The Affordable Health Care for All Oregon: Impact and Implementation

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Executive Summary

This report analyzes the economic consequences of implementing a comprehensive, universal, single payer health insurance program for all Oregonians. The Affordable Health Care for All Oregon Plan (the "Plan") would replace the current multi-payer system consisting of employer-based insurance, individually-acquired insurance and federally sponsored programs (e.g., Medicare and Medicaid).

Because health care spending in Oregon has risen faster than income, **the share of state income spent on health care and the administration of the health care system has risen from 12 percent in 1991 to 16 percent in 2014. It is projected to rise to over 18 percent by 2024. The average cost of an employer-provided family plan in Oregon is over \$15,500, even with an average family deductible that has risen to over \$2500.**

By reducing burdensome billing expenses, monopolistic pricing, and fraud, **the Plan would save over \$12.8 billion in 2019, 25 percent of projected health care consumption spending** in that year. **Savings will increase over time** because the plan will slow the rate of growth in health care costs. Some of these **savings would be used to finance system improvements**, including the expansion of coverage to the uninsured and the removal of barriers to access, copayments and deductibles, at a cost of over \$3.0 billion. By reducing the number of Oregonians unable **to get health care, these improvements may save thousands of lives each year**. After taking **account of system improvements, the Plan would save over \$9 billion net, over \$2000 per person.**

The Plan could be financed with state premiums mimicking the existing payment system, with premiums as a share of payroll and of nonwage income. **Premium rates on private-sector payroll of between 7-10 percent, rising with establishment size, would fund the system in a way that reduces the burden on business and on the poor and middle class.** By lowering the burden of health insurance on business, the plan would make businesses in Oregon more competitive while drawing investment to Oregon even while freeing entrepreneurial energies. **The plan would be expected to create 50,000 new jobs**, more than replacing jobs lost in the insurance sector and in billing and insurance activities in provider offices.

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Introduction

This policy report explores the economic implications of establishing the Affordable Health Care for All Oregon Plan (the "Plan") in Oregon.¹ This proposal would replace Oregon's current multi-payer system in which individuals, private businesses and government entities pay public and private insurers for health care coverage. The Plan would finance virtually all medically necessary care including hospitalization, doctor visits, mental health, prescribed occupational and physical therapy, prescription drugs, medical devices, and medically-necessary nursing home and home health care.² It would offer this comprehensive coverage to all Oregon residents.

The Oregon Plan will finance medical care with substantial savings compared with the existing multi-payer system of public and private insurers. Some of these savings would be used to extend coverage to the 3% of Oregon residents still without insurance under the Affordable Care Act; other savings will be reinvested in the health-care system to improve coverage for the growing number with inadequate coverage. In addition to improving Oregonians health by reducing barriers to access to health care, single payer would reduce economic inequality by replacing the current regressive system of health insurance finance with contributions proportional to income and ability to pay. By reducing administrative and other waste, single payer would increase real disposable income for most residents while increasing employment by reducing the burden of health care on business.

Health Care spending in Oregon

Personal health care spending has been rising at an unsustainable pace in Oregon. Between 1991 and 2001, total health consumption spending rose at over 7 percent a year with per-capita spending rising at over 6 percent a year (see Figure 1).³ The rate of increase in total health consumption slowed to 6 percent a year after 2001, and slowed further with the economic crisis that began in 2007. Even at a slower rate of increase, health care spending absorbs a growing share of the state's income. As a share of state product, health care costs have risen sharply since 1991, rising from 12 percent of state income in 1991 to 16 percent in 2014; with current policies, it will rise to over 18 percent in the next decade (see Figure 2).

Health care cost inflation is squeezing disposable income for Oregonians. Had health care spending per person risen only as fast as income, then spending in 2014 would be 23% less, saving the average person \$2000 in 2014, or \$8,000 less for a family of four.

¹ This is HB 2922 in the Oregon Legislature; see http://hcao.org/health-care-legislation/

² Long-term care will be added as finances allow. Covered benefits are listed in Appendix 7.

³ Expenditures are estimated from the Centers for Medicare & Medicaid Services, Office of the Actuary, data on personal health expenditures by state linked to national expenditure projections; see the appendix for details. See Andrea M. Sisko et al., "National Health Spending Projections: The Estimated Impact Of Reform Through 2019," *Health Affairs* 29, no. 10 (October 1, 2010): 1933–41, doi:10.1377/hlthaff.2010.0788.



Figure 1. Health care expenditures and income, Oregon, 1991-2025, actual and projected.

Note: This gives an index of health consumption expenditures and Gross State Product in Oregon relative to per capita spending in 1991. GSP is from United States Bureau of Economic Analysis; health spending is from United States, Center for Medicare and Medicaid Statistics, National Health Expenditures data, <u>http://www.cms.gov/NationalHealthExpendData/Downloads/restables.pdf</u>



Figure 2. Health care expenditures, Oregon, 1991-2025 as share of gross state product. *Note:* This gives health expenditures in Oregon divided by total income (GSP) in the state. Data for years after 2009 is a projection under current law. For details, see the Appendix.

Although rising health expenditures can reflect an income effect when an affluent and aging population chooses to buy more health care of a higher quality,⁴ in Oregon, spending has

⁴ David M Cutler, *Your Money or Your Life: Strong Medicine for America's Health Care System* (Oxford: Oxford University Press, 2004); Gerald Friedman, "Universal Health Care: Can We Afford Anything Less?," *Dollars and Sense*, June 29, 2011, http://dollarsandsense.org/archives/2011/0711friedman.html; Allan Garber and Jonathan

increased without improving health care for many residents. Employees, for example, have had to pay increasing annual premiums because many employers have dropped or restricted health insurance benefits due to rising costs. In 2012, average premiums for an employer-provided family plan in Oregon were nearly \$15,500. This figure would have been even higher except that individuals are also are paying higher deductibles; the average family deductible that year was over \$2500. Rising copayments and deductibles together reduce the meaning of insurance by cost-shifting onto the disabled, the sick, and their families.

An alternative for Oregon

The Affordable Health Care for All Oregon Plan (the "Plan") would replace most private and public health care expenditures with a single system that would simplify billing for providers and eliminate most billing and insurance related expenses. It would replace a fragmented payment system with a more stable one with a single risk pool.

The current system includes dozens of separate insurance providers, including large government programs, Medicare and Medicaid, while almost half of residents receive health insurance through employment. Looking forward to 2019, it is projected that public programs will account for over 40 percent of all health-care expenditures in the state, about the same share as is covered by private insurance (including employment-based insurance for public-sector workers) with the remainder from out-of-pocket spending and charitable and other philanthropic activities.

Source of spending	Projected spending 2019 ((\$millions)
Employer administration	\$	330
Private employer-sponsored health insurance	\$	10,321
Government employees	\$	3,460
Individual health insurance	\$	3,949
Medicare	\$	9,327
Medicaid	\$	7,531
SCHIP	\$	291
VA	\$	1,318
Retirees and senior wrap-around	\$	2,367
Workers' Comp	\$	346
Public health programs	\$	1,362
Other	\$	2.280
out-of-pocket	\$	5.169

Table 1. Sources of spending, Oregon health care 2019.

Note: Total expenditures in 2019 are estimated from data from the United States, Centers for Medicare and Medicaid Services, Health Expenditures by State of Residence". Amounts are shown in \$millions. Individual health insurance spending includes spending through the ACA exchanges.

Skinner, "Is American Health Care Uniquely Inefficient?," *Journal of Economic Perspectives* 22, no. 4 (Fall 2008): 27–50.

Public sources other than spending for public employee health insurance account for about 40 percent of total expenditures, including Federal programs like the Veteran's Administration, Medicare for the elderly and some disabled, Medicaid for the poor (including some elderly and disabled), and Children's Health Insurance (SCHIP).⁵ The state of Oregon contributes to SCHIP and Medicaid, and, with local governments, provides public health services.⁶

After taking account of private insurance, government programs, and charity and other, "out-of-pocket" expenditures have been calculated as a residual.⁷ Out-of-pocket spending, including copayments, insurance deductibles, spending by the uninsured, and charges not covered by insurance or disallowed for other reasons account for 14% of total expenditures.

Including out-of-pocket spending, 60% of Oregon health-care spending will come from the employment and private sector activities, including employers, individuals, businesses, as well as government employers. Private spending accounts for a lower proportion of expenditures than of residents because they tend to enroll younger and healthier people (see Table 1).⁸ The share of health care services provided by this spending, furthermore, is less than the share of spending, only 57%. The shortfall between spending and services reflects the higher administrative burden on private sector spending. Private spending is a relatively inefficient source of health care because more of it goes to administering the health care system, including marketing, billing, and the higher salaries paid private insurance executives.⁹

Anticipated savings from single payer in Oregon, 2019

The Affordable Health Care for All Oregon Plan (the "Plan") would have a single public entity provide services currently financed by private and public health insurance, as well as paying for medically necessary services currently purchased out-of-pocket.¹⁰ It would fund most health care

⁵ The usual match is 63 percent. Under the Affordable Care Act (ACA), the Federal government will reimburse states for 90-100 percent of the cost of Medicaid expansion from 2014-24.

⁶ Expenditures for Medicaid among others appear on the state budget including Federal reimbursements.

⁷ The "other" category includes some Federal programs, such as the Indian Health Service, as well as philanthropic and charitable spending. Note that this procedure puts any error in the estimate of total health expenditure into the "out-of-pocket" category.

⁸ Insurance expenditures have been calculated from Medical Expenditure Panel Survey at the Department of Health and Human Services, <u>http://meps.ahrq.gov/mepsweb/data_stats/state_tables.jsp?regionid=30&year=2012</u> and <u>http://meps.ahrq.gov/mepsweb/data_stats/summ_tables/insr/national/series_3/2012/ic12_iiia_g.pdf</u> for the private and public sectors respectively.

⁹ The CEOs of nine large health insurers averaged nearly \$14 million in compensation, over double the average for CEOs of Russell 3000 companies, and nearly 100 times that of the head of the United States Centers for Medicare and Medicaid Services; see "CEO Pay by Industry," *AFL-CIO*, accessed December 5, 2014,

http://www.aflcio.org/Corporate-Watch/Paywatch-2014/CEO-Pay-by-Industry; "Healthcare-NOW! - Health Insurance CEO Pay Skyrockets in 2013," accessed May 5, 2014, http://www.healthcare-now.org/health-insuranceceo-pay-skyrockets-in-2013.

¹⁰ Under this proposal, because the Oregon single payer would not cover long-term care, and it is assumed that spending there would not change and there will be no administrative economies in its provision. When coverage is extended, there will be an increase in both savings and in the utilization of health-care services.

in the state *except* for some out-of-pocket expenditures that are assumed not to be medically necessary (e.g. some vitamins and some alternative therapies) or are for services that will not be covered initially, notably long-term care.¹¹ The proposed plan would cover about 96 percent of total spending, a significantly higher rate than virtually all current insurance plans including the Federal Employee Benefit Program (with an actuarial rate of 87 percent) or so-called platinum exchange plans (with a rate of 90%).¹²

Through economies in administration and by reducing inflated prices within health care, a single payer plan would produce substantial savings over the current health care system. With over \$12 billion in savings, these economies would allow the plan to save over 25 percent of current expenditures while providing the same health services as the current system. Some of these savings would be used to correct problems within the health care system by extending coverage to the uninsured, raising some provider reimbursements, and removing barriers to access. After these adjustments, health care spending in Oregon would be nearly 20 percent lower. The Plan will provide better health care to all residents while spending nearly \$10 billion less in 2019, or over \$2,200 per resident.

¹¹ This includes optional cosmetic surgery, procedures such as dental implants and contact lenses, special services in hospitals, such as private rooms and cable television. Initially, it also includes long-term care because this benefit will phased in over time. Edith Rasell, "An Equitable Way to Pay for Universal Coverage," *International Journal of Health Services* 29, no. 1 (1999): 179–88; Physicians for a National Health Program, "Liberal Benefits, Conservative Spending," *Journal of the American Medical Association* 265 (1991), http://www.pnhp.org/publications/liberalbenefits-conservative-spending.

¹² It is assumed that all necessary federal waivers are granted to allow the incorporation of existing federal programs into the Oregon plan, including Medicare, Medicaid, and the Veteran's Administration. Medicare could be brought in by establishing the state program as a Medicare Advantage plan; if the Veteran's Administration remains outside the plan, that would have no net effect on financing needs because it is self-funded in any case. The program would operate under Section 1332 of the Patient Protection and Affordable Care Act which allows for state innovation beginning in 2017 provided that the state plan covers at least as many people as the ACA with no extra cost to the Federal government. John E. McDonough, "Wyden's Waiver: State Innovation on Steroids," *Journal of Health Politics, Policy and Law,* May 19, 2014, 2744824, doi:10.1215/03616878-2744824; Ron Wyden, *State Waivers: How a State Could Do Health Reform Its Own Way* (Washington, D. C.: Office of Senator Ron Wyden, United States Senate, n.d.), http://www.wyden.senate.gov/download/?id=6073398f-c82c-42f4-8da5-e004a867e01a&download=1.; Jesse Cross-Call, "Understanding Health Reform's Waivers for State Innovation," *Center on Budget and Policy Priorities*, April 18, 2011, http://www.cbpp.org/cms/?fa=view&id=3475.



Figure 3. Savings from Oregon single payer, 2019, in \$millions.

Note: This shows the projected savings in \$millions from a single-payer system in Oregon. The largest area of savings would be in the administration of the insurance system followed by savings in the billing and insurance related activities in provider offices, and in reduced market power for drug and hospital prices and for some physician practices.

Savings would come from administrative economies and by reducing the anti-competitive practices of a few providers.¹³ They are summarized as follows:

Savings in the administration of private health insurance:

Private health insurers operate with a Medical Loss Ratio of over 12 percent, spending premiums on administrative activities, including inflated managerial salaries, redundant bill reviews, medical review programs, and other overhead.¹⁴ Private insurers also waste resources on

¹³ Estimates of the sources of waste in the United States include Donald Berwick and Andrew Hackbarth,

[&]quot;Eliminating Waste in US Health Care," JAMA: The Journal of the American Medical Association 307, no. 14 (2012): 1513–16; Martha Coakley, Examination of Health Care Cost Trends and Cost Drivers Pursuant to G.L. C. 118G, § 6½(b) Report, 2011 (Boston, Mass.: Attorney General of Massachusetts, 2011); Massachusetts Health Policy Commission, 2013 Cost Trends Report, Annual Report (Boston, Mass., 2013); Himmelstein DU and Woolhandler S, "Cost Control in a Parallel Universe: Medicare Spending in the United States and Canada," Archives of Internal Medicine 172, no. 22 (December 10, 2012): 1764–66, doi:10.1001/2013.jamainternmed.272; Aliya Jiwani et al., "Billing and Insurance-Related Administrative Costs in United States' Health Care: Synthesis of Micro-Costing Evidence," BMC Health Services Research 14, no. 556 (2014),

http://www.biomedcentral.com/content/pdf/s12913-014-0556-7.pdf.

¹⁴ The Affordable Care Act sets limits on administrative waste with minimum Medical Loss Ratios of 85% for group plans and 80% for individual plans. Nationally, health insurers refunded over \$332 million in excessive administrative charges under the ACA in 2013 to nearly 7 million subscribers; Oregon insurers refunded \$3,082,182 to 49,412 residents; see See http://kff.org/health-reform/state-indicator/mlr-rebates-total/ Even under the ACA, government measures of insurance company medical loss ratios leave extensive scope for insurance companies to pass administrative costs as medical costs. One observer has noted that the definition of medical management expenses used by the state includes such administrative expenses as "educational outreach to members, utilization management, case management, disease management and quality management." The list of allowable expenses includes "educational outreach to members, utilization management, case management and

advertising and marketing their competing plans; many are also too small to realize the scale economies possible with a large billing network.¹⁵ The private system of administrative waste has spread to Medicare through the Medicare Advantage plans and to Medicaid through Managed Care programs. Overhead costs are even higher in the individual insurance market, including the Medicare wrap-around policies purchased by many seniors to cover insurance costs not covered by Medicare. Lowering the administrative costs of insurance programs to the level of Medicare (1.8 percent) would save nearly \$5 billion in 2019.

Savings in employer's administration of private health insurance plans.

Employers incur significant costs in administering health insurance plans, including hiring health insurance benefit consultants. In 1999, these costs came to 4.2% of the total cost of employer-provided health insurance; applying the same ratio to Oregon in 2019 will come to \$330 million.¹⁶

Savings in billing and insurance related expenses in provider offices and hospital administration.

It costs nearly eight-times as much to collect bills in health-care than in other industries.¹⁷ American physicians spend significantly more time on administrative tasks than do their counterparts in countries with single-payer systems; they spend one-sixth of their work hours on administration, including bill processing, four-times as much time as their Canadian counterparts spend.¹⁸ Simplifying the reimbursement process would save physicians nearly six hours a week,

quality management." In addition, the time period allowed for medical expenses, net premiums and re-insurance recovery are not consistently defined, leaving room for companies to inflate their Medical Loss Ratio. See Families USA, "Medical Loss Ratios: Evidence from the States" (Families USA, June 2008),

http://www.familiesusa.org/assets/pdfs/medical-loss-ratio.pdf; Maryland Insurance Administration, "Report on the Use of the Medical Loss Ratio" (Maryland, December 2009); Eric Naumburg, "Medical Loss Ratios in Maryland," July 12, 2010.

¹⁵ There are over 60 separate health insurance companies in Oregon, with hundreds of separate plans. See, for example, <u>http://www.lowinsure.com/Health_Plans.htm</u>.

¹⁶ Steffie Woolhandler, Terry Campbell, and David Himmelstein, "Cost of Health Care Administration in the United States and Canada," *New England Journal of Medicine*, no. 349 (2003): 768–75 Because these costs are not included in the official Health Consumption spending, I do not inlcude these savings in estimates of savings from these costs. They will be included in estimates of savings for businesses, however. Note that there are also very large costs incurred by individuals in choosing a health plan and providing it with information.

¹⁷ Bonnie B. Blanchfield et al., "Saving Billions Of Dollars—And Physicians' Time—By Streamlining Billing Practices," *Health Affairs*, April 29, 2010, 10.1377/hlthaff.2009.0075, doi:10.1377/hlthaff.2009.0075.

¹⁸ American hospitals spend much more on administration than do hospitals in other countries; see David U. Himmelstein et al., "A Comparison Of Hospital Administrative Costs In Eight Nations: US Costs Exceed All Others By Far," *Health Affairs* 33, no. 9 (September 1, 2014): 1586–94, doi:10.1377/hlthaff.2013.1327; In addition to hiring billing and insurance workers, American doctors also spend much more time on billing activities than do physicians in Canada; see Steffie Woolhandler and David Himmelstein, "Administrative Work Consumes One-Sixth of U.S. Physicians' Working Hours and Lowers Their Career Satisfaction," *International Journal of Health Services* 44, no. 4 (January 1, 2014): 635–42, doi:10.2190/HS.44.4.a.

equivalent to an increase of nearly 300 in the number of physicians in Oregon.¹⁹ Reduced BIR expenses will save providers over \$4 billion in administrative costs.²⁰

Savings from reducing market power and price distortions: pharmaceuticals. A comprehensive survey published in 2007 found that drug prices are about 60 percent higher in the United States than in Europe or Canada. ²¹ A more recent survey suggests that the premium paid by Americans may have grown even larger since 2007. The International Federation of Health Plans found that for eight common drugs, the average price in the United States is over *three times* the average price in Canada, England, or the Netherlands; in no case is the United States price lower and in only two drugs (Enbrel and Humira) is the United States prices less than twice that paid in other countries.²²

The inflated price of drugs reflects the market power of companies whose brand reputation is reinforced by legal protection. Inflated prices coming from market power are "economic rents" received by producers who would provide the same product even at a much lower price. When market power is reduced with the removal of patent protection, for example, patients can buy the same drug for much lower prices; the entry of two new producers typically lowers prices by 50% and prices fall by 80% or more when there are eight or more producers.²³ The large premia for drugs still under patent protection suggests that even the 60% figure understates the role of

¹⁹ There may be a larger increase in the number of physicians because many physicians leave medical practice because of frustration with the billing system. Also, physicians in neighboring states will be attracted to Oregon because of the lower administrative burden. Woolhandler and Himmelstein, "Administrative Work Consumes One-Sixth of U.S. Physicians' Working Hours and Lowers Their Career Satisfaction."

²⁰ Woolhandler et al. have found that provider's administrative costs are much lower in Canada with plan like that envisioned here than in the United State and they estimate that a third of medical costs in provider offices in the United States are due to administrative costs, triple the rate in Canada. See Woolhandler, Campbell, and Himmelstein, "Cost of Health Care Administration in the United States and Canada"; Dante Morra et al., "US Physician Practices Versus Canadians: Spending Nearly Four Times As Much Money Interacting With Payers," *Health Affairs* 30, no. 8 (2011): 1443–1450, doi:10.1377/hlthaff.2010.0893; health-care providers spend nearly eight times as much collecting bills as do other businesses; see Blanchfield et al., "Saving Billions Of Dollars—And Physicians' Time—By Streamlining Billing Practices."

²¹ McKinsey Global Institute, "Accounting for the Cost of Health Care in the United States," January 2007, 56, http://www.mckinsey.com/mgi/rp/healthcare/accounting_cost_healthcare.asp; A survey found that drug prices negotiated by the Veterans Administration in 2005 were 48% lower than those offered by Medicare drug plans. themselves somewhat lower than standard drug store prices. McKinsey Global Institute, "Accounting for the Cost of Health Care in the United States"; Austin Frakt, Steven D. Pizer, and Roger Feldman, *Should Medicare Adopt the Veterans Health Administration Formulary?*, SSRN Scholarly Paper (Rochester, NY: Social Science Research Network, April 14, 2011), http://papers.ssrn.com/abstract=1809665; International Federation of Health Plans, *2013 Comparative Price Report: Variation in Medical and Hospital Prices by Country* (International Federation of Health Plans, 2014),

http://static.squarespace.com/static/518a3cfee4b0a77d03a62c98/t/534fc9ebe4b05a88e5fbab70/1397737963288 /2013%20iFHP%20FINAL%204%2014%2014.pdf.

²² International Federation of Health Plans, 2013 Comparative Price Report: Variation in Medical and Hospital Prices by Country.

²³ Center for Devices and Radiological Health, "About the Center for Drug Evaluation and Research - Generic Competition and Drug Prices," WebContent, accessed August 1, 2014,

http://www.fda.gov/AboutFDA/CentersOffices/OfficeofMedicalProductsandTobacco/CDER/ucm129385.htm.

market power in inflating drug prices. A single agency negotiating prices for Oregon should be able to lower prices dramatically.²⁴ If the single-payer agency negotiates prices 37%, less than the savings achieved by the VA, it would save over \$2200 million.²⁵

Savings from reducing market power and price distortions: Hospitals and Physicians:

The office of the Massachusetts Attorney General has documented how some medical practices and hospitals charge prices significantly higher for the same service with a range in hospital prices as high as 415 percent, while the range in prices for physician services is over 260%.²⁶ Some Oregon hospitals exercise enough market power that they consistently enjoy profit rates far beyond those enjoyed by other hospitals.²⁷ While private insurers have been unable to negotiate equitable prices against entrenched providers with market power, the proposed Plan would be able to act as Medicare already does to balance some hospitals' monopoly with monopsonistic power. Reducing prices paid hospitals with profit rates above 150% above the median rate to lower these profits to 150% of the median rate would lower hospital spending by over \$370 million; lowering prices paid elite physicians at the same rate as in Massachusetts would lower total physician prices by over 1%, saving nearly \$200 million.²⁸

Savings from reduced fraud.

Fraudulent billing, including duplicate billing and billing for services not rendered, accounts for between 3 percent and 10 percent of health care spending in the United States, including an error

²⁴ Under this plan, the Oregon single payer agency would buy drugs in bulk at negotiated prices for a formulary list and then resell them to local pharmacies and health care providers. Drug prices negotiated by the Veterans Administration and other federal agencies, other than Medicaid,in 2005 were 48% lower than those offered by Medicare drug plans. themselves somewhat lower than standard drug store prices. McKinsey Global Institute, "Accounting for the Cost of Health Care in the United States"; Frakt, Pizer, and Feldman, *Should Medicare Adopt the Veterans Health Administration Formulary*?.

²⁵ Along with other states, Oregon already bargains with drug companies for prescription drugs under the Medicaid program; see http://www.ncsl.org/research/health/bulk-purchasing-of-prescription-drugs.aspx. Similar bargaining with device manufacturers will produce savings of \$59 million. McKinsey Global Institute, "Accounting for the Cost of Health Care in the United States," 56. As is done with the VA, the state would establish a formulary list of covered drugs and negotiate prices with producers. It would then make these drugs available at the reduced prices to pharmacies and other private vendors.

²⁶ There is no evidence of a quality difference for the higher priced services and little of the price differential is reflected in the payment to physicians. Instead, most of the price differential is in networked hospitals with large market share. (Ironically, the share of patients going to high priced hospitals has been rising with the consolidation of hospital networks.) See Coakley, *Examination of Health Care Cost Trends and Cost Drivers Pursuant to G.L. C. 118G, § 6½(b) Report, 2011*; Blue Cross/Blue Shield Foundation, *Health Care Costs and Spending in Massachusetts* (Boston, MA, March 2012).

²⁷ See the rate of return data for hospitals in Oregon Health Authority, *Oregon Acute Care Inpatient Hospital Costs,* 2012, Data Brief (Oregon Health Authority, Office of Health Analytics, n.d.),

file:///C:/Users/New%20Gerald%20Friedman/Downloads/Cost_and_Charges_2012.pdf.

²⁸ Private insurers have been unable to bargain hospital prices down for the same reason that they have been unable to bargain down drug prices: they are unwilling to "walk away" for fear of losing their own customers, and it has been relatively easy for them to pass higher costs along in higher premiums.

rate in Federal programs of over 9 percent.²⁹ This includes the "accidental fraud" caused by duplicate billing due to the confusing nature of the insurance process.³⁰ A single billing agency would reduce fraud in three ways. Eliminating multiple payers would immediately eliminate the possibility of duplicate billing. It would also enormously simplify the process of tracking bills. In addition, a public authority would have subpoena and prosecutorial powers, more power to identify and to stop fraud. By reducing fraud and accidental overcharging, the single payer agency could, conservatively, save 2.5% of total costs or over \$900 million.³¹

Altogether, projected savings come to over \$12.8 billion in 2019, 25 percent of projected health care consumption spending in that year. They are itemized in Figure 3 and in Table 2:

Provider Administration	\$ 3,944
Monopoly pricing of drugs and	
devices	\$ 2,766
Sponsor Administration	\$ 4,746
Reduced fraud	\$ 914
Total savings from single payer	\$ 12,37

 Table 2. Savings (in \$millions) from enactment of single payer in Oregon, 2019.

Note: This table reports the projected savings (in \$ millions) according to the site where the savings are to be achieved. The savings are calculated by applying a savings percentage estimate to each category of spending as described in the text and Appendix.3.

System improvements under single payer, Oregon 2019

Gross savings from current activities would come to over \$2,900 per resident, savings achieved largely by eliminating excessive prices as well as unpleasant and wasteful administrative forms and bureaucratic barriers to care.³² These savings would allow Oregon to expand access to care for those still without insurance, reduce barriers to access for those with insurance, and finance an extensive program to help those workers displaced by the single payer program.

²⁹ Kathleen King and General Accounting Office, "Medicare and Medicaid Fraud, Waste, and Abuse" (United States Senate, Subcommittee on Federal Financial Management, March 9, 2011),

http://www.gao.gov/new.items/d11409t.pdf; National Health Care Anti-Fraud Association, *Testimony of the National Health Care Anti-Fraud Association to the House Insurance Committee* (Harrisburg, PA: House of Representatives, Commonwealth of Pennsylvania, January 28, 2010),

http://www.docucu.com/view/7d4b3344492e717c21f4767dcad3ae16/National-Health-Care-Anti-Fraud-Association.pdf.

³⁰ Anyone who has tried to interpret a hospital bill can appreciate how easy it would be to make mistakes. See the discussion of billing in, for example, Steven Brill, *America's Bitter Pill: Money, Politics, Back-Room Deals, and the Fight to Fix Our Broken Healthcare System* (New York: Random House, 2015).

³¹ This savings estimate is made after taking account of increases in utilization due to the single payer plans extension of coverage and removal of copayments and deductibles. My estimate of savings from fraud reduction is conservative compared with, for example, the Lewin Group which regularly assumes that 5% of claims are fraudulent and 20% of these would be detected with enhanced subpoena powers without taking account of the reduction in duplicate claims under system like that proposed here for Oregon.

³² Note that net of program improvements, health care spending would fall by only \$2,200 per resident.

The Affordable Care Act is significantly expanding health insurance coverage in Oregon. Medicaid expansion and new enrollments through the state exchange are expected to extend health insurance coverage to over 500,000 Oregonians by 2019. While the ACA will reduce the share without insurance from 14 percent down to 3 percent, it will still leave over 100,000 uninsured.³³ This will still allow to 300 extra deaths among the uninsured each year.³⁴ With an average value of between \$2.0 and \$3.9 million, this involves an economic loss to Oregon of between \$600 million a year and \$1,161 million a year.³⁵

Beyond the excess mortality due to *uninsurance*, many die because of the growing problem of *underinsurance* where high deductibles and copays leave many insured Oregonians unable to afford needed care. The importance of access is highlighted in Figure 5 which shows the relationship between the age-adjusted mortality rate in Oregon counties and the proportion of the population reporting that they "could not see doctor due to cost." Even among those with health insurance, a significant number have cost-related-access problems, and these problems can be associated with a large share of mortality within the state.³⁶ A comparison of county age-adjusted mortality with the proportion of the county population reporting cost-related access problems (they "Could not see doctor due to cost") shows a statistically significant relationship between the two with an increase in age adjusted mortality of nearly 25 percent when going from the rate with access troubles in the United Kingdom to the rate in Oregon counties such as Douglas or Deschute.³⁷ Using this regression, there are as many as 12,000 excess deaths in Oregon because of cost-related-access problems; for an economic loss in the tens of billions.

 ³³ "ACASignups.net," Text, ACASignups.net, accessed April 1, 2014, http://acasignups.net/; Kaiser Family
 Foundation, "State Health Facts.org," n.d.; Congressional Budget Office, Updated Estimates of the Effects of the Insurance Coverage Provisions of the Affordable Care Act, April 2014 (Washington, D. C.: United States Congress,
 Congressional Budget Office, April 2014), https://www.cbo.gov/sites/default/files/45231-ACA_Estimates.pdf.
 ³⁴ This is estimated by applying a 40% higher mortality rate to the estimated mortality rate for the insured population; see Andrew Wilper et al., "Health Insurance and Mortality in US Adults," American Journal of Public Health 99, no. 12 (n.d.): 1–8; Note that this 40% figure is higher than the 25% estimated by an earlier study, Institute of Medicine (US) Committee on the Consequences of Uninsurance, "Estimates of Excess Mortality Among Uninsured Adults," 2002, http://www.ncbi.nlm.nih.gov/books/NBK220638/.

³⁵ The \$2 million per life figure is from the Special Master appointed to dispense compensation to the families of those killed in the September 11, 2001 attacks; Adjusting this for increases in nominal per-capita income from 2001-19, gives an average value of \$3.87 million. See Bill Marsh, "Putting a Price on the Priceless: One Life," *The New York Times*, September 9, 2007, sec. Week in Review,

http://www.nytimes.com/2007/09/09/weekinreview/09marsh.html.

³⁶ This is from the data at http://www.countyhealthrankings.org/ Using the regression of mortality on access, there would have been 12,000 fewer deaths in the state had the share with cost related access problems been only 4%, the rate in the United Kingdom. See Sarah Thomson et al., *International Profiles of Health Care Systems, 2013 Australia, Canada, Denmark, England, France, Germany, Italy, Japan, the Netherlands, New Zealand, Norway, Sweden, Switzerland, and the United States* (Commonwealth Fund, November 2013),

http://www.commonwealthfund.org/~/media/files/publications/fund-

report/2013/nov/1717_thomson_intl_profiles_hlt_care_sys_2013_v2.pdf.

³⁷ Note that the Oregon counties with the lowest rate of access troubles, Benton, Clackamas, and Washington, have over twice as high a proportion unable to see a doctor because of cost as do residents of the United Kingdom. While these counties have relatively low age-adjusted mortality compared with the rest of Oregon, this analysis



Figure 4. Age Adjusted Mortality and proportion unable to see doctor because of cost, Oregon Counties.

Universal coverage

Expanding coverage to the over 100,000 Oregonians uninsured under the ACA will cost \$287 million.³⁸

Increased utilization

Expenditures will increase when co-payments and restrictive insurance policies are eliminated and people are able to access the health care system. We can estimate the effect on spending of eliminating barriers to access by comparing spending and the proportion reporting some cost-related barrier to access in Oregon counties. Health care spending increases in counties when the proportion with cost-related access problems falls, but the elasticity is fairly small so lowering the proportion with access problems from the state average of 14 percent to the United Kingdom rate of 4 percent leads to an increase in average spending of only 4.2 percent. This is similar to the estimate that would come from using the Canadian experience and recent American spending trends. In Canada, the elimination of co-payments and deductibles with the establishment of a system of universal health care in 1971 led to an increase in utilization of 3 percent. Utilization may increase more in Oregon 2019 because part of the slowdown in health care spending since 2008 has been due to increased cost-sharing; removing these higher barriers to access, deductibles and copays, will, therefore, lead to a further increase in utilization. Assuming that half of the relative slowdown in health care spending after adjusting for the general economic

suggests that some residents die prematurely even in these counties with relatively successful health care systems because they have difficulty accessing the system.

³⁸ Jack Hadley and John Holahan, "The Cost of Care for the Uninsured: What Do We Spend, Who Pays, and What Would Full Coverage Add to Medical Spending" (Kaiser Commission on Medicaid and the Uninsured, May 10, 2004), http://www.kff.org/uninsured/upload/The-Cost-of-Care-for-the-Uninsured-What-Do-We-Spend-Who-Paysand-What-Would-Full-Coverage-Add-to-Medical-Spending.pdf. Coverage expansion is relatively inexpensive because the population without insurance is relatively young, and would spend only about 85 percent as much on health care as the general population, and they currently spend 55% as much as the average.

slowdown is due to higher barriers to access, eliminating copayments and deductibles would lead to an increase in health care utilization of 4.8 percent, at a cost of \$2.4 billion.³⁹ While this raises the current cost of health care, like the extension of coverage to the entire population, it will lead to future savings through reduced morbidity and mortality.

Unemployment and job training for displaced billing and insurance workers

In 2019, there will be nearly 51,000 workers employed in health care administration in Oregon and nearly 15,000 employees of health insurers.⁴⁰ About half of the health care administrative workers and most of the health insurers will be displaced by a single payer system, a total of nearly 37,000 newly unemployed workers, of whom over 8,000 will be reemployed into the expanded health-care provider system.⁴¹

The Unemployment Insurance system currently provides support for unemployed workers for 6 months. Based on recent experience, nearly 70 percent of the displaced workers will have new jobs by the end of 6 months. If the remaining workers are offered another 78 weeks of unemployment insurance compensation as well as job training, then at the end of the second year, all but 1,378 workers will have new jobs. For the first year, this additional unemployment insurance and training will cost \$114 million; for the second year, it will cost \$94 million.

³⁹ The slowdown in spending growth is after factoring out the slowdown in general price inflation. This estimate overstates the effect on utilization because there would not be the same change for the 20% of health care that is already funded through Medicare and the Veteran's Administration. This also overestimates the long-term impact because greater utilization will, over time, lead to some savings from better health. There is a substantial literature on the effects of copayments on utilization. See William Manning et al., "Health Insurance and the Demand for Medical Care: Evidence from a Randomized Experiment," American Economic Review 77, no. 3 (June 1987): 265; Robert Brook et al., "The Effect of Coinsurance on the Health of Adults: Results from the RAND Health Insurance Experiment" (Rand, 1984), http://www.rand.org/pubs/reports/R3055/; B. Harris, A. Stergachis, and L. Ried, "The Effect of Drug Co-Payments on Utilization and Cost of Pharmaceuticals in a Health Maintenance Organization," Medical Care 28, no. 10 (1990): 907-17; D. Cherkin, L. Grothaus, and E. Wagner, "The Effect of Ofice Visit Copayments on Utilization in a Health Maintenance Organization," Medical Care 27, no. 7 (1989): 669-79; Leighton Ku, Elaine Deschamps, and Judi Hilman, "The Effects of Copayments on the Use of Medical Services and Prescription Drugs in Utah's Medicaid Program" (Center on Budget and Policy Priorities, November 2, 2004), http://www.cbpp.org/cms/index.cfm?fa=view&id=1398; Jonathan Gruber, "The Role of Consumer Copayments for Health Care: Lessons from the RAND Health Insurance Experiment and Beyond" (Kaiser Family Foundation, October 2006), 6, http://www.kff.org/insurance/upload/7566.pdf; William Hsiao, Steven Kappel, and Jonathan Gruber, "Act 128: Health System Reform Design. Achieving Affordable Universal Health Care in Vermont," January 21, 2011, http://www.leg.state.vt.us/jfo/healthcare/FINAL%20VT%20Draft%20Hsiao%20Report.pdf. ⁴⁰ Occupational Employment Statistics: OES Research Estimates by State and Industry, 2013, n.d., http://www.bls.gov/oes/2012/may/oes research estimates 2012.htm; National Association of Insurance Commissioners, Report Card Oregon (National Association of Insurance Commissioners, 2014), http://www.naic.org/state_report_cards/report_card_or.pdf.

⁴¹ Over the course of the two years of extended unemployment and job training that will be provided, nearly 60 percent of these workers would have left their administrative and insurance jobs even without the establishment of the single payer system. About 10% of Oregon workers change jobs every three months. Jessica Nelson, *Older Worker Turnover Remains Low During Recovery* (Salem, Oregon: Oregon Employment Department, September 22, 2014), https://www.qualityinfo.org/-/older-worker-turnover-remains-low-during-recovery.

Net Costs of Oregon single payer

Beginning with projected spending under the ACA-regime and adjusting for savings and program improvements, the Oregon single payer plan will lower health care spending by nearly 22 percent, saving over \$10,670 m. in the first year. This is itemized in Table 3:

Existing system spending (ACA), 2019					
Personal Health Expenditures	\$	42,069			
Administration	\$	5,755			
Total	\$	47,823			
Oregon Plan savings					
Provider Administration	\$	3,944			
Monopoly pricing of drugs and devices	\$	2,766			
Sponsor Administration	\$	4,746			
Reduced fraud	\$	914			
Total savings (Gross of program improvements)	\$	12,371			
Net spending with Oregon Plan for current-system services	\$	35,453			
Oregon Plan program improvements					
Universal coverage	\$	289			
Increased utilization	\$	2,637			
UI and retraining	\$	82			
Assuming Medicare Part B premium cost	\$	1,044			
Total spending with Oregon Plan	\$	39,505			
Net savings with Oregon Plan	\$	9,362			

Table 3. Net spending under Oregon single payer, 2019(\$ millions)

Note: Extra costs associated with the establishment of a single payer plan in Oregon come from the expansion of coverage and expanded access to health care services. Net savings do not include cost of Medicare Part B program because this is a redistribution between Oregon seniors and the Plan.

The Plan would involve a dramatic shift in health expenditures in Oregon away from administrative activities towards the provision of health care. While total expenditures fall under single payer, more is spent on the delivery of health care services. Administrative activities and monopoly profits are reduced so much that they allow an increase in the provision health care even with a dramatic reduction in total spending. Instead of paying for bureaucrats, advertising, and other administrative expenses unrelated to health care, payments to providers increase in absolute amount, rising from 64% of spending to 85%. Under the current system, administrative costs account for nearly 30 percent of total health care spending and monopoly rents comes to another 6 percent. Under single payer in Oregon, administrative spending would be reduced by



over half, down to 15 percent, making more money available for the provision of health care (see Figure 5).

Figure 5. Shift in spending towards providers, single payer compared with ACA, Oregon 2019

Financing Oregon single payer

After taking account of savings realized and additional costs, the state would fund \$39 billion in health care services.⁴² While less than is currently spent on health care, this requires over \$14 billion in additional revenues over and above current state spending even assuming continued Federal Medicare, Medicaid, and ACA programs.⁴³ A funding plan is proposed which would generate over \$1.1 billion in revenue above what is needed largely by substituting state premiums for current spending on private health insurance; by echoing the current payment system, this plan minimizes disruptions to existing economic arrangements while spreading the savings from the single-payer system throughout the Oregon economy.⁴⁴

⁴² This comes to 96 percent of health care expenditures.

⁴³ This does not include federal, state, or local government spending on employer-provided health insurance nor does it include employee premiums. All of these would disappear along with other private, employment-linked health insurance. We are assuming that the Federal Government will agree to continue funding ACA subsidies, Medicaid and other Federal health programs at current rates even though these services will be provided more economically than is currently the case. Because the Medicaid program would be incorporated within the larger Plan, we assume that the Federal contribution would no longer be tied to individuals but would be provided through a block grant.

⁴⁴ Payrolls and current health insurance premium spending for 2012 are calculated for public and private employers from the AHRQ-MEPS survey. Payrolls are adjusted to 2019 level assuming that wage rates rise with per capita income and employment increases with population growth. Nonwage income for 2012 is calculated as the residual of state taxable adjusted gross income after subtracting *all* wages; it is also adjusted by population and per capita income growth.

	Premium rate	Premiums, 2019		
Establishments <25	0.07	\$ 1,292,235,783		
Establishments >24	0.1	\$ 7,133,487,068		
Public sector	0.15	\$ 2,577,246,709		
Capital gains, interest, profits, rents	0.1	\$ 3,859,144,706		

Table 4. Premium rates to fund Oregon Plan.

The financing plan sets payroll premiums at a lower rate than most businesses and governments currently pay for private health insurance. Establishments with fewer than 25 workers in 2012 paid nearly 8% of their payroll for health insurance; those with over 24 workers paid nearly 12%; and public employers paid nearly 20%.⁴⁵ The greater efficiency of the single payer system allows for savings on current spending even while improving access for Oregonians.

Table 5. Funding Oregon Plan

Needed revenue (no long-term care)	\$ 39,504
Existing sources	
Medicare	\$ 9,327
Medicaid and SCHIP	\$ 7,820
Current public spending	\$ 1,362
VA	\$ 1,318
Single payer expansion, Fed share	\$ 213
Charity and other	\$ 2,280
20% of out-of-pocket plus long-term care	\$ 1,634
ACA subsidies	\$ 718
Total existing revenue	\$ 24,672
Needed	\$ 14,832
New sources	
Payroll premium	\$ 11,003
Premium on nonwage income	\$ 3,859
Total revenue	\$ 14,862
Surplus	\$ 30

⁴⁵ Because of rising health care costs, all of these will be spending a higher share of payroll by 2019. Also, this does not include the cost of health insurance for those workers who are not covered by employer-provided plans and buy health insurance on their own or receive it through a government program like Medicaid.

Redistributing the reduced burden

Together, the efficiency gains from single payer and shifting the basis of funding from lump-sum premiums and cost-sharing to a charge related to income combine to produce benefits for the great majority of Oregonians (see Figure 6). Most Oregonians will save thousands of dollars a year compared with what they and their employer currently spend on health insurance premiums and out-of-pocket. The largest savings will go to poor and to working and middle-income households, especially those with children.⁴⁶ Even after taking account of the new premiums, most households will save from the reduction in out-of-pocket costs and private premiums. Businesses will benefit on average with the greatest benefits going to those that have been paying the highest health insurance premiums. These include small and mid-sized private establishments that offer health insurance at relatively high cost. The state and local governments will also benefit in their role as employers because public employers pay relatively high premiums for relatively good insurance plans, and because their plans enroll a larger share of their employees and families.⁴⁷



Figure 6. . Net Savings from Oregon Single Payer by Household Income as Share of Income.

⁴⁶ The burden of health care costs for the poor is mitigated in many cases by public programs like Medicaid and, now, ACA exchange subsidies. Even with Medicaid expansion, many low-income wage earners, however, earn too much for Medicaid but not enough to easily carry the burden of health insurance.

⁴⁷ Public plans provide a significant subsidy to private employers because they enroll family members of public employees who then do not take-up private employers' insurance plans.

In addition to reducing the burden of health care, the single payer program would shift the burden of health care spending from the sick and needy onto payments related to ability to pay. Under the current system, health care costs, including insurance premiums, are a fixed amount, invariant with income but increasing with sickness.⁴⁸ The single payer system will flip this, setting costs according to income but largely without regard for health status.⁴⁹

Single-payer and the quality of care

Not only will the single payer system save money but it will bring improved health care to Oregon. It will, of course, immediately bring better health care to residents of Oregon without insurance. It will also improve care for those with inadequate insurance. And by reducing turnover in coverage and by facilitating better coordination of care, it will improve health care for everyone.

While the expansion of insurance coverage and removal of barriers to access will increase demand for health care in Oregon, this will easily be accommodated by reducing waste in the health care system, including the time physicians now spend in dealing with the health-care system.⁵⁰ One measure of this waste is the relative inability of the American health care system to provide prompt access to doctors for sick people. A recent survey found that the proportion of sick people able to see a doctor that day or the next was lower in the United States than in 7 of 9 other countries, all of whom had national health systems.⁵¹ In addition, the United States had by far the highest rate of people reporting cost-related access troubles, that is they could not see a doctor when sick because of cost (see Figure 7).⁵² The United States already has health-care rationing; as many as half of sick Americans either cannot see a doctor at all or cannot get an appointment that day or the next.

The fragmented financing system also lowers the quality of care for Americans when they do see a physician both by inhibiting the coordination of care and by preventing the development of

⁴⁸ This, of course, contributes to the heavy burden of health care costs on the poor who are often lower income because of their poor health.

⁴⁹ These estimates are made using data on income by source and its distribution in the following sources: Bureau of Economic Analysis, *State Annual Personal Income*, 2011, http://www.bea.gov/regional/spi/; Patricia Ketsche et al., "Lower-Income Families Pay A Higher Share Of Income Toward National Health Care Spending Than Higher-Income Families Do," *Health Affairs* 30, no. 9 (2011): 1637–1646, doi:10.1377/hlthaff.2010.0712.

⁵⁰ Not only do primary care physicians save lives, they also lower health care costs by providing preventive care and guiding patients to appropriate care; see James Reschovsky et al., *Paying More for Primary Care: Can It Help Bend the Medicare Cost Curve?*, Issue Brief (Commonwealth Fund, March 2012),

http://www.commonwealthfund.org/~/media/Files/Publications/Issue%20Brief/2012/Mar/1585_Reschovsky_paying_more_for_primary_care_FINALv2.pdf; Donald Fruge, *Impact of Primary Care on Healthcare Cost and Population Health: A Literature Review* (Rhode Island Department of Health, February 23, 2012),

http://www.health.ri.gov/publications/literaturereviews/ImpactOfPrimaryCareOnHealthcareCostAndPopulationHe alth.pdf.

 ⁵¹ Thomson et al., International Profiles of Health Care Systems, 2013 Australia, Canada, Denmark, England,
 France, Germany, Italy, Japan, the Netherlands, New Zealand, Norway, Sweden, Switzerland, and the United States.
 ⁵² Ibid.

useful data on treatment and outcomes. The spread of insurance-based provider networks is forcing a growing number of Americans to change doctors; this includes workers who change jobs, and insurance, as well as those whose employer changes insurance plans, or those who see a doctor who is no longer in network.⁵³ The spread of networks also inhibits the coordination of care by forcing primary-care physicians to work with different specialists depending on the patients insurance rather than the patient's medical condition.

Medical information is an increasingly valuable commodity carefully safeguarded by insurance companies who are able to mine their policy holders' data for marketing and other purposes. Only in the Medicare system and the Veteran's Administration do we have continuous records of individuals, their health conditions, their treatments, and the long-term outcomes. A similar body of information would automatically be created by the Oregon single payer organization, and it would become an invaluable data source to track disease incidence and effective treatment. It would also allow the single payer body to identify health care hot spots, areas of illness and areas of ineffective and excessive treatment.⁵⁴



Figure 7. Proportion experiencing cost-related access barriers to health care in past year, United States versus nine other nations.

Effect of single payer health care on the Oregon Economy

The analysis thus far understates the economic gains from single payer because it uses a static model that neglects likely changes in economic parameters coming from the adoption of a reform that would dramatically lower the burden of health care costs. In particular, single payer would

⁵³ Failures of coordination between different providers account for a substantial economic waste in American health care as well as much unnecessary suffering and even death. By providing continuous insurance coverage and free choice of provider, the single payer system will naturally reduce this problem. Berwick and Hackbarth, "Eliminating Waste in US Health Care."

⁵⁴ Ibid.

increase employment and income in Oregon by putting money back into the economy and by making businesses more competitive.

By lowering the overall burden of health care spending and shifting the burden from payroll costs to income taxes, single payer will lower the relative cost of labor to employers potentially giving Oregon employers a competitive advantage against those based in other states with less efficient health care finance systems.⁵⁵

Many Oregon workers currently suffer from job-lock where they fear to change jobs or to open new businesses because they will lose their current health insurance.⁵⁶ A single payer system in Oregon would free these workers to seek more efficient employment, freeing employers of the burden of unhappy workers while allowing Oregonians to find better jobs or to act on their entrepreneurial dreams.⁵⁷

Declining payroll costs.

Replacing current health insurance premiums with the proposed contribution would immediately save businesses the over \$330 million now spent on administering employer provided health insurance while eliminating the insurance cost of hiring labor.⁵⁸ Lower labor costs will allow Oregon based businesses to lower prices, increasing sales by making Oregon more competitive with businesses elsewhere; and lower labor costs will also encourage businesses in Oregon to adopt somewhat more labor-intensive technologies, hiring more workers rather than machinery.⁵⁹ On balance, single payer would increase employment in Oregon by nearly 3 percent, adding 50,000 new jobs, more than balancing the 29,000 jobs lost in billing and insurance occupations.

The future of Oregon health care

Provisions of the Patient Protection and Affordable Care Act (ACA) of 2010 may eventually slow the increase in health care costs. Over the next decade, however, few expect the act to have

⁵⁵ Local governments and long-established employers would also be relieved of the burden of legacy costs, the costs of providing health insurance to retirees.

⁵⁶ The Affordable Care Act helps by providing for improved access to individual health insurance through the exchange system.

⁵⁷ David Sterret, Ashley Bender, and David Palmer, "A Business Case for Universal Healthcare: Improving Economic Growth and Reducing Unemployment by Providing Access for All," *Health Law and Policy Brief* 8, no. 2 (Spring 2014): 41–56.

⁵⁸ In 1999, employer costs of administering health insurance came to 4.2% of private health insurance premiums; I have applied the same ratio here. Woolhandler, Campbell, and Himmelstein, "Cost of Health Care Administration in the United States and Canada" Because employers bear about 75% of the cost of health care premiums, the savings is only 75% of the total.

⁵⁹ It is also likely that the shift from administrative occupations will increase employment in Oregon at the expense of jobs in other states by bringing spending back to Oregon from Connecticut and other insurance centers. Comparing Bureau of Labor Statistics estimates of insurance employment with the state's population, Connecticut

has nearly five-times as high a share of insurance jobs as it does population while Minnesota, New Jersey, and Ohio have two- to three-times as many insurance jobs.

much effect on costs except that the extension of insurance to millions previously uninsured will increase health care spending.⁶⁰ Estimates of spending over the next decade are presented in Figure 8. These are made assuming that the ACA will have no effect on costs except the costs coming from extending Medicaid coverage and private insurance.⁶¹

While expenditure data on the state level are only available through 2009, expenditures for later years through 2029 have been projected on the assumption that past trends will continue into the future except as modified in specified ways.⁶² The slowdown in national health care spending since 2008 has been applied to estimated state spending; and it is expected that spending will resume the previous annual rate of increase in 2016. Two adjustments are made to project annual expenditures under single payer. First, expenditures for 2019 are adjusted downward to reflect the savings that would be realized under the act. Expenditures in later years are projected from this base on the assumption that per-capita expenditures increased at a rate 1.1 percent less than would have been the case under the existing health care finance system.⁶³ This lower rate reflects the difference between Canadian experience with a health care system like that envisioned here for Oregon and the experience of the United States from 1970-2008; it also approximates the difference between the experience of private health insurance in the United States and the Medicare system since the early 1970s.⁶⁴ The dynamic savings would reflect the continuing savings from ending the inflation in administration and drug pricing, and the efficiency gains to be realized through better coordination of care and the use of global budgeting.

⁶⁰ Center for Healthcare Research and Transformation, *The Patient Protection and Affordable Care Act at the State and Local Level*, June 2010, http://www.chrt.org/public-policy/policy-briefs/policy-brief-2010-06-the-patient-protection-and-affordable-care-act-at-the-state-and-local-level/; Congressional Budget Office and Joint Committee on Taxation, "Fiscal Impact of Reconciliation Act of 2010," March 20, 2010,

http://www.cbo.gov/ftpdocs/113xx/doc11379/AmendReconProp.pdf; Lewin Group, Patient Protection and Affordable Care Act (PPACA): Long Term Costs for Governments, Employers, Familities and Providers, Staff Working Paper, (June 8, 2010), http://www.lewin.com/content/publications/LewinGroupAnalysis-

PatientProtectionandAffordableCareAct2010.pdf; Stephanie Cutter, "Health Care Costs," *White House Blog*, January 26, 2011, http://www.whitehouse.gov/blog/2011/01/26/health-care-costs.

⁶¹ Estimates of the increase in coverage through participation in Insurance Exchanges are from the Congressional Budget Office; Congressional Budget Office and Joint Committee on Taxation, "Fiscal Impact of Reconciliation Act of 2010"; Kaiser Family Foundation, "State Health Facts.org."

⁶² Sisko et al., "National Health Spending Projections."

⁶³ The lower share of administrative costs under single payer will by itself account for a fall in the health-care inflation rate of 0.3% per annum. It is assumed here that the other savings will come from better coordination of care leading to continued reductions in duplicate care, continued anti-fraud efforts, and improved quality of care including preventive care and reduced readmissions.

⁶⁴ From 1969 to 2009, the cost per enrollee of Medicare services rose by 7.9 percent per annum, 1.2 percentage points less than the 9.1 percent per annum for private health insurance offering "common benefits"; Table 16 in Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, at

https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-

 $Reports/National Health {\tt ExpendData/downloads/tables.pdf}.$

Single payer produces significant savings in its first year of operation. Because of its superior dynamic efficiency, single payer will produce growing savings over time (see Figure 8).⁶⁵ While providing health insurance coverage to all residents and allowing greater utilization of health care services, single payer will save almost 10% of health care spending in 2019 and nearly 20% in 2029. As important, single payer will bend the cost curve of rising health care costs. By controlling administrative expenses and monopoly profits, it will stabilize the growth in health care spending at a level that can be supported by the Oregon economy.



Figure 8. Oregon health spending as a share of Gross State Product, under ACA and alternative single payer plans, 1991-2029.

Note: This gives total health spending (including administrative costs) under alternative plans. Expenditures under single payer in Oregon start from a lower base in 2019 because of the savings discussed in the text and then grow at a rate 1.1 percent slower per year, as has been the case for Canada compared with the US since 1971. The ACA line assumes no reduction in health care costs per covered person. Expenditures for long-term care have been estimated on the assumption that all care currently provided in the home will be paid for through the single-payer system.

Conclusion: found money

Single payer would produce substantial health and economic gains for Oregon. The new system would create such large economies in the administration of health care that all of those currently uninsured could be given access to health care with money left over. Furthermore, by financing health care with taxes linked to income, single payer would produce large savings for the great majority of Oregon residents. Finally, by reducing business costs, it would also lead to

⁶⁵ The dynamic efficiency of a state health plan is a point recognized elsewhere; see Peter Shumlin, *Green Mountain Care: A Comprehensive Model for Building Vermont's Universal Health Care System* (Montpelier, Vermont: Governor of Vermont, December 30, 2014),

http://hcr.vermont.gov/sites/hcr/files/2014/GMCReport2014/GMC%20FINAL%20REPORT%20123014.pdf; Himmelstein DU and Woolhandler S, "Cost Control in a Parallel Universe."

expansion in employment.

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Appendix 1: Estimating Oregon health care expenditures

Annual personal health care expenditures from 1997-2009 are from the Centers for Medicare & Medicaid Services, Office of the Actuary at http://www.cms.gov/NationalHealthExpendData/Downloads/res-tables.pdf

Expenditures beyond 2009 have been projected assuming the same rate of increase in percapita expenditures as for the nation as a whole from the CMS.⁶⁶ Total health consumption expenditures have then been estimated as the state population times projected percapita expenditures. Population data are from the United State, Bureau of the Census:

http://www.census.gov/popest/estimates.php

⁶⁶ Sisko et al., "National Health Spending Projections"; Center for Medicaid and Medicare Statistics, *National Health Expenditure Projections 2013-2023* (Washington, D. C.: Centers for Medicare & Medicaid Services, Office of the Actuary, n.d.), http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/Proj2013.pdf.

Appendix 2: Estimating the sources of Oregon health care expenditures.

Spending for employer-based insurance in 2012 is from the Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey.

http://meps.ahrq.gov/mepsweb/data_stats/state_tables.jsp?regionid=30&year=2012 and http://meps.ahrq.gov/mepsweb/data_stats/summ_tables/insr/national/series_3/2012/ic12_iii a_g.pdf

Spending for 2012 for public sector programs (Medicare and Medicaid) is from the Center for Medicare and Medicaid Services. Spending for 2019 is estimated by adjusting current spending for the increase in spending on these services reported by the Center for Medicare and Medicaid Services.

Spending on individual insurance is estimated as the product of the number of individual plans plus the number buying through the ACA exchange. Pre-ACA individual coverage is from the Kaiser Family Foundation, State Health Facts. ACA coverage is from <u>http://acasignups.net/spreadsheet-med</u>

ACA subsidies are the product of the number buying through the ACA exchange (from <u>http://acasignups.net/spreadsheet-med</u>), the proportion with subsidy (83%) and the average subsidy (from <u>http://kff.org/health-reform/issue-brief/how-much-financial-assistance-are-people-receiving-under-the-affordable-care-act/</u>)

Other and out-of-pocket spending are calculated as a residual: total expenditures minus private health insurance and public spending. The allocation of spending between the two is estimated using national data, the CMS, "National Health Expenditures by Type of Service and Source of Funds".

Appendix 3: Estimating savings from Oregon single payer

Savings have been calculated for 2019 in three steps.

First, expenditures for nine types of services have been calculated for 2019 from CMS data for 1991 through 2009 on the assumption that expenditures for that service will continue to increase from 2009-19 at the same annual rate of increase as 1991-2009. Spending by services has then been for adjusted so that the total Oregon expenditures on these activities equals the state total for personal health care estimated from the time series.

	1991	2009	Growth	2019e old		old 2019	
			rate	gro	wth rate	adj	usted at
						nev	v growth
Total personal health expenditures	\$ 6,806	\$ 25,155	7.26%	\$	52,003	\$	42,069
Hospital	\$ 2,367	\$ 8,441	7.06%	\$	17,107	\$	13,839
Physician	\$ 1,840	\$ 6,716	7.19%	\$	13,788	\$	11,154
Other Professional	\$ 248	\$ <i>983</i>	7.65%	\$	2,113	\$	1,709
Dental	\$ 510	\$ 1,556	6.20%	\$	2,892	\$	2,339
Home Health	\$ 94	\$ 498	9.26%	\$	1,257	\$	1,017
Drugs	\$ 728	\$ 3,155	8.15%	\$	7,125	\$	5,764
Durable Medical	\$ 122	\$ 376	6.25%	\$	703	\$	568
Nursing Home	\$ 471	\$ 1,383	5.98%	\$	2,516	\$	2,035
Other	\$ 425	\$ 2,049	8.74%	\$	4,910	\$	3,972

Table 6.	Estimated 2019	personal health	care expenditures.
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Second, provider savings for each category have been estimated by applying a savings rate to each activity.

Table 7. Estimates of savings by activity, personal health spending, 2019.

	2019 adjusted at new growth								
			Administrative Savings rate	Market					
				power		Ac	Admin		Remaining
Hospital	\$	13,839	12.9%	\$	361	\$	1,785	\$	11,692
Physician	\$	11,154	10.8%	\$	186	\$	1,203	\$	9,765
Other Professional	\$	1,709	9.6%			\$	164	\$	1,545
Dental	\$	2,339	7.5%			\$	175	\$	2,164
Home Health	\$	1,017	2.4%			\$	24	\$	993
Drugs	\$	5,764	37.5%	\$	2,162			\$	3,603
Durable Medical	\$	568	10.0%	\$	57			\$	512
Nursing Home	\$	2,035	1.1%					\$	2,035
Other	\$	3,972	14.9%			\$	592	\$	3,380

The administrative savings rate is the difference between administrative cost in Canada and the United States. The Canadian rate is estimated by Woolhandler, Campbell, and Himmelstein.⁶⁷ For hospitals, I use the updated data from Himmelstein et al.⁶⁸ The United States rate is the share of salaries for administrative positions in the 2012 Bureau of Labor Statistics, Occupational Employment Statistics.⁶⁹

It is assumed that the single payer agency will use its bargaining power to lower prices. A savings of 37.5 percent is assumed for pharmaceuticals and medical devices.⁷⁰ It is assumed that prices will be lowered for physicians at the rate that would have prevailed in Massachusetts if prices were lowered to the median rate.⁷¹ Hospital prices are assumed to fall for hospitals earning profits more than 150% of the median so that profits will be 150% of the median.

Savings for each activity are calculated as the savings rate times the 2019 expenditures except for uncovered services.

Administrative spending by sponsors under the ACA is the difference between the personal health expenditures and the health consumption expenditures in the CMS National Health Expenditures. It is assumed that the sponsor administrative rate will be 1.8% of spending, the current rate under Medicare fee-for-service.

Total savings are the sum of the provider savings and administrative savings.

⁶⁷ Woolhandler, Campbell, and Himmelstein, "Cost of Health Care Administration in the United States and Canada."

⁶⁸ Himmelstein et al., "A Comparison Of Hospital Administrative Costs In Eight Nations."

⁶⁹ Occupational Employment Statistics: OES Research Estimates by State and Industry, 2013.

⁷⁰ McKinsey Global Institute, "Accounting for the Cost of Health Care in the United States."

⁷¹ Coakley, Examination of Health Care Cost Trends and Cost Drivers Pursuant to G.L. C. 118G, § 6½(b) Report, 2011.

Appendix 4: Estimating the cost of program improvements

Three program improvements are necessarily associated with a single payer system.

Universal coverage

One source of the efficiency of a single payer system is the elimination of the expense in checking insurance status. Currently, the uninsured spend about 55% of the average per capita health care spending. Because they are younger and healthier than the general population, it is assumed that their spending will rise to 85% when covered by the single payer plan.⁷² The increase in spending with universal coverage is estimated by multiplying the increase in spending (30%) by the uninsured by their share of the Oregon population (2.7%). This proportion (0.81%) was applied to every category of personal spending *except* uncovered services, such as nursing home and long-term care.⁷³

Change in utilization

As described in the text, eliminating deductibles and copayments will allow the sick to utilize the health care system more. The increase in utilization is estimated as the 3% that happened in Canada with the establishment of a single payer system in 1971 plus 1.5% as an estimate of the shortfall in health care spending over the 2009-19 period that is not explained by macroeconomic circumstances. This ratio is applied to every category of personal spending *except uncovered services*, non-rehabilitative nursing home and long-term care.

It is also possible to assess the role of cost in limiting spending by comparing populations in Oregon experiencing different degrees of cost-related-access difficulties. Using the county data on spending and these difficulties, the relationship between spending and cost-barriers is indeed negative, more spending with higher barriers.⁷⁴ The simple regression of cost on proportion with access difficulties is: spending= \$7738.9 - 30.608*(proportion unable to see a physician because of cost); the R2 is .0537. Using this equation, lowering the proportion with access difficulties to 4% in every county would increase spending by 4.2%.

Another approach to estimating the change in utilization is to apply the elasticity of demand for health care to the change in the out-of-pocket cost of health care due to the single payer

⁷² Hadley and Holahan, "The Cost of Care for the Uninsured: What Do We Spend, Who Pays, and What Would Full Coverage Add to Medical Spending"; Rachel Garfield, Rachel Licata, and Katherine Young, *The Uninsured at the Starting Line: Findings from the 2013 Kaiser Survey of Low Income Americans and the ACA*, 47 Million (Kaiser Family Foundation, February 2014), http://kaiserfamilyfoundation.files.wordpress.com/2014/02/8552-the-uninsured-atthe-starting-line6.pdf; Kaiser Family Foundation, *The Uninsured: A Primer: Supplemental Data Tables*, October 2011, http://www.kff.org/uninsured/upload/7451-07-Data-Tables.pdf.

⁷³ Note that the same procedure was used to estimate the increase in spending due to the ACA increase in coverage.

⁷⁴ "County Health Rankings," *County Health Rankings & Roadmaps*, accessed April 28, 2014, http://www.countyhealthrankings.org/rankings/data.

plan. By raising the actuarial rate from 89% to 96%, the plan lowers costs to patients by 62%. With an elasticity of demand of -0.17, this would raise utilization by 10%, almost double my historical estimate.⁷⁵ Such a large increase in utilization would absorb most of the efficiency savings from the single payer plan.⁷⁶

The higher estimate derived from elasticity of demand probably overstates the change in utilization with single payer. As Ringel et al. note, the elasticity of demand estimates are very different for preventive and primary services versus hospitalization and other services. Studies, like those reviewed by Ringel et al., that focus on physician *visits* may severely overstate the elasticity of demand for health *expenditures* because a very large share of expenditures are for hospitalization and acute care where the price-elasticity is very low.⁷⁷ The classic Rand Study, for example, found that increased cost sharing had no effect on the intensity of services, which matters more than initial physician contact, and that cost sharing reduced use of preventive and diagnostic services, undermining long-term health and risking expensive complications. Canadian studies have similarly found that reduced cost sharing has little effect on health care spending because most spending goes to a relatively small number of people with health conditions that drive spending. Reinforcing the idea that "moral hazard" in health care is a myth, studies like these suggest that even the utilization increase that we use here is too large, overstating the increase in expense with single-payer and the elimination of cost sharing.⁷⁸

⁷⁵ Jeanne Ringel et al., *The Elasticity of Demand for Health Care: A Review of the Literature and Its Application to the Military Health System* (National Defense Research Institute and Rand Health, 2005),

http://www.rand.org/content/dam/rand/pubs/monograph_reports/2005/MR1355.pdf; A higher estimate is described in Jason Shafrin, "Is Health Care Demand Elastic? « Healthcare Economist," accessed December 5, 2014, http://healthcare-economist.com/2009/07/22/is-health-care-demand-elastic/.

⁷⁶ Note that this is *not* the same as saying increases in spending are a "cost" to the extent that increased spending leads to improvements in health and welfare.

⁷⁷ Su Liu and Deborah Chollet, *Price and Income Elasticity of the Demand for Health Insurance and Health Care Services: A Critical Review of the Literature* (Mathematica Policy Research, March 24, 2006), 53,

http://www.mathematica-mpr.com/~/media/publications/PDFs/priceincome.pdf; Note however that the Oregon Medicaid study found an increase in hospitalization for those with insurance; see Amy Finkelstein et al., "The Oregon Health Insurance Experiment: Evidence from the First Year," NBER Working Paper (Cambridge, MA, July 2011); Amy Finkelstein and Corporation Ebooks, *Moral Hazard in Health Insurance: Developments since Arrow* (1963), Kenneth J. Arrow Lecture Series (New York: Columbia University Press, 2014); Joseph P. Newhouse and Corporation Rand, *Free for All?: Lessons from the Rand Health Insurance Experiment* (Cambridge, Mass: Harvard University Press, 1993); Joseph P. Newhouse, *The Health Insurance Study: A Summary*, [Report] - Rand Corporation ; R-965-1-OEO (Santa Monica, Calif: Rand, 1974).

⁷⁸ M. Edith Rasell, "Cost Sharing in Health Insurance — A Reexamination," *New England Journal of Medicine* 332, no. 17 (April 27, 1995): 1164–68, doi:10.1056/NEJM199504273321711; Noralou P. Roos et al., "Does Universal Comprehensive Insurance Encourage Unnecessary Use? Evidence from Manitoba Says 'no,'" *Canadian Medical Association Journal* 170, no. 2 (January 20, 2004): 209–14; Malcolm Gladwell, "The Moral-Hazard Myth," *The New Yorker*, August 22, 2005, http://www.newyorker.com/magazine/2005/08/29/the-moral-hazard-myth.

Appendix 5: Revenue sources for Oregon Health Care Plan and the net burden of the Plan

Adjusted Gross Income in Oregon is from the Oregon, Department of Revenue. The division of personal income by source is from the Congressional Budget Office.⁷⁹

Personal income for 2019 has been estimated as the 2013 rate times the Congressional Budget Office projection of the change in income over that period.⁸⁰ It is assumed that income increases for all groups at the same rate.⁸¹

Tax revenues are estimated as the tax rate times income for each group.

The distribution of current out-of-pocket spending are estimated from census expenditure date in Ketsche updated using the change in percapita spending from 2007 (her year) to 2019.⁸² The cost of insurance is from the MEPS study for 2012 updated using the change in percapita spending to 2019.⁸³ The share at different income levels with health insurance is from the Federal Reserve.⁸⁴

⁷⁹ Congressional Budget Office, *Trends in the Distribution of Household Income Between 1979 and 2007* (Washington, D. C.: United States Congress, Congressional Budget Office, October 2011),

http://www.whitehouse.gov/sites/default/files/omb/budget/fy2014/assets/spec.pdf.

⁸⁰ "An Update to the Budget and Economic Outlook: 2014 to 2024," *Congressional Budget Office*, accessed October 27, 2014, https://www.cbo.gov/publication/45653.

⁸¹ Because this understates income for higher groups with higher tax rates, this assumption understates revenue from the tax program.

⁸² Ketsche et al., "Lower-Income Families Pay A Higher Share Of Income Toward National Health Care Spending Than Higher-Income Families Do."

⁸³ Agency for Healthcare Research and Quality, *Medical Expenditure Panel Survey*, 2009,

http://www.meps.ahrq.gov/mepsweb/data_stats/state_tables.jsp?regionid=18&year=-1.

⁸⁴ Board of Governors, Federal Reserve System, *Report on the Economic Well-Being of U.S. Households in 2013* (Washington, D. C.: Board of Governors, Federal Reserve System, July 2014),

http://www.federalreserve.gov/econresdata/2013-report-economic-well-being-us-households-201407.pdf.

Appendix 6: Alternative coverage options

A lower actuarial rate

Single-payer payments could be reduced by maintaining copayments or deductibles. Maintaining such fees undermines the insurance function of the single-payer plan by shifting cost from the general public to sick individuals, and does so without regard for ability to pay.⁸⁵ Such charges also risk reducing access, especially among low-income individuals.⁸⁶ As happens with the current Medicare system, lowering the actuarial rate risks encouraging the purchase of wrap-around private insurance, which would raise administrative costs in the private insurers while also creating extra billing expenses.

Each percentage point reduction in the actuarial rate would lower the needed revenue by \$388 m, or 0.33% of payroll. Lowering the rate to 87%, the rate of the Federal Employee Benefits Program, would shift \$3.5 billion onto out-of-pocket costs, paid by the sick and needy, and may save a further \$2.6 billion by discouraging utilization. This might allow significant reductions in the needed premium rates, albeit while reducing the redistributive nature of the program. It would also entail additional costs.

- If households buy private insurance to cover the higher deductibles and copays, it might entail insurance significant administrative costs.
- If the state single-payer agency tried to mitigate the burden of higher copayments and deductibles on the poorest 25% of households, those with incomes of under \$25,000, it would entail additional administration costs to check incomes and administer more complicated copayments and deductibles. This would reduce the savings from a lower actuarial rate.

The cost of dental and long-term care coverage

This report is drafted assuming that the single payer plan would cover dental but not long-term care beyond what is already covered under Medicare (medically-necessary care) and Medicaid. Estimates of the cost of dental coverage are different from those for other services because fewer Oregon residents have dental coverage now.⁸⁷ Currently, 58% of dental services are paid out-of-pocket. Similarly, long-term care is largely self-funded; the elderly and others in nursing

⁸⁵ Low-income households could be exempted from these fees but that would require a bureaucracy to check incomes, raising the administrative burden from Medicare's 1.8% toward Medicaid's 5.7%, at a cost of \$456 m.
⁸⁶ Again, this effect would be mitigated by exempting the low-income, but at an administrative cost.

⁸⁷ By contrast, no special estimates are made for vision coverage where current out-of-pocket spending is substantially less, both in absolute amounts and as a share of the total, and there is relatively little unmet need. The American Optometry Association, for example, says that "[t]he broad penetration of vision correction devices in the U.S. population makes the primary eyecare market large. But the growth rate of the market is not robust." See Jobson Medical Information, *The State of the Optometric Profession: 2013* (American Optometric Association, 2014), 10, http://www.reviewob.com/Data/Sites/1/soop_070120134.pdf.

homes and other long-term care facilities pay only 36% of the cost and many remain outside of nursing homes, cared for at home by family members because of the cost of care. To cover existing services and the anticipated increase in utilization if insured could add nearly \$2.3 billion to the cost of the program, with larger increases over time because of the aging of the population.⁸⁸

The effect of insurance on dental expenditures is estimated from data from the Medical Expenditures Survey.⁸⁹ The cost of this benefit, including regular visits, preventive care, and restorative care, is estimated as the difference between the number of visits for the insured times the average cost per visit times the population. The impact of eliminating copayments is estimated assuming an elasticity of demand for dental services of 0.3.⁹⁰

Long-term care is expected to become more expensive over time with population aging and increasing life expectancy.⁹¹ Assuming that the rate of the population needing care at any age will remain constant, the Congressional Budget Office projects that the cost of long-term care for the elderly will double as a share of the Gross Domestic Product, rising from 1.3% of GDP in 2010 to 3.0% in 2050, an annual rate of increase of over 4% a year in real terms; including inflation, the CBO projects long-term care costs will rise over 6% a year, increasing by 81% in a decade.

⁸⁸ Most of the remaining costs are covered by Medicare and Medicaid with some 10%, or almost \$100 m., paid by other payers, generally philanthropies. Note that the cost to the state would be less if the single payer agency did not cover certain services, such as cable television or private rooms.

⁸⁹ Brown, Erwin and Richard Manski, *Dental Services: Use, Expenses, and Sources of Payment, 1996-2000*, Research Findings (Washington, D. C.: Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey, January 2004), http://meps.ahrq.gov/mepsweb/data_files/publications/rf20/rf20.shtml#Table7; Barbara Bloom and Robin Cohen, *Dental Insurance for Persons Under Age 65 with Private Health Insurance: United States, 2008*, NCHS Data Brief (Centers for Disease Control, June 2010), http://www.cdc.gov/nchs/data/databriefs/db40.pdf; Bernard Sanders, *Dental Crisis in America: The Need to Expand Access* (Washington, D. C.: United States Senate, Subcommittee on Primary Health and Aging, Committee on Health, Education, Labor and Pensions, February 29, 2012), http://www.sanders.senate.gov/imo/media/doc/DENTALCRISIS.REPORT.pdf; "FastStats - Oral and Dental Health," accessed November 1, 2014, http://www.cdc.gov/nchs/fastats/dental.htm; "Thousands of Oregonians Gain Dental Insurance. Are They Using It?," *Portland Business Journal*, accessed November 1, 2014, http://www.bizjournals.com/portland/blog/health-care-inc/2014/04/thousands-of-oregonians-gain-dental-insurance-are.html.

⁹⁰ Ringel et al., The Elasticity of Demand for Health Care: A Review of the Literature and Its Application to the Military Health System.

⁹¹ "Rising Demand for Long-Term Services and Supports for Elderly People," *Congressional Budget Office*, accessed November 2, 2014, http://www.cbo.gov/publication/44363; Richard Johnson, Desmond Toohey, and Joshua Wiener, *Meeting the Long-Term Care Needs of the Baby Boomers: How Changing Families Will Affect Paid Helpers and Institutions, Retirement Project*, Discussion Paper (Washington, D. C.: Retirement Project, Urban Institute, May 2007), http://www.urban.org/uploadedpdf/311451_meeting_care.pdf.

The existing literature on the price-sensitivity of long-term care has been exclusively for individual facilities rather than for the service as a whole.⁹² An upper-bound estimate of the demand for long-term and nursing home care might be a where *all* the care currently provided, including by families, was provided through institutions. The Congressional Budget Office estimates that in 2011 family members provided \$234 billion worth of informal care in the home, almost double the \$134 billion in institutional care provided by nursing homes and others.⁹³ If this ratio applied to Oregon, then families will provide informal elder care valued at \$3,674 million in 2019, and this would rise to about \$5,764 million in 2029. Including projected 2019 spending on institutional care, \$2,104 billion, the total cost of long-term care in 2019 would be expected to rise to over \$4.3 b. even after taking account of administrative savings.

⁹² Reviewed in Liu and Chollet, *Price and Income Elasticity of the Demand for Health Insurance and Health Care Services: A Critical Review of the Literature*.

⁹³ "Rising Demand for Long-Term Services and Supports for Elderly People," 13.

Appendix 7: Covered Services

Health services that are medically necessary or appropriate for the maintenance of health, the prevention of health problems, or the diagnosis, treatment, or rehabilitation of a health condition, excluding health services provided only for cosmetic purposes, but including the following⁹⁴:

- Primary and preventive care, including health education
- Specialty care
- Inpatient and outpatient hospital care\Emergency care
- Prescription drugs
- Durable medical equipment, including prosthetics
- Mental health services
- Substance abuse treatment
- Dental services
- Chiropractic, naturopathic, and acupuncture services
- Certified nurse midwife services
- Women's health services
- Ophthalmic services, as well as basic vision and vision correction
- Diagnostic imaging, laboratory services and other diagnostic and evaluation services
- Inpatient and outpatient rehabilitative services (such as physical, speech, and occupational therapy, and home health care if appropriate)
- Emergency transportation
- Translation of spoken and written language
- Hospice care
- Podiatry
- Dialysis

⁹⁴ http://hcao.org/health-care-legislation/