussed below.

Changes in employer costs are assumed to be passed-on to workers in the form of changes in wage growth over-time. For example, policies that increase employer costs would result in a corresponding reduction in wages for affected workers, with a corresponding reduction in income and payroll tax revenues. Similarly, reductions in employer costs are assumed to be passed-on to workers as wage increases. We assume that this occurs for all workers including unionized and non-unionized labor. HBSM includes a tax module that simulates tax effects due to these changes in wages.

B. Household Data for Hawai’i

The HBSM baseline data for Hawai’i is derived from a sample of households that is representative of the economic, demographic and health coverage characteristics of the state’s population. Unfortunately, there is no one database that provides all of this information for a representative sample of the Hawai’i population. Consequently, we developed a “synthetic” representation of the distribution of the Hawai’i population based upon various data sources for the state.

We developed a database based upon the March 2005 Hawai’i sub-sample of the CPS and the 1999 through 2001 Medical Expenditures Panel Survey (MEPS) data. These data were aged to reflect expected changes in the characteristics of the population through 2006. These data were then adjusted to reflect projections of the health spending by type of service and source of payment in Hawai’i for the base-year (i.e., 2004), using state projections of health spending under public programs and spending for private insurance and federal public program in the state from the CMS and other sources. The result is a database that is representative of the base-year population by economic and demographic group, which also provides extensive information on the joint distribution of health expenditures and utilization across population groups.

1. Population Data

We use the 2005 population estimates from the CPS data. The survey identified key trends in the growth of Hawai’i’s elderly population. While the growth in population 65 years and older has leveled off since 2000, the increase in the number of elderly age 75 and older has increased at a much faster rate. Between 1990 and 2003 the elderly age 65 and older grew by 3 percent in
Hawai‘i compared to 2 percent nationally. In comparison, the rate of grown for individuals age 75 and older grew by 95 percent in Hawai‘i compared to 35 percent nationally. We also re-weighted population estimates by race to reflect the higher rate of the Asian/Pacific Islander population in Hawai‘i which is 75 percent of the total population compared to 3 percent nationally.

1. **Coverage Estimates**

Our coverage estimates are based on the CPS data. We use the number of uninsured all year in 2005, adjusted for under-representation of Medicaid recipients (*Figure A-2*). The uninsured rate in Hawai‘i in 2005 is 7.66 percent. In *Figure A-3* we show the uninsured rate in Hawai‘i by family income in 2005.

### Figure A-2

**2005 Estimated Number of Uninsured in Hawai‘i Used in the Hawai‘i Model**

<table>
<thead>
<tr>
<th></th>
<th>Average Monthly</th>
<th>Anytime in Year</th>
<th>All Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of</td>
<td>Number of</td>
<td>Number of</td>
</tr>
<tr>
<td></td>
<td>Uninsured</td>
<td>Uninsured</td>
<td>Uninsured</td>
</tr>
<tr>
<td>Under 19</td>
<td>38,636</td>
<td>64,593</td>
<td>19,879</td>
</tr>
<tr>
<td>Age 19-24</td>
<td>28,073</td>
<td>42,947</td>
<td>17,096</td>
</tr>
<tr>
<td>Age 25-34</td>
<td>30,287</td>
<td>46,121</td>
<td>18,588</td>
</tr>
<tr>
<td>Age 35-44</td>
<td>26,294</td>
<td>38,364</td>
<td>17,847</td>
</tr>
<tr>
<td>Age 45-54</td>
<td>19,285</td>
<td>27,820</td>
<td>13,615</td>
</tr>
<tr>
<td>Age 55-64</td>
<td>14,090</td>
<td>19,288</td>
<td>10,240</td>
</tr>
<tr>
<td>Age 65 and over</td>
<td>506</td>
<td>608</td>
<td>404</td>
</tr>
<tr>
<td>All Ages</td>
<td>157,171</td>
<td>239,721</td>
<td>97,669</td>
</tr>
</tbody>
</table>

Source: Lewin Group estimates based on CPS.
Uninsured all year total of 97,669 is based total number of uninsured all year of 105,000 adjusted for under-representation of Medicaid.

2. **Economic Data**

The HBSM was used to age the household and employer data to reflect projected growth in earnings and income from other sources. This was done in a two step process. The first step simulates the widening gap in income between the highest and lowest income groups in the U.S. In the second step, we adjusted total income by source to match data available for the 2004 distributions in the Hawai‘i Health Survey and various other federal agencies.
Figure A-3
2005 Estimated Number of Households by Income Used in the Hawai‘i Model

<table>
<thead>
<tr>
<th>Family Income</th>
<th>Average Monthly</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Uninsured</td>
<td>Percent Uninsured</td>
<td>Number of Uninsured</td>
<td>Percent Uninsured</td>
<td>Number of Uninsured</td>
<td>Percent Uninsured</td>
<td></td>
</tr>
<tr>
<td>Less than $10,000</td>
<td>11,024</td>
<td>7.01%</td>
<td>16627</td>
<td>6.94%</td>
<td>6157</td>
<td>6.30%</td>
<td></td>
</tr>
<tr>
<td>$10,000-$14,999</td>
<td>16,766</td>
<td>10.67%</td>
<td>24084</td>
<td>10.05%</td>
<td>11310</td>
<td>11.58%</td>
<td></td>
</tr>
<tr>
<td>$15,000-$19,999</td>
<td>20,727</td>
<td>13.19%</td>
<td>30455</td>
<td>12.70%</td>
<td>13412</td>
<td>13.73%</td>
<td></td>
</tr>
<tr>
<td>$20,000-$29,999</td>
<td>16,876</td>
<td>10.74%</td>
<td>25544</td>
<td>10.66%</td>
<td>10464</td>
<td>10.71%</td>
<td></td>
</tr>
<tr>
<td>$30,000-$39,999</td>
<td>16,364</td>
<td>10.41%</td>
<td>23986</td>
<td>10.01%</td>
<td>10758</td>
<td>11.01%</td>
<td></td>
</tr>
<tr>
<td>$40,000-$49,999</td>
<td>30,426</td>
<td>19.36%</td>
<td>48058</td>
<td>20.05%</td>
<td>18057</td>
<td>18.49%</td>
<td></td>
</tr>
<tr>
<td>More than $50,000</td>
<td>20,202</td>
<td>12.85%</td>
<td>29995</td>
<td>12.51%</td>
<td>13172</td>
<td>13.49%</td>
<td></td>
</tr>
<tr>
<td>All Incomes</td>
<td>157,171</td>
<td></td>
<td>239,721</td>
<td></td>
<td>97,669</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Lewin Group estimate based on CPS adjusted for under reporting of Medicaid.

Income for individuals in the MEPS data is increased by the average change in total family income for people by decile ranking of the population between 1999 and 2005, as reported in the 2000 and 2005 CPS data. Thus, incomes for the lowest income decile of the population in the 1999-2003 MEPS data are increased by the change in average income levels for the lowest income decile of the population between 1999 and 2005. Total income for people in other decile groups are adjusted in the same way. This approach is intended to improve upon the practice of simply increasing income for all people in the data by a uniform percentage that does not reflect the uneven rates of growth in personal income across various income strata.

In addition, we “enhanced” the Hawai‘i MEPS data to provide the information required to simulate the impact of changes in taxes associated with changes in employer health spending under expansions in coverage. For example, we used the HBSM tax module to estimate income and payroll tax payments for each tax filing unit (i.e., single, head of household and joint filers) to provide the information required to simulate the impact of changes in earnings as employers pass-through the changes in employer health benefits costs to workers under the proposal.28 This includes the filing unit’s federal and state marginal tax rates and the tax expenditures attributed to the employer health benefits tax exclusion.

C. Employer Database

The model includes a database of employers for use in simulating policies that affect employer decisions to offer health insurance. In this project, we used the annual survey of employers conducted by the KFF and HRET for 1999 through 2004. These data were controlled to reflect the results of the KFF/HRET survey for employers in 2004. These surveys include about 2,000 randomly selected public and private employers with three or more workers in the state. They provide information on whether the employer sponsors coverage and the premiums and coverage characteristics of the plans that insuring employers offer in the state. In this analysis,

28 The imputed tax rates are cross-checked against the distribution of marginal tax rates for insured and uninsured families as reported in the March CPS.
we adjusted these data to reflect the distribution of workers in Hawai‘i by firm size, industry and wage level.

Working individuals in the Hawai‘i MEPS data are randomly assigned to KFF/HRET employers who report similar workforce and demographic characteristics. Individuals and firms are matched on the basis of reported industry, firm size and other characteristics of an employer’s workforce. In addition, we controlled for the income and demographic characteristics of each employer’s workforce when matching individuals to employers. Thus, if a firm reports that they employ mostly low-wage female workers, the firm generally would be matched to low-wage female workers in the household data. Thus, HRET firms are matched to workers with health expenditure patterns that are generally consistent with the premiums reported by the firm. This feature is crucial to simulating the effects of employer coverage decisions that impact the health spending profiles of workers that would enroll in various “insurance pools.”

Using these data, we create a database of “synthetic” firms suitable for analyzing policies that affect the relative benefits of employer vs. other types of coverage. As discussed above, each worker is assigned to one of the firms in the employer database. The model than “populates” each of these firms with other MEPS workers in the database who are consistent with the reported characteristics of the workforce in each firms (i.e., age, gender, part-time/full-time status, single/family coverage, eligibility for coverage and eligible workers who have declined coverage). The resulting firms enable us to simulate how expanding the availability of subsidized coverage would affect the employers’ likelihood of offering coverage.

D. Health Expenditures in Hawai‘i

Once the Hawai‘i MEPS data were re-weighted for population and coverage, we adjusted the health spending data in the file to match the aggregate level of health spending by type of service and source of payment in the state. The Lewin Group developed estimates of coverage and health expenditures in Hawai‘i for 2006 under current policy. This includes current law spending by state and local governments, employers, households and the federal government.

Unfortunately, no single source maintains a detailed accounting of all health expenditures in the state. Consequently, it was necessary to piece together estimates of health spending by source of payment and type of service from the limited data that are available. For example, CMS has developed estimates of total health spending by type of service for each state between 1980 and 2000, and provides separate information on state health spending for Medicare and Medicaid through 2003. Estimates of private health spending were developed using the CMS health spending data in conjunction with the MEPS survey of employers and household survey data on health care utilization.

The process of estimating current state health expenditures also required converting some of the health spending data from these various sources to be comparable to the total health spending

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29 The KFF/HRET data contains only some of this information. To use these data in our analysis, we statistically matched the KFF/HRET data with employers surveyed in the 1991 Health Insurance Association of America (HIAA) which is the most recent employer survey to provide detailed information on the characteristics of their workforce. We controlled for worker wage levels, industry, firm size and other characteristics reported in the KFF/HRET data.
data reported by CMS for Hawai‘i. This included: converting government program spending from government-fiscal-year to calendar-year dollars; projecting CMS health spending estimates to 2006; eliminating all double counting of expenditures for public programs; and adjusting the government program data to exclude non-health items that are included in national health spending estimates.

Figure A-4 presents our estimates of spending by source of coverage monthly number of children, parents and other adults represented in the Hawai‘i version of HBSM for 2006 by their sources of coverage after the final re-weighting is completed. Total health spending in Hawai‘i for 2006 is $7.1 billion.

Figure A-4
2006 Estimated Spending in Hawai‘i by Source of Coverage and Type of Service

Total Spending = $7,108.0 Million

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

The data and methods used to develop these estimates are presented in the following sections:

- Spending by type of provider;
- Health Spending under Public Programs;
- Health Spending for Private Payers;
- Administrative Costs; and
- Hawai‘i Health Spending in 2006.
1. **Spending by Type of Provider**

The Office of the Actuary of CMS provides estimates of health spending by type of provider in 2000. As shown in Figure A-5, total health spending in Hawai’i was about $4.8 billion in 2000. This includes spending by all payers in the state including individual out-of-pocket payments. These include spending for hospitals, physicians and other professionals, dentists, prescription drugs and long-term care. It excludes insurer and program administration, research and construction, and public health spending (except direct patient services such as vaccinations). Per-capita spending in Hawai’i was $3,848, compared with a national average of $4,011.

<table>
<thead>
<tr>
<th>Type of Healthcare Provider</th>
<th>Hawaii’i Amount (millions)</th>
<th>Hawaii’i Amount Per Resident</th>
<th>United States Amount (millions)</th>
<th>United States Amount Per Resident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>$1,759</td>
<td>$1,452</td>
<td>$413,131</td>
<td>$1,499</td>
</tr>
<tr>
<td>Physician</td>
<td>1,451</td>
<td>1,198</td>
<td>297,367</td>
<td>1,079</td>
</tr>
<tr>
<td>Dental</td>
<td>300</td>
<td>247</td>
<td>60,726</td>
<td>220</td>
</tr>
<tr>
<td>Other Professional</td>
<td>197</td>
<td>162</td>
<td>39,326</td>
<td>142</td>
</tr>
<tr>
<td>Home Health</td>
<td>66</td>
<td>54</td>
<td>31,616</td>
<td>114</td>
</tr>
<tr>
<td>Prescription Drugs</td>
<td>420</td>
<td>346</td>
<td>121,539</td>
<td>441</td>
</tr>
<tr>
<td>Medical Durables</td>
<td>100</td>
<td>82</td>
<td>17,750</td>
<td>64</td>
</tr>
<tr>
<td>Nursing Home</td>
<td>203</td>
<td>167</td>
<td>95,296</td>
<td>345</td>
</tr>
<tr>
<td>Other Personal Care</td>
<td>164</td>
<td>135</td>
<td>36,687</td>
<td>133</td>
</tr>
<tr>
<td><strong>Total Health Spending</strong></td>
<td><strong>$4,660</strong></td>
<td><strong>$3,848</strong></td>
<td><strong>$1,113,438</strong></td>
<td><strong>$4,041</strong></td>
</tr>
</tbody>
</table>

*a/ Estimates exclude insurer and program administration, research and construction, and public health spending, except direct patient services such as vaccinations.

Source: Office of the Actuary of the Centers for Medicare and Medicaid Services (CMS).

Unfortunately, data on total spending for all types of health providers are not available for more recent years, except for hospital care discussed below. Consequently, we projected health spending by type of service to 2006 using projections of national health spending developed by OACT of CMS, which we adjusted to reflect that Hawai’i spending has historically grown at a slower rate than nationally.

Hospital data from Hawai’i Health Trends estimates total charges for hospitalizations in the state in 2004 to be $2.4 billion in gross patient revenues. However, for this analysis, we need to use total hospital expenditures data. We identified spending for hospital services from CMS Medicare cost report data, which we cross-checked against several sources including: the Healthcare Association of Hawai’i, the Hawai’i Health Systems Corporation (HHSC) and the Hawai’i Health Information Corporation. Data was collected for both public and private...

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hospitals, including mental hospitals. Our estimate of total acute care hospital expenditures spending in 2004 is $1.927 billion (Figure A-6).

**Figure A-6**
2004 Acute Care Hospital Spending Estimates

<table>
<thead>
<tr>
<th>All Hospitals</th>
<th>2004 Operating Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,884,624,941</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Kula Hospital</th>
<th>$13,602,197</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maluhia Hospital</td>
<td>$14,287,701</td>
</tr>
<tr>
<td>Kauia Veteran’s Memorial Hospital</td>
<td>$15,197,318</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,927,712,157</strong></td>
</tr>
</tbody>
</table>

Source:

*af* Based on Medicare cost report data for all Hawai’i hospitals except Kula Hospital, Maluhia Hospital and Kauia Veterans Memorial Hospital, for which information was not available.

*b* Total operating expenses based on HHSC 2004 Consolidated Financial Statement

Total spending was then aged to 2006 using historical growth factor. Projected spending for the Hawai’i State Hospital, the State’s psychiatric hospital, totaling $48.9 million was obtained from the Health Department’s budget projected estimates. Spending for Tripler Army Medical Center was excluded from our estimates of total hospital spending under the current system. We estimate total spending for hospitals in 2006 to be $2.28 billion.

1. **Health Spending Under Public Programs**

We first estimated the amount of spending by type of service under Medicare, QUEST and other state and local programs. As discussed above, this information is available for most of these payer categories. Some of the government figures were adjusted to conform to the calendar years used in our analysis and to eliminate double counting of expenditures. The data and methods used to develop these estimates are discussed below.

a. **Medicare Spending in Hawai’i**

We used Medicare spending data by state for 2001 provided by CMS. This includes spending for both fee-for-service beneficiaries and those enrolled in the Medicare HMO program (about 35 percent of Medicare Beneficiaries are in HMOs). The most recent Medicare spending data for Medicare beneficiaries in Hawai’i by type of service is for 1998.

We projected the growth in per-beneficiary spending for Hawai’i Medicare beneficiaries based upon the national rate of growth in Medicare costs. We used this assumption because historical data indicate that Medicare spending per beneficiary in Hawai’i has generally been about 30 percent lower than the national average. Under these assumptions, per-beneficiary spending in Hawai’i in 2006 is about 29 percent lower than the national average.

To estimate baseline spending in Hawai’i for 2006, we needed to account for the Medicare prescription drug benefit, which became effective earlier in the year. We used the Hawai’i version of HBSM, as described above, to estimate the cost of the Medicare prescription drug
benefit and its impact on drug spending for other payers in Hawai‘i. For this simulation, we assumed that all Medicare beneficiaries would receive the Medicare prescription drug benefit except for those with retiree health benefits (the program provides subsidies to employers to continue their coverage of drugs). We also assumed that all Medicaid dual eligible beneficiaries would receive the Medicare drug benefit with no Medicaid wrap-around benefit as they are excluded from the single-payer plan.

Our estimate of Medicare health spending in Hawai‘i in 2006 is $1.318 billion, which is reflected in Figure A-4 above. The 1998 CMS data on spending by type of service was not used due to its age. Instead, we relied upon Medicare spending data from the MEPS to estimate the distribution of this spending by type of service.

b. Spending for Medicaid QUEST, Fee-for-Service (FFS) and Other State Programs

Total spending for health care by the Med-QUEST Division was obtained from Hawai‘i's Department of Human Services Report on Fiscal Year (FY) 2005. Total spending reported for 2004 was $929.1 million and includes spending for Hawai‘i Managed Care (QUEST) and Medicaid fee-for-services, the two largest programs. Projected FY 2006 spending is $988.5 million (Hawai‘i DHHS Report 2005). Other programs included in this total amount are QUEST-Net, QUEST Spenddown, state-funded coverage for individuals with breast and cervical cancer, special programs for Medicare beneficiaries, and state-funded services for legal immigrant populations. To obtain estimates of the impact of the single-payer for 2006 for our model, we excluded spending for Medicare Part B premiums as all Medicare beneficiaries will be excluded from the single-payer plan.

Some of the services that qualify for federal matching funds are recorded under other state departments including the Departments of Mental Health, Developmental Services, Social Services and other programs. Federal Medicaid matching funds for these other programs is recorded in the MedQUEST budget while State funding for these services are budgeted in departments outside of MedQUEST. We estimated other public spending using our model based on CMS data of total health spending in Hawai‘i by source of payment. We then projected 2006 “other public” spending based on historical growth. Estimated total “other public” spending in 2006 is $293 million (Figure A-4 above).

c. Spending for the Medical Component of Workers Compensation

The medical component of the Workers Compensation program is part of state-wide health spending. Estimating spending for workers compensation is difficult, particularly for private sector employers and self-insured. We identified total disability medical benefits for Hawai‘i in 2003 from the National Academy of Social Insurance. We estimate medical spending for Worker’s Compensation in 2006 to be $109 million.

These data represent the best information now available on health spending for government programs in Hawai‘i. Spending under public programs in Hawai‘i represents roughly 40 percent of all personal health spending in the state.
2. Health Spending for Private Payers

Private health spending includes household out-of-pocket spending, services covered under employer health plans and services covered under individually purchased insurance policies. For this analysis, we included spending for TRICARE/Military and Veterans as part of private health spending. Spending for health benefits for government employees is also treated as private spending.

We estimated the total amount of private health spending in Hawai‘i by subtracting the amount of total personal health spending for government programs in the state from the total amount of personal health spending in 2006, shown in Figure A-4 above. We estimated total private health spending in Hawai‘i to be $4.246 billion. This was done separately for each category of service. However, these data do not provide estimates of how spending under these programs is distributed across various categories of private health spending including out-of-pocket costs and private insurance.

Premium payments for employer-sponsored insurance represent the largest portion of private health spending. We estimated total employer spending for health care, including both the employer and employee premium contributions, using data from the 2003 MEPS Survey of Employers in Hawai‘i. These data provide estimates of total premium costs for Hawai‘i employers by firm size and individual/family coverage status. The MEPS premium data were adjusted to exclude plan administrative costs and profits, which vary by firm size, as described below. This was done to estimate the portion of the premium associated with health care spending in order to be consistent with the definitions used by CMS in the State Health Spending estimates. We estimate employer contribution for individual coverage is about 90 percent and about 73 percent for family coverage.

We then estimated the number of insured workers in Hawai‘i in each firm size and individual/family coverage categories as reported in the CHIS data for 2003, which were projected to 2006 using Hawai‘i’s estimates for growth in premiums for individual and family coverage. Total spending for people with employer sponsored insurance was computed by multiplying the number of insured workers by the estimated annual premium amounts. Based on this methodology, we estimate total spending for employer sponsored insurance in Hawai‘i to be $2.752 billion in 2006 for workers and dependents (Figure A-7). Spending was allocated across service categories in proportion to the distribution of spending for people with employer sponsored coverage reported in the MEPS database. We estimate total spending for ESI in 2006, including administration to be $2.813 billion (Figure A-7).
## Figure A-7

### Estimated Total and Average Spending for Employer-Sponsored Insurance (ESI) Under Current Law in Hawai‘i in 2003 and 2006

<table>
<thead>
<tr>
<th>Individual Coverage</th>
<th>Total Premium</th>
<th>Employee Contribution</th>
<th>Employer Contribution Percent</th>
<th>Number of Insured Workers</th>
<th>Number of Dependents CPS</th>
<th>Total 2003 Employer Premiums ($1,000s)</th>
<th>HRET 2003-2006 Increases</th>
<th>Total 2006 Employer Premiums ($1,000s)</th>
<th>Est. 2006 Premium Per Worker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 10</td>
<td>$3,745</td>
<td>$296</td>
<td>92.4%</td>
<td>31,860</td>
<td>-</td>
<td>$119,316</td>
<td>1,167</td>
<td>$139,253</td>
<td>$4,371</td>
</tr>
<tr>
<td>10-24</td>
<td>$3,352</td>
<td>$112</td>
<td>86.7%</td>
<td>18,886</td>
<td>-</td>
<td>$63,336</td>
<td>1,167</td>
<td>$73,919</td>
<td>$3,912</td>
</tr>
<tr>
<td>25-99</td>
<td>$2,880</td>
<td>$98</td>
<td>66.6%</td>
<td>26,563</td>
<td>-</td>
<td>$78,501</td>
<td>1,167</td>
<td>$89,285</td>
<td>$3,361</td>
</tr>
<tr>
<td>100-999</td>
<td>$2,742</td>
<td>$225</td>
<td>91.8%</td>
<td>34,873</td>
<td>-</td>
<td>$95,073</td>
<td>1,167</td>
<td>$110,660</td>
<td>$3,200</td>
</tr>
<tr>
<td>1000 or more</td>
<td>$2,849</td>
<td>$428</td>
<td>85.0%</td>
<td>69,876</td>
<td>-</td>
<td>$252,964</td>
<td>1,167</td>
<td>$295,223</td>
<td>$3,325</td>
</tr>
<tr>
<td>Total</td>
<td>$3,024</td>
<td>$297</td>
<td>90.2%</td>
<td>200,778</td>
<td>-</td>
<td>$607,161</td>
<td>1,167</td>
<td>$708,641</td>
<td>$3,529</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Family Coverage</th>
<th>Total</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 10</td>
<td>$8,387</td>
<td>$3,894</td>
<td>59.5%</td>
<td>28,785</td>
<td>39,513</td>
<td>$270,205</td>
<td>1,181</td>
<td>$321,030</td>
<td>$11,153</td>
</tr>
<tr>
<td>10-24</td>
<td>$7,876</td>
<td>$1,470</td>
<td>81.3%</td>
<td>15,710</td>
<td>16,221</td>
<td>$123,763</td>
<td>1,181</td>
<td>$147,043</td>
<td>$9,360</td>
</tr>
<tr>
<td>25-99</td>
<td>$7,863</td>
<td>$3,307</td>
<td>57.9%</td>
<td>26,902</td>
<td>27,391</td>
<td>$211,921</td>
<td>1,181</td>
<td>$261,764</td>
<td>$9,338</td>
</tr>
<tr>
<td>100-999</td>
<td>$7,264</td>
<td>$2,000</td>
<td>72.5%</td>
<td>34,944</td>
<td>58,925</td>
<td>$253,833</td>
<td>1,181</td>
<td>$301,579</td>
<td>$8,630</td>
</tr>
<tr>
<td>1000 or more</td>
<td>$8,111</td>
<td>$1,639</td>
<td>79.8%</td>
<td>106,065</td>
<td>174,230</td>
<td>$960,212</td>
<td>1,181</td>
<td>$1,022,048</td>
<td>$9,637</td>
</tr>
<tr>
<td>Total</td>
<td>$8,095</td>
<td>$2,203</td>
<td>72.8%</td>
<td>212,456</td>
<td>316,280</td>
<td>$1,719,935</td>
<td>1,181</td>
<td>$2,043,455</td>
<td>$9,818</td>
</tr>
</tbody>
</table>

| Total               | 413,234       | 316,280             | 2,327,116                    | 1,182,208                 | 2,752,095                |

---

\[a\] Includes ESI only and excludes administrative expenses. Does not include retirees.

\[b\] Data taken from the employer component of the MEPS data for Hawai‘i in 2003. 2006 estimates based on Hawai‘i’s growth estimates for single premiums (5.57 percent) and family premium (6.27 percent) provided in the Hawai‘i SPG 1/20/06 presentation.

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

The remainder of private health spending includes household out-of-pocket spending, services covered under individually purchased insurance policies, employer spending for retiree coverage, and spending for TRICARE/Military and Veterans. For this allocation, we estimated the distribution of private health spending by type of service and source of payment using the Hawai‘i HBSM/MEPS, which is based upon the 1999-2001 MEPS household survey data. The health expenditures in the MEPS data were adjusted to match the levels of spending by source of payment and type of service in 2006 as derived from CMS data. The MEPS data were also adjusted to reflect the distribution of people in Hawai‘i by age, sex, income, industry, firm size and source of coverage as reported in the CHIS data. These adjusted data provided us with estimates of the relative distribution of private health spending by source of payment and type of service that reflects the unique demographic and health coverage characteristics of the Hawai‘i population.

We assumed the remainder of private spending for personal health care services in Hawai‘i was distributed by source of payment and type of service as shown in the HBSM/MEPS data after it is adjusted to reflect CPS and other Hawai‘i population data. This provided us with estimates of spending for: household out-of-pocket expenditures; employer coverage for retirees; individually purchased coverage (group and non-group); and TRICARE/Military and Veterans. MediGap wrap-around coverage for Medicare beneficiaries is included in our estimate of individually purchased private coverage.
3. **Insurer and Program Administrative Costs**

Insurer administrative costs in the health care sector include the insurer and health plan’s costs of administering coverage and insurer profits. Administrative costs for public programs also include the cost of eligibility determination and federal reporting requirements. Insurer and public program administrative costs are not included in the personal health care expenditures estimated above because personal health care costs include only direct payment to providers for health services.

In this section, we describe the methods used to estimate administrative costs for insurers and major public programs in Hawai’i. Our estimates are presented separately for private insurers and government programs.

a. **Insurer Administration**

We obtained insurer administrative costs (Figure A-8) from the Insurance Division in Hawai’i calculated using the insurers’ 2005 annual financial reports for the year ending December 31, 2005.

![Figure A-8](image)

**Estimated Insurer Administrative Costs in 2005**

<table>
<thead>
<tr>
<th>Percent Admin</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMSA</td>
<td>8.3%</td>
</tr>
<tr>
<td>Kaiser</td>
<td>2.4%</td>
</tr>
<tr>
<td>HMAAA</td>
<td>31.4%</td>
</tr>
<tr>
<td>UHA</td>
<td>11.3%</td>
</tr>
<tr>
<td>AlohaCare</td>
<td>9.9%</td>
</tr>
<tr>
<td>Summerlin</td>
<td>13.6%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Hawai’i Insurance Division.

Insurer administrative costs vary widely with the size of the group purchasing insurance. For example, insurer administrative costs for small employer groups (i.e. 1 - 4 employees) and individually purchased non-group coverage can be equal to as much as 40 percent of benefit payments. By contrast, administrative costs are equal to only about 5.5 percent of benefit payments for fully insured groups with 10,000 or more employees. Large self-funded plans can have administrative costs equal to about 3.5 percent or less of benefits payments.

In this analysis, we estimated administrative costs for private insurance in Hawai’i using the data supplied by the Insurance Division, re-weighted based on market share. Using this method, we estimate that private insurer administrative costs in Hawai’i would be about $429.3 million in 2006.
b. **Government Program Administrative Costs**

Administrative costs for government programs have increased in recent years. Public program administrative costs as a percentage of benefit payments are projected by CMS to increase from 5.2 percent in 1998 to 5.5 percent in 2006. Much of this growth in program administrative costs reflects rapid growth in the number of Medicare beneficiaries and recent expansions in eligibility for children under the SCHIP programs.

For state programs, such as MedQUEST, we estimate program administrative costs based on CMS data to be 6.8 percent. For federally funded programs, such as Medicare and TRICARE/Military, we used the national average of administrative costs as a percentage of benefits paid for these programs. We estimate that total administrative costs for public programs in the state (including federal, state and local governments) will be about $122 million in 2006.

E. **Hawai‘i Health Spending in 2006 under Current Law**

The results of this analysis are a detailed accounting of health expenditures in Hawai‘i showing total state expenditures by type of service and source of payment. As shown in Figure A-9, we estimate total health spending in Hawai‘i will be about $7.108 billion in 2006.

We estimate that out-of-pocket spending for health services (i.e., coinsurance, deductibles and self-pay) will be $841 million. Total private insurance expenditures are projected to be $3.24 billion, of which $2.813 billion will be for employer coverage of workers (including government workers) and $427 million will be for employer coverage of retirees (including government retirees). Medicare spending for Hawai‘i is estimated to be $1.318 billion. Total spending under Medicaid is estimated to be $988 billion and spending for all other government programs is projected to be about $293 million.
### Figure A-9
Estimated Health Spending in Hawai‘i by Type of Service and Source of Payment
Under Current Law in 2006
(in millions)\(^a\)

<table>
<thead>
<tr>
<th></th>
<th>Hospital</th>
<th>Physician</th>
<th>Dental</th>
<th>Other Professional</th>
<th>Home Health</th>
<th>Prescription Drugs</th>
<th>Medical Durables</th>
<th>Nursing Home</th>
<th>Other Personal</th>
<th>Admin</th>
<th>Total Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Out of Pocket</td>
<td>$59.5</td>
<td>$198.3</td>
<td>$175.1</td>
<td>$74.8</td>
<td>$47.0</td>
<td>$158.3</td>
<td>$52.1</td>
<td>$19.0</td>
<td>$57.0</td>
<td>$0.0</td>
<td>$841.0</td>
</tr>
<tr>
<td>Employer-Workers</td>
<td>$798.9</td>
<td>$1,053.7</td>
<td>$202.0</td>
<td>$101.8</td>
<td>$0.0</td>
<td>$328.9</td>
<td>$16.3</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$250.4</td>
<td>$2,752.0</td>
</tr>
<tr>
<td>Employer Non-Workers</td>
<td>$134.9</td>
<td>$140.7</td>
<td>$17.0</td>
<td>$13.5</td>
<td>$0.0</td>
<td>$95.1</td>
<td>$5.6</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$19.2</td>
<td>$427.0</td>
</tr>
<tr>
<td>Non-Group</td>
<td>$41.0</td>
<td>$62.1</td>
<td>$5.6</td>
<td>$5.2</td>
<td>$0.0</td>
<td>$13.9</td>
<td>$1.8</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$35.5</td>
<td>$165.0</td>
</tr>
<tr>
<td>Free From Provider</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$0.0</td>
</tr>
<tr>
<td>Medicaid</td>
<td>$630.0</td>
<td>$416.9</td>
<td>$3.0</td>
<td>$41.9</td>
<td>$67.0</td>
<td>$33.7</td>
<td>$45.4</td>
<td>$5.5</td>
<td>$0.0</td>
<td>$25.0</td>
<td>$1,318.0</td>
</tr>
<tr>
<td>Medicaid</td>
<td>$311.7</td>
<td>$170.7</td>
<td>$27.8</td>
<td>$16.1</td>
<td>$1.0</td>
<td>$88.3</td>
<td>$1.4</td>
<td>$190.0</td>
<td>$113.0</td>
<td>$68.2</td>
<td>$988.0</td>
</tr>
<tr>
<td>CHAMPUS/TriCare</td>
<td>$89.6</td>
<td>$52.0</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$7.0</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$5.4</td>
<td>$154.0</td>
</tr>
<tr>
<td>Other Public</td>
<td>$155.0</td>
<td>$106.3</td>
<td>$0.0</td>
<td>$5.9</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$2.1</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$19.6</td>
<td>$293.0</td>
</tr>
<tr>
<td>Worker’s Compensation</td>
<td>$33.0</td>
<td>$48.9</td>
<td>$0.0</td>
<td>$16.9</td>
<td>$0.0</td>
<td>$5.8</td>
<td>$0.7</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$3.8</td>
<td>$109.0</td>
</tr>
<tr>
<td>Other Private</td>
<td>$25.7</td>
<td>$24.8</td>
<td>$2.6</td>
<td>$3.9</td>
<td>$0.0</td>
<td>$1.1</td>
<td>$0.7</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$2.1</td>
<td>$61.0</td>
</tr>
<tr>
<td>Total</td>
<td>$2,279.4</td>
<td>$2,274.6</td>
<td>$429.9</td>
<td>$284.0</td>
<td>$115.0</td>
<td>$736.0</td>
<td>$126.0</td>
<td>$264.0</td>
<td>$170.0</td>
<td>$429.3</td>
<td>$7,108.0</td>
</tr>
</tbody>
</table>

\(^a\) Health spending includes medical benefits costs under the worker’s compensation program. As discussed above, worker’s compensation medical benefits would remain separate from the program. Lewin estimate of federal funding for clinics is included as "Other Personal Care."

Source: Lewin Group estimates, using the Health Benefits Simulation Model (HBSM).