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Summaries of Specific Analyses of the Economic Impacts of Competing Approaches to Health Care Reform

Introduction

his appendix provides detailed summaries of the analyses reviewed for this report for the following areas of the economy: national health care spending and savings; Federal, State, and local budgets; employers; employment; households; and administrative costs. The appendix is organized by these areas of the economy and within each area of the economy is divided by approach to health care reform. Within each approach to health care reform, analyses are indicated in the headings by who published the analysis and then by who conducted the analysis, if the latter differs from the former. The specific proposal reviewed is then indicated in parentheses, unless the analysis was of the generic approach to reform under which the entry appears.¹

Specific Analyses of Impacts on National Health Care Spending and Savings

Single Payer Approaches

Lewin-VHI²-**Lewin--VHI**, in a staff working paper, examined national health spending under a Canadianstyle system (34). The authors identified two features of the Canadian system that could potentially reduce U.S. national health expenditures-simplification of the administration of health benefits, and regulation of the growth in health spending through aggregate expenditure limits for physicians and hospitals-and one feature that would increase expenditures, that is, primarily, expanded coverage.

Lewin-VHI maintained that a Canadian-style system in the United States would not necessarily achieve the level of health care spending achieved in Canada, **at** least not immediately, since:

- It is unlikely that the United States would make major changes in provider payment levels;
- The resource allocation systems in place in Canada would take time to develop in the United States;
- U.S. health spending includes amortization costs of existing capital;
- Data systems for expenditure budgeting need to be developed; and
- Due process rights in the United States have implications for medical malpractice reform and provider rate appeals, both of which affect health care spending (34).

Based upon their analysis, Lewin-VHI estimated a net increase in national health spending of \$21.2

¹Examples of how appendix entries are organized include: Lewin-VHI—Lewin VHI conducted an independent analysis of a generic approach (34); Physicians for a National Health Plan/Grumbach and Colleagues (PNHP)—Grumbach and his colleagues, on behalf of the Physicians for a National Health Program, analyzed the PNHP plan (24).

²Lewin-VHI was formerly known as Lewin-ICF.

billion in 1991, the first year of the plan. This was the sum of \$46.8 billion in administrative costs-savings plus \$68.0 billion in increased utilization ensuing from expanded access to uninsured individuals and the elimination of cost-sharing as well as the elimination of some utilization management programs. However, it does not include increased spending of \$10.2 billion associated with long-term care services.

The analysis noted that a large portion of the increase in health spending in the first year could be averted by imposing patient cost-sharing, but such modification of the Canadian approach might significantly reduce the potential for administrative costssavings flowing from the Single Payer system.

While Lewin-VHI projected an increase in spending in the plan's first year, it indicated that in future years substantial savings could be realized as the growth in health spending was controlled through health expenditure limits. They maintained that it is impossible to reliably predict savings ensuing from expenditure limits. "Health expenditure budgeting in the U.S. is sure to be a highly political process which may not always yield results consistent with the goals of cost containment" (34). However, by way of illustration, they showed that if the United States were to reduce its projected rate of growth in health spending by 1 percentage point per year, national health expenditures would be reduced by about \$137.0 billion over the next decade. What impact such reductions would have on the quality of care and on health care technology is generally unknown (34).

Meyer and Colleagues-Meyer and his colleagues examined the long-term impact of the implementation of a national health plan with government as the sole payer for services on business and the economy (43). They projected U.S. health care savings over a 10-year period, from 1991 through the year 2000, under several scenarios that varied the assumptions about the level of health care spending under a Canadian-style system.³

Based upon these scenarios, the authors estimated a change in national health care spending in 1991 ranging from savings of \$241.0 billion, under the "Full Savings Scenario," to increased spending of

\$20.0 billion, under the "Deceleration Scenario" Cumulative savings under these scenarios for 1991 through the year 2000 ranged from \$1.3 ("Deceleration Scenario") to \$5.5 trillion ("Full Savings Scenario") in current dollars (\$1.0 to \$4.3 trillion in 1991 dollars). Since neither of these scenarios account for a phase-in period, the savings achieved under them are likely to be upper limit projections. However, given the magnitude of the estimated long-term savings, the authors maintain that the analysis demonstrates [t]hat a conversion to a national health plan would release resources from the health care sector to the rest of the economy" (43).

U.S. General Accounting Off ice-in a 1991 report examining the Canadian health care system, the U.S. General Accounting Office (GAO) estimated that the implementation of a Canadian-style system in the United States would produce a net savings of \$3,0 billion in 1991, about 0.4 percent of projected 1991 national health expenditures (82). This estimate: was based upon the system in place in Ontario; assumed effective in the first year some cost-containment and all cost-inducing factors; and did not take into account transition costs. GAO projected that long-term health care savings from implementation of a Canadian-style system would be possible given that the cost constraining features of the system *could* help control growth in national health care expenditures (82).

Physicians for a National Health Program/ Grumbach and Colleagues (PNHP)--The Physicians for a National Health Program (PNHP) support a publicly administered, tax-financed national health plan with a single public payer (24). The PNHP plan would: provide coverage to all Americans for "all medically necessary services including prescription drugs;" prohibit private insurance that duplicates the plan's coverage; eliminate patients' copayments and deductibles; and provide for annually negotiated global budgets for hospitals, and a negotiated fee schedule for fee-for-service physicians' services.

According to its proponents, the proposal "could initially pay for expanded care out of administrative

^{3 &}quot;Full Savings Scenario" assumed health care spending at no more than 8.7 percent of U.S. GDP, the portion of Canada's GDP devoted to health care. "Deceleration Scenario" assumed health care spending capped at its current share of U.S. output (GDP) *after* including the cost of covering uninsured individuals (43).

savings without adding new costs to the overall health care budget and would establish effective mechanisms for long-term cost control" (24) (See also "Specific Analyses of Impacts on Administrative Costs," this appendix). According to Health Care Financing Administration (HCFA) estimates cited by Grumbach and his colleagues, \$602.0 billion would be spent in 1991 for personal health care plus insurance overhead and profits under current policies. The authors estimated that "the net cost of personal health care and insurance overhead for universal coverage under the NHP, including expanded services for the previously uninsured, would be at most \$547 billion if the system operated with the administrative efficiency of the Canadian system" (emphasis added). However, in calculating a national health care budget for the first year of plan implementation, the authors assumed a more conservative level of administrative costssavings and that significant savings from the adoption of cost-containment mechanisms, such as global budgets for institutional providers and fee schedules for physicians' services, would accrue over time. Based upon these assumptions, the authors estimated that national health expenditures would be \$18.0 billion less (\$584.0 billion) than under current policies (\$602.0 billion) in 1991. Nevertheless, the authors proposed a national health care budget in 1991 of \$602.0 billion (equal to HCFA'S 1991 estimate under current policies), earmarking the difference in spending under their plan versus under current policies for new health initiatives and transition costs. The analysis indicated that in order to achieve this national health care budget in the initial year of the plan, given the increase in costs due to increased utilization of health care services by the previously uninsured population, the plan would "rely on the ability of a single payer to allocate and enforce prospective budgets for physician and hospital services' (24).

Congressional Budget Office-In a Congressional Budget Office (CBO) study,⁴CBO projected the change in national health expenditures for a Canadianstyle system in which provider payments were made on the basis of Medicare rates (77). However, it varied the approach from the Canadian system to the extent that some patient cost-sharing and a residual Medicaid

program were retained. It projected that under such a system, the net change in 1989 in national health expenditures would range from savings of \$58.1 billion (9.6 percent) to increased spending of \$7.4 billion (1.2 percent), under relatively optimistic and relatively pessimistic assumptions, respectively. Note that the above GAO report, which compared various estimates of the change in national health spending under a Canadian-style system, converted these 1989 figures to 1991 dollars; that is, savings of \$69.0 billion to increased spending of \$9.0 billion (83). In its study, CBO noted that" [t]he magnitude of savings achieved by limiting price increases would depend on allowed increases and the extent to which increases in volume would offset some of the potential savings from price controls" (77).

Play-or-Pay Approaches

Congressional Budget Of Office-CBO reviewed illustrative options for expanding health insurance including a variation of a Play-or-Pay approach (76). It found that in 1991, the three options--employer mandate, Medicaid expansion and combined employer mandate/Medicaid expansion-would not "increase national health expenditures by more than 3 percent, but all of them would have redistributional consequences that would substantially exceed the modest net effect on overall health spending" (76).

U.S. Bipartisan Commission on Comprehensive Health Care/Lewin-VHI (Pepper Commission)--The U.S. Bipartisan Commission on Comprehensive Health Care (Pepper Commission) reviewed three alternatives-Medicaid expansion, national health insurance (through a refundable tax credit to purchase coverage available to all Americans or government as sole payer), and "job-based and public coverage, ' before recommending the latter in its final report in September 1990 (75).

The Commission rejected the Medicaid expansion alternative because it determined that an estimated 14 million people would remain without access to affordable coverage and that currently inadequate coverage available to others would not improve. To the extent that such a plan would not achieve universal access, the cost shift to private payers for uncompensated care

⁴ This Congressional Budget Office study was revised in April 1993 (81).

would continue. Furthermore, the Federal Government would be responsible for the entire cost of insuring low-income workers. The Commission also rejected the two means of achieving what it termed "national health insurance" because it determined that they were controversial and disruptive, especially for those covered by the current employment-based system, and that they would totally shift the financing burden from employers to the taxpayers.

Thus, the Commission recommended the adoption of a proposal combining job-based and public coverage. The recommended reforms, designed to achieve universal access, would be phased in over a 5-year period. The projections for the plan assumed that employers would seek to minimize costs in choosing between the private and public options, and that they would be able to elect separately between private insurance and coverage under the public plan for their full- and part-time workers.

The Commission, using Lewin-VHI's estimates, estimated that the system's implementation would increase national health spending less than 2 percent. Thus it projected, based upon full implementation in 1990, an increase of \$12.0 billion in 1990 in national health expenditures. In practice, the plan would be phased in. Therefore, the \$12.0 billion does not reflect adjustments for inflation or for savings resulting from various cost-containment measures. Not all sectors of the economy would experience increased costs as a result of the plan implementation (75) (See 'Specific Analyses of Impacts on Employers,' this appendix).

American Academy of Family Physicians/Lewin-VHI (AAFP)--The American Academy of Family Physicians' Rx *for Health* provides for an employer mandate with a government backup insurance plan coupled with global budgeting for health care spending as well as miscellaneous other reforms (2). An analysis of the plan conducted by Lewin-VHI for AAFP estimated an initial increase in health care spending of \$33.6 billion (with expanded Medicare coverage through the private purchase of expanded Medigap insurance; \$32.5 billion without) in 1993 due to increased utilization, and increased provider reimbursement for care provided to persons currently covered by Medicaid, offset, only in part, by costcontainment savings (36,37). It further projected that savings resulting from the implementation of the plan's cost-containment measures (e.g., patient costsharing, expenditure limits for hospitals and physicians, medical liability reform, global budget) would offset additional outlays in the future. Thus, it estimated a net reduction in health spending from \$111.3 to \$333.5 billion (with expanded Medicare coverage through the private purchase of expanded Medigap insurance; \$123.7 to \$345.9 billion without) from 1993 through the year 2000, in current dollars. These projected savings depend, in particular, upon the effectiveness of the plan's expenditure limits, assumed to take effect in 1994, and assume that such measures reduce per-capita health spending from a projected rate of 8.6 percent to 7.6 percent and 6.6 percent, respectively, beginning in 1994 (36).

Lewin-VHI concluded that its higher estimate of savings under the AAFP proposal, which would require a reduction in health spending of approximately 3.5 percent over 8 years (reflecting a 25 percent reduction in the rate of growth in health spending), "seems modest," given that State all-payer hospital rate setting programs have been shown to reduce the rate of growth in health spending by 30 percent (36).

National Leadership Coalition for Health Care Reform (N LCHCR)----The National Leadership Coalition for Health Care Reform, also projected substantial savings in health care spending over current policy for its proposal, which is similar to the AAFP proposal. After an initial increase in outlays of \$1.0 billion in 1992, the plan projected savings of \$36.0 billion in 1993 increasing to over \$600.0 billion annually in the year 2000 (49).

Silow-Carroll and Meyer (HealthAmerica: Affordable Health Care for All Americans Act; Clinton Campaign)--Silow-Carroll and Meyer examined S. 1227 (HealthAmerica: Affordable Health Care for All Americans Act), introduced (but not passed) in the 102d Congress, and then-candidate (now President) Clinton's campaign proposal,⁵ both of which incorporated an employer mandate to contribute toward employee health insurance benefits as well as global health care spending budgets and fee schedules (66).

While the authors noted that in all three scenarios modeled, ⁶ some of the cost savings were offset by the increased cost of providing health care coverage to uninsured persons, cumulative savings in health care spending accrue under all three from 1994 through 2003 for both plans. They further noted that it would be misleading to judge the impact of the proposals based upon first-year expenditures.

Thus, under an "optimistic Scenario," net savings in national health spending over business as usual during the first year of the plan (1994) would be \$5.0 billion with cumulative savings of about \$2.7 trillion in current dollars (\$1.7 trillion in 1994 dollars) from 1994 through 2003,

Under the "Intermediate Scenario," the authors found that the expansion of coverage to uninsured individuals would offset initial savings under the plan, resulting in a net increase in national health spending of \$1.0 billion in 1994. However, savings would exceed new costs beginning in 1995 with cumulative savings from 1994 through 2003 of about \$1.2 trillion in current dollars (\$712.0 billion in 1994 dollars).

The "Pessimistic Scenario" would take the longest to yield savings since under its assumptions, health care spending would exceed expected spending under business as usual for about 5 years, at which point net savings would be realized. Cumulative savings would be about \$457.0 billion in current dollars (\$260.0 billion in 1994 dollars) from 1994 through 2003.

The authors maintain that small changes in health care spending growth can have a significant impact, emphasizing "the extreme importance of the exact spending targets set by the federal board and the effectiveness of the mechanisms put in place to achieve those targets" (66).

Approaches Employing Individual Vouchers or Tax Credits

Bush Administration/U.S. Executive Off ice of the President (Bush Administration)—Fcmmr President Bush's reform proposal included tax credits, deductions, or vouchers as well as insurance market reforms intended to expand the availability of private insurance (94). The Bush Administration estimated that 95 million Americans would be affected by the Administration's various reform measures. And it estimated that based on 34.1 million persons currently uninsured, the plan would newly cover 29.2 million of them. Of the 4.9 million Americans remaining uninsured, the Administration held that many of them would be eligible for a credit or deduction.

Bush Administration projections of the impact of its various reforms on national health expenditures estimated that they could reduce national health expenditures by 6 to 14 percent, yielding cumulative systemwide savings from 1992 through 1997 of \$394.0 billion and through the year 2000 of \$954.0 billion, in current dollars. The Bush Administration also expected the reforms to reduce the rate of growth of real per-capita medical expenses thus reducing the share of the GDP devoted to health care in the long-term. Looking forward to 2030, the U.S. Office of Management and Budget projected that 19 percent of GDP would be devoted to health care spending if the Bush Administration reforms were implemented, rather than 27 percent, the middle range projected estimate under the current system (94).

Bipartisan Panel on Presidential Candidates' Health Plans/Lewin-VHI (Bush Administration)--Lewin-VHI, for the Bipartisan Panel on Presidential Candidates' Health Plans convened by Families USA, analyzed then-President Bush's reform proposal (3). It estimated that health care spending would decrease by

^sWhile Silow-Carroll and Meyer examined then-candidate Bill Clinton's proposal, since none of the core components of Managed Competition were included in either S. 1227 or then-candidate Clinton's proposal, the study has been categorized as one **examining** Play-or-Pay approaches to reform.

⁶ "Optimistic Scenario" assumed the plan would result in universal coverage, an initial 5 percent reduction in health care costs phased in over 5 years, and future health care spending growth limited to the growth rate of the economy after the fifth year of implementation. "Intermediate Scenario" assumed initial efficiencies would result in a 2.5 percent reduction in spending phased in over 5 years and, *over* 10 years, the annual growth rate in health care would slowly decline in stages, eventually achieving a reduction of 3 percentage points, from 11.26 to 8.26 percent annual growth. Health care would continue to grow faster than the rest of the economy but by a much smaller margin than currently, "Pessimistic Scenario" assumed no initial efficiencies, spending would increase as access expands, and annual health care spending growth would decline slowly from approximately 11.3 percent (in 1994) to about 9.1 percent (in 2003) (66).

\$7.5 billion in **1993**, and would continue to decrease annually with the cumulative net decrease in spending estimated to be \$72.6 billion through 1997 and \$156.9 billion through the year 2000, in current dollars. These estimates assumed the successful implementation of the proposed cost-containment measures including insurance market reform, electronic claims processing, medical liability reforms, expanded use of coordinated care, preemption of State mandated minimum benefits, promotion of competition, and increased funding for prevention programs.

Silow-Carroll (Bush Administration)---Silow-Carroll examined the long-term impact (1994 through the year 2003) of then-President Bush's tax credit proposal on the economy under two scenarios that varied the assumptions about the magnitude of savings achievable under the proposal⁷(65).

The analysis found that either scenario would entail some increase in overall health care spending due to the expansion in coverage, but that any such increase would be mostly offset by cost-containment savings in the initial years of the plan. Under the "Pessimistic Scenario," health care spending would decrease by \$2.0 billion in 1994 relative to the current system: under the 'Optimistic Scenario," by \$6.0 billion. The analysis estimated cumulative savings of \$158.0 billion to nearly \$1.0 trillion, in current dollars (\$107.0 to \$600.0 billion, in inflation-adjusted, 1994 dollars), under the "Pessimistic" and 'optimistic" scenarios, respectively, from 1994 through 2003. The study did not project whether savings would continue under the "Optimistic Scenario." However, it noted with respect to the "Pessimistic Scenario" that if health care spending were to continue on the same course, savings in national health care spending resulting from former President Bush's tax credit reforms would taper off after the first decade (65).

Congressional Budget Office (Bush Administration)--The Congressional Budget Office, in testimony before the Senate Committee on Finance, estimated that a proposal combining tax subsidies with market reforms would increase national health care spending 2 percent initially (55). With respect to former President Bush's proposal, CBO Director Robert Reischauer testified that the combined effect of the proposal's cost-control measures could produce a modest one-time reduction in national health spending but that it was not likely to significantly slow the rate of growth in such spending (85). He attributed the limited impact of the reforms on the rate of growth in health spending to their voluntary nature and the relatively small financial incentives involved.

Heritage Foundation/Lewin-VHI (Heritage Foundation)--Lewin-VHI analyzed the Heritage Foundation's health care reform proposal on behalf of the Foundation (35). The proposal replaces the tax deduction/ exclusion for employment-based health benefits with individual refundable tax credits/vouchers, includes health insurance market reforms, and requires individuals to purchase insurance. Employers, in particular those who now offer coverage, would continue, as a general rule, to arrange payroll deductions for benefits payments. The analysis assumed that the newly insured individuals would increase their utilization of services to the level reported by insured persons with similar characteristics while the utilization of some workers would decline as they "downgrade' their coverage (35). Taking into account the utilization responses of both newly and currently insured persons as well as changes in administrative costs, Lewin-VHI estimated that implementation of the Heritage Foundation proposal would reduce national health spending by \$10.8 billion in 1991 (35).

Managed Competition Approaches

Enthoven--Enthoven has estimated with respect to Managed Competition, generally, i.e., without specifying some of the details which tend to vary in the proposals (e.g., employer mandate, tax policy modifications, and expenditure limits), that" [i]t is altogether possible that a very efficient competitive system could get us back to 9 or 10 percent" of GDP (15).

^{7 &}quot;Pessimistic Scenario" assumed that "much of the savings in the Bush plan are one-time in nature, and that after these efficiencies are achieved, the cost curve returns to its present course." "Optimistic Scenario" assumed that in the fii 5 yearn of the program, "the plan's cost containment features are relatively successful in both reducing current expenditures... and slowing down the rate of spending growth" (65).

Bipartisan Panel on Presidential Candidates' Health Plans/Lewin-VHI (Clinton Campaign)--Lewin-VHI, in its analysis for the Bipartisan Panel on Presidential Candidates' Health Plans convened by Families USA, mentioned above, examined thencandidate (now President) Clinton's health care reform proposal. As outlined during the presidential campaign, it incorporated an employer mandate to provide benefits directly or pay toward public-sponsored, but privately operated, plans that would provide "the specified core benefits package,' and annual national health care budget targets (3). Lewin-VHI's estimates assumed that the national health budget would restrict growth in national health spending to the rate of growth in family income (assumed to be approximately the same as the rate of growth in the GNP). Making additional assumptions about the phase-in of the various aspects of the proposal, with the first year of the plan being 1994, Lewin-VHI projected that health care spending would be reduced in 1994 by \$21.8 billion. Cumulative savings (in current dollars) under then-candidate Clinton's campaign proposal would be \$232.0 billion from 1994 through 1997, and \$745.7 billion from 1994 through the year 2000, relative to current policy (3).

Sheils and Colleagues--Sheils and his colleagues recently prepared estimates of the impact on national health spending of a Managed Competition approach (63). The approach was a variation of Paul Starr's approach to Managed Competition (71). It included an employer mandate requiring employers with more than five employees to contribute at least 75 percent of the premium of the lowest-cost plan in the area for all full-time workers (defined as working 17.5 hours or more per week), and to pay an 8 percent payroll tax for part-time employees. Any employer contribution over 75 percent of the lowest-cost plan premium would be taxable to the employee as income. Subsidies would be available to some employers, low-income employees and people without employment-based insurance or Medicare.

In order to calculate the average lowest-cost plan premium, the authors adjusted "the average premium estimated with HBSM," the Health Benefits Simulation Model developed by Lewin-VHI, "to reflect the savings that one can expect to achieve in a wellmanaged HMO' (63). Thus, the authors assumed an 8 percent reduction in the lowest-cost plan premium, based upon the experience of group-model HMOS.

Furthermore, according to the authors, key assumptions affecting their estimates regarding national health spending concerned "managed care savings," estimated to be 2 percent based upon the experience of all types of HMOs, "uncompensated care costs, behavioral responses to cost sharing, reimbursement improvements, and administrative savings." The analysis also acknowledged that "further sensitivity analysis is needed" to determine the impact of these various assumptions on the results (63).

Based upon the various assumptions described above, Sheils and his colleagues provided two estimates of the impact on national health spending in 1993 of the variation of Managed Competition they examined:

- increased spending of about \$47.9 billion, assuming low patient cost-sharing (no patient deductible and a \$10 copayment per visit); and
- increased spending of about \$42.3 billion, assuming high patient cost-sharing \$250 deductible per individual (\$500 per family) with 20 percent coinsurance required up to a maximum of \$2,000 per individual (\$3,000 per family).⁸

The authors attributed the \$5.6 billion difference to expected lower services utilization under the higher cost-sharing scenario (63).

Long and Rodgers-Long and Rodgers reviewed the preceding Lewin-VHI analysis and responded with estimates of the impact of the Enthoven/Kronick Managed Competition proposal (which the authors maintained was similar to the plan analyzed by Sheils and his colleagues) on national health spending (40). The authors' estimates assumed the implementation of universal health insurance which they estimated would increase national health spending by \$29.0 billion (the

⁸HMOs do not usually have deductibles or cost-sharing as a percentage of the fee at the point-of-service, thus this scenario is a **significant** departure **from** current HMO practice (23).

cost of expanded access to coverage) in 1993.⁹ Assuming savings of 8 percent based upon the experience of group-model HMOs (or, in the alternative, based upon reductions in administrative costs in employer plans), the authors estimated savings from Managed Competition of \$37.0 billion in 1993. Since these savings would be offset by the \$29.0 billion increase in spending, the authors estimated that national health spending would decrease by \$8.0 billion in 1993 under universal insurance with Managed Competition.

Long and Rodgers attribute the difference between their estimate (savings of \$8.0 billion) and those of Sheils and his colleagues (increased spending of \$42.3 and \$47.9 billion, assuming high and low patient cost-sharing, respectively) to differences in the underlying assumptions. For example, Long and Rodgers indicated that Sheils and his colleagues included:

... \$27.4 billion in net reimbursement increases by Medicaid as an addition to national health spending; we choose not to count these additional outlays as added real spending, since they do not correspond to any additional health care services provided and simply reverse cost shifting under the current system (40).

And the estimates differ further in terms of their assumed savings based upon the experience of HMOS (Sheik and colleagues: 2 percent; Long and Rodgers: 8 percent, using an estimate from an earlier version of the paper by Sheils and his colleagues), leading to far different estimates of the impact of Managed Competition on health care spending (40,41,63).

Data from the California Public Employees' Retirement System-The California Public Employees' Retirement System (CalPERS) functions as a group purchaser of health care benefits for 887,000 covered lives including employees and retirees of the State of California, 787 other public employers in California, and the California State University system, and their dependents (7). Seventy-six percent of the employers employ fewer than 100 people. CalPERS offers 25 health plans including 19 HMOS, 2 selffunded preferred provider organizations (PPOS), and 4 "association" plans. Beginning with the 1993 policy year, CalPERS has insisted on a standard benefit design among all HMOS with which it contracts, in order to make comparisons among the HMOS' premium offerings.

CalPERS has been put forth by some proponents of Managed Competition as an example of a successful health insurance purchasing group, reducing health care costs for its members by providing all employer participants with the advantages of the large purchaser of health care benefits.

As the purchasing agent on behalf of its covered population, CalPERS secured a 1.4 percent overall increase in 1993/94 premium rates (HMOs: 0.4 percent decrease; PPOS: 7.9 percent increase; Associations: 5 percent). According to CalPERS, combined with a 6.1 percent overall premium increase for 1992/93, the 2-year combined increase of 7.5 percent was one-fourth the national average of 30 percent (7).

CalPERS recent low increase in HMO premiums was achieved in part via increases in patient costsharing at the time of service (i.e., copayments). CalPERS' efforts to reduce premiums may have been aided by the California State budget crisis and other factors (59).

A recent issue paper published by the Service Employees International Union (SEIU) examined the CalPERS experience in terms of its impact on health care costs, and concluded that "[competition alone did not constrain costs; tough negotiations over premium increases--one form of rate control--did" (59). SEIU noted that while CalPERS premium rate increases were in the single digits for 1992/93 and 1993/94, its overall average rate increases in 1990/91 and 1991/92 were 16.9 percent and 11.3 percent, respectively, and that "[throughout the 1980s, CalPERS experienced higher premium increases than employers nationally. Thus, SEIU attributes CalPERS lower rates of increase in premiums for the past two contract negotiations to several recent initiatives taken by CalPERS which SEIU deemed health cost control measures: change in premium contribution formulas (1991/92); request for a zero percent increase in premiums (1992/93); detailed cost and performance information required from plans (1993/

⁹ A background paper concerning the potential impact of expanding coverage to people who are currently uninsured is being prepared by the Rand Corporation for OTA and the Congressional Research **Service**. Its release is planned for fall 1993.

94); and standardized benefits for all HMO options (1993/94).

Therefore, while CalPERS may be succeeding in reducing premium rate increases, it is important to determine what is driving such decreases.

Specific Analyses of Impacts on Federal, State and Local Budgets

Single Payer Approaches

Meyer and Colleagues-Meyer and his colleagues examined the long-term impact of the implementation of a system of universal coverage with government as the sole payer for services on business and the economy (43). Under the study's "Full Savings Scenario,' ¹⁰ they found that additional public revenues of \$29.0 billion would be required in 1991, the first year of implementation. The study notes that this estimate rests upon achieving the Canadian level of health care spending as a proportion of GDP. This may account for the disparity between this analysis' estimate of additional public revenue requirements and those of various other studies (43). The analysis further indicated that the revenue shortfall would be temporary, and that by the third year of implementation, the government would recognize a gain, even though it would have assumed a larger burden, proportionately, with respect to health care financing.

Under the study's "Deceleration Scenario,"¹¹government spending would increase by \$225.0 billion in 1991, due to smaller systemwide savings under this scenario coupled with the shift from private to public sector financing.

Health Insurance Association of America-The Health Insurance Association of America (HIAA) studied the implications of the Canadian public health insurance system for the United States (25). It estimated that the implementation of this system in the United States would require \$183.0 to \$189.0 billion (1988 dollars) (\$244.0 billion to \$252.0 billion in 1991 dollars) in additional public funds assuming an annual increase in health care spending of about 10 percent. This increase in the public financing burden would be offset by a reduction in private financing of health care.

HIAA postulated that implementing a Canadianstyle system funded solely by the Federal Government would require a 46 percent increase in Federal income tax receipts, a 59 percent increase in payroll tax receipts, or a 62 percent reduction in defense spending (25). If, in the alternative, the system were funded solely at the State level, it would necessitate a 71 percent increase in State tax revenues. These estimates were based upon HIAA's 1988 midpoint estimate of \$186.0 billion in additional public expenditures to finance the implementation of a Canadian-style system.

According to HIAA, the States would assume the vast majority of the financing burden were the distribution allocated as it is in Canada. Using 1987/88 data, HIAA estimated that under their respective systems, the U.S. and Canadian governments currently fund about the same proportion of total health spending (United States: 29.2 percent; Canada: 29.6 percent). While HIAA did not think that the U.S. system would necessarily reflect Canada's distribution of the burden, it indicated that a government-financed system might be unstable for the States were the Federal Government to experience, as it is now, budgetary difficulties, compelling it to restrict its contribution to health care expenditures (25).

Congressional Budget Office-As a recent Congressional Budget Office Staff Memorandum noted, the Canadian Government limits its contribution to national health spending by making per capita payments to the provinces, determined in accordance with a formula based on growth in the GNP, not on actual health care expenditures in each province. The result is that the provinces have become increasingly more responsible for the cost of health care services for their populations (80).

In testimony, CBO estimated that the implementation of a Single Payer public plan in the United States would increase direct Federal Government outlays by 75 percent initially. Federal outlays would be offset by

^{10&}lt;sup>c</sup> 'Full Savings scenario' assumed implementation of a Canadian-style system with health care spending at no more than 8.7 percent of U.S. GDP, the proportion of Canada's GDP devoted to health care (43).

^{11 &}quot;Deceleration Scenario" assumed national health carespending is capped at its current share of U.S. GDP after including the cost of covering uninsured individuals (43).

a 95 percent decrease in tax expenditures, including those related to income and payroll taxes, as a result of the elimination of the health insurance tax exclusion. Thus, CBO estimated total Federal health expenditures would increase by 34 percent initially. This estimate assumed that the Federal Government would pay all costs of the public plan, but acknowledged that such costs could be shared between Federal, State, and local governments (55).

In a study of universal health insurance coverage using Medicare's payment rates, and assuming the continuation of a residual Medicaid program for which States would continue to finance their portion, CBO found that even if national health expenditures decreased, government spending under a Single Payer approach would increase (77). Based upon a midrange group of assumptions, CBO projected that government health spending would increase by 56.7 percent or \$143.6 billion (1989). Among levels of government, this increase would be allocated as follows: Federal spending would increase by \$154.7 billion and State spending would be reduced by \$11.1 billion. Implementation of the plan (again using midrange assumptions) would require an increase in taxes of approximately \$560 per capita. However, other offsetting gains (e.g., to the private sector whose costs would decrease by \$662 per capita) would be likely, leaving individuals, on average, with additional discretionary dollars (77).

Play-or-Pay Approaches

Milliman & Robertson--The actuarial firm of Milliman & Robertson examined the effects on government budgets of a simple employer mandate; that is, they did not take into account individual premium cost-sharing with respect to either the employer or government plans, but assumed a 7 percent payroll tax rate, and did not make assumptions regarding insurance market reform (12). Under this scenario, the firm found that the government plan is likely to be "consistently underfunded" at the 7 percent payroll tax rate. The firm attributed this instability to the fact that the government plan funding source, payroll taxes, would not be very sensitive to the cost of delivering care to plan enrollees.

Congressional Budget Office--In testimony, CBO estimated that the implementation of an employmentbased approach combined with insurance market reforms would increase direct Federal Government outlays by 17 percent initially (55). This estimate assumed no change in overall or full-time employment; that all people eligible for free insurance under the public plan, but only some people from other eligible groups, would enroll in the public plan; and that increased taxes from employers and employees would offset more than 70 percent of the cost of insuring employees enrolled in the public plan. Given continued favorable tax treatment of employmentbased insurance, tax expenditures would increase by 9 percent initially, due to an increase in the number of persons covered by employment-based insurance. Thus, total Federal Government health expenditures would increase by 15 percent initially. CBO assumed that the Federal Government would pay all costs of the public plan, but acknowledged that such costs could be shared among Federal, State, and local governments, thereby lessening the impact on the Federal budget.

CBO, in a report reviewing selected options for expanding health insurance coverage, looked at the impact of an employer mandate combined with Medicaid expansion, and estimated that it would increase the Federal budget deficit by \$13.1 billion (1991) (76). This figure is the sum of changes in Federal outlays for Medicare (savings of \$3.6 billion) and Medicaid (increased spending of \$10.2 billion), plus the loss of Federal revenues associated with individual income taxes (a loss of \$3.0 billion) and Social Security and Medicare payroll taxes (a loss of \$3.5 billion). Likewise the illustrative option would increase State and local government spending as well as reduce their tax revenues. CBO estimated that State and local government outlays would increase by approximately \$3.0 billion and that income tax revenues would decrease by approximately \$1.0 billion (1991). CBO also projected that in the longer term, other State and local tax revenues would decrease due to a shift in spending from taxed to untaxed (e.g., medical goods and services) purposes. CBO noted that many States and local governments operate under balanced budget requirements, thus the increased outlays detailed above would require the implementation of either revenue raising or spending reduction measures (76).

U.S. Bipartisan Commission on Comprehensive Health Care/Lewin-VHI (Pepper Commission)--Lewin-VHI's analysis of the plan of the U.S. Bipartisan Commission on Comprehensive Health Care (Pepper Commission) estimated that State and local governments would save about \$7.4 billion in current (1990) payments for financing care for uninsured persons (75). Further, the plan would hold State contributions to finance the Federal system replacing Medicaid to their current Medicaid contribution level adjusted for inflation. Thus, the plan would alleviate the increasing drain that Medicaid poses to State budgets. The analysis estimated that new Federal expenditures required to cover nonworkers, to subsidize insurance costs for individuals and employers. and to pay providers in accordance with Medicare payment rules, would be approximately \$24.0 billion (1990). These expenditures would require additional Federal revenues.

Zedlewski and Colleagues--Zedlewski and her colleagues, in a study conducted under the auspices of the U.S. Department of Labor, examined the firstround effects of a Play-or-Pay plan (100). This study did not examine the impact of the approach on the change in *total* government health care spending. However, by looking at the single component of health insurance costs, defined as health insurance premiums, it tended to show the sensitivity of the resulting system to system design (e.g., which employers and employees the mandate applies to, payroll tax percentage, employer/employee share of premium) and to changes in employer behavior, and the consequences for the distribution of the burden of health care financing.

The authors used 1989 data with the Urban Institute's Transfer Income Model (TRIM2) to arrive at their estimates. The authors found that the proportion of the nonelderly population enrolled in the publicsponsored plan has important implications for the health insurance costs of government, as well as those of other payers. In general, the lower the payroll tax rate, the greater the number of nonelderly enrolled in the public-sponsored plan, if employers select the less expensive alternative which the public plan is assumed to be, and the greater the cost to government. This is based upon the assumption that the funds coming into the government plan to insure employed enrollees will be less *than the* **actuarial cost** of insuring them (otherwise the employer would probably have purchased private insurance), thereby requiring government to fund the difference. However, the study found that government costs would not increase linearly with the proportion of workers enrolled in the public plan because the government would only be paying a portion of each individual's costs.¹² And,

... at certain tax rates some employers would pay taxes higher than the government's cost of insuring their workers (thereby partially subsidizing costs for the low-income population), because the premium for the public-sponsored plan would be less expensive than the premium available to small employers (100).¹³

Assuming the purchase of insurance at current prices (1989) and that employers would pay 80 percent of the premium, the study estimated that at a 7 percent payroll tax rate, \$64.4 billion or 23.9 percent in additional government funds (over and above those funds collected pursuant to the payroll tax) would be necessary to cover insurance costs, whereas at a 9 percent payroll tax rate, \$53.2 billion or 19.5 percent more would be necessary. Note that only part of these funds (\$33.6 billion and \$23.1 billion, under each payroll tax rate, respectively) are new government funds (i.e., funds not currently spent by government to fund the Medicaid program). Also, these estimates are based on what maybe "upper bound' estimates of the numbers of persons who would be enrolled in the public plan according to Zedlewski and her colleagues (100).

¹² The study assumed some level of cost-sharing of the premiums for the public-sponsored plan by plan enrollees except to the extent that such enrollees would be eligible for a subsidy (e.g., **income** below the poverty level) (100).

¹³ The study indicated that under all assumptions with respect to employer behavior, premiums or tax rates, the public-sponsored insurance plan under this reform approach would include 40 to 50 million people since a large proportion of the plan's enrollees are **nonelderly** nonworkers, self-employed workers, part-time workers (i.e., work fewer hours per week than required by the mandate to be **covered** by an employer), and work for very small employers with very low payrolls. Given the anticipated large size of the public-sponsored **plan**, it is likely that the government would be able to provide coverage for the plan's enrollees at a price **less** than that which some employers would have paid if purchasing coverage directly in the private **insurance** market (loo).

American Academy of Family Physicians/Lewin-VHI (AAFP)-Lewin-VHI, analyzing the American Academy of Family Physicians' reform proposal, estimated that in 1993, the first full year of anticipated implementation, the system would require \$34.1 billion in new Federal Government revenues, largely resulting from the government's share of subsidizing coverage under the public plan (37). However, the plan would be budget neutral; that is, the plan would be fully funded at the Federal level through increased taxes levied on businesses and households and, therefore, it would not have an impact upon the Federal deficit. The plan would require that States continue to pay into the public-sponsored plan in the same proportion as they currently support Medicaid, which would increase State outlays due to an increased number of people eligible for public-sponsored coverage. Thus, despite savings to other State programs serving the medically indigent, this increase in expenditures as well as other more minor ones, would result in a \$7.6 billion increase in State and local government health care spending in 1993.

National Leadership Coalition for Health Care Reform (NLCHCR)-Estimates of new government spending provided by the National Leadership Coalition for Health Care Reform for its plan, which is similar to the AAFP plan, were close to Lewin-VHI's projections for the AAFP plan-\$34.7 billion in 1991 dollars (49). The Coalition also projected that the plan would be budget neutral at the Federal level due to increases in taxes to fund the plan. State and local budget impact estimates were not provided.

Approaches Employing Individual Vouchers or Tax Credits

Silow-Carroll (Bush Administration)--Silow-Carroll analyzed the long-term impact of then-President Bush's tax credit proposal on the economy (65). The study specifically addressed the issue of equity in financing among various payers with respect to the proposal. It submitted that certain efficiencies would be achieved under the Bush plan, thus saving the Federal Government money in its current public health programs vis-à-vis "business as usual." But it further stated that because the cost-containment provisions (e.g., managed care, administrative efficiencies, malpractice reform, provider price and quality information) in the Bush plan are of a voluntary nature, such efficiencies would not be adequate to control costs, particularly in the near term. Thus, the study theorized that the Federal Government would seek "efficiencies" in its existing public programs, which might have an effect in terms of reduced payments to the States for the Medicaid program. This might lead to an adverse impact on Medicaid beneficiaries (e.g., reduced access and/or quality of care) if the States could not adjust accordingly (e.g., manage care more effectively or increase taxes),

Heritage Foundation/Lewin-VHI (Heritage Foundation)-The Heritage Foundation maintained that its reform proposal is structured to be revenue neutral at the Federal, State and local levels; that is, the cost of the tax credits to the Federal Government plus any Civil Service Plan changes and corporate income tax loss to the Federal Government (\$87.9 billion) would equal current Federal tax subsidies related to health care expenditures, plus a direct contribution by State and local governments (35). Lewin-VHI's analysis of the Foundation's plan indicated that the States and local governments would be expected to contribute their net savings (\$18.8 billion) from changes in taxes due to them, their provision of care to uninsured persons in public hospitals, and in coverage of State and local government employees, to the Federal Government. Requiring the States to contribute such savings to the Federal Government would maintain budget neutrality at the State level (35).

Managed Competition Approaches

Conservative Democratic Forum (H.R. 5936)-With respect to the impact of Managed Competition, the Conservative Democratic Forum submitted that its proposal, "The Managed Competition Act of 1992," H.R. 5936 (102d Congress), would be budget neutral; that is, its financing provisions—a cap, in essence, on the tax deductibility of health insurance premiums by employers, repeal of the Medicare taxable maximum (assumed to be \$130,200 per worker), and Federal Medicaid funds-would totally cover any additional Federal expenditures (\$106.5 billion in 1994) generated by the proposal (10). Jackson Hole Group--The Jackson Hole Group, in setting forth the 21st Century American Health Care System, an approach similar to the Conservative Democratic Forum's except that it incorporates an employer mandate, did not specifically address any impact on Federal, State or local budgets (29). However, the group has said that the plan does not require a large new government spending program. Rather it expects that monies saved due to the cap on the tax exclusion of health benefits would fund coverage for uninsured and unemployed persons (18).

Sheils and Colleagues--Sheils and his colleagues recently prepared estimates of the impact on public expenditures of a Managed Competition approach (63). The approach included an employer mandate requiring employers with more than five employees to contribute at least 75 percent of the premium of the lowest-cost plan in the area for all full-time workers (defined as working 17.5 hours or more per week), and to pay an 8 percent payroll tax for part-time employees. Any employer contribution over 75 percent of the lowest-cost plan premium would be taxable to the employee as income. Subsidies would be available to employers, low-income employees and people without employment-based insurance or Medicare.

Public costs under the plan would depend in large part upon the types and extent of the subsidies provided. Assuming the implementation of an employer cost cap of 7 percent of payroll, an individual cap of 2 percent of income on employee premiums, an individual cap of 9 percent of income on nonemploy ment insurance spending, and subsidies of \$2.2 billion to persons below 200 percent of poverty for patient cost-sharing expenses under a low cost-sharing plan (no patient deductible and \$10 copayment per visit), the authors estimated that \$120.3 billion in public funds would be required to fund the proposal in 1993. Based upon further calculations related to the use of current Medicaid funds as well as revenue increases and decreases due to the plan's provisions, Sheils and colleagues' estimated that \$47.7 billion in total net new Federal revenues would be required, and suggested other means that could be used to further reduce this amount (e.g., recover State and local funds for indigent care programs rendered unnecessary by the universal health insurance plan; reduce the minimum benefit

package by increasing individual cost-sharing; raise premium subsidy caps) (63).

Long and Rodgers-Long and Rodgers reviewed the preceding Lewin-VHI analysis and responded with estimates of the impact of the Enthoven/Kronick Managed Competition approach (similar to the plan analyzed by Sheils and his colleagues according to Long and Rodgers) on public expenditures (40). The authors' estimates assumed that the implementation of universal health insurance would require public subsidies of \$92.0 billion. However, these subsidies would be offset by \$52.0 billion in savings in current public spending for Medicaid, Medicare, and the Department of Veterans Affairs. Assuming an 8 percent savings due to the implementation of Managed Competition, based upon the experience of group-model HMOS or, in the alternative, based upon reductions in administrative costs in employer plans, as cited by Sheils and his colleagues, the authors estimated that Federal health spending would increase by \$41.0 billion under Managed Competition (\$1 1.0 billion less than universal coverage without Managed Competition). The authors then further assumed that Managed Competition would:

... have a 16 percent effect. (This is roughly equal to the sum of the HMO effect and the administrative savings.) With this level of savings perhaps for a fully implemented plan under the Lewin-VHI assumptions-federal spending would increase by \$31 billion, or \$21 billion less than under the proposal with no managed competition [but with universal coverage] (40).

Specific Analyses of Impacts on Employers

Single Payer Approaches

Meyer and Colleagues--Meyer and his colleagues, in their analysis of the impact of the implementation of a Canadian-style system in the United States on employers, estimated substantial savings to the business sector (employers) over a lo-year period (1991 through the year 2000) (43). The magnitude of the estimated savings depended upon the degree to which costs savings were projected to be achieved in the United States under a Canadian-style system, and upon the taxes collected by the government to finance health care coverage. Making assumptions about the success of cost control measures under the plan, the authors estimated that employers would save, in 1991, \$136.0 billion, pretax,¹⁴ under the study's "Full Savings Scenario' ¹⁶ or \$76.0 billion, pretax, under the study's "Deceleration Scenario. "1⁶ Estimated cumulative pretax savings to employers ranged from \$2.2 to \$3.0 trillion in current dollars (\$1.7 to \$2.3 trillion in 1991 dollars). The distribution of these savings would vary by industry depending upon the comprehensiveness of the industry's current health care benefits. Industries currently paying greater health care costs (e.g., the basic steel industry) would save more than those with lower health care costs (e.g., high-tech electronics, retail trade).

Play-or-Pay Approaches

Zedlewski--Zedlewski, in a study conducted under the auspices of the U.S. Department of Labor, used the Urban Institute's analytic model to examine the effects on employers and employees of expanding the employment-based health insurance system (98). Based upon simulations that varied numerous aspects of an employment-based plan, Zedlewski found that the results were sensitive "to requirements about including part-time workers, exemptions for small employers, family insurance choices, and different employer/employee premium-sharing arrangements" with respect to both employee and dependent coverage (98). She further found that expansions of the employment-based system that would include most part-time employees would affect firms of all size and industry categories. Thus, Zedlewski noted that expansion of the employmentbased health insurance system would make expenditures on this fringe benefit more equitable across firms, by size and industry.

Zedlewski and Colleagues-Another study under the auspices of the U.S. Department of Labor, conducted by Zedlewski and her colleagues, further examined the impact on insurance coverage and costs of employer mandates requiring an employer contribution (100). The authors found that the payroll tax rate selected was key to employers' insurance costs. Any increase in the payroll tax acts as an increase in employers' maximum liability for insurance coverage costs. Thus, savings to employers would occur when the payroll tax option is less expensive than premiums for private coverage. Further savings would accrue to some employers if they were required to provide coverage for fewer of their employees' dependents.

In 1989 dollars, using "baseline assumptions," 1^7 the authors found that at a 7 percent payroll tax rate, employers' health insurance costs would increase by \$29.8 billion or 23.1 percent, and by \$44.4 billion or 34.4 percent at a 9 percent payroll tax rate, for all employers. Neither estimate is adjusted for uncompensated hospital care savings (100).

Again, the rate of change would vary considerably depending upon employer size, and the payroll tax rate assumptions would significantly affect the estimated effects. At the 7 percent payroll tax rate, the change in employers' health insurance costs would range from an increase of 13.4 percent for employers with greater than 500 employees to 69.7 percent for employers with between 1 and 24 employees. At the 9 percent payroll tax rate, the change would be even more dramatic, ranging from an increase of 19.6 percent for firms with more than 500 employees to 100.1 percent for firms with between 1 and 24 employees.

According to the study by Zedlewski and her colleagues, small employers, defined here as those with fewer than 25 employees, would experience the largest relative increase in insurance costs under both options because health insurance would be a new expense for many of these employers. While the health insurance costs of employers with more than 500 employees would increase on average, such increases, due for the most part to covering previously excluded employees and upgrading current plans, would be

14 Pretax savings are defined as savings before employers' liability for increased income taxes, due on increased income resulting from a deerease in deductible health care expenditures, has been met (43).

¹⁵ **"Full Savings Scenari**o" assumed implementation of a Canadian-stylesystem with health care spending at no more than 8.7 percent of U.S. GDP (43).

^{16 &#}x27; 'Deceleration Scenari 'assumed implementation of a Canadian style system with health care spending capped at its Current share of Us. GDP after including the cost of covering the **uninsured** (43).

^{17 &}quot;Baseline assumptions": Assumed coverage is available at current premium prices and employer/employee premium cost-sharing is 80/20 for employee and dependent coverage (100).

substantially smaller. The impact in terms of actual dollars would not consistently decrease as size of employer increases. According to the authors, it would be highest for the smallest employers at either the 7 or 9 percent payroll tax rates (an increase of \$10.8 and \$15.6 billion, respectively) and, in fact, second highest for the largest employers (an increase of \$10.5 and \$15.3 billion, respectively) and lowest for employers with 25 to 99 and 100 to 500 employers (an increase of \$5.3 and \$3.2 billion, at the 7 percent rate, and an increase of \$7.7 and \$5.7 billion, at the 9 percent rate, respectively) (100).

Thus, the authors maintained that the simulations demonstrated the sensitivity of employment-based reform approaches to changes in the payroll tax rate. At the 9 percent rate, it is more likely that it will be less expensive for employers overall to obtain private insurance than to pay into the public plan. As a result, the higher tax rate tends to impose more direct costs on employers. The lower tax rate leads to a larger public plan and higher government costs. The authors emphasized that the ultimate impact of employment-based insurance proposals would hinge upon employer behavior (100). That is, employers may respond to incentives other than the payroll tax rate, such as employees' interests in having their employers sponsor group health insurance.

U.S. Bipartisan Commission on Comprehensive Health Care/Lewin-VHI (Pepper Commission.--The U.S. Bipartisan Commission on Comprehensive Health Care (Pepper Commission) recommended the implementation of an employment-based approach incorporating a payroll tax to fund a public-sponsored plan (75). Lewin-VHI's estimates for the Commission assumed the imposition of a 7 percent payroll tax and mandatory acceptance of insurance by employees under either the employer's or the public plan. Accordingly, they found that employers who currently offer health insurance to workers and dependents would save an estimated 10.2 percent or \$12.8 billion (1990 dollars) in employment-based health insurance costs per year. These savings were attributed to the fact that while some employers would have to improve coverage and insure some people not previously covered, overall, employers would no longer be making payments for the premium costs of employees' dependents who work for other firms and the costs

shifted to them to fund uncompensated care, including the cost shift from Medicaid. On the other hand, newly insuring employers would have new costs of \$27.5 billion (which is equal to an average of less than 4 percent of payroll after taxes) (75). As with similar employment-based approaches, the public plan option would limit an employer's risk with respect to employee health insurance benefit costs to the payroll tax due on the employer's eligible employees.

While the Pepper Commission recommended the implementation of an employer mandate, it likewise recommended different treatment for large (defined as firms with 100 or more employees) versus small (defined as firms with fewer than 100 employees) employers. The Commission found that larger firms were more likely to provide health insurance now, and therefore, they were more likely to benefit from the Commission's recommendations. Lewin-VHI estimated net savings to large employers of \$5.6 billion (1990 dollars) or 5.8 percent of their health care spending. Since smaller firms were less likely to provide health insurance currently, their costs would increase pursuant to a mandate. Thus, the Commission recommended incentives (as opposed to a mandate), initially, for smaller firms to provide insurance. It further recommended that a mandate should be imposed if the incentives did not work after a specified period. Lewin-VHI estimated that if small employers were to offer health insurance in response to the incentives provided under the plan, their costs would increase \$18.8 billion (1990 dollars), after taxes, or by 1.8 percent of payroll (75).

The Commission noted that the plan would also affect current health benefit plans that did not meet the minimum-benefit and premium-sharing standards of the Commission's plan. Including these plans in the estimates of increased costs for small firms would bring their additional costs to about \$20.6 billion (1990 dollars), after taxes, or 2.1 percent of payroll. Note that the Commission recommended that tax subsidies be available to some small employers.

American Academy of Family Physicians/Lewin-VHI (AAFP--Lewin-VHI prepared estimates of the impact on employers of the employment-based approach proposed by the American Academy of Family Physicians (36,37). The estimates were based upon a plan fully phased-in in 1993 using a payroll tax rate of 10 percent. The AAFP plan would allow only businesses with fewer than 25 employees, rather than all employers, to opt for the public plan. Lewin-VHI estimated that 1993 aftertax employer costs under the AAFP plan would be \$2.83 billion for all firms that *currently insure*, and \$20.9 billion for all firms that do *not currently insure*. The majority of the total increased cost, or \$10.5 billion, would be on firms with fewer than 10 workers who do not currently insure. Firms that do not now insure would, for every firm size category, incur increased and substantially higher costs than firms that currently insure. For firms that currently insure, in a couple of size categories (25 to 99 and 500 or more employees), the costs would decrease.

Approaches Employing Individual Vouchers or Tax Credits

Silow-Carroll (Bush Administration)--Silow-Carroll, analyzing the impact on employers of the Bush Administration plan, found that for the period from 1994 through 2003, employers would realize a net savings in health care spending compared to 'business as usual' (65). The author found that the plan would ease access to insurance at more affordable prices for employers, especially for small groups, but that it was not clear how many employers not currently offering insurance would do so absent a mandate.

Silow-Carroll estimated that in an "Optimistic Scenario," ¹⁸ total health care costs for all employers would decrease \$2.0 billion in 1994 with cumulative pretax savings of about \$300.0 billion (\$200.0 billion in 1994 dollars) through 2003. Cumulative net savings (after taxes and after the distribution of a portion of employers' savings to labor) would range from \$35.0 to \$84.0 billion (1994 dollars) through 2003 under the "optimistic Scenario," depending upon the distribution to labor.

In a' 'Pessimistic Scenario,' ¹⁹the cost of expansion of employment-based coverage would fully offset any gains from cost containment in 1994 and savings achieved thereafter would be minimal. Thus, the author estimated, under this scenario, cumulative pretax savings to employers through 2003 of about \$33.0 billion (\$22.0 billion in 1994 dollars), However, net savings to employers in this scenario would be no more than \$1.0 billion (1994 dollars) per year. Thus, cumulative net savings to employers under the "Pessimistic Scenario' would be fairly insignificant; that is, they would range from \$4.0 to \$10.0 billion (1994 dollars) through 2003, again depending upon the distribution to labor.

Heritage Foundation/Lewin-VHI (Heritage Foundation)-The Heritage Foundation plan makes individuals, assisted by tax subsidies, responsible for the purchase of health insurance, rather than employers (6). The plan requires employers, in the first (transition) year of the plan, if they cancel their group plan or an employee switches to another plan, to include the cash value of the employer's contribution to the plan in the employee's income. It further requires employers to pay the increased FICA (Federal Insurance Contributions Act) tax liability of the employee accruing from the increase in cash wages. Except for these initial adjustments affecting employers, the Heritage plan eliminates the current tax deduction available to employers for employee health benefits. Thus, direct payment for health insurance coverage no longer rests on employers in a significant and direct way. If employers choose to continue to fund employee health insurance, such benefits would no longer be deductible by employers and their value would be deemed taxable income to employees.

Accordingly, Lewin-VHI, on behalf of the Heritage Foundation, assumed that private employer expenditures for health care, estimated at \$124.3 billion in 1991, would, for the most part, be converted to wages (35). Employers would be responsible for increased OASDI (Old Age, Survivors and Disability Insurance) and HI (Hospital Insurance Trust Fund) payroll taxes of \$10.9 billion that Lewin-VHI assumed would be absorbed by employers as reduced profits. As a result, employer corporate income taxes would decrease by \$3.1 billion, producing a net cost to employers in 1991 of \$7.8 billion (or \$104.80 per worker).

^{18&}quot;Optimistic Scenario" assumed that in the first 5 years, "the plan's cost containment features are relatively successful in both reducing current expenditures . . . and slowing down the rate of spending growth" (65).

^{19 &}quot;PessimisticScenario" assumed that "much of the savings in the Bush plan are one-time in nature, and that after these efficiencies are achieved, the cost curve returns to its present course" (65).

Managed Competition Approaches

Long and **Rodgers**—In a recent analysis of a Managed Competition approach, based upon an earlier draft of an analysis by Sheils and his colleagues, Long and Rodgers estimated that business private insurance costs would increase by \$8.0 billion in 1993 (40,41,63). This estimate was for a plan incorporating an employer mandate with a 7 percent cap on employers' costs, and assumed savings from Managed Competition of 8 percent based upon the experience of *group-model* health maintenance organizations or, in the alternative, from administrative costs-savings associated with employer plans.

Sheils and Colleagues--The analysis by Sheils and his colleagues did not estimate the impact on employers of Managed Competition (63). However, it assumed a 2 percent savings from Managed Competition based upon the experience of *all* types of health maintenance organizations. This assumption would likely lead to a greater increase in business's private insurance costs.

Specific Analyses of Impacts on Employment

Single Payer Approaches

Congressional Budget Office-In its study of a Single Payer system with provider payments at Medicare rates, the Congressional Budget Office maintained that such a system would narrow the insurer market, which would most likely result in significant shifts in investment dollars and employment to other areas of the economy (77). The study noted, however, that if private insurers continued to fulfill the claims processing function for the system, shifts in employment would be relatively small.

Silow-Carroll and Colleagues--Silow-Carroll and her colleagues projected that for a Canadian-style health coverage system, fully implemented in 1991, any costs savings accruing to the nonhealth sectors of the economy would "[c]ome largely at the expense of" people employed in health-related fields (67). "As prices of health care goods and services become more tightly controlled and much private insurance administration becomes obsolete (with uniform billing and claims, the elimination of medical screening, etc.), profits and some personal incomes (e.g., for physicians) within the health care sector will decline" (67). According to the authors, dislocation, unemployment, and stunted wage growth would occur among people employed in health insurance, medical product manufacturing, and direct health care services. However, the authors suggested that these consequences would be temporary, due to the relatively high skill levels of the people involved, and the resulting growth in other areas of the economy from an influx of additional discretionary income made available by decreased spending on health care.

Play-or-Pay Approaches

Morrisey—Morrisey maintained that newly insured workers would pay for an employer mandate to provide and contribute toward health insurance in the form of reductions in other forms of compensation, most importantly, in wages (46). Morrisey suggested that mandated insurance operates differently from the minimum wage; that is, it acts as a lump sum tax on each worker, and that it creates an incentive for employers to reduce the number of workers subjected to the mandate. Reduction in the number of workers to whom the mandate applies might be accomplished through a reduction in the number of hours worked by each employee, thereby creating more part-time employees who would presumably be exempt from the mandate; by increasing the use of consultants; and by contracting out certain tasks. According to Morrisey, the disemployment effects of a mandate would most likely have an impact at or around the minimum wage because the employer could not offset the benefit through decreased wages (46). Morrisey did not provide specific quantitative estimates of the disemployment effects of a Play-or-Pay approach.

Monheit and Short—Monheit and Short looked at the impact on employment of an employer mandate that did not include a public backup plan (45). They suggested that the mandate would have little or no effect on employment if there were no barriers to adjusting employee wages accordingly so that total compensation remained the same. This would not be the case though given the existence of the minimum wage legislation, Therefore, if employers were required to provide health insurance benefits, some decline in employment of eligible employees would be likely. However, concluding from the labor economics literature that labor demand is not very sensitive to changes in employment costs, the authors estimated that under a mandate "2.4 percent of low-wage workers (197,000 people) might lose their jobs and that, even *under the most pessimistic assumptions* (no wage reduction for higher-paid workers and long-run adjustment of capital-labor ratios), the jobs of at *most* 2.5 percent of affected employees (or 847,000 people) would be affected' (64). Note that the plan examined by Monheit and Short did not include a public backup plan, the existence of which might alter the effects predicted by the authors.

Zedlewski---In a study conducted under the auspices of the U.S. Department of Labor, Zedlewski looked at the distributional issues related to an employer mandate without a public backup plan (98). She found that certain characteristics of employees with employment-based coverage differ from those of employees without such coverage; that is, the latter tend to work for small firms in the retail and service industries, and are generally young, part-time employees who have worked for their employer for less than 1 year. Zedlewski postulated that if employers were required by a mandate to pay the same share toward the health care benefits of all workers, regardless of the number of hours worked by an employee, adverse employment effects might be expected (e.g., employers would use more hours per worker and reduce the size of their workforce). The extent of such employment effects would depend upon the amount of the increase in labor costs.

Zedlewski and Colleagues-Another study conducted under the auspices of the U.S. Department of Labor by Zedlewski and her colleagues noted that some employers would save money under a Play-or-Pay approach (100). These savings would enable employers to increase compensation and profitability. The authors suggested that universal access to health care provided through the employment-based, public backup plan approach would have other positive economic impacts (e.g., an increase in the demand for health care services which would result in an increase in the need for health care workers). On the other hand, the authors noted that small employers might have difficulty absorbing the new costs imposed on them by a mandate. This is because their average payrolls are relatively low, and they are less able to adjust wages and other compensation to pay the new benefit costs since more of their workers are at or near the minimum wage (100).

Klerman-Klerman, in a study also conducted under the auspices of the U.S. Department of Labor, estimated the employment effects of mandated health benefits based upon the experience of the minimum wage legislation (30). Klerman noted that, in general, it is thought that employers would shift compensation from cash wages to health benefits if they were mandated to provide health benefits they do not currently provide. However, this adjustment would not be possible for employees who are at or around the minimum wage because this would violate the minimum wage requirements. Therefore, Klerman concluded that it is likely that workers whose productivity is below the value of the combined mandatory compensation would be laid off.

Klerman went on to look at the anticipated extent of such disemployment and concluded that the group of workers who would be directly affected by mandated health benefits would be small. He estimated that the requirement would affect between 2 and 3 percent of teenage employment and would be even less among older workers. However, Klerman noted that the enactment of mandatory employment-based insurance at this time would follow a previously authorized, sizable increase (30 percent) in the minimum wage. Klerman cautioned that for a number of reasons related to both the analytic model and the data used, there is considerable uncertainty in calculating the employment effects for the group of workers whose current compensation would fall below the new combined (minimum wage plus mandatory employment-based health insurance) statutory levels, that is, one-third of uninsured persons and one-third of workers insured currently by a source other than their own employer. Moreover, Klerman maintained that the employment effects of the Play-or-Pay approach would be very sensitive to the implementation details of the specific plan.

U.S. Bipartisan Commission on Comprehensive Health Care (Pepper commission)--The U.S. Bipartisan Commission on Comprehensive Health Care

(Pepper Commission) reported that reductions in employment due to expanding employment-based insurance depend upon the number of minimum and near-minimum wage employees affected, as well as the increase in cost of providing insurance (75). The Commission cited surveys of the minimum wage literature which indicate that each 10 percent increase in the minimum wage reduces employment by 0.5 to 3 percent. And that the research indicated that the effects on adults were in the lower range. Based upon these surveys, the Commission estimated that 25,000 to 50,000 low-income workers could be displaced by its recommended coverage requirements. The Commission submitted, citing Bureau of Labor Statistics data that 39,000 jobs were created in June 1990, that this effect was small enough that it could be offset by job creation that would come about through the normal workings of the economy.

Sheils (HealthAmerica: Affordable Health Care for All Americans Act-On behalf of Lewin-VHI, Sheils testified that S. 1227 (HealthAmerica: Affordable Health Care for All Americans Act), a Play-or-Pay bill introduced but not enacted during the 102d Congress, would result in 23,000 to 63,000 jobs lost, based upon Lewin-VHI's review of empirical studies of previous increases in the minimum wage (60).

Heritage Foundation/Butler (HealthAmerica: Affordable Health Care for All Americans Act)-Butler of the Heritage Foundation contended with respect to S. 1227 (HealthAmerica: Affordable Health Care for All Americans Act) that the Play-or-Pay approach would,

... regardless of the nature of the required basic plan, or the size of the tax imposed as an alternative to providing insurance, . . . set in motion an unintended cycle of adverse selection and employment discrimination. . . Mandating extra employer-provided benefits, like increasing by law any other cost of hiring employees, depresses cash wages and/or reduces employment. Furthermore, the cost of those actions is borne not by employers but by the workers themselves, and the hardest hit are the lowest wage workers--the same ones who are most likely to lack health insurance... Before enacting such a system, I suggest that Congress stop to consider the possibility that low-income families might consider a job to be more valuable than a ... health plan (5).

Joint Economic Committee/GOP Staff—According to a health care briefing paper, prepared for Representative Richard K. Armey by the Joint Economic Committee/GOP (i.e., Republican) Staff of the U.S. Congress, over 710,000 workers would lose their jobs in the first year of implementation of a Play-or-Pay approach (87). This estimate assumed a 7 percent payroll tax and applied supply and demand elasticities regarding low-wage labor. The paper asserted that 43 percent of these job losses (308,265 jobs) would occur in small businesses that employ fewer than 20 workers,

Congressional Budget Office--In a study of an illustrative employer mandate coupled with Medicaid expansion, CBO found that the mandate would raise labor costs that could result in layoffs or reduced hours for affected firms and workers (76). This would affect small employers, in particular, which employ more than one-half of all uninsured workers. CBO suggested that exemptions for small firms would protect them but would also reduce the effectiveness of the employment-based approach for expanding coverage. While subsidies to small firms would reduce this problem, they would increase the Federal deficit.

Approaches Employing Individual Vouchers or Tax Credits

Bush Administration/U.S. Executive Office of the President (Bush Administration--The Bush Administration reform proposal maintained that the subsidy of health insurance for low-income workers through the tax credit would encourage reentry into the work force, particularly among Medicaid recipients who may lose coverage if they resume employment under current policy (94). The Bush Administration further maintained that broader health insurance should lead to productivity gains resulting from improved health status of uninsured unemployed persons and the working poor.

Specific Analyses of Impacts on Households²⁰

Single Payer Approaches

Silow-Carroll and Colleagues--Silow-Carroll and her colleagues estimated that in a Canadian-style system, consumers would experience a net loss in the first year of the plan under a' 'Pessimistic Scenario' '21 but would ultimately experience again over 'business as usual' under both the "Optimistic"u and ' 'Pessimistic" scenarios (67). Specifically, assuming a reduction in out-of-pocket health care expenses as indicated by the Canadian experience, and an increase in payroll and income taxes, the initial impact (1994) on households ranged from net savings of \$10.0 billion, under the study's "Optimistic Scenario," to a net loss of almost \$20.0 billion, under the study's "Pessimistic Scenario." Depending upon the model followed with respect to distribution of gains to employees by employers (50 or 80 percent, respectively), cumulative estimates from 1994 through 2003 ranged, in current dollars, from savings of \$3.0 to \$3.6 trillion (\$1.9 to \$2.3 trillion in inflation-adjusted, 1994 dollars) under the 'Pessimistic Scenario,' to savings of \$3.7 to \$4.4 trillion (\$2,5 to \$2.9 trillion in inflation-adjusted, 1994 dollars) under the "Optimistic Scenario" (67). Individuals would be effected differently depending upon their specific circumstances (e.g., the most favorable financial impact would accrue to an individual who currently purchases family coverage independently, not through an employer).

Congressional Budget Off ice-In its report examining a system with government as sole payer using Medicare's payment rate, the Congressional Budget Office estimated that in the aggregate, the population would have more funds to spend-\$102 per capita in 1989-for purposes other than health care (77). However, CBO cautioned that the actual effects on individuals would vary considerably (e.g., if taxes are used to finance universal coverage then higher-income people would be more likely to pay additional taxes under this system).

Play-or-Pay Approaches

Zedlewski and Colleagues--Zedlewski and her colleagues, reviewing potential effects of a Play-or-Pay approach, simulated plans using two different premium rates, current (1989) and lower, and two different payroll tax rates, 7 and 9 percent (99). They found no significant difference among the four alternatives in individuals' *insurance* costs (net of government subsidies to low-income persons), which ranged from 16.6 to 17.2 percent of total insurance costs. Note that these costs are not all new costs nor are they individuals' *total* health care costs. According to these simulations, individuals' insurance costs would be relatively unchanged under this approach regardless of the option selected compared with current policy. However, the authors pointed out that:

Individuals will pay indirectly for all of the insurance costs shown. Employers will shift costs either to workers (in the form of lower compensa-

22 •••Optimistic Scenario" assumed ••an immediate 10 percent reduction in spending, offset in part by an expansion in coverage, netting an 8 percent decline in total spending for 1994. The following two years would experience additional reductions of 5 percent **each**, representing a phasing-in of savings from conversion to a single-payer system, consolidation of duplicated services. ., and other efficiencies. This scenario also assumes that after the **first** three years, the growth in health care spending **would** be reduced. , , to the same rate as the economy, or about 7 percent per year" (67).

²⁰ Analysts tend t. use the words ' 'household' and ''family'' interchangeably even though they differ in their composition and, therefore, the total numbers of households and families in the United States differ. As defined by the U.S. Department of Commerce, Economics and statistics Administration, Bureau of the Census, ''[h]ouseholds consist of all persons who occupy a housing unit. . . A household includes the related family members and all the unrelated persons, if any, such as lodgers, foster children, wards, or employees who share the housing unit' whereas *families*, which are a subset of households, ''are groups of two persons or more (one of whom is the householder) related by birth, marriage, or adoption and residing together, all such persons . . are considered as members of one family' (emphasis added) (91). In 1991, there were 95,669,000 households ut 67,173,000 families in the United States (91). Thus, quantitative estimates of the impacts of health care reform on 'households' and ''families'' are not comparable. And when the same analysis uses both terms without defii either one, the basis for any estimates is all the more unclear.

^{21 &}quot;Pessimistic Scenario " assumed that "after expanding coverage to the uninsured, we achieve only a 2 percent reduction in spending compared with business as usual in year one. Further reductions are experienced in the second and third years," and the rate of growth in future health care spending is slightly faster than the rate of growth in GDP (67).

tion) or to consumers (in the form of higher prices) (99).

Given that individuals ultimately pay for the health care they receive, a key issue for households is the way in which the burden of payment placed upon businesses and/or government is financed because it will affect the specific impact on individual households. According to the authors:

... systems with higher payroll tax rates would rely more on a proportional tax scheme to finance health care, while lower payroll tax rates and higher government costs would be financed through the more progressive federal and state income tax system (99).

U.S. Bipartisan Commission on Comprehensive Health Care/Lewin-VHI (Pepper Commission)--Lewin-VHI, for the U.S. Bipartisan Commission on Comprehensive Health Care (Pepper Commission), estimated that the Commission's employment-based reform plan, if fully implemented in 1990, would save individuals and families \$19.3 billion (1990 dollars) (75). This figure equals the sum of reductions in employer and nongroup plan premiums and household out-of-pocket costs flowing from insurance reforms, improved reimbursement for public plan enrollees relative to Medicaid, and expanded employersponsored and public coverage, plus the increase in premium payments by nonworkers for their coverage under the public plan.

American Academy of Family Physicians/Lewin-VHI (AAFP)--Lewin-VHI examined the American Academy of Family Physicians' employment-based plan which incorporated global spending budgets. However, the analysis assumed the continuation of current reimbursement rates per unit of service in 1993, the first year of the plan, except with respect to services now provided under Medicaid for which the rates would be increased to Medicare reimbursement levels. Lewin-VHI estimated an increase in aggregate household spending for health care in 1993 of \$2.3 billion (37). This figure reflects increases and decreases in various types of premium payments, new tax payments, and decreased direct payments for health care. The net impact in 1993 of the AAFP plan on families with differing income levels would be a decrease in average family health spending for families with incomes less than \$30,000 (savings of \$2.00 to \$385.00), and an increase for families with incomes above that amount (spending of \$130.00 to \$672.00). Physician income would increase (\$14.3 billion) in 1993 due to increased payment rates for services now rendered under Medicaid (36,37).

Approaches Employing Individual Vouchers or Tax Credits

Bush Administration/U.S. Executive Office of the President (Bush Administration)--kcording to the Bush Administration projections, then-President Bush's reform proposal would affect households by making coverage more affordable for uninsured persons. Through the plan's initiatives-tax credits, deductions or vouchers, and market and other reforms-the Bush Administration estimated that it would, after five years, insure 29.2 people previously uninsured. Of these, 15,3 million would have household incomes below 100 percent of poverty (defined by the plan designers as "[t]he income level at which individuals, couples, and families must begin paying income taxes" (94), and 5.6 million would be between 100 and 150 percent of poverty. Overall, the Bush Administration projected that 95 million individuals would benefit from the health insurance tax credit and deduction once it was fully phased-in. Then-President Bush's proposal provided examples of its potential impact on families including that it would make a basic health insurance plan accessible to families below the poverty level, that it would remove the incentive for parents receiving Aid to Families with Dependent Children (AFDC) to not return to work, and that for higher income families without employment-based coverage, affordable coverage would be more readily available through a tax deduction and access to group purchasing arrangements that offer broader risk pooling (94). No quantitative estimates of the impact on households in the aggregate or by income level were provided.23

23 The Bush Administration proposal provided some illustrative examples of the benefits specific families would be eligible for (94).

Silow-Carroll (Bush Administration)--According to Silow-Carroll, the actual impact of the Bush Administration plan on consumers' health care spending would depend, in part, upon whether the tax credit would enable individuals or families to purchase adequate coverage.²⁴

Silow-Carroll's analysis of the Bush Administration proposal found that consumers would save initially under the study's "Optimistic Scenario,"25 but not under its "Pessimistic Scenario," as compared with "business as usual" (65). That is, in 1994, consumers would realize savings of \$7.0 billion. And they would realize savings in health care spending over the 10-year period from 1994 through 2003 under both scenarios with net cumulative savings ranging from \$440.0 to \$700.0 billion in current dollars (about \$300.0 to \$500.0 billion in 1994 dollars). While achieving some savings over time, the author maintained that certain subgroups, specifically Medicaid enrollees and possible Medicare enrollees, could suffer in terms of access and quality of care. This would be the likely result because, in order for the government not to raise taxes as promised in the proposal, it would attempt to reduce government spending through "efficiencies" in existing public programs (65).

Bipartisan Panel on Presidential Candidates' Health Plans/Lewin-VHI (Bush Administration)--In their analysis of then-President Bush's proposal for the Bipartisan Panel on Presidential Candidates' Health Plans convened by Families USA, Lewin-VHI projected that without any reform Legislation, American families' average health spending would be \$10,601 (1992 dollars) by the year 2000, whereas such spending would be reduced to \$10,398 in the year 2000 under the Bush Administration proposal (3).

Heritage Foundation/Lewin-VHI (Heritage Foundation)--The Heritage Foundation plan would require that individuals purchase insurance unless they are covered by Medicare or Medicaid, and would provide limited tax credits to heads of households (taxpayers) to assist in this purchase. Under the plan, individuals who have employment-based insurance currently would be "held harmless" initially; that is, in the first year of the plan, if an employee switches plans or an employer cancels its plan, the employer would add the cash value of the employer's share of the premium to the employee's income. According to Lewin-VHI's analysis of the plan, in 1991, assuming that all employers discontinue their health benefit plans, households' total health spending would increase by \$129.9 billion. Such spending would be offset by increased wages of \$148.7 billion resulting in net savings to households of \$18.8 billion in 1991 (35).

Lewin-VHI also looked at the average net impact of the alternative tax credit options provided in the plan on families by family income. Under all alternative tax credit options, 1991 aftertax health spending would decrease for most families, but it would increase in some instances for very low- or high-income brackets (i.e., family income less than \$15,000 or greater than \$75,000).²⁶ The average net impact on all households under any alternative tax credit for which estimates were provided was \$168.00 in aftertax savings in 1991. In the same year, the maximum estimated savings to families of \$534.00 would accrue to households with from \$30,000 to \$39,000 in family income; the maximum estimated aftertax increased spending of \$574.00 would be by households with family income of \$100,000 or more.

²⁴ Silow-Carroll states with respect to the Bush Administration proposal that "[t]here is some doubt, however, that the amount of the tax credits and deductions specified in the proposal would be sufficient to purchase adequate coverage. With average group policies expecting to cost \$2,445 for individuals and \$5,327 for families in 1993 (HIAA, 1992), the proposed tax credits of \$1,250 and \$3,750, respectively, may not be enough to purchase even a basic package" (65).

²⁵ Silow-Carroll made estimates for savings under the Bush Administration proposal with respect to two scenarios. The "Optimistic Scenario" assumed that in the first 5 years of the program, "the plan's cost containment features are relatively successful in both reducing current expenditures... and slowing down the rate of spending growth." The "Pessimistic Scenario" assumed "much of the savings in the Bush plan are one-time in nature, and that after these efficiencies are achieved, the cost curve returns to its present course" (65).

²⁶ In 1991, 16.9 percent of families (or 11,352,237 families) had family incomes below \$15,000 and 13.1 percent Of families (8,799,663 families) had family incomes above \$75,000 (91).

Managed Competition Approaches

Bipartisan Panel on Presidential Candidates' Health Plans/Lewin-VHI (Clinton Campaign)--Thencandidate (now President) Clinton's reform proposals, as set forth during the 1992 presidential campaign, were analyzed by Lewin-VHI on behalf of the Bipartisan Panel on Presidential Candidates' Health Plans convened by Families USA (3). While they did not have a detailed plan to work with, Lewin-VHl assumed annual budget targets under which the rate of growth in health care costs would not exceed the rate of growth in average family income, and delivery of health care services by managed care networks, Based upon these assumptions, Lewin-VHI estimated that the reforms would reduce average health care spending per family, which is projected to be \$10,601 (1992 dollars) in the year 2000 without any reform, to \$9,219 (1992 dollars) (3).

Long and Rodgers--k their analysis of a Managed Competition approach assuming universal health insurance, with coverage sponsored through three systems, that is, employers or unions, public insurance (Medicare or Medicaid), and health insurance purchasing cooperatives, Long and Rodgers estimated that households' *private health insurance costs* would decrease by \$6.0 billion in 1993 as compared with current law (40). This estimate assumed savings from Managed Competition of 8 percent based upon the experience of group-model HMOS or, in the alternative, upon the reduction in administrative costs for employer plans. Estimates of changes in total household health care spending were not made.

Specific Analyses of Impacts on Administrative Costs

Single Payer Approaches

Wool handler and Himmelstein—Woolhandler and Himmelstein compared the U.S. and Canadian health care systems in terms of their administrative efficiency by studying four components of administrative costs (insurance overhead, hospital administration, nursing home administration, and physicians' billing and overhead expenses) in the United States and Canada for 1987 (96). Based upon their calculations of the per-capita costs of health care administration in the United States and Canada (using two methods to arrive at physicians' billing and overhead costs), Woolhandler and Himmelstein found that for 1987, the United States would have saved \$69.0 to \$83,2 billion or 13.8 to 16.6 percent of total spending on health care if U.S. health care administration had been as efficient as Canada's. They identified the United States' "fragmented' or multipayer, micromanaged system as the primary culprit for this differential, as well as for the increase in the costs of the "health care bureaucracy" in the United States from 1983 to 1987, claiming that it is inherently less efficient than the Single Payer system in Canada. Other factors cited as contributing to increased administrative costs are a lack of comprehensiveness in coverage and the extensive involvement of private insurers. Note that Woolhandler and Himmelstein did not look at the issue of added costs due to increased utilization, a likely and possibly significant outgrowth, in terms of its impact on systemwide savings, of the adoption of a system designed to cover all Americans at no direct cost to them.

Physicians for a National Health Program/ Grumbach and Colleagues (PNHP)--The Physicians for a National Health Program (PNHP) support a publicly administered, tax-financed national health plan providing universal coverage with a single public payer (24) (See also "Specific Analyses of Impacts on National Health Care Spending and Savings," this appendix).

According to an analysis of the PNHP proposal by Grumbach and his colleagues, large administrative costs-savings would be possible during the proposal's implementation considering the administrative efficiencies possible under a Single Payer system. For example, "[providers would be relieved of much of the expense of screening for eligibility, preparing detailed bills for multiple payers, responding to cumbersome utilization review procedures, and marketing their services. ' In order to estimate administrative costs-savings under the plan, the analysis calculated hospital and physician administrative costs as a percentage of revenues or expenditures, respectively, in the United States and Canada in 1987. The analysis assumed hospital administrative savings of 11.2 percent for the United States based upon the difference in the percentage of revenues devoted to hospital administrative functions in California-20.2 percent-and

the percentage devoted to the same in Canadian hospitals-9.0 percent-in 1987. The analysis assumed physician administrative savings of 6.25 percent, based upon the difference between billing costs for physician time and practice expenditures of 8.25 percent of total physician expenditures in the United States, and Canadian physician costs for the same, or 2.0 percent of total physician expenditures. Thus, the analysis estimated potential provider administrative costs-savings of \$40.0 billion under the plan versus under current policies. In addition, the analysis estimated that the administrative costs of the public insurance plan would be \$8.0 billion or \$27.0 billion less than under current policies. Combined, a total of \$67.0 billion in administrative costs-savings could accrue under the PNHP "if the system operated with the administrative efficiency of the Canadian system' (emphasis added) (24).

However, when calculating the national health care budget for 1991, the first year of the plan, the authors did not assume an outright reduction in health care costs of \$55.0 billion; that is, \$67.0 billion in administrative costs-savings offset by \$12.0 billion, assumed to be the cost of increased utilization by previously uninsured persons. Instead, the analysis assumed that reductions in administrative costs would be achieved by: 1) realizing the full amount of the change in insurance administration and overhead due to moving from multiple payers to a single public payer, 2) establishing hospital operating budgets at the 1991 Health Care Financing Administration's projected baseline level; and 3) reducing physician fees by 6.25 percent but setting the target for physician expenditures at 6.0 percent above the baseline for such expenditures (24). Presumably these levels of provider expenditures would prompt providers to make administrative changes in order to shift funds to clinical services to accommodate the increased utilization by previously uninsured persons within their budgeted or targeted expenditures.

U.S. General Accounting Office--A 1992 report of the U.S. General Accounting Office estimated costs and savings for the United States under a Canadianstyle system, using Ontario's health insurance system as the basis for comparison (83). Focusing upon three major areas-insurance, physicians and hospitals-with respect to administrative costs, GAO estimated savings of \$67.0 billion (1991 dollars) due to a substantial reduction in administrative and billing costs (83), It estimated that further savings (no dollar figure provided) would accrue to U.S. businesses and households, whose administrative duties would also be reduced. Furthermore, GAO noted but did not include in its calculations the value of hospital nurses' time devoted to administrative tasks.

GAO provided estimates of offsetting additional costs resulting from increased utilization, finding that the new costs of a Canadian-style system would be approximately equal to administrative savings. GAO maintained that new costs arise from increased utilization, that is, "induced demand" anticipated in a "free" care system. It calculated the costs of insuring the currently uninsured and eliminating cost-sharing provisions across the board. GAO indicated that its estimates of increased utilization due to the elimination of cost-sharing are the 'largest and most uncertain components of our national cost assessment" (83). GAO further noted that if the United States were to implement a Canadian-style system, it might want to retain certain features of its current system, that is, with respect to administrative costs, collection of detailed statistical and financial data from hospitals. Canada's information systems are less developed than those in the United States since, under the global budgeting approach, hospitals have fewer incentives to collect detailed patient-per-diem or per-case-cost information. Detailed information systems can enhance cost management but this was not factored into GAO's estimate (83).

Congressional Budget Off ice-The Congressional Budget Office looked at administrative costs, defined as overhead expenses of providers and insurers including public payers, in the context of achieving universal coverage using Medicare's payment rates in a Single Payer system (77). Based upon its calculations, CBO prepared *illustrative* estimates of changes in these costs. The study found that in a Single Payer system, insurers' administrative costs for those currently insured would decrease after the system was fully implemented. Various costs (e.g., eligibility determinations, marketing, risk assessment, claims payment, coordination of benefits, profit margin) would be significantly reduced or eliminated. The study assumed that insurers' overhead costs would decrease from 6.7 to 2.3 percent of *personal* health expenditures in a Single Payer system. Similarly, providers' overhead expenses would decrease as a result of reduced collection costs. Some or all of these savings would likely be captured by government through reduced provider payment rates. The study did not calculate the transition costs, which it acknowledges could be substantial, which would follow from a change in the current payment system. According to the CBO illustrative estimates, a Single Payer system would produce a net reduction in overhead costs of \$18.2 to \$58.3 billion in 1989.

Meyer and Colleagues--Meyer and his colleagues, reviewing the implementation of a Canadian-style system in the United States, estimated that a fully phased-in system, with health care spending at no more than 8.7 percent of U.S. GDP, would yield \$241.0 billion in savings the first year (1991) of which nearly one-half (\$1 13.0 billion) would be derived from reduced administrative costs, especially private insurance overhead, hospital administration, and physicians' billing and overhead expenses (43). The authors also estimated administrative costs-savings for a scenario in which they assumed the implementation of a Canadian-style system which "focuses its initial reform efforts on reducing administrative costs only. Under this scenario, administrative costs would be reduced by about \$90.0 billion (1991) (43).

Lewin-VHI--According to Lewin-VHI, 'prior studies have estimated the potential administrative savings under the Canadian model based upon the cost of administration in Canada. We find this approach unsatisfactory for three reasons' relating to the composition of administrative costs reported for Canada, U.S.-specific health care system factors (e.g., wage levels, investment in health care technologies), and the impact on claims adjudication of due process rights guaranteed by the U.S. Constitution (34).

Lewin-VHI estimated the administrative costssavings of implementation of the Canadian system in the United States based upon "a detailed evaluation of how individual cost centers (e.g., billing, admitting, dietary, etc.) will be affected under the single-payer model" (34). Using this method, Lewin-VHI estimated administrative costs-savings of \$46.8 billion for a proposal fully implemented in 1991.

Play-or-Pay Approaches

American Academy of Family Physicians/Lewin-VHI (AAFP)--Lewin-VHI analyzed the American Academy of Family Physicians' reform plan in terms of its impact on administrative costs (36). It found that the proposal would reduce health care administrative costs by eliminating certain insurer underwriting practices (e.g., medical underwriting, preexisting condition limitations, large premium variations across insurers) and by promoting use of electronic claims processing systems. The study estimated savings, if the plan was implemented in 1993, of \$4.7 billion. These savings would be partially offset by administrative costs related to insuring the 35 million currently uninsured persons, estimated to be \$1.9 billion (36). Estimates of net cumulative administrative savings for the period from 1993 through the year 2000 were \$40.1 billion. Note that the net administrative savings projected to follow from implementation of the AAFP proposal result, primarily, from insurance marketplace reforms included in the proposal rather than from electronic claims processing requirements.

Zedlewski and Colleagues--In a Study of an employer mandate to contribute toward private or public insurance for employees, conducted pursuant to a U.S. Department of Labor contract, Zedlewski and her colleagues noted that the government might incur administrative costs to administer eligibility requirements for government subsidies. These potential administrative costs were not reflected in the study's spending/cost figures regarding the implementation of a Play-or-Pay approach (100).

Approaches Employing Individual Vouchers or Tax Credits

Bush Administration/Health Care Financing Administrate ion (Bush Administration)--Former President Bush's reform proposal included insurance market reforms as well as tax credits, deductions or vouchers, intended to expand the availability of private insurance (94). The Bush Administration estimated that its proposal would cut administrative costs by as much as 25 percent under its five major reform initiatives, four of which streamlined paperwork. The fifth dealt with insurance market reforms intended to reduce overhead costs by prohibiting insurers from refusing coverage based on health status and by discouraging frequent changes of insurers by employers. Also included in this latter group of reforms was the creation of Health Insurance Networks for small businesses, which were intended to help reduce insurer administrative and marketing costs by promoting group purchasing of health insurance benefits.

Specific costs-savings estimates for the Medical and Health Insurance Information Reform Act of 1992, which embodied then-President Bush's major administrative reforms related to automating health care information but which was not enacted, were prepared by the Health Care Financing Administration (HCFA) (93). The estimates include an offset for fixed investment costs necessary to implement the reforms. Assuming that administrative costs would grow at the same rate as total health care expenditures, HCFA estimated savings from changes in administrative costs alone of \$870.0 million (\$0.87 billion) in 1993 with cumulative savings through the year 2000 of \$74.4 billion.

Bipartisan Panel on Presidential Candidates' Health Plans/Lewin-VHI (Bush Administration)-IEwin-VHI, for the Bipartisan Panel on Presidential Candidates' Health Plans convened by Families USA, examined then-President Bush's reform proposal (3). Lewin-VHI estimated administrative costs-savings of \$300.0 million (\$0.3 billion) in 1993 from electronic claims processing reforms under former President Bush's plan, with savings of \$3.0 billion per year by the year 2000. Lewin-VHI also estimated administrative costs-savings due to the implementation of the plan's insurance market reforms; they estimated that these reforms would yield savings of \$4.0 billion in 1993, increasing to \$7.5 billion in the year 2000. In general, Lewin-VHI estimated that the reforms included in then-President Bush's plan would reduce insurer administrative expense, currently said to be as much as 40 percent of insurance claims for very small firms (1 to 4 employees), to 18.9 percent. Reductions of increasingly smaller magnitude would accrue to all other firms up to 499 employees. While no similar savings would accrue to larger firms, neither would they incur any increased expense (3).

Heritage Foundation/Lewin-VHI (Heritage Foundation)--The Heritage Foundation's reform proposal includes tax credits, health insurance market reforms, and requires individuals to purchase insurance with employers, in particular those who now sponsor coverage, arranging payroll deductions for benefits payments. Estimates of the administrative costssavings under the Heritage plan were prepared by Lewin-VHI (35). They assumed that administrative costs would be the same as under current policy for employees whose employers now arrange payroll deductions for health benefits payments. For others purchasing individual insurance, they assumed that administrative costs would be 21.9 percent of claims (down from as much as 40 percent, based upon estimates for groups with 1 to 4 members). Thus, Lewin-VHI estimated increased insurer administrative costs of \$2.1 billion in 1991 under this reform proposal (6,35).

Managed Competition Approaches

Conservative Democratic Forum (H.R. 5936)-The Conservative Democratic Forum's bill, H.R. 5936 (the "Managed Competition Act of 1992"), proposed in the 102d Congress, was a Managed Competition approach with neither a global budget nor an employee mandate but with, effectively, a limit on the employer deduction for employee health insurance benefits. The bill's sponsors maintained that administrative costssavings could be realized by reducing the paperwork currently necessary to satisfy the requirements of the estimated 1,500 health insurance companies in the United States (e.g., standard claims forms, electronic submission of data) (10). Specific estimates of this type of administrative savings under the bill were not available.

Sheils and Colleagues--Sheils and his colleagues analyzed a Managed Competition approach with no global budget but with an employer mandate, and a limit on the exclusion from employees' income of employer contributions to employees' health benefits to the cost of the lowest-cost plan in the area (63). The analysis found that under Managed Competition, insurer, hospital, and physician administrative costs would be reduced "by extending large-group economies of scale to employee groups of all sizes and by reducing the number of insurers that providers must

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work with" (63). The analysis assumed insurer administrative costs under Managed Competition would equal about 3.6 percent of covered claims, based upon administrative cost data for insured groups of 10,000 or more members. Thus, the analysis estimated "potential net savings in insurer administrative costs of

\$11.2 billion" in 1993, under both their high- and low-cost-sharing scenarios. The authors noted that certain factors not factored into their analysis (e.g., State insurance premium taxes, utilization review and case management programs) could increase insurers' administrative costs (63).