

The ACA Medicaid Expansion in Washington

Full implementation of the Affordable Care Act (ACA) will add some 330,000 people to the Medicaid rolls in Washington state and a much smaller number for the Children's Health Insurance Program (CHIP). The state's cost per new enrollee will be low, however, when compared with current enrollees. The new enrollees are projected to be younger and healthier, and the ACA's new eligibles, mainly able-bodied non-parents under 138 percent of the federal poverty level, will require a much lower state contribution—down from 50 percent of medical spending to zero percent initially, rising to 10 percent over time. These are the key findings among numerous projections made by this project, which combined the results of prior Urban Institute microsimulation of coverage choices and health care costs with the large population sample of the Washington State Population Survey. It is also notable that the expansion's new budgetary costs will be substantially offset by the near-doubling of federal matching revenue for some 60,000 enrollees, those now covered under federal waivers.

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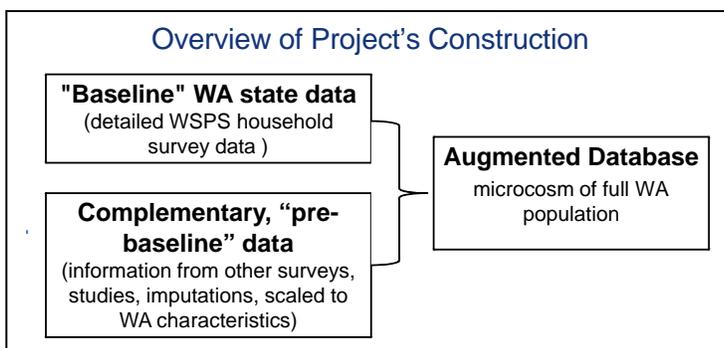
Executive Summary

Policy makers in Washington State today, as elsewhere, have great interest in how many people will benefit from new health insurance coverage under the Affordable Care Act (ACA) and in how much they will cost the state budget for Medicaid. Even though the federal government will largely pay for newly eligible people—100% of their medical expense for 2014-16, declining to 90% by 2019 and thereafter—the state will still incur some costs for them. It will also incur costs to cover some of the people who have already been eligible but who have not enrolled. A share of them will enroll under the ACA in reaction to enhanced its consumer outreach and streamlined enrollment processes.

Just how beneficial—and expensive—expansion will be depends upon how many people actually enroll and with what characteristics, the topic of this project. The ACA’s impacts also depend upon how Washington State chooses to administer its Medicaid program, for example, in setting provider payment rates, but the effects of such administrative policy making are beyond the scope of this work.¹ When we say Medicaid, we also include the complementary coverage of Apple Health for Kids (the CHIP program in Washington), for which ACA impacts are much smaller. We do not include Medicaid’s enrollees aged 65 and above, almost all of whom are also eligible for Medicare.

This brief estimates the numbers and characteristics of today’s uninsured population and of those likely to enroll starting in 2014, under new standards and new processes. We thus provide evidence that is highly relevant to projecting the budgetary impact of Medicaid expansion, even though we do not directly project fiscal impacts. Our information can support the budgeting done by Washington state policy makers as they plan for coverage expansion going forward. This summary highlights the findings of the three tasks that comprised our project. Full details follow in the same order.

Task I was to construct a representative database for the entire Washington State population



The database could be used to generate descriptive statistics. Our projections drew upon a special augmented database that we constructed for this project (see box). We began with baseline, pre-ACA, state-specific data. This information came from Washington State's well-established household survey on insurance status and other characteristics of interest, the 2010

¹ Parts of this summary, including its graphics, are adapted from testimony presented to Washington State legislators in January 2012. We thank all participants at that session for the comments received at that time, which have helped improve this presentation of key findings.



Washington state Population Survey (WSPS). Prior research for state officials had made us familiar with the merits of this long-running survey.

Using the WSPS as a base assured us of representativeness, but we needed to add additional data elements from federal CPS and MEPS surveys, notably including household medical spending, individuals' health status, and employer offer rates. We also imputed detailed immigration status based upon standard techniques, because that is also important for Medicaid eligibility. The data had to be integrated together with detailed matching by demographic characteristics and other factors. Dollar amounts were "aged" or inflated to 2011 levels. A final adjustment assured accuracy of reported incomes around the new Medicaid eligibility boundary of 138 percent of the federal poverty level (FPL). The augmented dataset maintained consistency with the WSPS and with external data on population distributions. It represents a kind of microcosm of the entire Washington State population, from which we could draw numerous statistics.

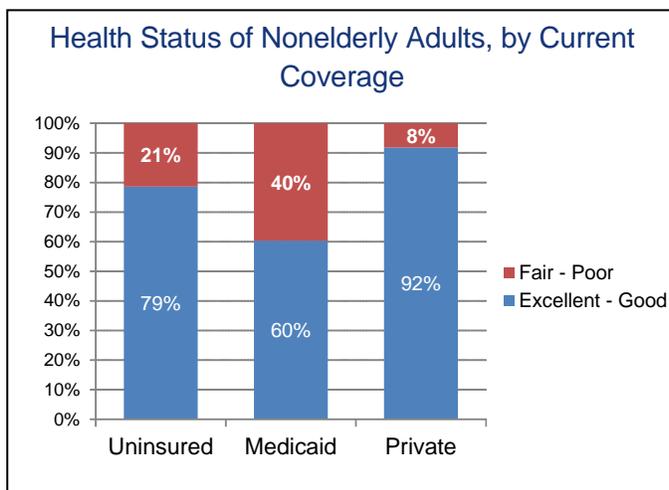
Initial descriptive statistics included spending profiles by Medicaid eligibility "pathway." Average annual spending totals \$1300 per TANF child, but \$9400 per SSI disabled person, for example. (Dollar figures include both insured and out of pocket spending; they come from detailed surveys and tracking of actual expenditures, which are not the same as program administrative data. Consistently reported figures are available for people in various insurance "states," private employer coverage, Medicaid, uninsured, etc.)

Beyond the augmented dataset, we also used non-survey information available for Washington, such as Medicaid enrollment by eligibility pathway and hospital utilization rates. Finally, our analyses also relied upon results from microsimulation modeling that we had done elsewhere, including offer and take-up rates under varying circumstances. Full microsimulation using Washington State data was beyond the time and resource constraints of this work, but the approach used here obtained most of the benefits of tailored simulations.

Task II used the dataset to estimate relevant key statistics for Medicaid.

We then used the data to respond to policy queries:

Who are the uninsured? We used the database to create a profile of the state's uninsured—who will be



the main source of new enrollment under the ACA. Almost 57,000 children through age 18 are uninsured, along with some 730,000 non-elderly adults, aged 19-64. Importantly, almost half of currently uninsured Washington residents have incomes below the ACA's Medicaid eligibility threshold of 138% of the FPL.

We also found that the uninsured have better health status than current Medicaid enrollees: Only 21 percent are in fair or poor health (box),



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compared with 40 percent of those on Medicaid. But Washingtonians with private coverage are healthier yet; only 8 percent of them have fair or poor health. Uninsured people are also less likely to have chronic conditions than are Medicaid enrollees and their rates are very close to those of the privately insured. Finally, 10.6 percent of the uninsured are undocumented immigrants, and hence ineligible for Medicaid, four times the rate for privately insured people.

How high are the costs incurred by the uninsured? ... or imposed by them on caregivers and others that provide or pay for services? Our data showed that over half of the uninsured receive uncompensated care. About half get little or no care, but the average is substantial. The median expenditure per nonelderly adult was about \$150 (2011 dollars), but the average was over \$2600. Just under one third was paid out of pocket by the uninsured population themselves. The remainder, just over two thirds, represents uncompensated care paid for by health care providers and governments.

Overall, the per-person average cost of uncompensated care is only about two thirds the level of average spending for Medicaid. Medicaid spending, however, varies greatly by eligibility pathway, as already noted. In general, once uninsured people obtain insurance, they can be expected to consume more care, as common sense suggests and other analyses have found.

How many people would become eligible for Medicaid under the expansion? How many would enroll? We found that the expansion of *eligibility* for coverage will be quite large. The expansion of actual *enrollment* will be substantially less, as not all eligibles will “take up” public coverage, despite the encouragements of the ACA.

The eligibility expansion will total about 1 million people under age 65. This figure is nearly as large as the 1.1 million comparable population now enrolled, as of 2011 (see box, top half).² Somewhat more

Medicaid Enrollment, Baseline & Projected	
New Eligibles Will Take up Medicaid at Higher Rates than Those Already Eligible	
Currently Enrolled	1,095,254
Potential New Enrollees	1,039,228
Currently Eligible, Not Enrolled ¹	544,921
Newly Eligible Under Reform	494,307
Projected New Enrollment ²	328,221
Currently Eligible, Not Enrolled	77,913

than half of these *potential* new enrollees are already eligible for Medicaid but are not enrolled under their current circumstances—some 545,000 people. An additional 495,000 people will become newly eligible under the reform. The distinction between those already eligible and those newly eligible is important under the ACA: Enrolling a currently eligible person is much more expensive for the state budget than a newly eligible one, because the federal matching rate is so

² Our estimates here simulated the Medicaid expansion as if the ACA’s new rules were fully implemented for Washington State’s population and economic circumstances of 2011. This approach provides direct comparability with the existing state of the world, which is familiar to policy makers. Modeling demographic shifts and changes in the economy were beyond the scope of this task. See also Task 3, below. Note that we include the waiver populations as part of the “currently enrolled,” even though they are expected to qualify as “newly eligible” under the ACA.



much higher for the newly eligible.

We estimate that actual enrollment will total nearly 330,000 people in Washington State, most of them newly eligible (box, bottom half). Predictions of future state budgetary obligations should recognize the difference between actual enrollment and eligibility for coverage, although some estimates of the ACA's costs have not done so. Among already eligible people who have chosen not to enroll, we estimate that fewer than 80,000 will enroll under the ACA. This number may seem small, but it represents an increase in the take-up rate for those already eligible from 67 percent currently to 72 percent under the ACA. Washington has already achieved a higher-than-average take-up rate through outreach. It would take substantial new state outreach initiatives to achieve rates much higher than what we have modeled.

Among newly eligible people, in contrast, about 250,000 people can be expected to enroll. Most of these people are currently uninsured; such people are very likely to take up coverage once it becomes available to them. Some of the new enrollees will have shifted from previous private coverage. However, private coverage through an employer is generally preferred over Medicaid, so their take-up rate is much lower. In contrast, take-up is high among people with *non-group* private coverage due to the no-wrong-door interface for the exchange and Medicaid, but this is a small number of people. Of the 328,000 expected new Medicaid enrollees, some 215,000 would be uninsured without health reform.

Overall, about five out of six of all new enrollees will be nonelderly adults. Children today are already quite well covered, so there is less room for increased enrollment. New enrollees will also be younger and healthier than the comparable current Medicaid population. For example, about 27 percent report fair or poor health, substantially below the 40% of comparable current Medicaid enrollees (above). Owing to adverse selection, health status is somewhat worse for new enrollees than for the entire uninsured population, described above. New enrollees are also less likely to have chronic conditions or to use tobacco products.

Given their differences in age and health status, new enrollees will have lower medical spending than today's enrollees—an issue addressed more thoroughly under Task III below.

Computing Washington's overall share of Medicaid and CHIP spending. What share of total Medicaid and CHIP costs will be paid for by the federal government and what share by the state? Currently, costs are a 50-50 split for Medicaid, and the federal government pays a higher share of the costs of children enrolled through CHIP. Under the ACA, there are several changes:

- For those newly eligible for Medicaid under the expansion, the federal government would pay 100 percent of their costs through 2016. The federal share would decrease until it reached 90% for 2020 and subsequent years.
- The federal share of CHIP costs will increase beginning in 2016.



- Adults currently enrolled through Washington’s Medicaid bridge waiver will have the same federal reimbursement rate as the newly eligible beginning in 2014. This will result in state savings on these Medicaid enrollees.
- The federal government would pay 50 percent of the costs of other Medicaid enrollees.

We developed a set of blended federal match rates—the overall federal share of spending—taking all four of these rates into account. The federal share would be about 65 percent during 2014-16 (71 percent not including disabled beneficiaries), dropping to 62 percent by 2019 (or 67 percent). All these rates of course exceed the current 50 percent federal match received by the state.

How do those with coverage through the smallest employers differ from those covered through larger businesses? Given policy interest in this group, we estimated certain results for people insured through firms of fewer than 10 employees. We found that this group has lower incomes than at larger firms; 45 percent are below 400 percent of FPL (vs. 34 percent) and thus eligible for Medicaid or subsidized coverage through a health insurance exchange. (The latter is not a topic otherwise examined in our project.) They also have higher inpatient hospital usage as well as slightly higher spending per person.

Task III went into greater depth about key issues.

How many people will enroll in Medicaid after its expansion? Take-up rates are the key parameter affecting estimated enrollment growth. Our best estimate (above) is that there will be 328,000 new Medicaid enrollees. This projection reflects the findings of the economic literature that are built into our Health Insurance Policy Simulation Model (HIPSIM).

	Low	Medium	High
Total New Enrollment	223,951	328,221	423,935
Hospital Days Increase	112,000	199,000	209,000

Here, we conducted a sensitivity analysis using lower-end and higher-end assumptions about take-up to bound our main estimate. Our lower-end estimate is 224,000; the higher-end estimate, 424,000 (see box). They were based on the lowest and highest plausible rates in the literature on take-up.

Broken out by current eligibility status, for newly enrolling newly eligible people, the low, medium, and high estimates are 176,000, 250,000, and 274,000. For the newly enrolling who are currently eligible, projections are 48,000, 78,000, and 150,000.

How will Medicaid expansion affect hospital utilization? Based on hospital discharge data, we project current hospital days of some 650,000. More enrollees under the ACA will generate demand for more hospital care, especially for those previously uninsured. Hospital days thus unsurprisingly increase as we assume higher rates of take-up: We predict total increases for all non-elderly enrollees of 112,000, 199,000, and 209,000 days for low, medium, and high take-up. This projection takes into account different patterns of usage for people within each take-up rate panel, for subgroups of the population defined by various health and demographic characteristics. The small increase from the medium to high



take-up rate may reflect the improved health risk of those less likely to take up Medicaid and hence included only when take-up rises quite high (box).

Our estimates of a person’s Medicaid cost vary by characteristics such as age, gender, health status, and disability status. Overall levels are set to match administrative data for different categories of Medicaid eligibility in Washington. We performed an additional check by comparing Medicaid spending with

	Low	Medium	High
Per Person Expenditure	6,471	5,799	5,312
Medicaid Spending Rise	\$1.45 billion	\$1.90 billion	\$2.24 billion
Uncompensated Care Decline	\$477 million	\$524 million	\$608 million

spending in employer-sponsored coverage to ensure that the ratio between the two was consistent with findings in the research literature. See Task I for details.

How much will Medicaid expansion cost in the short run? Our best estimate is that new enrollees will cost an average of \$5,800 per person per year (in 2011 dollars; box, medium assumption). This average is

more than a thousand dollars less than the average for existing enrollees. The overall averages conceal a larger projected difference between the costs of those newly eligible and those already eligible for Medicaid—\$3,600 per year for newly eligible vs. over \$7,000 for those currently eligible, whether already enrolled or newly enrolled under the ACA.

Like enrollment estimates, cost projections are sensitive to different assumptions about take-up rates. Our sensitivity analyses here predicted a range from \$6,500 to \$5,300 from low to high take-up. (box). This progressive decline underscores the earlier finding that new eligibles are in general less costly than existing eligibles.

Overall, we estimate that new enrollees will increase total annual Medicaid costs by \$1.90 billion in the range of \$1.45 to \$2.24 billion (box). All of these figures represent combined state and federal shares of spending.

Rises in Medicaid coverage and spending will be accompanied by declines in costs of uncompensated care. Savings will accrue initially to Medicaid health care providers but are potentially a large source of governmental budgetary relief. As for higher Medicaid spending, declines in uncompensated care are sensitive both to the rate of take-up assumed and to the fact that higher-spending people tend to take up coverage before lower-spending ones. We estimate savings in uncompensated care costs of \$477 million (low take-up), \$524 million (medium take-up), and \$608 million (high take-up). Budgetary savings can occur from declines in uncompensated care wherever the state or any locality pays directly or indirectly for care provided to the currently uninsured (e.g., through Disproportionate Share Hospital, or DSH, payments). Achieving such savings requires active state intervention to change existing flows of funds.

How much will Medicaid expansion cost in the longer run? Estimates presented to this point reflect the impacts of ACA expansion as though fully implemented in the year 2011. Here we estimate how impacts will occur from 2013 through 2019, representing the period from before Medicaid expansion to fully



Medicaid Growth under the ACA		
	2013 (pre ACA)	2019 (phased in)
Medicaid enrollment	1.06 million	1.47 million
Total Program Spending	\$7.53 billion	\$10.70 billion
State Share of Spending	\$2.66 billion	\$3.81 billion

phase-in of changes. Our best estimates are that enrollment will growth by just under 40% during these six years, while spending will grow by just over 40% (box).

We used our preferred take-up estimates, omitting our low-end and high-end scenarios. We assumed that the U.S. Census Bureau has accurately projected population

change, that Medicaid costs will grow by 5% per year from 2009 onwards, and that Medicaid take-up behavior will not change over time. These estimates make no allowance for policy change, nor for impacts of efficiency- and value-enhancing initiatives under the ACA or otherwise.

The results in this section are *not* official Medicaid cost projections from the Office of Financial Management and are included for illustrative purposes only. Estimates in this report were prepared to assist them in their future projections.³ The dollar estimates do represent consistently derived figures for all years and all populations, which enhances the credibility of comparisons made over time or across groups of people..

Who are the new Medicaid enrollees? What is their composition by eligibility pathway? We found that new nonelderly adult enrollees will primarily be newly eligible people by virtue of the ACA expansions (245,000 of the estimated 328,000 increase). New enrollment among nonelderly adults already eligible is smaller (29,000) because of low take-up, as already noted. Among newly enrolling children (a much smaller group), nearly all are already eligible, primarily through Medicaid’s expansion above TANF to 200% of FPL (27,000) or CHIP’s expansion to 300% of FPL (17,000). Very few children obtain coverage as a consequence of health reform’s eligibility expansion (<6,000).

Among nonelderly adults, the newly eligible are a markedly lower-risk group than the currently eligible, across many characteristics. They are younger (32.7% are 19-24 years old, compared to 10-20% for the currently eligible), enjoy better health, and more likely to be single without dependents (at 70%, compared to 21%-55% for the currently eligible). Results are similar across eligibility pathways and different assumptions about take-up, with a few exceptions.

New enrollment will be spread across the state. Each region’s share is similar to its share of the general population, but with some notable exceptions. Snohomish County totals about 11% of the overall population, but accounts for 16% of currently eligible new enrollees and 7% of newly eligible new enrollees. Such information could be used to target outreach activities.

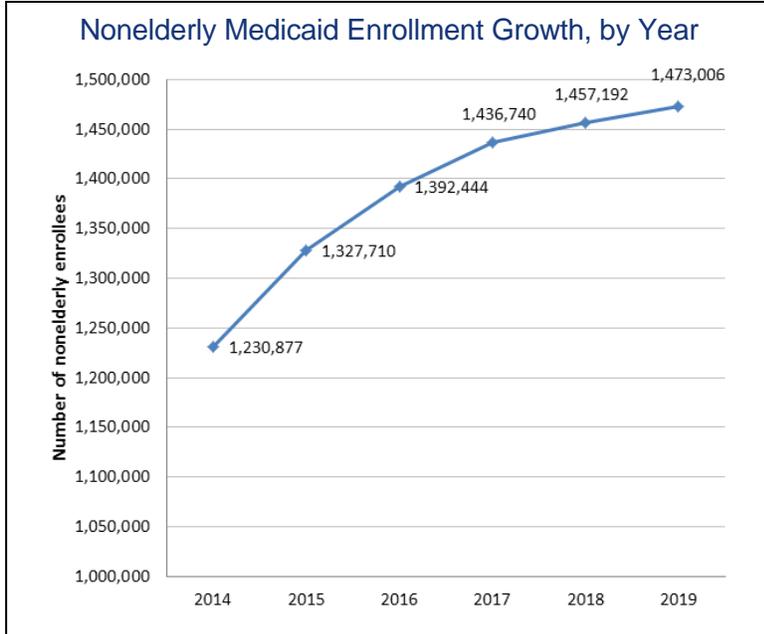
Phase-in of Medicaid and CHIP Enrollment, 2014-2019. As noted above, most work for this project provided estimates of ACA impacts as though fully phased-in for 2011. This subtask developed estimates of enrollment growth by year for 2012-2019. We illustrate here the change for nonelderly adults (box). This includes both normal caseload growth and new enrollment due to the ACA. We

³ We “pegged” our dollar values to match available administrative data as of the start of our work.



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assume that new enrollment due to the ACA will phase in from 2014 to 2017 as people eligible for coverage learn of and take up Medicaid. Enrollment for different groups of eligible people will phase in at different rate.





Task I: Construction of the Augmented Washington State Population Survey (WSPS) data base

In this section, we describe the construction of the master data file that forms the basis of our analysis of health-reform populations in Washington State once the federal Affordable Care Act (ACA) is fully implemented. This section also provides early descriptive outputs from that file.⁴

The WSPS Baseline File

This project's data file is based on the 2010 Washington State Population Survey (WSPS), downloaded from the state website, per the suggestion of the state's project study team, and inflated to 2011 values.⁵ This is a very useful file, with a sample size much larger than most of the other state surveys we are familiar with. Our working with it showed, as expected from earlier work,⁶ that it is a very "clean" file, fully ready to be merged with other information needed to provide the analytic output promised in our proposal and included in the contract for this project. Given how familiar Washington State policy makers and this project's state study team are with the WSPS, we do not use space in this section to describe its content or organization.

In addition to the WSPS, this project's data file constructed also included significant new data from other sources as well as imputations based upon earlier uses of simulation and imputation models developed at the Urban Institute. Those data were new to the Washington state study team members, so we devote the next section to describing what they are and how they were derived for use in this project.

The HIPSM "Pre-Baseline" Data used to Augment the WSPS

We augmented the WSPS with the data used in constructing the baseline of the Health Insurance Policy Simulation Model (HIPSM),⁷ which for this project thus constitute "pre-baseline" data. Key information for the HIPSM baseline comes from the Current Population Survey (CPS). The CPS is a monthly household survey that mainly collects national data on employment.⁸ The CPS interviews households in the civilian non-institutionalized population as well as members of the Armed Forces living in civilian housing units in the U.S. or on a domestic military base. From its interviewees in March each year, it collects detailed information on income and health insurance from the previous year. The core microdata file which defines HIPSM's population base is a two-year pooled dataset of the March CPS Annual Social and Economic Supplement (ASEC), currently for 2009 and 2010. The March ASEC is the largest CPS dataset, and is the main national source of demographic characteristics and insurance

⁴ It constituted the first deliverable (for Task I) specified by the contract governing this project, OFM Contract No. K885 (UI project # 08651). Almost all of the information in this report has previously been provided to our project officer and other colleagues in Washington State.

⁵ <http://www.ofm.wa.gov/sps/default.asp#data>.

⁶ Randall R. Bovbjerg, Lisa Clemans-Cope, Paul Masi, and A. Bowen Garrett, *Reinsurance in Washington State*, Report to the Washington Office of Financial Management and Office of the Insurance Commissioner, February 2008, <http://www.urban.org/url.cfm?ID=411662>.

⁷ For more about HIPSM and a bibliography of research using the model, see <http://www.urban.org/uploadedpdf/412154-Health-Microsimulation-Capabilities.pdf>.

⁸ <http://www.census.gov/cps/>.



coverage used by many analysts (and the media).⁹ The survey generally samples over 78,000 households and contains 200,000 sets of observations on individuals. Information on age, sex, race, and household relationship is collected. In addition to the usual labor force data, the March ASEC also collects information on income, migration, work experience, and noncash benefits.

ESI offer and eligibility. In preparing the HIPS M files, we imputed offer rates of employer-sponsored insurance (ESI) and worker eligibility for ESI. For example, most part-time workers are not eligible for ESI, even if other workers in their firm are. The February CPS, albeit with a smaller sample size, contains necessary information on employer-sponsored insurance (ESI) offer rate and eligibility status by type of worker that is not available in the March file. Thus, for our purposes, the March CPS ASEC was matched to the February 2005 CPS Contingent Work and Alternative Employment Supplement. Wherever possible, we linked CPS records directly across these two surveys. Unfortunately, the questions we needed from the February survey are not available for a more recent year, so to trend information forward we developed a regression model based on the February-March match. The results represent current trends as captured in data sources such as the Medical Expenditure Panel Survey (MEPS).¹⁰ After all, the recent economy is different from that of 2005.

Health care expenditures. The CPS lacks health care expenditure data, so health care expenditures were statistically matched to CPS interviewee records from the detailed cost information available on the MEPS-household component. Such information is crucial to understanding the cost implications of the ACA. The MEPS is a survey of individuals and families, employers, and medical providers across the US which provides information about health care expenditures and health insurance coverage. There are two major components of MEPS. The Household Component collects data from individuals, families, and their healthcare providers, while the Insurance Component collects information from employers regarding employer sponsored insurance.

For our model, health care expenditures, unique health insurance variables, and health conditions from a pooled 2005-2007 MEPS household Component dataset, with all expenditures in 2008 dollars, were statistically matched to our core CPS file by insurance coverage, demographic, and other common characteristics in the two datasets. In order to do this, matching variables were created for the observations in both CPS and MEPS data. Each CPS observation obtained a unique MEPS observation through the matching of the datasets, and thus each CPS observation (essentially, a person) was imputed to have associated data on health expenditures and health status. We then confirmed that health expenditures in the combined file maintain the statistical distributions and relationships with other variables in the original MEPS.

For each observation, we included expenditures for seven service categories: hospital, physician, dental, other professional care, home healthcare, prescription drugs, and other medical equipment. These

⁹ The American Community Survey has a much larger sample in Washington state, but lacks data such as firm size and many detailed income components used in the construction of the HIPS M pre-baseline data. ACS versions of our immigration status and Medicaid eligibility models are in progress, but were not available at the time of writing.

¹⁰ Details about all the data used are in the documents previously referenced.



categories were created to be consistent with the National Health Accounts (NHA) Personal Healthcare Expenditures, which are maintained by federal actuaries. We then inflated our expenditures using the NHA's per capita growth in each expenditure category. According to Sing and Selden, compared to the NHA, MEPS routinely underestimates the aggregate insured costs associated with Medicaid and privately insured individuals.¹¹ To reconcile this, we use an adjustment factor to boost Medicaid and privately insured dollars to match Sing and Selden's estimates. We apply these factors to each observation in our dataset with positive Medicaid and/or privately insured expenditures.

To adjust for any underreporting at the high end of the cost distribution for the privately insured population in the MEPS, we looked to the Society of Actuaries Large Claims Database. This comprehensive survey examined seven insurers and all of their claims. It was designed to be representative of the national distribution of all claims to private insurers.¹²

We excluded the elderly and those with non-positive private expenditures in the MEPS to make the two surveys comparable. Focusing on the tails of the distribution of private expenditures, we found that the 97th to 99th percentiles in the MEPS fell below the same percentiles in the SOA. The discrepancy ranged from less than 1% (97th percentile) to 13% (99th percentile). We used these discrepancies as adjustment factors for all privately insured individuals with private expenditures above the 97th percentile. Following the adjustment, we deflated the private expenditures of all privately insured individuals by a fixed amount to account for the rise in total private dollars after the adjustment. (A very similar adjustment was made in previous work for Washington State under the Reinsurance Institute work.¹³)

Uncompensated care. Uncompensated care (donated care or free care) associated with the uninsured is not fully captured by MEPS expenditure data. We estimated the out-of-pocket expenditures which the uninsured person would be expected to pay if privately insured, controlling for an array of socio-demographic characteristics and the person's total expenditures. We then calculated the difference between these expected costs and the original out-of-pocket costs for each uninsured person. This difference is a person's uncompensated care. The estimates were calibrated to produce a total amount of uncompensated care consistent with the findings of Holahan, Hadley, et al.¹⁴

Spending under different coverage types. We then computed health care spending for each observation under several alternate "states" or statuses of health coverage: uninsured, insured by Medicaid/CHIP, insured under a typical comprehensive ESI package, and insured under a typical nongroup (individual)

¹¹ Sing M., Banthin J.S., Selden T.M., Cowan C.A., Keehan S.P. (Fall 2006) Reconciling Medical Expenditure Estimates from the MEPS and NHEA, 2002. Health Care Financing Review 28:25-40. Also, Selden TM and Sing M, "Aligning the Medical Expenditure Panel Survey to Aggregate U.S. Benchmarks," Agency for Healthcare Research and Quality, Working Paper No. 08006, July 2008. As of June 28, 2010:

http://gold.ahrq.gov/projectsearch/staff_summary.jsp?project=IM05209.

¹² Society of Actuaries, *Medical Large Claims Experience Study*, 2004, <http://www.soa.org/research/experience-study/group-health/research-medical-large-claims-experience-study.aspx>.

¹³ A. Bowen Garrett, Lisa Clemans-Cope, Paul Masi, and Randall R. Bovbjerg, *The Urban Institute's Micro-Simulation Model for Reinsurance: Model Construction and State-Specific Application*, Report to the State Coverage Initiatives Program, AcademyHealth, Washington, DC, May 2008, <http://www.statecoverage.org/node/971>.

¹⁴ For example, Jack Hadley, John Holahan, Teresa Coughlin, and Dawn Miller, "Covering the Uninsured in 2008: Current Costs, Sources of Payment, and Incremental Costs," *Health Affairs* Web Exclusive, August 25, 2008.



package. For the uninsured we divided total spending into out-of-pocket and uncompensated care. For the other states, we divided it into insured and out-of-pocket costs.

Each of our observations of course had the value of either insured or uninsured. For the uninsured, we have spending from the MEPS, but we need to estimate spending if insured (an alternate “state” that may occur under the ACA). Conversely, we needed to know what the insured would spend if they were uninsured. To simulate spending under insurance (and, conversely, under no insurance), we estimated a two-part model. The first step involved estimating the probability of having any expenditure, given either any insurance or no insurance. In the second stage, we estimated the percent change in total health expenditures when moving from insured to uninsured and vice versa. If a person is originally uninsured, we determine the probability that the person will have positive expenditures when insured using the probabilities calculated in the first stage. Similarly, we determined the probability that the person will have positive expenditures when uninsured. Based on the person’s baseline total expenditures and the probability that the person will have positive expenditures after the change in insurance status, we determined a new amount of total expenditures. (Similar work in the past has helped UI estimate the costs of uninsurance in many states and nationally, and what savings to providers and governments would occur after health coverage reform.¹⁵)

After adjusting total expenditures to simulate spending under no insurance, we needed to transform the corresponding out-of-pocket costs. Instead of using the procedure above, we determined that a simpler and more robust approach is to apply a sliding ratio that varies according to the percentile of transformed total expenditures. First, we calculated the ratio of out-of-pocket to total expenditures by percentiles 5, 20, 80 and 95 of total expenditures for baseline insured people. Then, we applied those ratios, by the same percentile cuts, to the transformed, insured, expenditures of the uninsured. We performed the same procedure for the insured.

At this point, each individual in the file had been assigned health spending consistent with having private coverage. These total health expenditures, however, were reflective of the particular benefit package that the matched MEPS individual had at the time of the survey. For example, if two identical people were given two different health insurance policies, one with a high deductible and one with a low deductible, the person with the low deductible would have total health expenditures that were higher than would the one with the high deductible. Higher out-of-pocket liability lowers the expected spending (because moral hazard is reduced). To remove as much of the benefit package’s effect on total spending as possible, we defined a benefit package for the ESI market and one for the non-group market based on data from the 2010 Kaiser HRET survey. Each individual had his or her private health expenditures adjusted so that he or she has a calculated level of health expenditures consistent with each of the defined benefit packages. Induction factors provided by actuaries were used to incorporate a behavioral response for those individuals/families that would have different levels of out-of-pocket

¹⁵ The first of these path-breaking reports helped provide cost estimates for the debate that led to the Massachusetts health reform. John Holahan, Randall R. Bovbjerg, and Jack Hadley, *Caring for the Uninsured in Massachusetts: What Does it Cost, Who Pays and What Would Full Coverage Add to Medical Spending?* (Boston, MA: Blue Cross Blue Shield of Massachusetts Foundation, November 16, 2004), <http://www.urban.org/url.cfm?ID=1000981>.



spending under the standardized policies than they are assumed to have had at the time of the MEPS survey. Those with decreases in out-of-pocket expenses are presumed to respond by increasing use and total expenditures, while those with increases in out-of-pocket expenses are presumed to decrease use and total expenditures, by the amounts given in the induction factors.

Medicaid Eligibility Categories

Using a model developed at UI, we could impute the pathways through which most reporters of Medicaid in the CPS and ACS receive eligibility using both survey responses and administrative data. For this project's work, we adapted this model for Washington State. We present here the categories that we can distinguish and the target enrollment in each for the 2011 baseline. The following categories could be modeled for children:

- SSI disabled. Here we used WSPS survey responses, supplemented by an additional imputation of disability status for some Medicaid reporters whose eligibility pathway could not be determined. The imputation uses characteristics such as income, health status, and medical expenditures (added to each record by a match with the MEPS).
- TANF eligible. Our model applied the state's TANF eligibility tests to each person's relevant data.
- Medicaid expansion above TANF to 200% FPL.
- CHIP coverage from 200-300% FPL.
- Noncitizen children. We used Jeffrey Passel's methodology to impute the immigration status of the non-native born survey respondents.¹⁶ Thus, we could identify the undocumented and legal immigrant residence less than five years. Since the costs of this group are mainly state funded, we think it is important to distinguish it.¹⁷

For children on public programs, we derived the following breakout by reconciling the categories in the detailed January 2011 enrollment snapshot provided by DSHS and the categories which can be imputed using our standard model. Enrollment targets are taken from the snapshot enrollment.¹⁸ See the discussion below.

¹⁶ See, for example, Jeffrey S. Passel and D'Vera Cohn, *A Portrait of Unauthorized Immigrants in the United States*, Pew Hispanic Center, April 14, 2009, <http://pewhispanic.org/files/reports/107.pdf>.

¹⁷ Some federal funding is available for undocumented residents' care, including Emergency Medicaid for certain costs of people who would qualify for Medicaid but for their immigrant status.

¹⁸ For our modeling, the "eligibles" in the snapshot are called "enrollees," since there are eligible persons not actually enrolled who, of course, do not appear on the snapshot. (The snapshot and these categories were discussed in some detail in Matthew Buettgens, *Medicaid Eligibility Categories and 2011 Target Enrollment for Washington State*, Memorandum to Jenny Hamilton and Thea Mounts, via Randall R. Bovbjerg, 15 June 2011 [copy on file at OFM].)

Table I.A. Children

Category	Target Enrollment (Thousands)
SSI Disabled	19
TANF eligibility range	168
Expansion to 200% FPL	443
CHIP to 300% FPL	24
Noncitizen children (State- only)	25
Other	46
Total	725

For adults, we identified three categories. Two of these, SSI disabled and TANF eligible, are described above for children. We also distinguished adults getting coverage under waiver programs because enrollees will be treated as new eligibles under the ACA. The waiver programs are Basic Health, ADATSA, and Disability Lifeline. We were unable to model these separately, but our approach has the proper enrollment and costs for them as a group, allowing us to model the change in the state and federal shares of Medicaid spending.

Table I.B. Nonelderly Adults

Category	Target Enrollment (Thousands)
SSI Disabled	139
TANF eligibility range	115
Waivers (BH, ADATSA, Disab. lifeline)	62
Other	38
Total	354

The enrollment targets were based on the January 2011 snapshot, with rounding. Certain categories in the snapshot were excluded in our estimates. We dealt exclusively with the nonelderly. We did not include enrollment in family planning programs. Categories such as pregnant women, medically needy, and breast and cervical cancer were included in the “Other” category, because we could not identify the exact eligibility pathway.

Augmenting the WSPS with HIPSM Pre-Baseline Data

Our procedure was as follows.

1. *Perform a “hotdeck” match between the WSPS and the HIPSM pre-baseline file.* We analyzed both data sets and reconciled their variables for the characteristics to be used in the match. We then optimized the matching cells and performed the match, which allows data from the HIPSM

pre-baseline to be attached to the WSPS. Characteristics used to define the matching cells included

- a. Demographic characteristics: age, gender, race/ethnicity, family structure and income.
 - b. Health-related characteristics: health status, coverage type, presence of Medicaid.
 - c. Employment characteristics: wages, industry, firm size, ESI offer, ESI policyholder, active-duty military.
2. *Impute Medicaid eligibility categories.* We imputed Medicaid eligibility categories using the results of our standard eligibility model and performed some additional imputations as needed.
- a. Disabled adults: In addition to those whom the standard model identified as disabled, we imputed disability status to other Medicaid recipients not identified as TANF-eligible in a way that simultaneously met our enrollment target and the target average expenditures of the disabled from the 2011 snapshot.
 - b. TANF-eligible adults: We used the TANF eligibility test in our standard model and imputed eligibility to some others based on income in the WSPS.
 - c. Waiver adults: We imputed waiver status to enough of the remaining adults reporting Medicaid so that we simultaneously met our enrollment and average expenditure targets for the group.
 - d. Disabled children: We used the results of the standard model for this category.
 - e. Noncitizen children: We examined the immigration and citizenship status of children reporting Medicaid or CHIP.
 - f. TANF-Eligible, Expansion, and CHIP: These were imputed using eligibility test in our standard model as well as some additional testing based on WSPS variables.
3. *Reweight to hit eligibility category enrollment targets.* The imputations in step 2 brought the data close to our targets; however there were still some differences in category and overall enrollment. As discussed earlier, our total enrollment targets do not include a few categories such as family planning. To hit our targets exactly, we used an entropy maximization reweighting procedure.¹⁹
4. *Age income and expenditures to 2011.* We aged dollar amounts to 2011 using factors from different sources. For example, income was grown using CPI-U, while insured costs and out-of-pocket health costs were grown using projections from the National Health Expenditure Accounts.
5. *Adjust medical expenditures.* Medicaid expenditures for a given eligibility category were adjusted to hit average expenditure targets where they were identifiable from the categories on the 2011 snapshot. Overall expenditures and the expenditures of the “other” categories were adjusted so that the overall Medicaid spending was consistent with the total spending on the 2011 snapshot minus certain categories outside our enrollment targets such as spending on the elderly and family planning.

¹⁹ Martin Wittenberg, An introduction to maximum entropy and minimum cross-entropy using Stata, *The Stata Journal* (2010) 10, Number 3, pp. 315-330.



Summary and Illustrative Tabulations of New Data Elements

The augmented WSPS file contains the following new data not present in the initial WSPS.

- Immigration status: Noncitizen immigrants in the WSPS are divided into documented and undocumented.
- Medicaid eligibility categories: Described above.
- For every observation, health care expenses in several different insurance states:
 - Out-of-pocket costs and uncompensated care were they to be uninsured.
 - Insured and out-of-pocket costs were they to be enrolled in Medicaid/CHIP.
 - Insured and out-of-pocket costs were they to be covered under a standard comprehensive ESI package.
 - Insured and out-of-pocket costs were they to be covered by a standard package in the nongroup market.
- Chronic condition and tobacco use indicators.
- Hospital spending. Utilization will be modeled in the following task.
- Employment characteristics: Detailed firm size (seven categories, rather than two).
- Modified adjusted gross income: Includes the child care expense deduction. We impute child care expenses on the HIPSM pre-baseline file. Does not currently include veteran's benefits. These are not on the WSPS. We have them on the HIPSM pre-baseline and may do an imputation as part of the analysis of the effects of changing the income distribution if it turns out to be significant.

These data and the statistical approaches described above enabled us to generate information on the areas of interest, among others, illustrated by the tables on succeeding pages. (These topics were those set before the project entered Task II.)



Table I.1: Average Medicaid/CHIP Costs by category. Note that disabled adults and children are grouped together.

Eligibility Categories	Avg. Costs
SSI Disabled	\$9,363.96
TANF - Adult	\$6,466.91
Waivers (Adult)	\$3,216.93
Other Adult	\$11,640.69
TANF - Children	\$1,300.00
Children - Expansion to 200% FPL	\$2,000.00
CHIP to 300% FPL	\$1,750.00
Non-Citizen Children	\$1,364.91
Other Child	\$2,890.61

Table I.2: Detailed distribution of Medicaid costs for selected categories

a. Disabled Adults and Children

Total Expenditure for Public Insurance

Percentiles			
10%	152.5722	Obs	353
25%	1599.877	Sum of Wgt.	160288.472
50%	4935.211	Mean	9363.96
75%	11367.48	Std. Dev.	14048.69
90%	23045.64	Variance	1.97e+08
		Skewness	4.583819
		Kurtosis	40.43817

b. TANF Adults

Total Expenditure for Public Insurance

Percentiles			
10%	0	Obs	198
25%	209.1185	Sum of Wgt.	117020.786
50%	858.5101	Mean	6466.911
75%	4323.704	Std. Dev.	16195.06
90%	15788.99	Variance	2.62e+08
		Skewness	4.571502
		Kurtosis	25.95329



c. Waiver Adults

Total Expenditure for Public Insurance

Percentiles			
10%	0	Obs	134
25%	317.9829	Sum of Wgt.	63011.1928
50%	975.4663	Mean	3216.929
75%	3540.307	Std. Dev.	6568.367
90%	9851.149	Variance	4.31e+07
		Skewness	4.497838
		Kurtosis	27.66446

d. TANF Children

Total Expenditure for Public Insurance

Percentiles			
10%	0	Obs	211
25%	123.6355	Sum of Wgt.	170430.273
50%	412.3614	Mean	1300
75%	1582.901	Std. Dev.	2296.814
90%	3189.398	Variance	5275353
		Skewness	3.878733
		Kurtosis	20.95256

e. Children - Expansion to 200% FPL

Total Expenditure for Public Insurance

Percentiles			
10%	0	Obs	893
25%	139.5985	Sum of Wgt.	449479.842
50%	477.6271	Mean	2000
75%	1446.572	Std. Dev.	6242.528
90%	3481.24	Variance	3.90e+07
		Skewness	7.028472
		Kurtosis	60.01575

f. CHIP to 300% FPL

Total Expenditure for Public Insurance

Percentiles			
10%	0	Obs	69
25%	273.4942	Sum of Wgt.	24364.3281
50%	958.2694	Mean	1750
75%	2547.211	Std. Dev.	2131.678
90%	3779.422	Variance	4544053



Skewness	1.618611
Kurtosis	4.82581

g. Current Medicaid/CHIP Enrollees

Total Expenditure for Public Insurance

	Percentiles		
10%	0	Obs	2269
25%	176.0917	Sum of Wgt.	1094899.6
50%	755.7789	Mean	3870.865
75%	2713.989	Std. Dev.	10412.78
90%	9079.758	Variance	1.08e+08
		Skewness	7.057355
		Kurtosis	77.56147

Table I.3: Detailed distribution of OOP and uncompensated care costs for the currently uninsured

a. Out-of-pocket Costs of the uninsured

OOP Spending of the Uninsured

	Percentiles		
10%	0	Obs	1524
25%	0	Sum of Wgt.	786167.48
50%	126.3408	Mean	810.9084
75%	857.7427	Std. Dev.	1693.22
90%	2239.811	Variance	2866994
		Skewness	4.825167
		Kurtosis	37.73555

b. Uncompensated Care Costs of the uninsured

Uncompensated Care Costs of the Uninsured

	Percentiles		
10%	0	Obs	1524
25%	0	Sum of Wgt.	786167.48
50%	20.4393	Mean	1810.558
75%	610.5952	Std. Dev.	6604.384
90%	3764.148	Variance	4.36e+07
		Skewness	7.4567
		Kurtosis	74.90645



Table I.4: Immigration status distribution, overall and for the current uninsured

a. Overall Immigration Status

Citizenship Status	Freq.	Percent	Cum.
Native Citizen	5,263,101	89.03	89.03
Naturalized Citizen	268,915.23	4.55	93.58
Legal Resident	162,811.94	2.75	96.33
Undocumented Immigrant	216,905.04	3.67	100.00
Total	5,911,733	100.00	

b. Immigration Status of the Currently Uninsured

Citizenship Status	Freq.	Percent	Cum.
Native Citizen	616,915.66	78.45	78.45
Naturalized Citizen	35,366.304	4.50	82.94
Legal Resident	50,516.075	6.42	89.37
Undocumented Immigrant	83,605.609	10.63	100.00
Total	786,403.65	100.0	

Table I.5: Detailed firm size distribution for workers

Firm Size	Freq.	Percent	Cum.
1 - 9	497,591.66	27.43	27.43
10 - 24	113,244.92	6.24	33.67
25 - 49	60,882.024	3.36	37.03
50 - 99	193,798.62	10.68	47.71
100 - 499	302,669.82	16.68	64.40
500 - 999	89,853.065	4.95	69.35
1000+	555,985.552	30.65	100.00
Total	1,814,026	100.00	



Table I.6: Adult tobacco use rates by MAGI

Income Group	Percent Smokers
Below 138% FPL	27.08%
138% - 200% FPL	24.48%
200% - 400% FPL	23.41%
400%+ FPL	19.55%
Total	22.48%

Table I.7: MAGI distribution for the total population and the currently uninsured

a. MAGI Distribution for the Total Population

MAGI Group	Freq.	Percent	Cum.
Below 138% FPL	1,368,667	23.15	23.15
138% - 200% FPL	513,713.57	8.69	31.84
200% - 400% FPL	1,577,393	26.68	58.52
400%+ FPL	2,451,960	41.48	100.00
Total	5,911,733	100.00	

b. MAGI Distribution for the Currently Uninsured Population

MAGI Group	Freq.	Percent	Cum.
Below 138% FPL	353,262.86	44.92	44.92
138% - 200% FPL	117,369.99	14.92	59.85
200% - 400% FPL	227,373.04	28.91	88.76
400%+ FPL	88,397.758	11.24	100.00
Total	786,403.65	100.00	



Task II: The Medicaid Expansion and Hospital Utilization

In this chapter, we describe how Task II built on the augmented Washington State Population Survey (WSPS) data set constructed in Task I to model effects of health reform. Previous slides and tables in this report provided some outputs from those data. In this task, we added additional information to the augmented WSPS data set, revised some prior tables as requested during the project, and also addressed additional issues relevant to Washington policy making, such as impacts on hospital use, that were identified by our project officer and other colleagues. The most important additions that we made are:

- Detailed information on the characteristics of the uninsured, those currently enrolled in Medicaid, and those with private coverage.
- Eligibility estimates for Medicaid under the ACA expansion of eligibility. The Medicaid expansion under the ACA was simulated as if fully implemented in 2011.
- Expected new enrollment in Medicaid under the ACA, separately for those made newly eligible and for those currently eligible but not enrolled.
- Imputation of hospital use for all people in the survey under the alternate insurance states of uninsured, covered by Medicaid, and covered by private insurance. Hospital usage is calibrated to match the latest hospital discharge data for Washington, as supplied by the Washington team.
- Expected hospital usage and total health care costs of new Medicaid enrollees.
- Blended federal match rates for Washington under the ACA estimated at various years, as the federal match rate changes during 2014-2019.
- Hospital usage and health care costs projected for those covered by small versus large firm ESI.

Some important findings are:

- Nearly half of currently uninsured Washington residents have incomes below the ACA Medicaid eligibility threshold of 138 percent of the FPL.
- Taking into account health status, incidence of chronic conditions, and tobacco use, the currently uninsured are somewhat less healthy than those with private insurance but healthier than current Medicaid enrollees.
- Medicaid enrollment in Washington would grow by 328,000 under health reform. Of these, 250,000 were previously ineligible, while 78,000 were eligible pre-reform but did not enroll. Newly eligible enrollees are overwhelmingly adults, while the previously eligible new enrollees are mostly children. This difference reflects the shift away from categorical eligibility to wholly income-based eligibility.
- Of the 328,000 expected new Medicaid enrollees, 215,000 would be uninsured without health reform.



- Due primarily to increased health service usage by the 215,000 currently uninsured who would enroll in Medicaid, the total number of inpatient hospital days in Washington would increase by just over 100,000 and total health care spending would increase by \$840 million (2011 dollars?). These represent increases of 7% and 3% percent, respectively.
- The blended FMAP rate for all nonelderly Medicaid enrollees in Washington applied here declines from 65 to 62 percent during 2014-2019, as the federal share drops from 100 percent to 90 percent of the costs of newly eligible enrollees.
- Those covered by insurance through an employer with fewer than 10 employees on average have lower incomes than those covered through employers employing 10 or more. They also have higher health care costs and inpatient hospitalization use.

Methods

In addition to the methodology described in the Task I section, three key new subtasks were necessary to produce these estimates. First, hospital utilization was imputed to every person in the WSPS. We estimated utilization for each person under three alternate states of coverage: if they were uninsured, if they were enrolled in Medicaid, or if they had private insurance coverage. Second, we needed to alter the distribution of family income in order to be consistent with Census estimates. This was crucial to estimating the number who would have family modified AGI below 138% of the FPL, the eligibility test for Medicaid under the expansion. Third, we modeled take-up of Medicaid under health reform by two distinct groups, those made newly eligible for Medicaid and those currently eligible, but not enrolled. We anticipate that some of those currently eligible but not enrolled would take up public coverage post-reform due to provisions such as the “no wrong door” interface for enrollment in both Medicaid and the health benefit exchanges along with the “mandate” for people to obtain coverage, although the latter has little practical effect near 138 percent of the FPL.

Hospital Utilization

In order to estimate hospital utilization in Washington State, the WSPS was augmented with three years of data from the Medical Expenditure Panel Survey (MEPS), household component, using a “hotdeck” statistical match procedure. Once the match was successfully completed, the microdata required only a small adjustment to hit age and gender specific Washington State targets.²⁰ This utilization data was also used in conjunction with a two-stage regression methodology to predict how an individual’s hospital use would change with a change in insurance type. The result was three alternative estimates of hospital utilization for each person: were they to be uninsured, enrolled in Medicaid, or covered under private insurance. Given the likely increase in Medicaid enrollees associated with the Affordable Care Act (ACA), change in hospital utilization will have significant policy relevance in the near future.

Augmenting the WSPS with MEPS Hospital Utilization Data

In order to augment the WSPS with hospital utilization estimates, this project took advantage of multiple years of data from the MEPS, a publically available, comprehensive source of individual level

²⁰ Washington State Office of Financial Management, Forecasting Division. “Strategic Health Planning: A Progress Report.” April 2010. Updated 2010 Data provided by Wei Yen for selected charts.



health care use with multiple rounds of interviews over two calendar years. Estimates of inpatient hospital utilization measures in this project used three years of MEPS data, from 2005-2007. Data was restricted to those individuals who remained in the survey through at least a full year of interviews. Further, suspect observations, i.e., with missing values for key characteristics, were dropped and the three-year merged file was reweighted to again reflect the full target population.

Each year, MEPS reports two relevant measures of utilization for each person observed: the number of hospital discharges and the number of nights spent in the hospital.

Once the MEPS data was thoroughly prepared, a “hotdeck” statistical match attached MEPS utilization variables to the WSPS while maintaining all original variable distributions. This process optimized the match between the WSPS and the MEPS by taking advantage of key common variables to use as matching cells. Specifically, the matching cells used to bring in utilization data were: gender, age, health status, and insurance type.

Since the MEPS is a nationally representative dataset with arguably unreliable results at the level of most states, the statistical match used MEPS observations from the country as a whole. Although utilization was matched onto the WSPS according to the demographics of Washington State with the “hotdeck” matching procedure, a small adjustment to the utilization data was necessary to hit Washington state targets. The utilization microdata from the statistical match were calibrated to 2010 Washington State inpatient hospital utilization targets by age and gender, generously provided by the Washington State Office of Financial Management.

Estimating Hospital Utilization Under Alternative States of Insurance

After producing reliable estimates of hospital utilization based on observed baseline coverage, the next step was to estimate hospital utilization if an individual switched coverage under the ACA. For example, how would an uninsured individual alter their hospital utilization if they gained Medicaid coverage? The policy relevance of this question is clear. Such “other state” simulation included all possible transitions between uninsurance, private coverage, and public coverage.

A two-stage regression methodology was used to estimate hospital utilization under alternate states of insurance. In the first stage, a probit regression determined the probability that an individual would have nonzero hospitalization under all three insurance states based on a host of demographic characteristics. The first stage was estimated separately for those in good and bad health, where bad health was defined as self-reported fair/poor health or the presence of a chronic condition. For those in bad health, additional control variables were used: number of chronic conditions, as well as the presence or absence of particular conditions—diabetes, asthma, high blood pressure, chronic heart disease, angina, heart attack, other heart disease, stroke, emphysema, and arthritis. Coverage, poverty level, education status, age, gender, race, marital status, and health status were used as control variables for those in good and bad health. The second stage regression used a generalized linear model to estimate the length of stay under each insurance state given that an individual has any hospitalization. The second stage is also separated by good and bad health and uses the same control



variables as the first stage. After the second stage was complete, each observation had an estimate of expected hospital days under uninsurance, private coverage, and public coverage.

Limitations. The two-stage regression had a number of limitations. First, due to the small sample of children with nonzero hospital utilization, it was only feasible to perform this analysis for the adult population. Luckily, the most important component of this analysis was the differences between the levels of hospitalization in alternate insurance states. Children’s hospital utilization was calculated according to the average differentials in adult hospital usage across insurance states. For example, if adults used on average 5% more hospital days after moving to public coverage from private coverage, this 5% differential was applied to children with the same coverage transition. (Lacking a direct estimate of change for children under the ACA is not much of a limitation because so few will gain coverage, and their budgetary impact will be minor. The most important population for this work is currently uninsured adults, because those who will newly enroll in Medicaid are overwhelmingly adults; for them, the data allow good estimates.)

Additionally, the second-stage regression was limited by the generally small number of observations with nonzero hospitalization. Due to this data limitation, there was some bias in the “other insurance state” results. For example, the WA-calibrated hospitalization variable indicated a mean of 0.2130 hospital days for those with baseline ESI coverage, and our “other state” regression methodology simulated that they would use on average 0.2128 hospital days if they continued under the same ESI coverage under reform. Although such differences were small, we believe it is important to be consistent with the WA targets. Accordingly, the “other state” results were adjusted on an individual level such that hospital utilization did not change if the “other state” was in fact the same as baseline coverage. Again, since the most important take-away from the “other state” simulation is the difference in hospital utilization, all simulated hospitalization results were adjusted by the same factor.

In summary, the data limitations were small, and both the “hotdeck” match and the two stage regression methodology were performed successfully. Estimates of baseline hospital utilization are easily computed using the augmented WSPS. In addition to the gender and age breakdown of hospital utilization that were previously available, this new dataset can provide utilization distributions by other characteristics of interest such as health status and coverage type. The augmented dataset also allows estimation of how hospital utilization changes when insurance changes. Perhaps the most important application of this ability will be to estimate the hospital utilization of new Medicaid enrollees.



The Income Distribution

As currently structured, the Washington State Population Survey (WSPS) differs substantially from Census estimates of the population expected to enroll in Medicaid under the Affordable Care Act (ACA). Specifically, WSPS data suggest that there are 1.7 million nonelderly WA residents with incomes below 138% of the Federal Poverty Level (FPL), as of 2010. In sharp contrast, the corresponding Census estimates are much lower: The traditional Current Population Survey (CPS) data estimate some 1.3 million such people; emerging estimates under the newer American Community Survey (ACS) are similar to those using the CPS. Differing imputation methodologies, as applied for two subpopulations, seem to create variation in income distributions.

We describe here an easily implemented regression-based modification that we developed to impute missing incomes near the 138 percent threshold in a way consistent with Washington methods for other populations, and with Census surveys such as the American Community Survey and Current Population Survey, thus making the number expected to be eligible for Medicaid under health reform comparable across surveys. The modification essentially served to extend the regression approach already taken for other subgroups within the WSPS. Results are more consistent with national datasets going forward, while preserving continuity with the WSPS baseline. Thus the integrity of WSPS-based estimates was maintained under this project, and in this chapter's presentations. The methodology may also prove useful for WA state policy makers as they continue to make adjustments to WSPS methods going forward, as they have in prior years.

Differences across surveys. Considering the importance of income as a component of Medicaid eligibility, verifying the income distribution in the WSPS data was of particular importance. As it stands, the WSPS produces a noticeably different estimate of income distribution as compared to the CPS and forthcoming ACS estimates. Differences in the number of nonelderly WA residents below 138% FPL have a large effect on crucial Medicaid projections. Given that the threshold of 138% FPL was previously of no policy relevance, it is not surprising that the current WSPS income calibration methodology does not take it into account. However, the advent of 138% FPL as a relevant and significant threshold under the ACA makes it newly important to reorient the data to assure accuracy of income estimates that fall near this boundary between Medicaid and Exchange levels of income.

Table II.1 quantifies the differences referenced above. For this work, the focus was on the discrepancy between CPS and 2010 WSPS estimates using Health Insurance Units (HIU) because those groupings determine program eligibility; while the CPS estimates 1.3 million nonelderly below 138% FPL, the WSPS estimates 1.7 million. Although the WSPS is a high quality survey, the CPS estimate of 1.3 million inspires more confidence given its attention to the 138% FPL threshold and its alignment with unofficial ACS estimates available at this point in the project. Moving forward with estimates that contradict national surveys such as the CPS and ACS could have been harmful to the credibility of the WA baseline.

Additionally, the WSPS data produces varying estimates of the number of nonelderly below 138% FPL depending on family unit definition. For example, in 2010, while 1.7 million nonelderly are below 138% FPL using a HIU level poverty measure, only 1.2 million nonelderly are below 138% FPL using a household unit (HU) level measure. (A household, or HU, may consist of a single family, or an HIU, or



may contain multiple HIUs.) These unit level differences between HU and HIU estimation are displayed in Table II.A below. The HU measures have little value as stand-alone estimates, as HHS will use HIUs to determine Medicaid eligibility. While some variation between estimates using HUs and HIUs is not implausible, the sizable discrepancy observed suggests that HUs and HIUs should both be considered in the development of a WSPS income adjustment.

	Household Units (millions)	Health Insurance Units (millions)
CPS (2011)	---	1.3
WSPS		
2010	1.2	1.7
2008	0.93	1.4
2006	0.91	1.3

Nonresponse imputation. A likely cause of discrepancy between two sources of survey data is varying methods for handling nonresponses. The imputation flags provided in the WSPS data demonstrate that the level of income imputation below 138% FPL is sufficient to cause the inconsistency with the CPS. Approximately 60% of nonelderly residents below 138% FPL have imputed HIU incomes, representing over a million people, and almost 47% have imputed HU incomes (Table II.B, bolded). This high level of imputation confirms that inconsistent handling of income nonresponses is a large enough factor to explain discrepancies between the WSPS and the two external datasets.

	Using Household Units		Using Health Insurance Units	
Not Imputed	639,845	53.3%	651,932	38.9%
Imputed	561,153	46.7%	1,022,000	61.1%
Total	1,200,997	100%	1,673,931	100%

Since this project’s analysis focuses on HIUs, any income correction should target the approximately 1 million nonelderly below 138% FPL with imputed HIU income. Given the different measures of income using HUs and HIUs in Table II.A, the interaction of HU income imputation with HIU income imputation is important to get a complete picture of WSPS income construction. The results of this crosstab are below in Table II.C – the three subpopulations in bold merit particular attention.



	Total	HU Income Not Imputed	HU Income Imputed with Range	HU Income Imputed with Regression
HIU Income Not Imputed	651,932	389,319	241,562	21,051
HIU Income Imputed	1,022,000	518,683	411,701	91,616
Total	1,673,931	908,002	653,262	112,667

Of the 1.02 million nonelderly below 138% FPL with imputed HIU incomes, **approximately 519K** do not have imputed HU incomes, that is, a respondent knew the total household income. This subpopulation consists of only multi-family households, i.e., HUs containing multiple HIUs. WSPS imputation estimates for this subpopulation are based on a subtraction methodology. That is, if one HIU in a multifamily HU has perfect income information and a second has missing information, the second HIU is assigned the difference between total HU income and the first HIU’s income. Given that there is one survey respondent for every HU, not for every HIU, there is likely to be better information for the respondent’s own family than for the other families in the household. In that vein, it is unclear how accurately the survey respondent can estimate the income of families of which he or she is not a member. Additionally, respondent confusion regarding the distinction between household and family, or HU and HIU in this section is another likely source of uncertainty. Due to the potential for imprecise income estimates in multifamily households, Census methodology often includes a separate regression-based imputation to accurately and realistically allocate household income to distinct families within a household. Implementing a new regression-based imputation for this subpopulation of the WSPS will decrease imprecision as well as improve consistency with Census methods.

Another **412K of the 1.02 million** with imputed HIU incomes have range-imputed HU incomes. The range imputation, in which HU income is randomly determined from a uniform distribution within an income interval (below), seems likely to introduce imprecision. This concept is perhaps best illustrated by example. Take a HU that contains two HIUs, one of which is estimated to earn \$40,000. The HU then responds to the survey, estimating that their HU income is in the range of \$50,000 to \$75,000. Since one family in the HU has \$40,000 in income, the second HIU must have anywhere from \$10,000 to \$35,000 and given a random determination from a uniform distribution, there is an equal likelihood of any value in this range. The difference between \$10,000 and \$35,000 is more than enough to move an HIU from below 138% FPL to above it.

An important takeaway from the above example is that the range imputation only introduces significant imprecision around the 138% FPL threshold in multiple family households with collective incomes in the higher ranges. Multiple family households that fall into lower income ranges are likely to fall below the 138% FPL threshold no matter how HU income is allocated to subfamilies. However, as income increases, the range intervals widen and the potential for imprecision increases as different income allocations within the HU move HIUs above or below 138% FPL. Considering the potential for imprecision in the range imputation method and its inconsistency with known Census methods, this population is also a strong candidate for poverty level recalculation.



Table II.D. Range Imputation Income Intervals	
Interval Endpoints	Interval Range
\$5,000 or Less	\$5,000
\$5,001 - \$15,000	\$10,000
\$15,001 - \$25,000	\$10,000
\$25,001 - \$35,000	\$10,000
\$35,001 - \$50,000	\$15,000
\$50,001 - \$75,000	\$25,000
\$75,001 - \$100,000	\$25,000
\$100,001 - \$150,000	\$50,000
\$150,001 - \$200,000	\$50,000
\$200,001 - \$250,000	\$50,000
\$250,001 - \$300,000	\$50,000

Lastly, **approximately 92K** of the 1.02 million nonelderly with imputed HIU income have regression-based imputations for HU income. Given the extensive list of control variables used in the regression (below), the regression based imputation is unlikely to introduce imprecision. Additionally, the regression imputation methodology is consistent with the Census approach to handling income nonresponses and thus does not raise credibility concerns.

Regression Imputation Variables:

HH_Size, Region, HH_Head_Sex, HH_Head_Marital, Spouse_Working, HH_Head_Education, Own_Rent_Home, HH_Head_Work_Org, HH_Head_Industry, HH_Head_Occupation, HH_Head_Weeks09, HH_Head_Age, HH_Head_Hispanic, HH_Head_Race, HH_Head_Labor_Status, HH_Head_FullPart (employment), Partner_Sex, Partner_Relation, Partner_Marital, Partner_Education, Partner_Work_Org, Partner_Industry, Partner_Occupation, Partner_Weeks09, Partner_Age, Partner_Hispanic, Partner_Race, Partner_Labor_Status, Partner_FullPart, HH_Social_Security, HH_Cash_Assistance, HH_Food_Stamps, HH_Total_Earnings

Imputing the 138 percent FPL threshold. Given the high quality of the WSPS survey, the imputation modification to be used for this project changes as little of the original data as possible, only targeting the two subpopulations referenced above. New methodologies for these two subpopulations use a regression-based imputation, similar to the one already used on WSPS data. MAGI as a percent of poverty is matched onto the WSPS using the Washington records from the CPS such that 1.3 million nonelderly have HIU incomes below 138% FPL. For the population with imputed HIU income and range imputed HH income, the main matching variable is HH income range; note that the inclusion of this



control variable maintains, to the fullest extent possible, the HH income range according to the WSPS while adjusting HIU income within that range. For those with imputed HIU income but without imputed HH income, the main matching variable is the logarithm of HH income. To bolster the regression, the following demographic controls are included in both new regressions:

1. Number of adults in the HIU
2. Number of children in the HIU
3. For the oldest and youngest adult:
 - a. Age group
 - b. Employment status
 - c. Logarithm of wages
 - d. Education status
 - e. Receipt of public assistance
 - f. Number of HIUs in the HH

The new measure of MAGI as a percent of poverty is essentially a hybrid of the results of the above regressions for the two target populations and the original WSPS values for everyone else. The income distribution based on the new MAGI measure is below, displayed as counts and percentages. Distributions from the CPS and original WSPS are included for comparison.

	2010 WSPS	New Methodology	CPS
Below 138 % FPL	1,754,709	1,443,112	1,356,641
138% - 200% FPL	562,560	509,891	555,942.14
200% - 300% FPL	743,693	805,608	771,346.70
300% - 400% FPL	665,519	747,413	703,306.42
400%+ FPL	2,185,249	2,405,708	2,397,695
Total	5,911,733	5,911,733	5,784,930

	2010 WSPS	New Methodology	CPS
Below 138 % FPL	29.7%	24.4%	23.5%
138% - 200% FPL	9.5%	8.6%	9.6%
200% - 300% FPL	12.6%	13.6%	13.3%
300% - 400% FPL	11.2%	12.6%	12.2%
400%+ FPL	37.0%	40.7%	41.5%
Total	100%	100%	100%

It is evident from Tables II.E and II.F above that a simple regression-based imputation on the selected WSPS populations was sufficient to achieve a credible income distribution. As the tables show, the discrepancy between the WSPS and the CPS estimates of nonelderly below 138% FPL drops from about



400K to under 100K. Given the overall high quality of the WSPS, it is unsurprising that such a small alteration is adequate to match the results from national datasets. Using the results in Tables II.E and II.F, a minimal reweighting procedure could achieve an excellent match to the CPS income distribution without sacrificing the underlying distributions of other key variables in the WSPS. To illustrate the minimal impact of the reweighting on WSPS data, Table II.G below displays the breakdown of two variables in two scenarios: after the imputation but before the reweighting and after both the imputation and the reweighting. MAGI now matches the distribution from the benchmark national datasets while other basic variables remain largely unchanged from before the new income imputation. In our analysis for this task, the number of Medicaid recipients was strictly preserved, given that previous work for this project specifically targeted Medicaid enrollment and expenditure by eligibility pathway.

Table II.G. Comparative Results of Reweighting, Select Variables Before and After Entire Imputation Process

	MAGI (in millions)			Coverage (in millions)	
	Imputation before reweighting	After reweighting		Imputation before reweighting	After reweighting
Below 138 % FPL	1.443	1.369	Medicaid	1.095	1.095
138% - 200% FPL	0.510	0.514	Medicare	0.120	0.114
200% - 300% FPL	0.806	0.817	ESI	3.583	3.623
300% - 400% FPL	0.747	0.760	Other Private	0.293	0.293
400%+ FPL	2.406	2.452	Uninsured	0.821	0.786

The discrepancy between the income distributions estimated by the WSPS and CPS is driven by imputation procedures for nonresponse within two specific and easily identifiable subpopulations of the WSPS survey; it is thus easy to address. While maintaining the integrity of the WSPS was and remains important, consistency with national survey estimates is vital, as it will lend credence to the results of this project. In contrast, any inconsistencies will invite unwarranted criticism of the WSPS data in general. An extension of a regression imputation methodology based on existing WSPS procedures to two target subpopulations decreases the difference from CPS estimates substantially. Specifically, the discrepancy in estimates of the number of nonelderly below 138% FPL drops from approximately 400K to under 100K. In addition to achieving consistency with income distribution estimates from national surveys, the new regression imputation also preserves the WSPS data to the fullest extent possible. Using the results of the new imputation procedure, this project can achieve its intended goals of producing credible and informative results while highlighting the WSPS as a key component of important state level analyses.

Modeling New Medicaid Enrollment

After the tasks just described, we could estimate Medicaid eligibility under health reform, identifying those made newly eligible under the 138 percent FPL threshold and those currently eligible but not enrolled. At this stage, we modeled which of these people would actually enroll in Medicaid. To do this,



we used the enrollment decisions simulated by the Health Insurance Policy Simulation (HIPS M) results under health reform.²¹

Medicaid take-up in HIPS M. We calibrate the behavior of the HIPS M model so that a standard expansion of Medicaid and CHIP achieves take-up rates consistent with the empirical literature.²² The baseline take-up rates for uninsured people offered Medicaid or CHIP under current law are between 60 and 70 percent, depending on person type and income group. The ACA contains important provisions that would increase take-up. States are required to establish a web site capable of determining eligibility for Medicaid and automatically enrolling eligibles. Hospitals would be able to make presumptive eligibility determinations. There would be other new requirements for simplifying enrollment and re-enrollment in Medicaid and CHIP. We estimate a take-up rate of about 73 percent for the uninsured who are newly eligible under the ACA. This rate is higher than the baseline rate due to outreach and enrollment simplification provisions in the ACA, as well as a modest indirect effect of the individual mandate, as observed in health reform in Massachusetts. Our Medicaid take-up is consistent with the enhanced outreach scenario in Holahan and Headen (2010).²³

Imputing take-up on the WSPS. Predictions were restricted to nonelderly individuals initially holding nongroup coverage, employer-sponsored (ESI) coverage, or no coverage, who will be eligible for Medicaid after health reform. Observations were grouped into six cells on the basis of three dimensions: age, baseline coverage, and baseline eligibility. Those aged 18 or under were coded as children and those aged 19-64 were coded as adults. Cases were divided, with respect to coverage, between the insured and the uninsured, and with respect to eligibility, between those newly eligible and those maintaining eligibility.

Within each cell, we fit a probit regression of predicted post-reform Medicaid enrollment status on an array of covariates in the person-level national dataset generated by the most recent version of HIPS M. These regressors included household type, age, education, health status, individual and household employment status, individual and household ESI offer status, post-reform Medicaid eligibility of adult household members, and the logarithm of adults' 2011 wages. We also included the ratio of the health insurance unit's 2011 Modified Adjusted Gross Income (MAGI) to the federal poverty line. Due to their small sample size, the regressors for cells with uninsured children were restricted to this MAGI ratio only.

After estimation, we generated predicted take-up probabilities for 2,200 observations in the Washington State Population Survey (WSPS), after two modifications to that dataset. First, to gain

²¹ This project was of insufficient scope to run actual microsimulations using the augmented WSPS; instead, we used results from modeling elsewhere. Information about the HIPS M is available online; see note 4 above..

²² See, for example, Bowen Garrett, John Holahan, Allison Cook, Irene Headen, and Aaron Lucas, "The Coverage and Cost Impacts of Expanding Medicaid" (Washington, DC: The Urban Institute, 2009), <http://www.kff.org/medicaid/upload/7901.pdf>.

²³ John Holahan and Irene Headen, Medicaid Coverage and Spending in Health Reform: National and State-by-State Results for Adults at or below 133% FPL, Kaiser Commission on Medicaid and the Uninsured, May 2010, available at <http://www.kff.org/healthreform/upload/Medicaid-Coverage-and-Spending-in-Health-Reform-National-and-State-By-State-Results-for-Adults-at-or-Below-133-FPL.pdf>.



statistical precision and promote consistency with the CPS, we re-imputed MAGI using regression-based imputation rather than range imputation for observations where MAGI was flagged as imputed in the WSPS. This procedure successfully corrected substantial disparities between the number of nonelderly Washington residents below 138% of the federal poverty line between the WSPS and CPS (see discussion above). Second, we scored the education level of the 823 (34.8%) WSPS observations lacking information on educational attainment. Of these, 767 were under the age of 17; we assumed their highest level of education to be less than high school level. For the remaining 56 observations (2.5%), we coded the highest level of education as the rounded mean of 5 imputations using ordered logistic regression on health status, sex, coverage, age, citizenship status, offer status, MAGI ratio, Hispanic status, and race.

Discussion of Results

Who are the uninsured?

We began by considering how those currently uninsured in Washington differ from those enrolled in Medicaid and those with private insurance coverage. Table II.1a shows detailed characteristics of nonelderly adults in these three groups, while Table II.1b focuses on children. The work we did yielded several important observations:

- It should come as no surprise that the uninsured are more likely to be low-income, and 46 percent of them are under the new Medicaid eligibility standard of 138 percent FPL. Also note that there are a significant number of uninsured even at much higher incomes.
- The uninsured are younger on average than those with private coverage (23 percent below age 25 while only 11 percent of the privately insured are that young), and a majority are single with no dependents (55 percent versus 25 percent for the privately insured).
- Many assertions have been made about the high costs of covering the uninsured, in part because of their supposedly low health status.²⁴ In contrast, our analysis found that, in terms of health status, the uninsured are between the relatively healthy privately insured and the much lower health status distribution of Medicaid enrollees. The share of the uninsured in fair/poor health is 12 percent; the corresponding shares for Medicaid enrollees and the privately insured are 40 percent and 8 percent, respectively. Also, the incidence of chronic conditions is not noticeably higher for the uninsured than for those with private insurance. The rate of tobacco use among the uninsured is also between the privately insured and Medicaid enrollees. Tobacco use is known to be much more prevalent among lower income people, so this finding is not surprising. Taken together, this pattern suggests that, given comparable insurance coverage, the uninsured are on average lower-cost than current Medicaid enrollees but higher-cost than those with private insurance.

²⁴ For a discussion of state estimates of the costs of Medicaid expansion, see Randall R. Bovbjerg, Barbara A. Ormond, and Vicki Chen, *State Budgets under Federal Health Reform: The Extent and Causes of Variations in Estimated Impacts*, Washington, DC: Kaiser Commission on Medicaid and the Uninsured, February 2011, accessible from <http://www.urban.org/publications/1001515.html>.

- Our analysis of Washington together with work in other states suggests that the uninsured are not homogenous. They consist of two important and, in some ways, opposite groupings of people: First, young, low-income singles, who are generally inexpensive to cover. Second, older, higher-income uninsureds, who often have more health care needs. The difference in characteristics and expected behavior of these groups has important implications for take-up of Medicaid and private coverage, post-reform, and hence for the extent of uncompensated care.

How many people would become eligible for Medicaid under the expansion? How many would enroll?

In Table II.2a, we compared the number and characteristics of those currently enrolled in Medicaid, those who would be eligible under reform, but are not currently enrolled, and those likely to actually enroll in Medicaid who are not currently enrolled. To answer the question posed here, we divided the latter two groups into those currently eligible for Medicaid, but not enrolled, and those who become eligible under the expansion, i.e., have modified AGI below 138 percent of the FPL.

Nearly 500,000 nonelderly persons would gain eligibility under health reform; of these, we estimate that about 250,000 would actually enroll (Table II.2a, total line). Somewhat under half of these new eligibles already have private coverage. They are nearly all adults. It is important to keep this in mind when comparing detailed characteristics of the newly eligible and likely to enroll with current enrollees. For example, 28 percent of newly eligible enrollees are in fair/poor health, compared with 19 percent of current enrollees. However, most of the current enrollees in Table 2a are children. A better comparison would be current *adult* enrollees (Table II.1a), 40 percent of whom are in fair/poor health. The new eligibles enrolling in Medicaid are largely single (70 percent) and relatively young, with nearly a third 19 to 24 years old.

Additionally, there would be 545,000 current eligibles not enrolled. Note that this estimate may be an overstatement. Our data represent a single point in time; anti-crowd-out provisions and other aspects of eligibility that require knowledge of an applicant's history could not be modeled. Of the 545,000 current eligibles not enrolled, the large majority already have private health insurance coverage. These people would enroll in Medicaid at a much lower rate than those currently uninsured. Thus, we estimate that only 78,000 are likely to enroll. Most are children.

Accordingly, we estimated that Medicaid enrollment in Washington would increase by nearly a third under reform (328,000 new enrollees in all). More than four fifths of new enrollees would be adults. Nearly three quarters would be white, non-Hispanic, and most would be singles.

In Table II.2b, we focus on Medicaid eligibility and enrollment for the currently uninsured. Take-up for the new eligibles is high; of 256,000 new eligibles in this group, 186,000 would likely enroll. Of the 109,000 uninsured currently eligible but not enrolled, 29,000 would enroll. This is a much lower rate than the newly eligible because this population has already exhibited a disinclination to enroll. Additional outreach under reform will cause some to change their decision and enroll.

Table II.2c shows estimates for those Medicaid/CHIP eligibles who already have private coverage. These people include the large majority of those currently eligible but unenrolled (429,000) and a little under half of the new eligibles (186,000). The rate at which Medicaid substitutes for private coverage in our model is drawn from the findings of Cutler and Gruber (1996), the most-cited paper on the subject.²⁵ The take-up rate for the currently eligible will be even lower than their findings because this group has already exhibited a preference against Medicaid. It will be higher than Cutler and Gruber for the new eligibles due to the new outreach and enrollment provisions under the ACA such as the “no wrong door” interface. Of the 615,000 eligibles with private coverage, we estimate that only 113,000 would actually enroll. (Task III below expanded upon these findings, notably by conducting sensitivity analysis.)

How would the Medicaid expansion change hospital utilization and health care spending?

In Table II.3, we estimate the hospital usage of those who would newly enroll in Medicaid under the expansion. We show total hospital days and days per 1,000 people under three scenarios: their current coverage (uninsured or private), coverage in Medicaid under the current pricing mix of fee-for-service and managed care, and coverage in Medicaid with managed care bringing usage down to current private rates. Note that the private rates include comprehensive large-firm plans which may be less aggressive about cost control than managed care plans.

Taking the difference of the new totals from the current total (Table II.3), there would be just under 120,000 new inpatient hospital days in Washington under the Medicaid expansion. This represents about a 7 percent increase in total hospital days in Washington (now approximately 1.7 million days²⁶). The bulk of this increase would come from enrolling the currently uninsured; their inpatient hospital utilization would nearly triple once they obtained coverage (from about 63,000 to 181,000 days). (Such increase could reflect better ability to meet current needs when insured, along with some unknown amount of catching-up on long-delayed care. Further analysis would be needed to be more specific.) The increase in hospital days for the uninsured moving into Medicaid represents an increase in admissions plus an increase in length of stay, with both increases roughly 40 percent. Note that this is based on current hospital utilization; the potential effects of provisions of health reform such as programs to reduce hospital readmissions were not included.

In contrast, those people currently with private coverage would see only a slight increase in usage once enrolled in Medicaid. Thus, estimates of utilization are heavily affected by the share of the relevant population which is currently uninsured. Other baseline characteristics are also influential. Take health status for example. Under current coverage, the rate of hospital days per 1,000 is significantly higher for those in fair/poor health than for those in better health. However, a larger share of those in better health are currently uninsured, so the increase in utilization with Medicaid coverage is much larger than for those in fair/poor health. This difference and differences in MAGI and HIU type suggest that further

²⁵ D.M. Cutler and J. Gruber, Does public insurance crowd out private insurance? *The Quarterly Journal of Economics*, 111, 391-430 (May 1996).

²⁶This total is calibrated to Washington specific targets from the Washington State Office of Financial Management, Forecasting Division, 2010.



analysis separating newly eligible enrollees from those currently eligible but not enrolled would be useful.

When utilization is broken out by detailed characteristics, some of the sample sizes are small and are thus less reliable. We italicize rows which represent populations of less than 75,000 and gray rows where the number is less than 30,000. Such low precision is notable when individual chronic conditions are the focus of attention (last set of rows in Table II.3).

In Tables II.4a and II.4b, we consider the health care costs for all services of those we estimate would enroll in Medicaid due to the expansion. Taking the difference between the costs of covering this population under Medicaid and their current costs of coverage, about \$840 million more would be spent on health care in Washington due to the Medicaid expansion in constant 2011 dollars (Table II.4b). This represents a 3 percent increase of total health care spending in Washington, a baseline of just under \$26,150 million.²⁷ State Medicaid spending on acute care for the nonelderly would change from \$2,113 million in the baseline to \$2,124 million in reform with the federal government paying the entire cost of newly eligible enrollees and to \$2,130 million with the federal government paying 90 percent of their costs. The increased Medicaid enrollment would lead to a decrease of \$360 million in uncompensated care provided to the uninsured, which is paid for by federal, state, and local governments as well as health care providers,²⁸ along with a smaller decrease in the costs of private coverage for the small share of new Medicaid enrollees with baseline private coverage. As with hospital utilization, the increase in Medicaid spending is largely driven by those currently uninsured.

It is commonplace for people not to be hospitalized in a given year, but much less common not to incur any health care costs in a year. Thus, the cost estimates are less sensitive to sample size than are the utilization estimates. For example, the average costs by health status in Table II.4a show a clear increase for fair/poor health both currently and under Medicaid expansion. We also see a familiar age gradient among adults, with a cost ratio of between 4:1 and 5:1 between the youngest and oldest.

Computing a single blended FMAP for Washington.

The president's latest budget proposes reimbursing a state at a single rate for the costs of all Medicaid and CHIP enrollees. Many details are still unclear, but we provide initial estimates of this rate for Washington under reform in Table II.5. The rates are a blend of the following groups of enrollees, weighted by dollars in each group.

1. Newly-eligible enrollees. These are reimbursed at a much higher rate than current enrollees: 100% from 2014 to 2016 and declining to a long-term rate of 90% beginning in 2020.
2. Existing enrollees in waiver categories. These will be technically classified as new eligibles, and will thus be reimbursed at the higher match rate.

²⁷ Total from augmented WSPS.

²⁸ Other research has suggested that the costs of uncompensated care are largely borne by governments, through Medicaid DSH payments, public hospitals, public health programs, and other channels of support. See Jack Hadley, John Holahan, Teresa Coughlin, and Dawn Miller, "Covering the Uninsured in 2008: Current Costs, Sources of Payment, and Incremental Costs," *Health Affairs* Web Exclusive, 2008 Sep-Oct;27(5):w399-415. Epub Aug 25.



3. CHIP enrollees. There is a great deal of uncertainty regarding the future of the program. Under the ACA, the CHIP FMAP is increased (from 65% to 88% for Washington), but no federal allocations for CHIP have been made after FY 2015. However, this makes less difference for Washington than for other states, since that state covers children up to 200% FPL under Title XIX Medicaid, rather than CHIP or a CHIP-funded Title XXI program. The large majority of children with public coverage are covered through Medicaid, not CHIP.
4. Enrollees eligible for Medicaid pre-reform. These continue to be reimbursed at the current FMAP of 50%. This group includes those currently eligible but not enrolled.

We provide separate blended rates with and without the disabled. The president's recent proposal would compute the rate over all enrollees, but Washington may prefer to see a rate with the aged and disabled excluded. We provide rates at three different levels of compensation for the newly-eligible: 100 percent federal, the rate for 2014-2016; 95 percent federal, the rate for 2017; and 90 percent federal, the rate for 2020 and subsequent years.²⁹

With the federal government paying the full costs of all newly eligible enrollees in the initial years, the federal share of total Medicaid costs in Washington for the nonelderly under reform would be 65 percent. This rises to 71 percent when the disabled are excluded. When 95 percent of new eligible costs are federal, the blended rates fall to 64 percent for all nonelderly enrollees and 69 percent excluding the disabled. At the long-term rate of 90 percent federal payment for new eligibles, the blended rates decline further to 62 percent for all nonelderly and 67 percent excluding the disabled.

How do those with coverage through the smallest employers differ from those covered through larger businesses?

As described in the Task I section, we imputed a more detailed firm size for those WSPS workers who reported their firm size as less than 50 employees. This allows us to estimate how the characteristics of those currently covered by ESI through the smallest employers (less than 10 employees) differ from those with coverage through larger employers. Note that there are a significant number of workers who did not answer the original WSPS firm size question. We did not impute firm size for these. Since we are not certain how the non-responders are distributed in terms of firm size, nor if non-response is correlated with other factors, the level of response bias is unclear and potentially high. Thus, all analyses of firm size differentials should be considered with caution.

Table II.6 shows the characteristics of persons covered by ESI policies sponsored by the smallest firms and those sponsored by larger firms, along with average health care costs. Those covered by the smallest firms are lower income than others (45 percent below 400 percent FPL versus 34 percent). Adults in this group are somewhat higher-cost (\$5,000 versus \$4,800 for those with coverage through larger firms).

²⁹ While the president's proposal specifies that the blended rate will take effect in 2017, it is not clear at the time of writing what year's new eligible match rate would be used or if the rate would be updated in subsequent years or held constant.



Table II.7 shows hospital days and days per 1000 persons with a focus on how experience at very small firms differs from that at all other firms, using baseline data (pre-reform). Adults with coverage through firms of less than 10 employees have higher inpatient hospital utilization (258 days per 1,000 enrollees versus 177 days per 1,000). Viewing the patterns by enrollee characteristics provides some suggestive confirmation for conventional wisdom about small firms. In the smallest firms in unregulated markets, insurance underwriting tends to exclude or limit the coverage for firms with older and less healthy people, and firms with lower wages are less likely to offer ESI. Ethnicity also affects insurance status. The evidence from this single table is not strong, however. There are sample size limitations (italicized or grayed font in the table). Moreover, the table presents only descriptive statistics. For example, we did not control for the population characteristics of very small versus other firms (that is, all workers and dependents, including people who are not insured), nor for other factors (ESI offer rates, for example).

Task II Tables



Table II.1a. Demographic Characteristics of Nonelderly Adults by Baseline Coverage Type

	Insurance Type					
	Uninsured		Medicaid		Private	
	N	%	N	%	N	%
Total Nonelderly Adults	729,504	100.0	359,644	100.0	2,990,493	100.0
Health Status						
Excellent	139,566	19.1%	38,885	10.8%	938,405	31.4%
Very Good	152,535	20.9%	48,127	13.4%	953,633	31.9%
Good	281,366	38.6%	129,784	36.1%	853,490	28.5%
Fair	115,272	15.8%	79,723	22.2%	196,176	6.6%
Poor	40,764	5.6%	63,126	17.6%	48,788	1.6%
MAGI						
Under 138% FPL	336,565	46.1%	250,676	69.7%	203,609	6.8%
138% - 200% FPL	104,775	14.4%	41,358	11.5%	177,432	5.9%
200% - 300% FPL	128,858	17.7%	37,836	10.5%	382,294	12.8%
300% - 400% FPL	77,502	10.6%	14,655	4.1%	426,313	14.3%
400%+ FPL	81,804	11.2%	15,119	4.2%	1,800,845	60.2%
Age						
19 - 24 years	166,041	22.8%	60,199	16.7%	327,290	10.9%
25 - 44 years	360,940	49.5%	173,108	48.1%	1,272,476	42.6%
45 - 64 years	202,523	27.8%	126,337	35.1%	1,390,727	46.5%
Race/Ethnicity						
White, Non-Hispanic	485,473	66.5%	225,880	62.8%	2,399,999	80.3%
Black, Non-Hispanic	25,383	3.5%	19,177	5.3%	94,195	3.1%
Hispanic	144,243	19.8%	62,664	17.4%	147,914	4.9%
Other ¹	74,405	10.2%	51,923	14.4%	348,385	11.6%
Coverage Category						
Eligible for Medicaid	72,578	9.9%	359,644	100.0%	110,214	3.7%
Undocumented Immigrant ²	62,603	8.6%	0	0.0%	67,502	2.3%
Other	594,323	81.5%	0	0.0%	2,812,777	94.1%
HIU Type³						
Single, No Dependents	395,261	54.2%	155,051	43.1%	746,613	25.0%
Single, With Dependents	71,547	9.8%	69,149	19.2%	135,852	4.5%
Married, No Dependents	89,837	12.3%	32,234	9.0%	950,003	31.8%
Married, With Dependents	172,858	23.7%	103,210	28.7%	1,158,025	38.7%
Kid Only	0	0.0%	0	0.0%	0	0.0%
Employment Status						
Unemployed	350,966	48.1%	236,977	65.9%	690,764	23.1%
Employed - Unidentifiable Firm Size	143,251	19.6%	54,019	15.0%	845,583	28.3%
Small Firm (< 50 Employees)	139,696	19.1%	39,071	10.9%	464,333	15.5%
Medium Firm (50 - 500 Employees)	37,358	5.1%	15,860	4.4%	429,505	14.4%
Large Firm (500+ Employees)	58,233	8.0%	13,717	3.8%	560,308	18.7%
Tobacco Use						
Yes	182,978	25.1%	106,652	29.7%	615,704	20.6%
No	546,525	74.9%	252,992	70.3%	2,374,789	79.4%
Chronic Condition Prevalences⁴						
Angina	7,396	1.0%	8,121	2.3%	44,501	1.5%
Arthritis	81,621	11.2%	75,374	21.0%	449,712	15.0%
Asthma	69,000	9.5%	56,267	15.6%	239,186	8.0%
Coronary Heart Disease	10,831	1.5%	12,352	3.4%	63,998	2.1%
Diabetes	30,615	4.2%	38,698	10.8%	177,540	5.9%
Emphysema	6,276	0.9%	6,191	1.7%	21,978	0.7%
Heart Attack	14,693	2.0%	9,203	2.6%	55,630	1.9%
High Blood Pressure	109,075	15.0%	85,671	23.8%	664,601	22.2%
Other Heart Disease	42,586	5.8%	34,158	9.5%	170,467	5.7%
Stroke	7,806	1.1%	10,937	3.0%	34,006	1.1%

Source: UI Analysis of Augmented Washington State Database

1. Other includes, among the non-Hispanic population, American Indian/Alaskan Native, Native Hawaiian/ Other Pacific Islander, and Multiracial
2. Excludes those undocumented immigrants who are eligible for Medicaid through special programs
3. "Married" includes health insurance units with a married individual even if the spouse is not within the unit
4. Except for asthma, all prevalences reflect any diagnosis of the disease in question, regardless how long ago the diagnosis occurred. The asthma prevalence reflects a current asthma diagnosis.



Table II.1b. Demographic Characteristics of Children by Baseline Coverage

	Insurance Type					
	Uninsured		Medicaid		Private	
	N	%	N	%	N	%
Total Children	56,900	100.0%	735,611	100.0%	925,276	100.0%
Health Status						
Excellent	22,060	38.8%	232,504	31.6%	535,891	57.9%
Very Good	9,766	17.2%	144,777	19.7%	239,962	25.9%
Good	20,060	35.3%	297,309	40.4%	138,577	15.0%
Fair	5,014	8.8%	53,066	7.2%	9,642	1.0%
Poor	0	0.0%	7,955	1.1%	1,204	0.1%
MAGI						
Under 138% FPL	16,698	29.3%	457,590	62.2%	48,120	5.2%
138% - 200% FPL	12,595	22.1%	120,801	16.4%	47,098	5.1%
200% - 300% FPL	11,944	21.0%	89,666	12.2%	146,855	15.9%
300% - 400% FPL	9,068	15.9%	37,533	5.1%	183,576	19.8%
400%+ FPL	6,594	11.6%	30,020	4.1%	499,625	54.0%
Race/Ethnicity						
White, Non-Hispanic	38,496	67.7%	368,962	50.2%	693,208	74.9%
Black, Non-Hispanic	2,430	4.3%	38,800	5.3%	33,616	3.6%
Hispanic	9,260	16.3%	223,408	30.4%	69,654	7.5%
Other ¹	6,715	11.8%	104,442	14.2%	128,798	13.9%
Coverage Category						
Eligible for Medicaid	35,930	63.1%	735,611	100.0%	318,460	34.4%
Undocumented Immigrant ²	2,291	4.0%	0	0.0%	4,755	0.5%
Other	18,679	32.8%	0	0.0%	602,061	65.1%
HIU Type³						
One Parent	15,051	26.5%	332,021	45.1%	135,854	14.7%
Two Parents	35,720	62.8%	360,698	49.0%	774,412	83.7%
Kid Only	6,129	10.8%	42,892	5.8%	15,010	1.6%

Source: UI Analysis of Augmented Washington State Database

1. Other includes, among the non-Hispanic population, American Indian/Alaskan Native, Native Hawaiian/ Other Pacific Islander, and Multiracial

2. Excludes those undocumented immigrants who are eligible for Medicaid through special programs

3. "Married" includes health insurance units with a married individual even if the spouse is not within the unit

4. Except for asthma, all prevalences reflect any diagnosis of the disease in question, regardless how long ago the diagnosis occurred. The asthma prevalence reflects a current asthma diagnosis.



Table II.2a. Characteristics of Medicaid Enrollees in the Baseline versus Medicaid Eligibles and New Medicaid Enrollees under the ACA

	Currently Enrolled		Eligible Under Reform, Not Currently Enrolled		Total		Currently Eligible, Not Enrolled		Likely to Enroll		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Health Status												
Excellent	271,389	24.8%	181,492	33.3%	87,308	17.7%	208,900	25.9%	24,298	31.2%	34,035	13.6%
Very Good	192,904	17.6%	123,277	22.6%	115,645	23.4%	238,872	29.4%	15,925	20.4%	63,495	24.2%
Good	427,093	39.0%	157,666	28.9%	165,030	33.4%	327,726	31.1%	18,505	23.7%	82,877	30.9%
Fair	132,788	12.1%	54,309	10.0%	79,722	16.1%	134,031	12.9%	14,787	19.0%	50,405	20.1%
Poor	71,180	6.5%	28,097	5.2%	46,602	9.4%	74,699	7.2%	4,400	5.6%	19,496	7.8%
MAOI												
Under 138% FPL	708,266	64.7%	119,025	21.8%	494,307	100.0%	613,332	59.0%	19,343	24.8%	250,399	100.0%
138% - 200% FPL	162,159	14.8%	65,887	12.1%	0	0.0%	65,887	6.3%	10,490	13.5%	0	0.0%
200% - 300% FPL	127,502	11.6%	138,278	25.4%	0	0.0%	138,278	13.3%	13,708	17.6%	0	0.0%
300% - 400% FPL	52,188	4.8%	112,984	20.7%	0	0.0%	112,984	10.9%	13,157	16.9%	0	0.0%
400%+ FPL	45,139	4.1%	108,747	20.0%	0	0.0%	108,747	10.5%	21,215	27.2%	0	0.0%
Age												
0 - 18 years	735,611	67.2%	354,589	65.0%	16,210	3.3%	370,599	35.7%	49,115	63.0%	5,512	2.2%
19 - 24 years	60,199	5.5%	17,627	3.2%	133,024	26.7%	140,651	14.4%	2,400	3.1%	80,037	32.0%
25 - 44 years	173,108	15.8%	135,629	24.9%	162,570	32.9%	298,199	28.7%	23,281	29.9%	75,553	30.2%
45 - 64 years	126,337	11.5%	37,276	6.8%	183,503	37.1%	220,779	21.2%	3,117	4.0%	89,206	35.6%
Race/Ethnicity												
White, Non-Hispanic	594,841	54.3%	375,730	69.0%	334,517	71.7%	730,247	70.3%	58,559	75.2%	180,839	72.2%
Black, Non-Hispanic	57,977	5.3%	28,102	5.1%	24,829	5.0%	52,931	5.1%	4,092	5.3%	12,991	5.2%
Hispanic	286,072	26.1%	62,175	11.4%	58,188	11.8%	120,363	11.6%	8,618	11.1%	30,998	12.4%
Other ¹	156,365	14.3%	78,915	14.5%	56,774	11.5%	135,689	13.1%	6,644	8.5%	25,481	10.2%
HUI Type²												
Single, No Dependents	155,051	14.2%	25,387	4.7%	290,847	58.8%	316,234	30.4%	2,059	2.6%	171,221	68.4%
Single, With Dependents	401,170	36.6%	152,595	28.0%	50,735	10.3%	203,330	19.6%	36,567	46.9%	29,500	11.8%
Married, No Dependents	27,234	2.5%	27,573	5.1%	64,658	13.1%	92,231	8.9%	3,070	3.9%	17,569	7.0%
Married, With Dependents	463,908	42.4%	322,541	59.2%	87,588	17.7%	410,129	39.5%	36,217	46.5%	31,889	12.7%
Kid Only	42,892	3.9%	16,827	3.1%	480	0.1%	17,307	1.7%	0	0.0%	130	0.1%
Adult Non-Enrolled Population	359,644	100.0%	190,533	100.0%	478,097	100.0%	668,630	100.0%	28,798	100.0%	244,797	100.0%
Tobacco Use							0					
Yes	106,652	29.7%	59,804	31.4%	117,703	24.6%	177,507	26.5%	7,107	24.7%	61,283	25.0%
No	252,992	70.3%	130,729	68.6%	360,394	75.4%	491,123	73.5%	21,691	75.3%	183,514	75.0%
Chronic Condition Prevalences³												
Angina	8,121	2.3%	1,284	0.7%	9,112	1.9%	10,396	1.6%	671	2.3%	4,086	1.7%
Arthritis	75,374	21.0%	29,278	15.4%	69,677	14.6%	98,955	14.8%	3,251	11.3%	32,521	13.3%
Asthma	56,257	15.6%	28,946	15.2%	43,803	9.2%	49,209	10.9%	4,929	17.1%	28,082	11.5%
Coronary Heart Disease	2,532	3.4%	2,600	1.8%	10,908	2.2%	13,198	2.0%	671	2.3%	6,319	2.6%
Dialysis	38,698	10.8%	19,656	10.3%	29,933	6.3%	49,569	7.4%	1,947	6.8%	12,151	5.0%
Emphysema	6,191	1.7%	6,302	3.3%	2,427	0.5%	8,729	1.3%	2,572	8.2%	1,573	0.6%
Heart Attack	9,203	2.6%	2,832	1.3%	12,121	2.5%	14,933	2.2%	671	2.3%	6,840	2.8%
High Blood Pressure	85,671	23.8%	36,916	19.4%	191,111	18.8%	172,027	19.0%	5,018	19.5%	52,837	19.3%
Other Heart Disease	34,158	9.5%	12,841	6.2%	38,009	8.0%	50,850	7.6%	2,372	8.2%	21,424	8.8%
Stroke	10,937	3.0%	4,109	2.2%	10,183	2.1%	14,292	2.1%	671	2.3%	4,445	1.8%

Source: UI Analysis of Augmented Washington State Database
 1. Other includes, among the non-Hispanic population, American Indian/Alaskan Native, Native Hawaiian/Other Pacific Islander, and Multiracial
 2. "Married" includes health insurance units with a married individual event if the spouse is not within the unit
 3. Except for asthma, all prevalence reflect any diagnosis of the disease in question, regardless how long ago the diagnosis occurred. The asthma prevalence reflects a current asthma diagnosis.



Table II.2b. Characteristics of Medicaid Eligibles Under the ACA versus Those Who Actually Enroll, Baseline Uninsured Only

	Eligible Under Reform, Not Currently Enrolled		Eligible Under Reform, Not Currently Enrolled		Total		Currently Eligible, Not Enrolled		Total			
	N	%	N	%	N	%	N	%	N	%		
Total	108,507	100.0%	255,620	100.0%	364,127	100.0%	29,370	100.0%	185,659	100.0%	215,029	100.0%
Health Status												
Excellent	17,954	16.5%	46,537	18.2%	64,491	17.7%	7,815	26.6%	26,170	14.1%	33,985	15.8%
Very Good	13,705	12.6%	61,546	24.1%	75,251	20.7%	1,358	4.6%	40,583	21.9%	41,941	19.5%
Good	40,992	37.3%	89,717	35.1%	130,209	35.8%	7,345	25.0%	62,446	33.6%	69,791	32.5%
Fair	26,115	24.1%	42,267	16.5%	68,382	18.8%	8,982	30.6%	40,907	22.0%	49,889	23.2%
Poor	10,241	9.4%	15,553	6.1%	25,794	7.1%	3,870	13.2%	15,553	8.4%	19,423	9.0%
MAOI												
Under 138% FPL	58,996	54.4%	255,619	100.0%	314,615	86.4%	5,365	18.3%	185,659	100.0%	191,024	88.8%
138% - 200% FPL	19,165	17.7%	0	0.0%	19,165	5.3%	6,710	22.8%	0	0.0%	6,710	3.1%
200% - 300% FPL	21,333	19.7%	0	0.0%	21,333	5.9%	11,082	37.7%	0	0.0%	11,082	5.2%
300% - 400% FPL	5,758	5.3%	0	0.0%	5,758	1.6%	4,228	14.4%	0	0.0%	4,228	2.0%
400% + FPL	3,255	3.0%	0	0.0%	3,255	0.9%	1,985	6.8%	0	0.0%	1,985	0.9%
Age												
0 - 18 years	35,090	33.1%	2,695	1.1%	38,625	10.6%	18,599	63.3%	2,029	1.1%	20,628	9.6%
19 - 24 years	4,061	3.7%	87,897	34.4%	91,958	25.3%	0	0.0%	62,205	33.5%	62,205	28.9%
25 - 44 years	59,058	54.4%	101,734	39.8%	160,792	44.2%	8,771	29.9%	63,459	34.2%	72,230	33.6%
45 - 64 years	9,459	8.7%	63,293	24.8%	72,752	20.0%	2,000	6.8%	57,966	31.2%	59,966	27.9%
Race/Ethnicity												
White, Non-Hispanic	64,642	59.6%	174,650	68.3%	239,292	65.7%	20,572	70.0%	125,439	67.6%	146,011	67.9%
Black, Non-Hispanic	3,516	3.2%	14,783	5.8%	18,299	5.0%	1,584	5.4%	9,656	5.2%	11,230	5.2%
Hispanic	31,199	28.8%	35,995	14.1%	67,194	18.5%	5,082	17.2%	27,347	14.7%	33,409	15.1%
Other ¹	9,150	8.4%	30,192	11.8%	39,342	10.8%	2,153	7.3%	23,237	12.5%	25,390	11.8%
HU Type²												
Single, No Dependents	9,816	9.0%	161,664	63.2%	171,480	47.1%	0	0.0%	124,161	66.9%	124,161	57.7%
Single, With Dependents	38,127	35.1%	27,166	10.6%	65,293	17.9%	6,758	23.0%	23,879	12.9%	30,657	14.2%
Married, No Dependents	4,107	3.8%	26,645	10.4%	30,752	8.4%	1,632	5.6%	11,346	6.1%	12,978	6.0%
Married, With Dependents	52,450	48.3%	40,015	15.7%	92,465	25.4%	20,980	71.4%	26,143	14.1%	47,123	21.9%
KID Only	4,007	3.7%	130	0.1%	4,137	1.1%	0	0.0%	130	0.1%	130	0.1%
Adult Nonelderly Population	72,578	100.0%	255,925	100.0%	325,503	100.0%	10,771	100.0%	183,631	100.0%	194,402	100.0%
Tobacco Use												
Yes	25,138	34.6%	61,430	24.3%	86,568	26.6%	4,089	38.0%	46,787	25.5%	50,876	26.2%
No	47,440	65.4%	191,495	75.7%	238,935	73.4%	6,682	62.0%	136,844	74.5%	143,526	73.8%
Chronic Condition Prevalences³												
Asthma	903	1.2%	2,250	0.9%	3,153	1.0%	671	6.2%	2,250	1.2%	2,921	1.5%
Arthritis	17,750	17.5%	21,976	8.7%	34,706	10.7%	3,251	30.2%	21,121	11.5%	24,372	12.5%
Ashtma	13,114	18.1%	20,950	8.2%	34,064	10.5%	4,046	37.6%	20,426	11.1%	24,472	12.6%
Coronary Heart Disease	1,388	1.9%	3,333	1.3%	4,711	1.4%	671	6.2%	3,333	1.8%	3,994	2.1%
Dabetes	8,875	12.2%	6,927	2.7%	15,802	4.9%	1,947	18.1%	6,927	3.8%	8,874	4.6%
Emphysema	3,470	4.8%	996	0.4%	4,466	1.4%	2,572	22.0%	996	0.5%	3,368	1.7%
Heart Attack	1,620	2.2%	5,088	2.0%	6,708	2.1%	671	6.2%	5,088	2.8%	5,759	3.0%
High Blood Pressure	14,437	19.9%	31,240	12.4%	45,677	14.0%	4,716	43.8%	29,089	15.8%	33,805	17.4%
Other Heart Disease	5,667	7.8%	15,836	6.3%	21,503	6.6%	2,372	22.0%	15,089	8.2%	17,461	9.0%
Stroke	1,620	2.2%	3,300	1.3%	4,920	1.5%	671	6.2%	3,300	1.8%	3,971	2.0%

Source: UI Analysis of Augmented Washington State Database
 1. Other includes, among the non-Hispanic population, American Indian/Alaskan Native, Native Hawaiian/Other Pacific Islander, and Multiracial
 2. Married* includes health insurance units with a married individual even if the spouse is not within the unit
 3. Except for asthma, all prevalences reflect any diagnosis of the disease in question, regardless of how long ago the diagnosis occurred. The asthma prevalence reflects a current



Table II.2c. Characteristics of Medicaid Eligibles Under the ACA versus Those Who Actually Enroll, Baseline Privately Insured Only

	Eligible Under Reform, Not Currently Enrolled				Likely to Enroll			
	Currently Eligible, Not Enrolled	Newly Eligible	Total	Currently Eligible, Not Enrolled	Newly Enrolled	Total		
	N	%	N	%	N	%	N	%
Total	428,673	100.0%	185,988	100.0%	614,661	100.0%	113,191	100.0%
Health Status								
Excellent	163,637	38.2%	39,673	21.3%	203,310	33.1%	16,482	12.2%
Very Good	109,522	25.5%	50,040	26.9%	159,562	26.0%	14,568	30.0%
Good	117,204	27.3%	67,922	36.5%	185,126	30.1%	11,138	23.0%
Fair	26,471	6.2%	21,000	11.3%	47,471	7.7%	5,804	12.0%
Poor	11,839	2.8%	7,353	4.0%	19,192	3.1%	530	1.1%
MAOI								
Under 138% FPL	57,321	13.4%	185,987	100.0%	243,308	39.6%	13,079	28.8%
138% - 200% FPL	45,971	10.7%	0	0.0%	45,971	7.5%	3,780	7.8%
200% - 300% FPL	113,820	26.6%	0	0.0%	113,820	18.5%	2,625	5.4%
300% - 400% FPL	107,048	25.0%	0	0.0%	107,048	17.4%	8,929	18.4%
400%+ FPL	104,513	24.4%	0	0.0%	104,513	17.0%	19,230	39.6%
Age								
0 - 18 years	318,460	74.3%	133,14	7.3%	331,974	54.0%	30,516	62.9%
19 - 24 years	135,666	3.2%	43,683	23.5%	57,249	9.3%	2,400	4.9%
25 - 44 years	75,278	17.6%	51,600	27.7%	126,878	20.6%	14,510	29.9%
45 - 64 years	21,369	5.0%	77,189	41.5%	98,538	16.0%	1,117	2.3%
Race/Ethnicity								
White, Non-Hispanic	305,218	71.2%	142,654	76.7%	447,872	72.9%	37,988	78.3%
Black, Non-Hispanic	24,586	5.7%	8,149	4.4%	32,735	5.3%	2,508	5.2%
Hispanic	30,527	7.1%	19,383	10.4%	49,910	8.1%	3,557	7.3%
Other ¹	68,342	15.9%	15,802	8.5%	84,144	13.7%	4,491	9.3%
HU Type²								
Single, No Dependents	13,467	3.1%	90,692	48.8%	104,159	16.9%	2,059	4.2%
Single, With Dependents	113,899	26.6%	20,007	10.8%	133,906	21.8%	29,809	61.4%
Married, No Dependents	19,870	4.6%	30,844	16.2%	49,954	8.1%	1,438	3.0%
Married, With Dependents	268,618	62.7%	44,853	24.1%	313,471	51.0%	15,237	31.4%
Kid Only	12,819	3.0%	350	0.2%	13,169	2.1%	0	0.0%
Adult, Nonelderly Population	110,213	100.0%	172,473	100.0%	282,886	100.0%	18,027	100.0%
Tobacco Use								
Yes	30,013	27.2%	37,648	21.8%	67,661	23.9%	3,018	16.7%
No	80,200	72.8%	134,825	78.2%	215,025	76.1%	15,009	83.3%
Chronic Condition Prevalences³								
Anemia	381	0.3%	3,428	2.0%	3,809	1.3%	0	0.0%
Arthritis	12,755	11.6%	27,156	15.7%	39,911	14.1%	0	0.0%
Asthma	12,494	11.3%	16,859	9.8%	29,353	10.8%	884	4.9%
Coronary Heart Disease	735	0.7%	4,271	2.5%	5,006	1.8%	0	0.0%
Dabetes	8,444	7.8%	11,158	6.5%	19,602	6.9%	0	0.0%
Emphysema	1,986	1.8%	876	0.5%	2,862	1.0%	0	0.0%
Heart Attack	735	0.7%	3,463	2.0%	4,198	1.5%	0	0.0%
High Blood Pressure	19,871	18.0%	36,274	21.0%	56,145	19.2%	902	5.0%
Other Heart Disease	5,205	4.7%	13,828	8.0%	19,033	6.7%	0	0.0%
Stroke	1,426	1.3%	2,627	1.5%	4,053	1.4%	0	0.0%

Source: UI Analysis of Augmented Washington State Database
 1. Other includes among the non-Hispanic population, American Indian/Alaskan Native, Native Hawaiian/Other Pacific Islander, and Multiracial
 2. Married includes health insurance units with a married individual even if the spouse is not within the unit
 3. Except for asthma, all prevalences reflect any diagnosis of the disease in question, regardless of how long ago the diagnosis occurred. The asthma prevalence reflects a current



Table II.3. Hospital Utilization of Those Likely to Enroll in Medicaid, Pre-Reform versus Post-reform

	Those Likely to Enroll in Medicaid		Pre-Reform (Current) Coverage				Post-Reform Medicaid Coverage (Current Medicaid utilization)				Post-Reform Medicaid Coverage (Utilization at current private level)			
	N	%	Days	%	Days per 1,000	Days	%	Days per 1,000	Days	%	Days per 1,000	Days	%	Days per 1,000
Total Nonelderly Population	328,220	100.0%	81,243	100.0%	247.5	199,281	100.0%	607.2	185,134	100.0%	564.1			
Baseline Coverage														
Private	113,192	34.5%	18,688	23.0%	165.1	18,778	9.4%	165.9	18,688	10.1%	165.1			
Uninsured	215,029	65.5%	62,555	77.0%	290.9	180,503	90.6%	839.4	166,447	89.9%	774.1			
Health Status														
Excellent/Very Good/Good	239,134	72.9%	48,413	59.6%	618.0	138,873	69.7%	1,817	122,480	66.2%	1,591			
Fair/Poor	89,088	27.1%	32,831	40.4%	929.2	60,407	30.3%	1,666.3	62,655	33.8%	1,725.8			
MAOI														
Under 138% FPL	269,652	82.2%	58,813	72.4%	218.1	149,212	74.9%	553.4	136,383	73.7%	505.8			
138%+ FPL	58,570	17.8%	22,431	27.6%	1,725.6	50,069	25.1%	3,973.5	48,732	26.3%	3,865.0			
Age														
0 - 18 years	54,626	16.6%	31,678	39.0%	579.9	75,606	37.9%	1,384.1	73,053	39.5%	1,337.3			
19 - 24 years	82,487	25.1%	9,679	11.9%	117.4	22,151	11.1%	268.5	23,510	12.7%	285.2			
25 - 44 years	98,854	30.1%	21,313	26.5%	217.7	56,729	28.5%	574.0	50,206	27.1%	508.0			
45 - 64 years	92,323	28.1%	18,373	22.6%	199.0	44,815	22.5%	485.4	38,365	20.7%	415.6			
Race/Ethnicity														
White, Non-Hispanic	239,398	72.9%	73,005	89.9%	305.0	180,972	90.8%	755.9	166,721	90.1%	696.4			
Black, Non-Hispanic	17,083	5.2%	746	0.9%	43.7	690	0.3%	40.4	746	0.4%	43.7			
Hispanic	39,616	12.1%	5,789	7.1%	146.1	14,790	7.4%	373.3	14,745	8.0%	372.2			
Other ¹	32,125	9.8%	1,703	2.1%	53.0	2,829	1.4%	88.1	2,922	1.6%	91.0			
HU Type²														
Single, With and Without Dependents	239,347	72.9%	31,753	39.1%	245.5	73,405	36.8%	548.4	68,293	36.9%	525.2			
Married, With and Without Dependents	88,745	27.0%	49,490	60.9%	1,164.0	125,876	63.2%	3,081.7	116,841	63.1%	2,720.3			
Kid Only	130	0.0%	0	0.0%	0.0	0	0.0%	0.0	0	0.0%	0.0			
Adult Nonelderly Population	273,994	100.0%	49,565	100.0%	181.2	123,675	100.0%	452.0	112,081	100.0%	409.7			
Employment Status³														
Unemployed	126,911	46.4%	31,584	63.7%	248.9	79,977	64.7%	630.2	75,066	67.0%	591.5			
Employed - Unidentifiable Firm Size	50,046	18.3%	2,056	4.2%	41.9	4,734	3.8%	94.6	5,050	4.5%	100.9			
Small Firm (< 50 Employees)	43,894	16.0%	10,726	21.6%	244.4	31,544	25.5%	718.6	23,730	21.2%	340.6			
Medium/Large Firm (50+ Employees)	52,743	19.3%	5,159	10.4%	188.5	7,420	6.0%	269.7	8,235	7.3%	299.4			
Tobacco Use														
Yes	68,390	25.0%	24,369	49.2%	356.3	69,514	56.2%	1,016.4	64,738	57.8%	946.9			
No	208,205	75.0%	25,196	30.8%	122.8	54,161	43.8%	263.9	47,324	42.2%	230.6			
Chronic Condition Prevalences⁴														
Arthritis	4,757	1.7%	8,334	16.8%	1,751.9	13,776	11.1%	2,805.9	14,354	12.8%	3,017.4			
Asthma	35,772	13.1%	5,547	11.2%	155.1	6,613	5.3%	184.9	7,222	6.4%	201.9			
Coronary Heart Disease	33,011	12.1%	3,059	6.2%	92.7	4,744	3.8%	143.7	5,147	4.6%	155.9			
Dabetes	6,990	2.6%	6,533	13.3%	934.6	12,534	9.9%	1,795.1	12,552	11.2%	1,795.7			
Diabetes	14,078	5.1%	4,886	9.9%	347.1	6,014	4.9%	427.2	6,710	6.0%	476.6			
Emphysema	3,945	1.4%	852	1.7%	216.0	778	0.6%	197.2	852	0.8%	216.0			
Heart Attack	7,511	2.7%	7,667	15.3%	1,020.8	14,190	11.5%	1,899.2	14,602	13.0%	1,944.1			
High Blood Pressure	52,837	19.3%	6,731	13.0%	127.4	13,008	10.5%	246.2	14,236	12.7%	269.8			
Other Heart Disease	23,797	8.7%	5,631	11.4%	256.6	9,676	7.8%	406.0	10,695	9.5%	449.4			
Stroke	3,117	1.9%	7,866	15.9%	1,337.2	14,640	11.8%	2,861.1	15,105	13.5%	2,951.9			

Source: UI Analysis of Augmented Washington State Database
 1. Other includes, among the non-Hispanic population, American Indian/Alaskan Native, Native Hawaiian/Other Pacific Islander, and Multiracial
 2. Married* includes health insurance units with a married individual even if the spouse is not within the unit
 3. Not listed in table 2a, the firm size breakdown of adults likely to take up Medicaid is as follows: -127K Unemployed, -50K Unidentifiable Firm Size, -44K Small Firm, -53 Medium/Large Firm
 4. Except for asthma, all prevalences reflect any diagnosis of the disease in question, regardless how long ago the diagnosis occurred. The asthma prevalence reflects a current asthma diagnosis.
 Note: Italicized and grayed font indicates a weighted sample under 70,000
 Note: Italicized and grayed font indicates a weighted sample under 30,000



Table II.4a. Average Annual Medical Expenditure Per Person for Those Likely to Enroll in Medicaid, Pre-Reform versus Post-Reform

	Average Annual Medical Expenditure Per Person (2011 Dollars)			
	Pre-Reform (Current) Coverage			Spending Under Post-Reform Medicaid Coverage
	All Spending	Individual and Employer Spending	Uncompensated Care Spending	
Total Nonelderly Population	3,245	2,149	1,095	5,799
Baseline Coverage				
Private	4,783	4,783	0	5,054
Uninsured	2,438	766	1,672	6,191
Health Status				
Excellent/Very Good/Good	2,689	1,779	909	4,997
Fair/Poor	4,738	3,142	1,596	7,950
MAGI				
Under 138% FPL	3,388	2,175	1,212	6,325
138%+ FPL	2,588	2,028	560	3,381
Age				
0 - 18 years	2,104	1,819	284	2,364
19 - 24 years	962	616	345	2,355
25 - 44 years	2,143	992	1,147	6,833
45 - 64 years	7,136	4,948	2,189	9,804
Race/Ethnicity				
White, Non-Hispanic	3,695	2,476	1,218	6,490
Black, Non-Hispanic	1,251	905	346	1,880
Hispanic	2,235	1,174	1,061	4,896
Other ¹	2,202	1,579	623	3,859
HIU Type²				
Single, With and Without Dependents	2,755	1,997	757	5,253
Married, With and Without Dependents	4,571	2,562	2,009	7,278
Kid Only	68	68	0	103
Adult Nonelderly Population	3,474	2,215	1,257	6,486
Employment Status³				
Unemployed	4,304	2,571	1,733	8,662
Employed - Unidentifiable Firm Size	2,780	709	2,071	5,481
Small Firm (< 50 Employees)	3,377	3,127	248	5,578
Medium/Large Firm (50+ Employees)	2,214	2,034	180	2,954
Tobacco Use				
Yes	2,923	1,550	1,373	8,248
No	3,657	2,437	1,219	5,898
Chronic Condition Prevalences⁴				
Angina	25,406	16,224	9,182	33,299
Arthritis	10,196	5,907	4,289	15,658
Asthma	3,933	2,688	1,245	6,031
Coronary Heart Disease	7,260	4,862	2,398	10,033
Diabetes	16,793	11,071	5,722	22,267
Emphysema	16,213	7,365	8,848	24,905
Heart Attack	9,426	5,556	3,870	13,023
High Blood Pressure	7,328	4,696	2,632	10,580
Other Heart Disease	12,911	7,687	5,224	18,011
Stroke	4,122	3,572	551	5,513

Source: UI Analysis of Augmented Washington State Database

1. Other includes, among the non-Hispanic population, American Indian/Alaskan Native, Native Hawaiian/ Other Pacific Islander, and Multiracial

2. "Married" includes health insurance units with a married individual even if the spouse is not within the unit

3. Not listed in table 2a, the firm size breakdown of adults likely to take up Medicaid is as follows: ~127K Unemployed, ~50K Unidentifiable Firm Size, ~44K Small Firm, ~53 Medium/Large Firm

4. Except for asthma, all prevalences reflect any diagnosis of the disease in question, regardless how long ago the diagnosis occurred. The asthma prevalence reflects a current asthma diagnosis.

Note: Italicized font indicates a weighted sample under 70,000

Note: Italicized and grayed font indicates a weighted sample under 30,000



Table II.4b. Total Annual Medical Expenditure for Those Likely to Enroll in Medicaid, Pre-Reform versus Post-Reform

	Annual Medical Expenditure (in thousands of 2011 Dollars)			
	Pre-Reform (Current) Coverage			Spending Under Post-Reform Medicaid Coverage
	All Spending	Individual and Employer Spending	Uncompensated Care Spending	
Total Nonelderly Population	1,064,224	704,726	359,499	1,901,752
Baseline Coverage				
Private	539,965	539,965	0	570,596
Uninsured	524,259	164,760	359,499	1,331,155
Health Status				
Excellent/Very Good/Good	642,141	424,828	217,313	1,193,461
Fair/Poor	422,083	279,898	142,186	708,290
MAGI				
Under 138% FPL	912,629	585,943	326,685	1,703,740
138%+ FPL	151,596	118,782	32,814	198,011
Age				
0 - 18 years	114,923	99,384	15,539	129,162
19 - 24 years	79,288	50,807	28,482	194,142
25 - 44 years	211,163	97,753	113,410	673,305
45 - 64 years	658,850	456,782	202,068	905,143
Race/Ethnicity				
White, Non-Hispanic	883,585	592,056	291,529	1,551,697
Black, Non-Hispanic	21,375	15,457	5,917	32,120
Hispanic	88,535	46,497	42,038	193,975
Other ¹	70,730	50,716	20,014	123,959
HIU Type²				
Single, With and Without Dependents	658,579	477,356	181,223	1,255,828
Married, With and Without Dependents	405,636	227,360	178,276	645,910
Kid Only	9	9	0	13
Adult Nonelderly Population	949,301	605,342	343,959	1,772,590
Employment Status³				
Unemployed	546,180	326,235	219,945	1,099,321
Employed - Unidentifiable Firm Size	139,128	35,499	103,629	274,293
Small Firm (< 50 Employees)	147,213	136,307	10,906	243,180
Medium/Large Firm (50+ Employees)	116,781	107,301	9,480	155,797
Tobacco Use				
Yes	199,880	105,994	93,886	564,081
No	749,422	499,348	250,074	1,208,509
Chronic Condition Prevalences⁴				
Angina	120,866	77,184	43,682	158,418
Arthritis	364,727	211,294	153,432	560,108
Asthma	129,847	88,749	41,098	199,098
Coronary Heart Disease	50,751	33,990	16,762	70,132
Diabetes	236,403	155,851	80,551	313,466
Emphysema	63,964	29,056	34,908	98,252
Heart Attack	70,793	41,729	29,064	97,813
High Blood Pressure	387,207	248,120	139,087	559,047
Other Heart Disease	307,251	182,926	124,325	428,603
Stroke	21,091	18,274	2,817	28,208

Source: UI Analysis of Augmented Washington State Database

1. Other includes, among the non-Hispanic population, American Indian/Alaskan Native, Native Hawaiian/ Other Pacific Islander, and Multiracial

2. "Married" includes health insurance units with a married individual even if the spouse is not within the unit

3. Not listed in table 2a, the firm size breakdown of adults likely to take up Medicaid is as follows: ~127K Unemployed, ~50K Unidentifiable Firm Size, ~44K Small Firm, ~53 Medium/Large Firm

4. Except for asthma, all prevalences reflect any diagnosis of the disease in question, regardless how long ago the diagnosis occurred. The asthma prevalence reflects a current asthma diagnosis.

Note: Italicized font indicates a weighted sample under 70,000

Note: Italicized and grayed font indicates a weighted sample under 30,000



Table II.5. Federal Share of Medicaid Expenditure in the Baseline and Under Reform

	Federal Share of Medicaid Expenditure ^{1,2}					
Baseline						
All Nonelderly	50%					
Non-Disabled	50%					
Reform						
2014-2016 with 100% Match for New Eligibles						
All Nonelderly	65%					
Non-Disabled	71%					
2017 with 95% Match for New Eligibles						
All Nonelderly	64%					
Non-Disabled	69%					
2020+ with 90% Match for New Eligibles						
All Nonelderly	62%					
Non-Disabled	67%					

Source: UI Analysis of Augmented Washington State Database

1. Uses a 50% FMAP and 65% Enhanced FMAP for CHIP enrollees, effective the 2011 fiscal year.

Source: <http://aspe.hhs.gov/health/fmap11.htm>

2. Note that adults who are Medicaid eligible through the Waiver program get the new eligible match rate under reform



Table II.6. Average Baseline Medical Expenditure for ESI Coverage By Enrollee Characteristic and Firm Size¹ (2011 Dollars)

	Covered by Small Firm ESI Plan (Under 10 Employees)			Covered by Medium/Large Firm ESI Plan (10+ Employees)		
	N	%	Avg. Medical Expenditure	N	%	Avg. Medical Expenditure
Total Nonelderly Population	346,221	100.0%	4,245	1,611,561	100.0%	4,056
Health Status						
Excellent	145,759	42.1%	2,137	599,390	37.2%	2,549
Very Good	98,860	28.6%	4,159	522,360	32.4%	3,552
Good	83,613	24.2%	6,473	412,474	25.6%	5,599
Fair/Poor	17,989	5.2%	11,408	77,339	4.8%	10,915
MAGI						
Under 138% FPL	13,359	3.9%	6,915	59,617	3.7%	3,250
138% - 200% FPL	29,076	8.4%	2,628	53,620	3.3%	4,889
200% - 300% FPL	45,481	13.1%	4,874	188,669	11.7%	3,534
300% - 400% FPL	66,088	19.1%	3,749	247,394	15.4%	3,635
400%+ FPL	192,218	55.5%	4,326	1,062,262	65.9%	4,251
Age						
0 - 18 years	78,374	22.6%	1,602	400,880	24.9%	1,905
19 - 24 years	26,523	7.7%	1,740	103,532	6.4%	2,378
25 - 44 years	136,914	39.5%	3,001	568,917	35.3%	3,178
45 - 64 years	104,410	30.2%	8,509	538,232	33.4%	6,913
Race/Ethnicity						
White, Non-Hispanic	268,495	77.6%	4,580	1,251,825	77.7%	4,162
Black, Non-Hispanic	12,596	3.6%	2,984	42,273	2.6%	4,144
Hispanic	24,944	7.2%	3,276	86,328	5.4%	5,029
Other ²	40,186	11.6%	3,003	231,136	14.3%	3,104
Coverage Category						
Eligible for Medicaid	36,196	10.5%	1,836	167,181	10.4%	1,771
Undocumented Immigrant ³	3,449	1.0%	4,327	46,103	2.9%	5,000
Other	306,576	88.5%	4,529	1,398,278	86.8%	4,299
HIU Type⁴						
Single, No Dependents	65,381	18.9%	4,937	242,192	15.0%	5,182
Single, With Dependents	18,221	5.3%	3,068	99,108	6.1%	2,864
Married, No Dependents	75,688	21.9%	7,426	370,880	23.0%	5,450
Married, With Dependents	186,797	54.0%	2,827	899,382	55.8%	3,310
Kid Only	134	0.0%	0	0	0.0%	0
Adult Nonelderly Population						
	267,847	100.0%	5,020	1,210,682	100.0%	4,769
Tobacco Use						
Yes	56,826	21.2%	5,158	237,360	19.6%	5,577
No	211,021	78.8%	4,983	973,322	80.4%	4,572
Chronic Condition Prevalences⁵						
Angina	5,669	2.1%	17,636	12,204	1.0%	20,010
Arthritis	37,571	14.0%	12,998	172,178	14.2%	9,385
Asthma	21,610	8.1%	9,911	97,874	8.1%	8,878
Coronary Heart Disease	6,015	2.2%	17,205	17,636	1.5%	21,256
Diabetes	12,853	4.8%	17,095	70,204	5.8%	10,433
Emphysema	3,790	1.4%	23,551	8,289	0.7%	16,873
Heart Attack	5,644	2.1%	23,927	17,976	1.5%	14,699
High Blood Pressure	52,682	19.7%	10,487	267,074	22.1%	9,434
Other Heart Disease	14,392	5.4%	16,938	65,345	5.4%	14,365
Stroke	1,616	0.6%	28,671	16,028	1.3%	11,192

Source: UI Analysis of Augmented Washington State Database

1. Table includes only those individuals where the policy holder and associated firm size is identifiable. HIUs with missing policy holders or firm sizes are not included.

2. Other includes, among the non-Hispanic population, American Indian/Alaskan Native, Native Hawaiian/ Other Pacific Islander, and Multiracial

3. Excludes those undocumented immigrants who are eligible for Medicaid through special programs

4. "Married" includes health insurance units with a married individual even if the spouse is not within the unit

5. Except for asthma, all prevalences reflect any diagnosis of the disease in question, regardless how long ago the diagnosis occurred. The asthma prevalence reflects a current asthma diagnosis.

Note: Italicized font indicates a weighted sample under 70,000

Note: Italicized and grayed font indicates a weighted sample under 30,000



Table II.7. Hospital Utilization of Those with ESI Coverage By Enrollee Characteristic and Firm Size¹ (2011 Dollars)

	Hospital Days					
	Covered by Small Firm ESI Plan (Under 10 Employees)			Covered by Medium/Large Firm ESI Plan (10+ Employees)		
	Days	% of Total Days	Days per 1000	Days	% of Total Days	Days per 1000
Total Nonelderly Population	72,016	100.0%	208.0	287,765	100.0%	178.6
Health Status						
Excellent	13,534	18.8%	92.9	70,312	24.4%	117.3
Very Good	12,564	17.4%	127.1	77,281	26.9%	147.9
Good	39,347	54.6%	470.6	69,825	24.3%	169.3
Fair/Poor	6,569	9.1%	365.2	70,345	24.4%	909.6
MAGI						
Under 138% FPL	6,442	8.9%	482.2	23,427	8.1%	393.0
138% - 200% FPL	5,462	7.6%	187.9	15,265	5.3%	284.7
200% - 300% FPL	3,620	5.0%	79.6	30,462	10.6%	161.5
300% - 400% FPL	13,461	18.7%	203.7	77,798	27.0%	314.5
400%+ FPL	43,031	59.8%	223.9	140,813	48.9%	132.6
Age						
0 - 18 years	2,801	3.9%	35.7	73,611	25.6%	183.6
19 - 24 years	1,019	1.4%	38.4	10,350	3.6%	100.0
25 - 44 years	41,532	57.7%	303.3	88,580	30.8%	155.7
45 - 64 years	26,663	37.0%	255.4	115,223	40.0%	214.1
Race/Ethnicity						
White, Non-Hispanic	55,066	76.5%	205.1	207,205	72.0%	165.5
Black, Non-Hispanic	6,574	9.1%	521.9	5,277	1.8%	124.8
Hispanic	4,129	5.7%	165.5	42,146	14.6%	488.2
Other ²	6,246	8.7%	155.4	33,136	11.5%	143.4
Coverage Category						
Eligible for Medicaid	6,975	9.7%	192.7	69,461	24.1%	415.5
Undocumented Immigrant ³	0	0.0%	0.0	2,177	0.8%	47.2
Other	65,040	90.3%	212.1	216,126	75.1%	154.6
HIU Type⁴						
Single, No Dependents	23,982	33.3%	366.8	44,725	15.5%	184.7
Single, With Dependents	6,012	8.3%	329.9	10,067	3.5%	101.6
Married, No Dependents	16,175	22.5%	213.7	86,476	30.1%	233.2
Married, With Dependents	25,846	35.9%	138.4	146,496	50.9%	162.9
Kid Only	0	0.0%	0.0	0	0.0%	0.0
Adult Nonelderly Population	69,214	100.0%	258.4	214,153	100.0%	176.9
Tobacco Use						
Yes	11,235	16.2%	197.7	35,229	16.5%	148.4
No	57,979	83.8%	274.8	178,925	83.6%	183.8
Chronic Condition Prevalences⁵						
Angina	1,952	2.8%	344.3	357	0.2%	29.3
Arthritis	10,903	15.8%	290.2	50,814	23.7%	295.1
Asthma	4,050	5.9%	187.4	12,028	5.6%	122.9
Coronary Heart Disease	471	0.7%	78.3	925	0.4%	52.4
Diabetes	8,558	12.4%	665.8	31,758	14.8%	452.4
Emphysema	5,470	7.9%	1443.3	1,960	0.9%	236.5
Heart Attack	2,382	3.4%	422.0	1,911	0.9%	106.3
High Blood Pressure	17,422	25.2%	330.7	52,901	24.7%	198.1
Other Heart Disease	1,952	2.8%	135.6	31,577	14.7%	483.2
Stroke	0	0.0%	0.0	5,155	2.4%	321.6

Source: UI Analysis of Augmented Washington State Database

1. Table includes only those individuals where the policy holder and associated firm size is identifiable. HIUs with missing policy holders or firm sizes are not included.

2. Other includes, among the non-Hispanic population, American Indian/Alaskan Native, Native Hawaiian/ Other Pacific Islander, and Multiracial

3. Excludes those undocumented immigrants who are eligible for Medicaid through special programs

4. "Married" includes health insurance units with a married individual even if the spouse is not within the unit

5. Except for asthma, all prevalences reflect any diagnosis of the disease in the question, regardless how long ago the diagnosis occurred. The asthma prevalence reflects a current asthma diagnosis.

Note: Italicized font indicates a weighted sample under 70,000

Note: Italicized and grayed font indicates a weighted sample under 30,000



Task III: Medicaid Take-Up, Eligibility Types, and Multiyear Projections

In this section, we describe how Task III explored in greater depth the results from Task II on healthcare costs, demographics, utilization, and take-up for the Medicaid expansion under health reform. While retaining the procedures used in Task II, we extended the analysis in two ways. First, to reflect uncertainty about the health coverage choices of people in the future, we supplemented our existing projections with new ones for scenarios of especially low and especially high Medicaid take-up. Second, we introduced assumptions about population growth and costs to generate new estimates of the impact of health reform on Washington’s longer-term budget outlook. The most significant new analyses were:

- Breakdown of enrollment, costs, and demographic characteristics before and after reform into eligibility pathways—including the newly eligible due to Medicaid’s expansion and the various channels of current eligibility.
- New sets of lower-end and higher-end Medicaid take-up rates to incorporate uncertainty about that key parameter into the results.
- Investigation of the sensitivity of predictions about costs, enrollee demographics, and utilization to take-up rate assumptions.
- Computation of the uncompensated care costs of the currently uninsured that would and would not enter Medicaid under various take-up rates, a potentially large source of cost savings.
- Projections of enrollment, hospital utilization, total costs, and Washington State costs, 2014-2019.

Some important findings:

- Breakdown by Medicaid/CHIP eligibility pathway
 - New nonelderly adult enrollees are primarily newly eligible (245,000), and their average costs of \$3,600 per year are much lower than both most existing adult enrollees and most currently eligible new adult enrollees, with both groups’ costs averaging over \$7,000 per year.
 - Nearly all newly enrolling children are already eligible, primarily through Medicaid’s expansion above TANF to 200% FPL (27,000) or CHIP’s expansion to 300% FPL (17,000). We see a modest rise in average costs of those acquiring eligibility from CHIP expansion, from \$1800 to \$2300, but changes in the costs of children acquiring eligibility from TANF expansion are negligible.
 - Among nonelderly adults, the newly eligible are a markedly lower-risk group than the currently eligible across many characteristics. They are younger (32.7% are 19-24 years old, compared to 10-20% for the currently eligible), enjoy better health, and more likely to be single without dependents (at 70%, compared to 21%-55% for the currently eligible).
- Medicaid Take-Up Rate Sensitivity--Enrollment
 - Based on the Health Insurance Policy Simulation Model, we estimate there would be 328,000 new Medicaid enrollees. We bracket this with a lower-end estimate of 224,000 and a higher-end estimate of 424,000.

- Broken out by current eligibility status, the low, medium, and high estimates for the newly enrolling newly eligible are 176,000, 250,000, and 274,000. For the newly enrolling currently eligible, they are 48,000, 78,000, and 150,000.
- Take-Up Sensitivity--Health Care Costs and Utilization
 - We predict Medicaid hospital days of 112,000, 199,000, and 209,000 days for low, medium, and high take-up. The smaller difference between the medium and high estimates is due largely to the closeness of the baseline uninsured take-up rates for new eligibles between these two scenarios. Also, higher take-up would enroll people in superior health: the percentage of 45-64 year-olds drops from 37.2% to 28.5%, and the percentage of hospital days taken by those with at least good health status rises from 60.3% to 68.7%.
 - We expect new enrollee total annual costs of \$1.45 billion, \$1.90 billion, and \$2.24 billion for the cases of low, medium, and high Medicaid take-up; likely enrollee average costs are \$6,500, \$5,800, and \$5,300. This progressive decline underscores the earlier finding that new eligibles are in general less costly than existing eligibles.
 - A higher take-up rate implies that those with lower health risks enter Medicaid, leading to shifts in the composition of Medicaid enrollees. For instance, 33.7% of new enrollees have very good or excellent health status under low take-up, compared to 42.6% under high take-up.
- Take-Up Sensitivity--Uncompensated Care
 - Medicaid expansion may yield substantial savings in uncompensated care costs: \$477 million (low take-up), \$524 million (medium take-up), and \$608 million (high take-up).
- Projections for 2014 to 2019
 - We see a rise in annual state Medicaid spending from \$2.66 billion in 2013 to \$3.81 billion in 2019, and total spending from \$7.53 billion to \$10.70 billion.

We develop these conclusions below at greater length.

How many people will enroll in Medicaid after its expansion?

We constructed the alternative Medicaid take-up projections that appear in Table III.3 by supplementing our existing HIPS M estimates, as applied to WSPS data, with findings from the empirical literature.³⁰ As in Task II, we calibrated our projections separately for eight cells along the three dimensions of baseline coverage, baseline eligibility, and age. Within each cell, we added observations to the group taking up Medicaid until the weighted share of the population enrolled exceeded the targeted take-up rate, in descending order of predicted take-up probability.

As we have shown, the large majority of those gaining Medicaid eligibility are adults. For newly eligible adults currently uninsured, we used a low take-up rate of 60.1% from Amy Davidoff et al.³¹ That rate is

³⁰ For a useful survey, see Garrett et al., 2009, note 22 above.

³¹ Davidoff, Amy, Alshadye Yemane, Emerald Adams. "Health Coverage for Low-Income Adults: Eligibility and Enrollment in Medicaid and State Programs, 2002." Kaiser Commission on Medicaid and the Uninsured, February 2005.

also similar to assumptions made by the Congressional Budget Office.³² Our best estimate of take-up rate was 72.6 percent, which is typical of HIPSM results elsewhere.³³ The high take-up rate of 78.2% is the highest plausible level in the literature; even with very good outreach, experience has shown that it would be difficult to achieve much higher rates for adults.³⁴ For newly eligible children that are currently uninsured, we took the low take-up rate of 71.9% (Table III.3) from Julie Hudson and Thomas Selden's analysis of the MEPS from 1996-2005³⁵ and a high take-up rate of 90.8% from Lisa Dubay et al.³⁶—again, the extremes of plausible values found in the literature.

Since a number of the newly eligible would currently have private coverage, estimates of crowd-out are important within the overall take-up rates.³⁷ Several papers³⁸, well-summarized by Glied et al.³⁹, provide estimates often taken as standards of crowd-out under current conditions, though care should be taken in making comparisons among them, since different authors measure crowd-out in different ways. Under the ACA, nongroup crowd-out will be substantially higher than it is currently due to the new “no wrong door” interface to the exchange and Medicaid. For the medium and high scenarios, we assume that those seeking coverage in the nongroup exchange will be automatically screened for Medicaid and CHIP eligibility, and will be automatically enrolled if found eligible. This was the most common interpretation of the law until HHS issued final regulations in March, after our work on this project was complete.⁴⁰ This will eventually affect the large majority of new Medicaid eligibles currently enrolled in non-group coverage. Thus, the 35.5 percent take-up rate in the standard scenario is the average of a high rate for those with nongroup coverage combined with the low ESI crowd-out rate from the

³² John Holahan and Irene Headen, *Medicaid Coverage and Spending in Health Reform: National and State-by-State Results for Adults at or Below 133% Poverty*. The Urban Institute, 2010

³³ See *The Urban Institute's Health Microsimulation Capabilities*, July 19, 2010, <http://www.urban.org/url.cfm?ID=412154> and *HIPSM Methodology Documentation, 2011 National Version*, Dec. 2011, <http://www.urban.org/UploadedPDF/412471-Health-Insurance-Policy-Simulation-Model-Methodology-Documentation.pdf>.

³⁴ Stan Dorn, Ian Hill, and Sara Hogan, *The Secrets of Massachusetts' Success: Why 97 Percent of State Residents Have Health Coverage*. The Urban Institute, 2009.

³⁵ Julie L. Hudson and Thomas M. Selden. "Children's Eligibility and Coverage: Recent Trends and a Look Ahead." *Health Affairs* 26 (5): 2007. Available at <http://content.healthaffairs.org/content/26/5/w618.full>.

³⁶ Lisa Dubay, Jocelyn Guyer, Cindy Mann, and Michael Odeh. "Medicaid At The Ten-Year Anniversary of SCHIP: Looking Back And Moving Forward." *Health Affairs* 26 (2): 2007. Available at <http://content.healthaffairs.org/content/26/2/370.full>

³⁷ Crowd out here means the displacement of private coverage by Medicaid, the taking up of public coverage by someone who would otherwise be privately insured.

³⁸ Most notably, see David M. Cutler and Jonathan Gruber, "Does public insurance crowd out private insurance?" *The Quarterly Journal of Economics*, 111 (1996): 391-430.

³⁹ Glied, Sherry, Dahlia Remler, and Joshua Graff Zivin. "Inside the Sausage Factory: Improving Estimates of the Effects of Health Insurance Expansion Proposals." *Milbank Quarterly*. Volume 80, Number 4 (2002): 603-636.

⁴⁰ Under these rules, the interface could simply make an assessment of potential eligibility and forward information to the state Medicaid agency for further processing. The person could receive subsidized exchange coverage in the meantime if otherwise eligible. Medicaid Program; Eligibility Changes Under the Affordable Care Act of 2010, Final Rule, CMS-2349-F, Federal Register 77(57): 17143-17217, March 23, 2012? <http://www.gpo.gov/fdsys/pkg/FR-2012-03-23/pdf/2012-6560.pdf>

literature. Although the law, as usually interpreted, requires automatic enrollment, it may be interpreted differently in forthcoming regulations. Also, interface limitations may cause this feature to be less effective. To show the effects of this, our low take-up scenario removes the boost that the interface would give to those with nongroup coverage.

Take-up rates for those already eligible for Medicaid but not enrolled are much lower, since these individuals have already exhibited a preference against Medicaid. Take-up rates for those currently eligible are expected to be somewhat higher under the ACA than at present due to the no wrong door process, the integration of enrollment with the tax system, the individual mandate, and concerted outreach efforts. Due to the novelty of these ACA provisions and the uncertainty about their implementation in the coming years, convincing estimates of the Medicaid take-up rates of the currently eligible in the economics literature are essentially nonexistent. Drawing on the work of Garrett, Holahan, Cook, Headen, and Lucas,⁴¹ we estimated low and high take-up of 40.5% and 55.5% for currently uninsured children, 10.6% and 31.0% for uninsured adults, 5.1% and 25.0% for privately covered children, and 8.3% and 25.6% for privately covered adults by adding and subtracting a sensitivity buffer to the estimates produced by HIPSM in Task II. It is important to note that while these numbers seem low, they actually mean that Medicaid participation rates for those currently eligible are significantly higher under reform than currently. Table III.4 offers a useful summary of this. For children, the participation rate rises from 67.5% today to 70.3% (low take-up), 72.0% (medium take-up), or 76.6% (high take-up). For adults, it rises from 65.4% to 68.4% (low take-up), 70.6% (medium take-up), or 74.6% (high take-up). Washington already has a high rate of participation, it would be difficult to increase this substantially under health reform.

We use these figures to explore the sensitivity of the estimated numbers of new enrollees to the take-up rate. The first row of Table III.5a reveals our lower-end estimate of 224,000 new enrollees and higher-end estimate of 424,000 enrollees beside our best estimate of 328,000 enrollees. Unsurprisingly, under all three scenarios, a larger proportion of new enrollees are newly eligible than currently eligible: the figures for the newly eligible are 176,000, 250,000, and 274,000. The projections for the currently eligible, however, vary substantially across scenarios: we predict enrollment of 48,000 in the case of low take-up, and 150,000 in the case of high take-up.

Alternative take-up rates also preserve the patterns of the distribution of enrollment growth by age group that appear in Task II. In Table III.5a, newly eligible nonelderly adults make up the bulk of enrollment growth: 173,000 people (low take-up), 245,000 (medium), or 267,000 (high). A much smaller number—17,000, 29,000, or 51,000—are currently eligible adults. Comparatively few children will enroll, although the proportions are reversed: we expect 31,000 to 100,000 currently eligible children to take up Medicaid or CHIP after health reform, while just 4,000 to 7,000 newly eligible children will.

The first row of Table III.5b, meanwhile, reports the number of individuals eligible for Medicaid after health reform who fail to enroll. Under every scenario, this number is larger than the number who enroll, underscoring the importance of carefully considering the take-up rate in producing and analyzing

⁴¹ See Garrett et al., 2009, note 19 above.



any projections.

How will Medicaid expansion affect hospital utilization?

In Tables III.6a and III.6b, we present results of our exploration of the sensitivity of our existing hospital utilization estimates to our assumptions about Medicaid take-up rates. We display the number of projected hospital days, the percentage of total hospital days this represents, and hospital days as a utilization rate per 1,000 people within each take-up rate panel, for subgroups of the population defined by various health and demographic characteristics. Hospital days unsurprisingly increase as we project higher rates of take-up: from a base of some 650,000 days, we predict increases of 112,000, 199,000, and 209,000 days for low, best estimate, and high take-up. The small increase from the medium to high take-up rate may reflect the improved health of those less likely to take up Medicaid. We observe that as we move from assuming the lower-end take-up rate to the higher-end take-up rate, the age structure of the Medicaid population's hospital days shifts downward: the percentage of 45-64 year-olds drops from 37.2% to 28.5%, and the percentage of 0-18 year-olds rises from 26.1% to 31.7%. 60.3% of hospital days are taken by those with at least good health status under low take-up, but this figure rises to 68.7% under high take-up. The percentage of hospital days used by those with private coverage initially also rises from 7.8% to 25.0%.

How much will Medicaid expansion cost in the short run?

Tables III.7a, 7b, 8a, and 8b present results on the sensitivity of cost estimates already produced to different assumptions about take-up rates. Healthcare costs differ significantly among individuals, so merely scaling existing Medicaid cost figures by an increase in population would yield misleading results. In particular, individuals with the highest propensity to take up coverage are those with the greatest healthcare costs. The first row of Table III.7a indicates that under the low take-up scenario, new enrollees would cost \$6,500 on average, while they would cost \$5,300 under the high take-up scenario.

We next combined our take-up projections and individual cost information to generate estimates of new enrollees' Medicaid costs. The first row of Table III.8a reveals estimates of \$1.45 billion, \$1.90 billion, and \$2.25 billion for the cases of low, medium, and high Medicaid take-up. These correspond, in Table 8b, to estimates of the total expenditures of eligible individuals *not* taking up Medicaid that vary depending upon these assumptions: \$2.81 billion, \$2.43 billion, and \$2.20 billion, for the cases of low, medium, and high Medicaid take-up. The first row of Table III.7b indicates, however, that in this case these differences are primarily due to the different sizes of the population that fails to enroll under differing take-up assumptions, rather than differences in the expenditures of these different groups.

We did observe dramatic differences, though, between the newly eligible and the currently eligible. According to the fifth row of Table III.1b, nonelderly adult enrollees that become eligible only after health reform are markedly less expensive, at an average of \$3,600 per year (with median \$250), than most existing adult enrollees and most new adult enrollees that are currently eligible, with both groups' costs averaging over \$7,000 per year. Substantial differences also exist among children, but in the reverse direction. Newly eligible children that enroll, in contrast, are modestly more expensive (mean



\$3,000) than currently eligible children that are enrolled post-reform, whose costs average \$1,900. Children acquiring eligibility via CHIP's expansion to 300% FPL cost an average of \$1,800 annually today and will cost an average of \$2,300 after the entry of currently eligible children that we expect to enroll post-reform. Currently eligible children entering through other eligibility pathways show few differences in costs from the currently enrolled.

Table III.9 offers our estimates of the costs of the uncompensated care received today by those without current health coverage. We expect the expansion of Medicaid to produce large reductions in uncompensated care costs: \$477 million (low take-up), \$524 million (medium take-up), and \$608 million (high take-up). Such reductions would mean savings to providers and large potential savings to federal, state, and local governments.⁴² Unsurprisingly, the first row of Table III.9 indicates that somewhat higher uncompensated care costs also attach to those with higher probabilities of Medicaid take-up.

How much will Medicaid expansion cost in the longer run?

Our best estimates of Medicaid enrollment, costs, and utilization from 2013 to 2019 appear in Table III.10. To generate them, we used our preferred take-up estimates, omitting our low-end and high-end scenarios. We generated these figures by aging the population weights in the augmented WSPS using the U.S. Census Bureau's projections for Washington's population by age and sex in those years.⁴³ We also assumed that Medicaid costs grew by 5% per year from 2011 onwards, and that Medicaid take-up behavior did not change over time. The procedure used to compute Washington's state share of Medicaid spending in each year was identical to that used to construct Task II.5 (see Task II chapter, above).⁴⁴

Washington's projected expenditures increase year-over-year due to rising healthcare costs, population growth, and a decreasing federal match rate for the Medicaid expenditures of newly eligible individuals. Overall, we model a rise in enrollment from 1.06 million in 2013 to 1.47 million in 2019. This includes normal caseload growth in addition to new enrollment due to the ACA. The majority of the additional costs are borne by the federal government: annual state spending grows from \$2.41 billion in 2013 to \$3.45 billion in 2019, and total spending from \$6.83 billion to \$9.70 billion. The increases are just above 40% for 6 years, reflecting change in population and prices. These estimates make no allowance for policy change, nor for impacts of efficiency and value-enhancing initiatives under the ACA or otherwise.

Who are the new Medicaid enrollees?

For those new enrollees who are currently eligible for Medicaid but previously unenrolled, the findings in Tables III.1a and III.1b reveal important differences in take-up behavior across eligibility channels.

⁴² Matthew Buettgens, Stan Dorn, and Caitlin Carroll, *Consider Savings as Well as Costs: State Governments Would Spend at Least \$90 Billion Less With the ACA than Without It from 2014 to 2019*, Washington, DC: The Urban Institute, July 13, 2011, <http://www.urban.org/url.cfm?ID=412361>.

⁴³ "State Interim Population Projections by Age and Sex: 2004 - 2030." U.S. Census Bureau, Population Division. Last updated April 1, 2005. Available <http://www.census.gov/population/www/projections/projectionsagesex.html>.

⁴⁴ Newly eligible Medicaid enrollees yield a federal match of 100% from 2014-2016, 95% in 2017, 94% in 2018, and 93% in 2019.



Almost 50,000 children currently eligible for Apple Health would newly enroll under the ACA. This includes 27,000 in the Medicaid eligibility range (up to 200% FPL) and 18,000 in the CHIP eligibility range (up to 300% FPL). For nonelderly adults, in contrast, most growth is through the TANF channel (24,000 of the 29,000), suggesting that outreach efforts could lean heavily on existing TANF enrollment and outreach pathways.

Tables III.2a and III.2b present our investigation of differences in demographic characteristics across these channels and the newly eligible. Of children acquiring eligibility as a consequence of health reform, little can be said, since there are fewer than 6,000. Among nonelderly adults, however, who compose most of the new enrollees, the newly eligible are a markedly lower-risk group than the currently eligible across a wide range of personal characteristics. Although the sample sizes are small, their prevalence of chronic conditions appears to be lower than it is among the currently eligible. They are younger (32.7% are between 19 and 24 years old), enjoy better health, and are far more likely to be single without dependents (at 69.9%, compared to 20% to 51% for the currently eligible). If newly eligible adults perceive their health risks as low or lack information about coverage options, they may as a consequence require intensive outreach efforts.

As discussed earlier, currently eligible nonelderly adults are expected to enter Medicaid after reform primarily through TANF eligibility. Among children, Table III.1a reveals two main pathways: Medicaid’s expansion to 200%, and CHIP’s expansion to 300%. Those acquiring eligibility through CHIP’s expansion show somewhat better health status (69% are “Excellent” or “Very Good,” versus 54%), and are more likely to have married parents than single parents.

The newly eligible new enrollees constitute their own new pathway and will generate the bulk of new enrollment (245,000 people out of the total of 328,000). Due to the high eligibility threshold for Apple Health for Kids, very few children would become newly eligible.

In Tables III.5a and III.5b, we show how the projected demographics of both newly eligible Medicaid enrollees and those eligible that do not enroll depend upon the take-up rates we use. Among new enrollees, the pattern is the same across both the currently eligible and the newly eligible: higher take-up rates imply that individuals with lower-risk traits enroll in Medicaid in larger proportions.⁴⁵ For instance, 30.5% of new enrollees are ages 45-64 under low take-up, but 23.4% are 45-64 under high-take-up. 33.7% have very good or excellent health status under low take-up, compared to 42.6% under high take-up. These differences are modest, yet appreciable. Those who do not take up Medicaid, however, show few changes across the differing take-up assumptions (Table III.5b).

Lastly, in Table III.11, we look at the regional distribution of new Medicaid enrollees. Unsurprisingly, King County contributes the largest number of new Medicaid enrollees (~79,000), followed by Pierce County and the East Balance Region. This pattern holds when looking at new and current eligibles separately. Most interestingly, some counties appear to enroll new people into Medicaid at different rates depending their eligibility status. For example, Snohomish County, which totals ~11% of the overall

⁴⁵ Rates of tobacco smoking, however, vary inconsistently with the assumed take-up rates.



population (not shown), accounts for 16% of currently eligible new enrollees and only 7% of newly eligible new enrollees. In the majority of regions, new eligibles enroll at higher rates than current eligibles, excepting North Puget, Puget Metro and Snohomish County. Such information could be used to target outreach activities.

Private Coverage Crowd-Out by Medicaid

In the analyses done for this section, we assumed rates of Medicaid take-up by those currently having private coverage that we have used to generate the results in above. As described in earlier sections, we drew upon empirical evidence to produce separate low, medium, and high crowd-out rates for newly eligible children, newly eligible adults, currently eligible children, and currently eligible adults, and then scored the WSPS observations with the highest predicted take-up probability within each cell as taking up Medicaid. The medium crowd-out rates represent our preferred estimates, and are the rates used in a standard HIPSM simulation. This section provides additional information on crowd-out.

In each case, the overall crowd-out rate is the weighted average of the crowd-out rate in the non-group health insurance market and the crowd-out rate in the market for employer-sponsored insurance. (We define *crowd-out* as the share of a particular population with private coverage that abandons that coverage to enroll in public coverage.⁴⁶) Under medium and high take-up, we assume that the “no wrong door” interface automatically enrolls in Medicaid *all* Medicaid-eligible individuals seeking non-group coverage in the exchange, as specified by the text of the Affordable Care Act—implying a very high non-group crowd-out rate. Under low take-up, we assume that automatic enrollment is not implemented or functions poorly, so that the non-group crowd-out rate receives no particular increase. Under the final HHS regulations regarding the exchanges, a full Medicaid eligibility determination in real time by the interface and subsequent automatic enrollment will be a state option.⁴⁷

In the case of employer-sponsored insurance (and non-group insurance under low take-up), we used substantially different underlying crowd-out rates for the newly eligible and the currently eligible. For the newly eligible, we based our estimates on empirical studies of past expansions of public coverage. Glied⁴⁸ and Gruber⁴⁹ offer useful surveys of the ample literature: estimates range from almost no crowd-out on the low end, where Ham and Shore-Sheppard⁵⁰ are unable to reject the null hypothesis of zero

⁴⁶ This definition differs from other definitions in the economics literature. Another common definition is the increase in the Medicaid population divided by the decrease in privately covered population. This alternate definition is less useful for our purposes because the implied take-up rate depends upon the initial number of privately covered individuals.

⁴⁷ HHS, Patient Protection and Affordable Care Act: Establishment of Exchanges and Qualified Health Plans; Exchange Standards for Employers <http://www.regulations.gov/#!documentDetail;D=HHS-OS-2011-0020-2420>.

⁴⁸ Glied, Sherry, Dahlia Remler, and Joshua Graff Zivin. “Inside the Sausage Factory: Improving Estimates of the Effects of Health Insurance Expansion Proposals.” *Milbank Quarterly*. Volume 80, Number 4 (2002): 603-636.

⁴⁹ Gruber, Jonathan, and Kosali Simon. “Crowd-out 10 years later: Have recent public insurance expansions crowded out private health insurance?” *Journal of Health Economics* 27 (2008): 201-217.

⁵⁰ Ham, J., and L. Shore-Sheppard, 2005. “The effect of Medicaid expansions for low-income children on Medicaid participation and private insurance coverage: evidence from the SIPP.” *Journal of Public Economics* 89, 57–83



crowd-out, to 40-50% on the high end. From Cutler and Gruber⁵¹ we drew our standard HIPSM crowd-out rates, corresponding to the best-estimate or “medium” take-up scenario used here. Applied to Washington’s data and averaging the respective crowd-out rates over the populations with non-group insurance and employer-sponsored insurance, we produced low, medium, and high crowd-out rates of 12.1%, 25.8%, and 31.2% for children, and 12.0%, 35.5%, and 40.0% for adults.

Crowd-out rates for those currently eligible for Medicaid but not enrolled are lower, as many of these individuals have already chosen private coverage rather than Medicaid. As we emphasized in earlier sections, ACA-enhanced take-up rates for those currently eligible but not enrolled may seem low, but represent a significant increase in the current overall take-up rate for those currently eligible (See Task III, table 4 below). The magnitude of *additional* take-up depends on *new* encouragement devices, such as integration of enrollment with the tax system and intensive outreach efforts. Credible estimates of the impact of these measures on crowd-out are unavailable—some of these provisions have never been tried before—and the state will choose which measures to put in place. For example, aggressive outreach targeted exclusively at the uninsured might have spillover effects on the coverage choices of those currently privately insured. To reflect a range of views on the sensitivity of this unknown parameter to various assumptions, we produced final low, medium, and high crowd-out estimates of 5.1%, 9.6%, and 25.0% for privately covered children, and 8.3%, 16.4%, and 25.6% for privately covered adults.

Finally, we note that implementing a premium assistance program could actually *reduce* crowd-out. Under the ACA, states are required to assess the cost-effectiveness of providing Medicaid-equivalent benefits and cost sharing through premium assistance. Nationally, 46 percent of people eligible for Medicaid or CHIP under the ACA would have some offer of ESI coverage in their immediate family.⁵² In addition to reducing crowd-out, premium assistance could also be important in reducing churn between Medicaid and employer-sponsored insurance. Churning between Medicaid and subsidized coverage in the exchange has gotten the most attention, but that is not where the majority of churning occurs. Our estimates based on SIPP data for Washington State suggest that *there would be about three times as much churning between Medicaid and employer offers deemed affordable under the ACA as between Medicaid and subsidized exchange coverage.*⁵³

Many premium assistance programs in the past have experienced problems.⁵⁴ The ACA and implementing choices made by the state could address the causes of some of these difficulties, but premium assistance is unlikely to be a central feature of Medicaid programs without a major restructuring of private insurance and Medicaid. However, even modest enrollment in premium

⁵¹ David M. Cutler and Jonathan Gruber, “Does public insurance crowd out private insurance?” *The Quarterly Journal of Economics*, 111 (1996): 391-430.

⁵² Matthew Buettgens, Austin Nichols, and Stan Dorn, “Churning Under the ACA and State Policy Options for Mitigation,” (Washington, DC; The Urban Institute; forthcoming)

⁵³ Ibid.

⁵⁴ Joan Alker, *Choosing Premium Assistance: What Does State Experience Tell Us?* Washington DC: Kaiser Commission on Medicaid and the Uninsured, report no. 7782 (from the Georgetown University Center for Children and Families), May 2008, <http://www.kff.org/medicaid/upload/7782.pdf>.



assistance could have a noticeable effect on both crowd-out and churning.⁵⁵ Massachusetts currently covers more than 30,000 through premium assistance.

Phase-in of Medicaid and CHIP Enrollment, 2014-2019

We have previously provided estimates of nonelderly Medicaid/CHIP enrollment under the ACA once fully phased in.⁵⁶ This section presents estimated enrollment during the “phase-in” or “ramp-up” period—that is, how Medicaid and CHIP enrollment would change during the initial years of the ACA. This break-out by year should be relevant for budgetary projections and operational planning. The 2014-2019 period covered here corresponds to the years during which the federal matching rate for newly eligible enrollees will be phased down from 100 percent to its permanent level of 90 percent for 2020 and thereafter.

Our method was to separate all of the expected new nonelderly enrollees with the ACA fully phased in into three groups based on expected variation in patterns of take-up:

1. *Those who currently have nongroup coverage and the uninsured who are currently eligible, but who are not enrolled.* The no-wrong-door interface and other provisions of the ACA would affect this group first and most strongly. We assume that their enrollment levels would be 70% of full-implementation levels in 2014, 90% in 2015, and would reach the full levels after that.
2. *The newly eligible uninsured.* Reaching this population quickly would require more outreach. Given that they are not now connected to coverage, they would not necessarily use the no-wrong-door interface immediately, and many would be exempt from the mandate because of their low incomes. For this group, we assume enrollment levels of 50% of the full-implementation level in 2014, 75% in 2015, and 90% in 2016, and full levels after that. This assumption is similar to the phase-in pattern that CBO uses in its national estimates.⁵⁷
3. *Medicaid eligibles who currently have ESI coverage.* It would take longer for this group to find out that they are eligible. They may never visit the no-wrong-door interface. Phase-in is expected to be slowest for this group. We assume 40% of full-implementation enrollment in 2014, 60% in 2015, 80% in 2016, and 95% in 2017. ESI-to-Medicaid crowd-out behavior would be similar for both current and new eligibles, so we did not separate them.

We then combined the phase-in rates of these groups’ new enrollees with the previously described caseload growth over time. The results are presented in Figure III.1, which shows the estimated enrollment growth curve for all the nonelderly Medicaid/CHIP eligibles during the first six years of the ACA. Note that the estimates for 2018 and 2019 are our earlier estimates for the ACA as if fully implemented in 2011, adjusted for caseload growth.

⁵⁵ For more information, see Buettgens, Nichols, and Dorn, note 46 above.

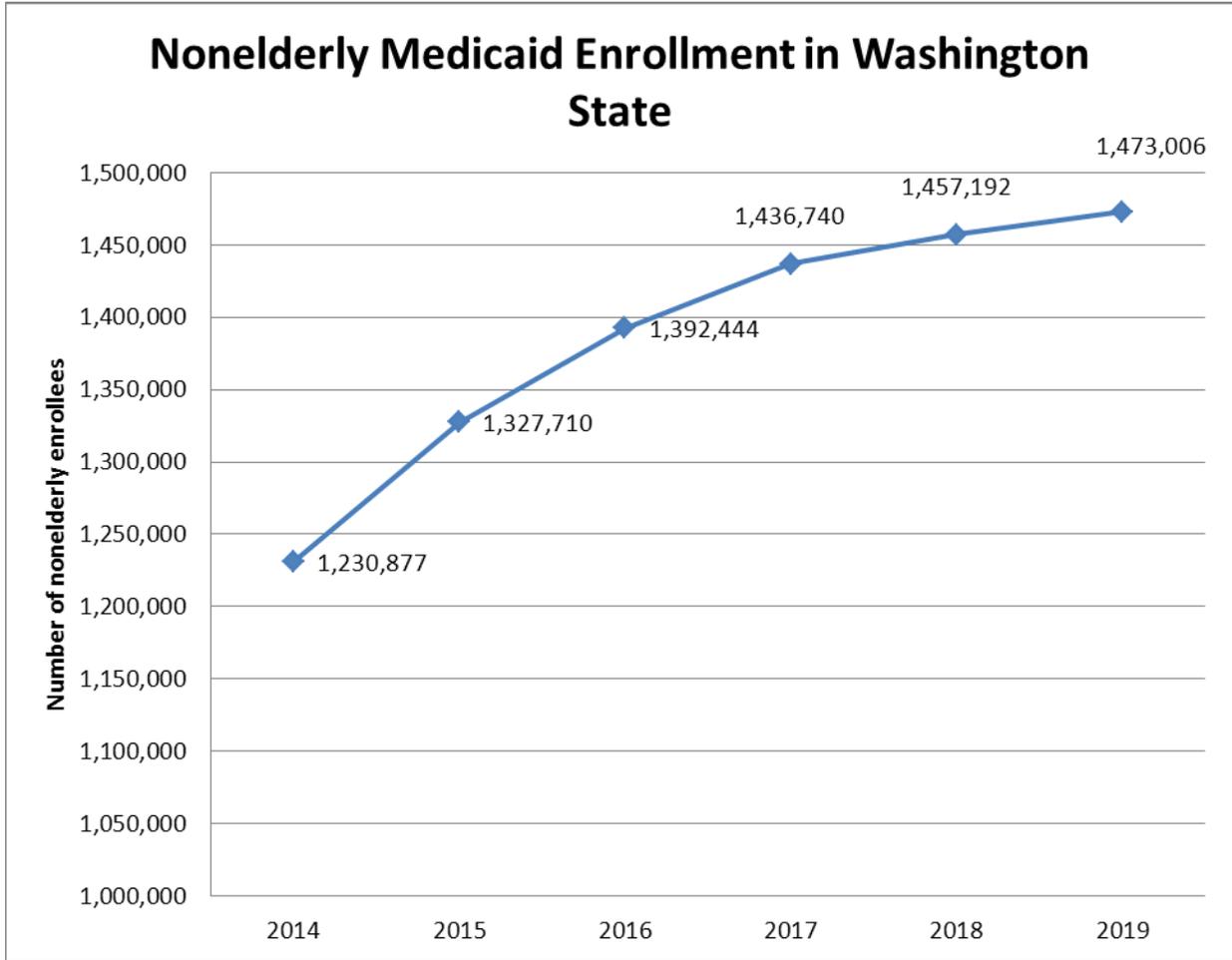
⁵⁶ See *Task II*, above.

⁵⁷ See, for example, CBO, Updated Estimates for the Insurance Coverage Provisions of the Affordable Care Act, March 2012, <http://cbo.gov/sites/default/files/cbofiles/attachments/03-13-Coverage%20Estimates.pdf>.



The phase-in of new enrollment in Apple Health for children follows the categories 1 and 3 described above. There are essentially no newly eligible children. The most important factor for children is the type of coverage, if any, provided to them by their parents.

Figure III. 1





Task III Tables

Table III.1a. Children's Medicaid enrollment and expenditures before and after health reform

	Current eligibility pathway							Gaining eligibility
	SSI Disabled	TANF	Medicaid Expansion Above TANF to 200%	CHIP Expansion to 300%	Noncitizen	Other	Total	
Enrollment								
Pre-reform	<i>19,263</i>	170,430	449,480	<i>24,364</i>	<i>25,385</i>	<i>46,688</i>	<i>735,611</i>	
Post-reform	<i>19,801</i>	173,747	476,645	<i>42,269</i>	<i>25,575</i>	<i>46,688</i>	<i>784,725</i>	5,512
<i>Difference</i>	<i>537</i>	3,317	27,165	<i>17,905</i>	<i>190</i>	<i>0</i>	<i>49,115</i>	5,512
Mean Expenditures								
Pre-reform	<i>\$3,369</i>	\$1,300	\$2,000	<i>\$1,750</i>	<i>\$1,365</i>	<i>\$2,891</i>	<i>\$1,900</i>	
Post-reform	<i>\$3,290</i>	\$1,312	\$1,990	<i>\$2,335</i>	<i>\$1,367</i>	<i>\$2,891</i>	<i>\$1,925</i>	\$3,012
<i>Difference</i>	<i>-\$79</i>	\$12	-\$10	\$585	\$2	\$0	\$25	
Median Expenditures								
Pre-reform	<i>\$2,222</i>	\$412	\$478	<i>\$958</i>	<i>\$423</i>	<i>\$280</i>	<i>\$468</i>	
Post-reform	<i>\$2,222</i>	\$447	\$476	<i>\$663</i>	<i>\$423</i>	<i>\$280</i>	<i>\$456</i>	\$239
<i>Difference</i>	<i>\$0</i>	\$35	-\$1	-\$295	\$0	\$0	-\$12	
Source: UI Analysis of Augmented Washington State Database								
Note: Italicized font indicates a weighted sample under 70,000								
Note: Italicized and grayed font indicates a weighted sample under 30,000								



Table III.1b. Nonelderly adults' Medicaid enrollment and expenditures before and after health reform

	Current eligibility pathway					Gaining eligibility
	SSI Disabled	TANF	Waivers	Other	Total	
Enrollment						
Pre-reform	141,025	117,021	<i>63,011</i>	<i>38,587</i>	359,644	0
Post-reform	145,451	141,393	<i>63,011</i>	<i>38,587</i>	388,442	244,797
<i>Difference</i>	4,426	24,372	0	0	28,798	244,797
Mean Expenditures						
Pre-reform	\$10,183	\$6,467	<i>\$3,217</i>	<i>\$11,641</i>	\$7,910	.
Post-reform	\$10,104	\$5,636	<i>\$3,217</i>	<i>\$11,641</i>	\$7,513	\$3,581
<i>Difference</i>	-\$79	-\$831	\$0	\$0	-\$397	
Median Expenditures						
Pre-reform	\$5,467	\$859	<i>\$975</i>	<i>\$1,997</i>	\$2,462	.
Post-reform	\$5,554	\$814	<i>\$975</i>	<i>\$1,997</i>	\$1,055	\$245
<i>Difference</i>	\$87	-\$44	\$0	\$0	-\$1,407	
Source: UI Analysis of Augmented Washington State Database						
Note: Italicized font indicates a weighted sample under 70,000						
Note: Italicized and grayed font indicates a weighted sample under 30,000						



Table III.2a. Demographic characteristics of children enrolled in Medicaid after health reform

	Current eligibility pathway												Gaining eligibility	
	SSI Disabled		TANF		Medicaid Expansion Above TANF to 200%		CHIP Expansion to 300%		Noncitizen		Other			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Total	19,801		173,747		476,645		42,269		25,575		46,688		5,512	
Health Status														
Excellent	0	0.0%	40,722	23.4%	174,196	36.5%	16,197	38.3%	7,015	27.4%	13,396	28.7%	1,013	18.4%
Very Good	1,897	9.6%	34,906	20.1%	85,527	17.9%	13,239	31.3%	4,895	19.1%	14,193	30.4%	2,814	51.0%
Good	13,954	70.5%	83,025	47.8%	184,650	38.7%	10,373	24.5%	10,602	41.5%	7,097	15.2%	1,459	26.5%
Fair	3,950	19.9%	12,463	7.2%	27,117	5.7%	2,461	5.8%	3,063	12.0%	11,303	24.2%	226	4.1%
Poor	0	0.0%	2,631	1.5%	5,155	1.1%	0	0.0%	0	0.0%	699	1.5%	0	0.0%
MAGI														
Under 138% FPL	12,719	64.2%	132,368	76.2%	279,432	58.6%	724	1.7%	18,924	74.0%	18,712	40.1%	5,512	100.0%
138% - 200% FPL	3,182	16.1%	8,667	5.0%	103,791	21.8%	1,248	3.0%	1,360	5.3%	8,856	19.0%	0	0.0%
200% - 300% FPL	866	4.4%	19,988	11.5%	52,698	11.1%	13,185	31.2%	4,700	18.4%	6,967	14.9%	0	0.0%
300% - 400% FPL	1,979	10.0%	9,743	5.6%	20,375	4.3%	11,383	26.9%	0	0.0%	4,589	9.8%	0	0.0%
400%+ FPL	1,055	5.3%	2,980	1.7%	20,349	4.3%	15,730	37.2%	590	2.3%	7,564	16.2%	0	0.0%
Race/Ethnicity														
White, Non-Hispanic	6,708	33.9%	97,432	56.1%	240,253	50.4%	30,133	71.3%	3,426	13.4%	29,495	63.2%	2,112	38.3%
Black, Non-Hispanic	4,463	22.5%	14,015	8.1%	20,352	4.3%	1,568	3.7%	0	0.0%	1,261	2.7%	2,250	40.8%
Hispanic	3,468	17.5%	39,698	22.8%	148,353	31.1%	6,568	15.5%	18,165	71.0%	11,608	24.9%	798	14.5%
Other ¹	5,162	26.1%	22,602	13.0%	67,687	14.2%	4,001	9.5%	3,984	15.6%	4,324	9.3%	352	6.4%
HIU Type³														
Single, No Dependents	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Single, With Dependents	15,564	78.6%	111,238	64.0%	199,747	41.9%	8,551	20.2%	6,344	24.8%	14,210	30.4%	3,648	66.2%
Married, No Dependents	0	0.0%	0	0.0%	407	0.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Married, With Dependents	4,237	21.4%	26,773	15.4%	272,770	57.2%	33,719	79.8%	16,394	64.1%	31,880	68.3%	1,734	31.5%
Kid Only	0	0.0%	35,736	20.6%	3,720	0.8%	0	0.0%	2,837	11.1%	599	1.3%	130	2.4%

Source: UI Analysis of Augmented Washington State Database

1. Other includes, among the non-Hispanic population, American Indian/Alaskan Native, Native Hawaiian/Other Pacific Islander, and Multiracial

2. "Married" includes health insurance units with a married individual even if the spouse is not within the unit

3. Except for asthma, all prevalences reflect any diagnosis of the disease in question, regardless of how long ago the diagnosis occurred. The asthma prevalence reflects a current

Note: Italicized font indicates a weighted sample under 70,000

Note: Italicized and grayed font indicates a weighted sample under 30,000



Table III.2b. Demographic characteristics of nonelderly adults enrolled in Medicaid after health reform#

	Current eligibility pathway								Gaining eligibility	
	SSI Disabled		TANF		Waivers		Other			
	N	%	N	%	N	%	N	%	N	%
Total	145,451		141,393		63,011		38,587		244,797	
Health Status										
Excellent	14,224	9.8%	18,112	12.8%	6,078	9.6%	5,747	14.9%	33,023	13.5%
Very Good	15,287	10.5%	21,070	14.9%	11,063	17.6%	6,751	17.5%	60,682	24.8%
Good	39,701	27.3%	56,254	39.8%	27,776	44.1%	12,164	31.5%	81,418	33.3%
Fair	42,111	29.0%	25,977	18.4%	9,418	14.9%	9,713	25.2%	50,179	20.5%
Poor	34,128	23.5%	19,980	14.1%	8,676	13.8%	4,211	10.9%	19,496	8.0%
MAGI										
Under 138% FPL	95,984	66.0%	114,910	81.3%	33,253	52.8%	20,583	53.3%	244,797	100.0%
138% - 200% FPL	16,039	11.0%	11,633	8.2%	10,334	16.4%	7,538	19.5%	0	0.0%
200% - 300% FPL	19,588	13.5%	7,222	5.1%	10,242	16.3%	5,753	14.9%	0	0.0%
300% - 400% FPL	8,793	6.0%	3,316	2.3%	3,425	5.4%	1,743	4.5%	0	0.0%
400%+ FPL	5,047	3.5%	4,313	3.1%	5,758	9.1%	2,969	7.7%	0	0.0%
Age										
19 - 24 years	21,273	14.6%	27,102	19.2%	10,630	16.9%	3,594	9.3%	80,037	32.7%
25 - 44 years	54,172	37.2%	90,183	63.8%	33,879	53.8%	18,155	47.0%	75,553	30.9%
45 - 64 years	70,007	48.1%	24,107	17.1%	18,502	29.4%	16,838	43.6%	89,206	36.4%
Race/Ethnicity										
White, Non-Hispanic	96,728	66.5%	90,482	64.0%	35,418	56.2%	23,325	60.4%	178,727	73.0%
Black, Non-Hispanic	8,985	6.2%	6,446	4.6%	2,798	4.4%	2,180	5.6%	10,741	4.4%
Hispanic	20,918	14.4%	24,305	17.2%	14,545	23.1%	7,062	18.3%	30,200	12.3%
Other ¹	18,819	12.9%	20,159	14.3%	10,251	16.3%	6,019	15.6%	25,129	10.3%
HIU Type³										
Single, No Dependents	74,489	51.2%	49,490	35.0%	25,465	40.4%	7,666	19.9%	171,221	69.9%
Single, With Dependents	23,634	16.2%	43,356	30.7%	9,594	15.2%	5,500	14.3%	25,852	10.6%
Married, No Dependents	18,646	12.8%	5,374	3.8%	6,167	9.8%	4,709	12.2%	17,569	7.2%
Married, With Dependents	28,682	19.7%	43,172	30.5%	21,785	34.6%	20,711	53.7%	30,155	12.3%
Kid Only	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Employment Status										
Unemployed	123,746	85.1%	105,965	74.9%	42,836	68.0%	28,989	75.1%	166,416	68.0%
Small Firm (< 50 Employees)	12,696	8.7%	18,771	13.3%	8,769	13.9%	5,489	14.2%	37,240	15.2%
Medium Firm (50 - 500 Employees)	6,173	4.2%	6,617	4.7%	7,196	11.4%	1,718	4.5%	19,167	7.8%
Large Firm (500+ Employees)	2,836	1.9%	10,038	7.1%	4,210	6.7%	2,390	6.2%	21,973	9.0%
Tobacco Use										
Yes	37,942	26.1%	42,530	30.1%	22,301	35.4%	10,986	28.5%	61,283	25.0%
No	107,509	73.9%	98,862	69.9%	40,711	64.6%	27,601	71.5%	183,514	75.0%
Chronic Condition Prevalences⁴										
Angina	4,755	3.3%	1,798	1.3%	1,095	1.7%	1,145	3.0%	4,086	1.7%
Arthritis	48,000	33.0%	13,706	9.7%	10,056	16.0%	6,863	17.8%	32,521	13.3%
Asthma	28,384	19.5%	19,321	13.7%	8,016	12.7%	5,476	14.2%	28,082	11.5%
Coronary Heart Disease	4,679	3.2%	5,423	3.8%	1,557	2.5%	1,364	3.5%	6,319	2.6%
Diabetes	20,581	14.1%	9,423	6.7%	7,666	12.2%	2,975	7.7%	12,131	5.0%
Emphysema	8,250	5.7%	0	0.0%	0	0.0%	314	0.8%	1,573	0.6%
Heart Attack	4,921	3.4%	1,658	1.2%	1,990	3.2%	1,305	3.4%	6,840	2.8%
High Blood Pressure	46,952	32.3%	21,672	15.3%	12,769	20.3%	9,896	25.6%	47,219	19.3%
Other Heart Disease	22,654	15.6%	5,798	4.1%	5,108	8.1%	2,971	7.7%	21,424	8.8%
Stroke	8,146	5.6%	2,639	1.9%	330	0.5%	493	1.3%	4,445	1.8%

Source: UI Analysis of Augmented Washington State Database

1. Other includes, among the non-Hispanic population, American Indian/Alaskan Native, Native Hawaiian/ Other Pacific Islander, and Multiracial
2. "Married" includes health insurance units with a married individual even if the spouse is not within the unit
3. Except for asthma, all prevalences reflect any diagnosis of the disease in question, regardless of how long ago the diagnosis occurred. The asthma prevalence reflects a current asthma diagnosis.
Note: Italicized font indicates a weighted sample under 70,000
Note: Italicized and grayed font indicates a weighted sample under 30,000



Table III.3. Medicaid takeup rates after health reform

	Newly eligible		Currently eligible, not enrolled	
	Children	Nonelderly Adults	Children	Nonelderly Adults
Baseline coverage, low takeup prediction				
Uninsured	<i>71.9%</i>	60.1%	<i>40.5%</i>	10.6%
Private	<i>12.1%</i>	12.0%	5.1%	8.3%
Baseline coverage, medium takeup prediction				
Uninsured	<i>75.3%</i>	72.6%	<i>51.8%</i>	14.8%
Private	<i>25.8%</i>	35.5%	9.6%	16.4%
Baseline coverage, high takeup prediction				
Uninsured	<i>90.8%</i>	78.2%	<i>55.5%</i>	31.0%
Private	<i>31.2%</i>	40.0%	25.0%	25.6%
Source: UI Analysis of Augmented Washington State Database				
Note: Italicized font indicates a weighted sample under 70,000				
Note: Italicized and grayed font indicates a weighted sample under 30,000				

Table III.4. Overall Medicaid Participation Rates of Those Currently Eligible for Medicaid (Nonelderly)

	Pre-Reform	Post-Reform		
		Low takeup prediction	Medium takeup prediction	High takeup prediction
Children				
Participation rate	67.5%	70.3%	72.0%	76.6%
Participation rate, excluding those with initial private insurance	95.3%	97.3%	97.8%	98.1%
Nonelderly Adults				
Participation rate	65.4%	68.4%	70.6%	74.6%
Participation rate, excluding those with initial private insurance	83.2%	85.3%	86.3%	89.1%
All Nonelderly				
Participation rate	66.8%	69.7%	71.5%	75.9%
Participation rate, excluding those with initial private insurance	91.0%	93.0%	93.7%	95.0%
Source: UI Analysis of Augmented Washington State Database				



Table III.5a. Characteristics of Likely New Medicaid Enrollees under the ACA

	Low takeup prediction				Medium takeup prediction				High takeup prediction					
	Currently Eligible, Not Enrolled	Newly Eligible	Total	%	Currently Eligible, Not Enrolled	Newly Eligible	Total	%	Currently Eligible, Not Enrolled	Newly Eligible	Total	%		
Total	47,685	100.0%	176,267	100.0%	223,951	100.0%	779,133	100.0%	150,350	100.0%	273,585	100.0%	423,935	100.0%
Health Status														
Excellent	14,530	30.5%	21,361	12.1%	35,891	16.0%	24,208	3.1%	34,035	22.6%	58,333	17.8%	47,495	11.6%
Very Good	6,781	14.2%	33,761	18.6%	39,542	17.2%	15,925	2.0%	63,495	25.4%	79,430	24.2%	27,502	6.5%
Good	18,000	37.7%	58,737	33.3%	76,571	34.3%	18,503	2.3%	82,871	53.1%	101,580	30.9%	51,142	12.1%
Fair	5,124	10.7%	46,583	26.4%	51,707	23.1%	14,787	1.9%	50,405	20.1%	65,192	19.9%	16,345	3.9%
Poor	3,250	6.8%	18,804	10.6%	20,054	9.0%	4,400	0.6%	19,496	7.8%	23,896	7.3%	7,860	1.9%
MAOI														
Under 138% FPL	20,429	42.8%	176,265	100.0%	196,694	87.8%	19,343	2.5%	290,309	100.0%	269,682	82.2%	51,354	12.1%
138% - 200% FPL	3,353	7.0%	0	0.0%	3,353	1.5%	10,490	1.3%	0	0.0%	10,490	3.2%	30,807	7.3%
200% - 300% FPL	13,117	27.5%	0	0.0%	13,117	5.9%	13,708	1.7%	0	0.0%	13,708	4.2%	49,445	11.7%
300% - 400% FPL	6,509	13.6%	0	0.0%	6,509	2.9%	13,157	1.6%	0	0.0%	13,157	4.0%	13,092	3.1%
400%+ FPL	4,278	9.0%	0	0.0%	4,278	1.9%	21,215	2.7%	0	0.0%	21,215	6.3%	5,650	1.3%
Gender														
Male	19,708	41.3%	100,013	56.7%	119,721	53.5%	32,521	4.2%	147,775	59.0%	180,296	54.9%	60,828	14.6%
Female	27,977	58.7%	76,252	43.3%	104,229	46.5%	45,391	5.8%	102,534	41.0%	147,925	45.1%	89,521	21.4%
Age														
0 - 18 years	30,900	64.8%	3,568	2.0%	34,468	15.5%	49,115	6.3%	5,512	2.2%	54,627	16.6%	99,612	23.5%
19 - 24 years	0	0.0%	56,619	32.1%	56,619	25.3%	2,400	0.3%	80,057	32.0%	82,457	25.1%	1,976	0.5%
25 - 44 years	12,773	26.8%	50,903	28.9%	64,676	28.9%	23,281	2.9%	75,533	30.2%	98,834	30.1%	39,006	9.2%
45 - 64 years	3,012	6.3%	63,175	37.0%	68,187	30.4%	3,117	0.4%	80,206	35.6%	92,333	28.1%	8,854	2.1%
65+ years	16,785	35.1%	129,951	73.9%	146,736	66.3%	28,998	3.7%	19,481	7.8%	32,125	9.8%	50,736	12.0%
Race/Ethnicity														
White, Non-Hispanic	34,576	72.5%	129,951	73.9%	146,736	66.3%	58,559	7.5%	180,839	72.2%	239,988	72.9%	106,927	25.2%
Black, Non-Hispanic	2,24	0.5%	8,006	4.6%	8,200	3.7%	4,092	0.5%	12,991	5.2%	17,083	5.2%	7,462	1.8%
Hispanic	6,041	12.7%	24,801	14.1%	30,842	13.8%	8,618	1.1%	30,998	12.4%	39,616	12.1%	15,370	3.6%
Other ¹	6,844	14.4%	18,466	10.5%	25,310	11.3%	6,644	0.9%	25,481	10.2%	32,125	9.8%	20,589	4.9%
HUI Type²														
Single, No Dependents	1,019	2.1%	112,601	64.1%	113,979	50.9%	2,050	0.3%	111,221	68.4%	173,280	52.8%	7,302	1.7%
Single, With Dependents	22,470	47.1%	27,615	15.7%	50,083	22.4%	36,507	4.7%	29,500	11.6%	60,067	20.1%	63,446	15.0%
Married, No Dependents	2,235	4.7%	11,419	6.5%	13,654	6.1%	3,070	0.4%	17,569	7.0%	20,659	6.3%	4,543	1.1%
Married, With Dependents	24,141	50.6%	45,271	25.7%	69,412	31.3%	36,217	4.7%	31,889	12.4%	68,106	20.8%	73,737	17.4%
Kid Only	830	1.7%	130	0.1%	960	0.4%	0	0.0%	130	0.1%	130	0.0%	830	0.2%
Adult Nonelderly Population	16,785	100.0%	172,697	100.0%	189,482	100.0%	28,708	100.0%	244,797	100.0%	273,595	100.0%	50,736	100.0%
Tobacco Use														
Yes	3,639	21.7%	43,881	25.4%	47,520	25.1%	7,107	24.7%	61,233	25.0%	68,300	25.0%	13,947	27.5%
No	13,146	78.3%	128,816	74.6%	141,962	74.9%	21,601	75.3%	183,514	75.0%	205,295	75.0%	36,789	72.5%
Chronic Condition Prevalences³														
Asthma	0	0.0%	2,623	1.5%	2,623	1.4%	671	2.3%	4,086	1.7%	4,757	1.7%	0	0.0%
Arthritis	4,282	25.5%	23,702	14.9%	29,984	13.5%	3,351	11.3%	32,521	13.2%	33,772	13.1%	10,461	20.6%
ADHD	4,459	26.6%	22,272	12.9%	26,731	14.1%	4,929	17.1%	28,082	11.2%	33,011	12.1%	8,169	16.1%
Coronary Heart Disease	0	0.0%	4,239	2.5%	4,239	2.2%	671	2.3%	6,319	2.6%	6,990	2.6%	411	0.8%
Dabetes	4,029	24.0%	8,841	4.8%	12,370	6.2%	1,947	6.8%	12,131	5.0%	14,078	5.1%	4,746	9.4%
Emphysema	2,825	16.8%	1,125	0.7%	3,950	2.1%	2,372	8.2%	1,573	0.6%	3,945	1.4%	4,083	8.0%
Heart Attack	0	0.0%	5,622	3.3%	5,622	3.1%	671	2.3%	6,840	2.8%	7,511	2.7%	411	0.8%
HIGH Blood Pressure	6,280	37.4%	35,888	19.6%	40,168	21.2%	5,018	19.3%	47,219	19.3%	52,857	19.3%	9,884	19.5%
Other Heart Disease	2,835	16.8%	18,625	11.3%	21,450	11.3%	2,972	8.5%	21,444	8.8%	23,796	8.7%	5,059	10.0%
Stroke	0	0.0%	3,432	2.0%	3,432	1.8%	671	2.3%	4,445	1.8%	5,116	1.9%	1,102	2.2%

Source: UI Analysis of Assisted and Washington State Database
 1. Other includes, among the non-Hispanic population, American Indian/Alaskan Native, Native Hawaiian/Other Pacific Islander, and Multiracial
 2. "Married" includes health insurance units with a married individual even if the spouse is not within the unit
 3. Except for asthma, all prevalence rates refer to any diagnosis of the disease in question, regardless how long ago the diagnosis occurred. The asthma prevalence reflects a current asthma diagnosis.

Note: Italicized font indicates a weighted sample under 70,000
 Note: Bolded font indicates a weighted sample under 30,000



The ACA Medicaid Expansion in Washington

Table III.5b. Characteristics of Eligibles Unlikely to Enroll in Medicaid under the ACA

	Low take-up prediction				Medium take-up prediction				High take-up prediction			
	Currently Eligible, Not Enrolled	Newly Eligible	Total	%	Currently Eligible, Not Enrolled	Newly Eligible	Total	%	Currently Eligible, Not Enrolled	Newly Eligible	Total	%
Total	497,236	100,00%	318,042	100.0%	815,278	100.0%	467,009	100.0%	245,998	100.0%	711,007	100.0%
Health Status												
Excellent	167,062	33.6%	65,947	20.7%	233,009	28.6%	157,294	33.7%	53,273	21.8%	210,567	29.6%
Very Good	116,446	23.4%	82,884	26.1%	199,330	24.4%	107,302	23.0%	57,149	21.4%	159,451	22.4%
Good	139,696	28.1%	100,214	33.4%	245,970	30.2%	139,193	29.8%	82,153	33.7%	221,346	31.1%
Fair	49,183	9.9%	33,139	10.4%	82,324	10.1%	39,523	8.5%	29,317	12.0%	68,840	9.7%
Poor	24,847	5.0%	29,798	9.4%	54,645	6.7%	23,697	5.1%	27,106	11.1%	50,803	7.1%
MAGI												
Under 138% FPL	98,596	19.8%	318,042	100.0%	416,638	51.1%	99,682	21.3%	245,999	100.0%	343,681	48.3%
138% - 200% FPL	62,534	12.6%	0	0.0%	62,534	7.7%	53,307	11.9%	0	0.0%	53,307	7.8%
200% - 300% FPL	125,161	25.2%	0	0.0%	125,161	15.4%	124,570	26.7%	0	0.0%	124,570	17.5%
300% - 400% FPL	106,475	21.4%	0	0.0%	106,475	13.1%	99,827	21.4%	0	0.0%	99,827	14.0%
400%+ FPL	104,470	21.0%	0	0.0%	104,470	12.8%	87,532	18.7%	0	0.0%	87,532	12.3%
Gender												
Male	228,349	45.9%	185,306	58.3%	413,745	50.7%	215,535	46.2%	137,634	56.4%	353,169	49.7%
Female	268,888	54.1%	132,646	41.7%	401,534	49.3%	251,474	53.8%	108,365	43.6%	357,839	50.3%
Age												
0 - 18 years	323,490	65.1%	12,642	4.0%	336,132	41.2%	305,274	65.4%	10,698	4.3%	315,972	44.4%
19 - 24 years	17,627	3.5%	75,406	23.7%	93,033	11.4%	51,967	21.3%	67,214	27.4%	125,181	17.5%
25 - 44 years	121,855	24.5%	111,667	35.1%	233,522	28.6%	112,348	24.1%	87,017	35.7%	199,365	28.0%
45 - 64 years	34,264	6.9%	118,327	37.2%	152,591	18.7%	34,160	7.3%	94,297	38.6%	128,457	18.1%
Race/Ethnicity												
White, Non-Hispanic	341,154	68.6%	229,585	72.2%	570,739	70.0%	311,171	67.9%	175,678	71.2%	490,849	69.0%
Black, Non-Hispanic	27,879	5.6%	16,763	5.3%	44,642	5.5%	24,010	5.1%	11,838	4.8%	35,848	5.0%
Hispanic	56,134	11.3%	33,386	10.5%	89,520	11.0%	53,556	11.5%	27,190	11.1%	80,746	11.4%
Other ¹	72,070	14.5%	38,307	12.0%	110,377	13.5%	72,271	15.5%	31,293	12.8%	103,564	14.6%
HUI Type²												
Single, No Dependents	24,336	4.9%	177,887	55.9%	202,225	24.8%	21,328	5.0%	119,627	49.0%	142,955	20.1%
Single, With Dependents	1,301,124	26.2%	231,719	7.3%	1,532,843	18.8%	116,027	24.8%	21,225	19.7%	137,252	19.3%
Married, No Dependents	25,338	5.1%	53,248	16.7%	78,576	9.6%	24,503	5.2%	47,028	19.3%	71,591	10.1%
Married, With Dependents	301,411	60.6%	63,447	19.9%	364,858	44.8%	286,325	61.3%	55,609	22.8%	342,024	48.1%
RH Only	15,936	3.2%	350	0.1%	16,346	2.0%	16,827	3.6%	350	0.1%	17,177	2.4%
Adult Nonelderly Population	173,747	100.0%	305,400	100.0%	479,147	100.0%	161,235	100.0%	235,301	100.0%	395,036	100.0%
Tobacco Use												
Yes	56,164	32.3%	73,822	24.2%	129,986	27.1%	57,697	32.6%	56,421	24.2%	109,118	27.6%
No	117,583	67.7%	231,578	75.8%	349,161	72.9%	109,038	67.4%	178,880	75.8%	285,918	72.4%
Chronic Condition Prevalences³												
Asthma	1,284	0.7%	6,489	2.1%	7,773	1.6%	613	0.4%	5,026	2.2%	5,639	1.4%
Arthritis	24,935	14.4%	43,975	14.4%	68,970	14.4%	26,037	16.1%	37,156	15.9%	63,183	16.0%
Ashtma	24,488	14.1%	21,532	7.1%	46,020	9.6%	24,017	14.8%	17,721	6.8%	39,738	10.1%
Coronary Heart Disease	2,600	1.5%	6,359	2.1%	8,959	1.9%	1,939	1.2%	4,279	1.8%	6,208	1.6%
Diabetes	15,606	9.0%	21,591	7.1%	37,197	7.8%	17,689	10.9%	17,802	7.6%	35,491	9.0%
Emphysema	3,427	2.0%	1,302	0.4%	4,729	1.0%	2,495	2.4%	855	3.4%	4,285	1.2%
Heart Attack	2,832	1.6%	6,699	2.1%	9,531	1.9%	2,161	1.3%	5,281	2.2%	7,442	1.9%
High Blood Pressure	30,636	17.6%	56,222	18.4%	86,858	18.1%	31,297	19.4%	42,892	18.4%	74,189	18.8%
Other Heart Disease	10,016	3.8%	19,384	6.3%	29,400	6.1%	10,469	6.5%	18,583	7.1%	27,054	6.8%
Stroke	4,169	2.4%	6,751	2.2%	10,920	2.3%	3,437	2.1%	5,738	2.3%	9,175	2.3%

Source: (1) Analysis of Augmented Washington State Database
 1. Other includes, among the non-Hispanic population, American Indian/Alaskan Native, Native Hawaiian/Other Pacific Islander, and Multiracial
 2. "Married" includes health insurance units with a married individual even if the spouse is not within the unit
 3. Except for asthma, all prevalences reflect any diagnosis of the disease in question, regardless how long ago the diagnosis occurred.
 The asthma prevalence reflects a current asthma diagnosis.
 Note: Italicized font indicates a weighted sample under 70,000
 Note: Italicized and grayed font indicates a weighted sample under 30,000



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Table III.6a. Hospital Utilization of Nonelderly Likely to Enroll in Medicaid Post-reform

	Low take-up prediction						Medium take-up prediction						High take-up prediction					
	Those Likely to Enroll in Medicaid (Current Medicaid utilization)		Post-Reform Medicaid Coverage (Current Medicaid utilization)		Days per 1,000		Those Likely to Enroll in Medicaid (Current Medicaid utilization)		Post-Reform Medicaid Coverage (Current Medicaid utilization)		Days per 1,000		Those Likely to Enroll in Medicaid (Current Medicaid utilization)		Post-Reform Medicaid Coverage (Current Medicaid utilization)		Days per 1,000	
	N	%	Days	%	Days per 1,000		N	%	Days	%	Days per 1,000		N	%	Days	%	Days per 1,000	
Total Nonelderly Population	223,950	100.0%	111,678	100.0%	498.7	328,220	100.0%	199,281	100.0%	607.2	423,932	100.0%	209,168	100.0%	493.4			
Baseline Coverage																		
Private	47,824	21.4%	8,730	7.8%	182.5	113,192	34.5%	18,778	9.4%	165.9	181,139	42.7%	52,326	25.0%	288.9			
Uninsured	176,127	78.6%	102,948	92.2%	584.5	215,029	65.5%	180,503	90.6%	839.4	242,794	57.3%	156,843	75.0%	646.0			
Health Status																		
Excellent/Very Good/Good	152,190	68.0%	67,340	60.3%	1435	229,134	72.9%	138,873	69.7%	1,817	326,295	77.0%	143,663	68.7%	1,280			
Fair/Poor	71,761	32.0%	44,338	39.7%	1,251.8	89,088	27.1%	60,407	30.3%	1,666.3	97,637	23.0%	65,506	31.3%	1,364.4			
MAID																		
Under 138% FPL	196,694	87.8%	92,956	82.2%	472.6	269,632	82.2%	149,212	74.9%	553.4	324,038	76.0%	157,353	75.2%	481.3			
138%+ FPL	27,257	12.2%	18,722	16.8%	3,170.0	58,570	17.8%	50,069	23.1%	3,973.5	98,894	23.4%	51,817	24.8%	3,211.0			
Age																		
0 - 18 years	34,467	15.4%	29,181	26.1%	846.6	54,626	16.6%	75,606	37.9%	1,384.1	106,270	25.1%	66,395	31.7%	624.8			
19 - 24 years	56,619	25.3%	21,442	19.2%	378.7	82,437	25.1%	22,131	11.1%	268.5	90,405	21.3%	24,137	11.5%	267.0			
25 - 44 years	64,677	28.9%	19,513	17.5%	301.7	98,834	30.1%	56,329	28.5%	574.0	127,998	30.2%	59,055	28.2%	461.4			
45 - 64 years	68,187	30.4%	41,542	37.2%	609.2	92,323	28.1%	44,815	22.5%	485.4	99,259	23.4%	59,581	28.5%	600.3			
Race/Ethnicity																		
White Non-Hispanic	159,507	71.2%	90,991	81.5%	570.5	239,398	72.9%	180,972	90.8%	755.9	304,214	71.8%	171,735	82.1%	564.5			
Black Non-Hispanic	8,290	3.7%	690	0.6%	83.2	17,083	5.2%	690	0.3%	40.4	22,171	5.2%	690	0.3%	31.1			
Hispanic	30,843	13.8%	17,168	15.4%	556.6	39,616	12.1%	14,390	7.4%	373.3	52,055	12.3%	32,343	15.5%	621.1			
Other ¹	23,310	11.3%	2,829	2.5%	111.8	32,123	9.8%	2,829	1.4%	88.1	45,492	10.2%	4,412	2.1%	97.0			
HU Type²																		
Single, With and Without Dependents	164,064	73.3%	42,272	37.9%	507.9	239,347	72.9%	73,405	36.8%	548.4	283,832	67.0%	86,940	41.6%	588.2			
Married, With and Without Dependents	58,925	26.3%	6,940	6.1%	2,847.6	88,345	27.0%	123,576	63.2%	3,081.7	139,141	32.8%	122,229	58.4%	2,089.8			
Kid Only	960	0.4%	0	0.0%	0.0	130	0.0%	0	0.0%	0.0	960	0.2%	0	0.0%	0.0			
Adult Nonelderly Population	189,483	100.0%	82,497	100.0%	438.4	273,594	100.0%	123,675	100.0%	452.0	317,662	100.0%	142,773	100.0%	449.5			
Employment Status³																		
Unemployed	90,995	48.0%	40,995	49.7%	430.5	126,911	46.4%	79,977	64.7%	630.2	138,666	43.7%	69,656	48.8%	502.2			
Employed - Under/Notable Firm Size	36,429	19.2%	4,734	5.7%	130.0	50,046	18.3%	4,734	3.8%	94.6	51,222	16.1%	4,734	3.3%	92.4			
Small Firm (< 50 Employees)	30,002	15.8%	3,078	3.0%	102.5	43,894	16.0%	31,544	25.5%	718.6	63,675	20.0%	60,964	42.7%	957.4			
Medium/Large Firm (50+ Employees)	32,057	16.9%	6,001	7.3%	372.1	52,743	19.3%	7,420	6.0%	269.7	64,070	20.2%	7,420	5.2%	220.6			
Tobacco Use																		
Yes	47,521	25.1%	37,546	45.5%	790.1	68,390	25.0%	69,314	56.2%	1,016.4	78,395	24.7%	71,195	49.9%	905.8			
No	141,962	74.9%	44,951	54.5%	316.6	205,205	75.0%	54,161	43.8%	263.9	239,068	75.3%	11,579	50.1%	299.4			
Chronic Condition Prevalence⁴																		
Angina	2,623	1.4%	551	0.7%	210.1	4,757	1.7%	13,776	11.1%	2,895.9	4,086	1.3%	2,073	1.5%	507.3			
Asthma	29,985	15.8%	7,064	8.6%	236.6	35,772	13.1%	6,613	5.3%	184.9	43,143	13.6%	10,959	7.7%	254.0			
Coronary Heart Disease	26,730	14.1%	6,575	8.0%	246.0	33,011	12.1%	4,744	3.8%	143.7	36,395	11.5%	7,507	5.3%	206.3			
Diabetes	4,239	2.2%	551	0.7%	130.0	6,990	2.6%	12,254	9.9%	1,753.1	6,720	2.1%	551	0.4%	81.9			
Dyslipidemia	12,370	6.5%	5,927	7.2%	479.1	14,028	5.1%	6,014	4.9%	422.2	17,240	5.4%	8,777	6.1%	509.1			
Emphysema	3,930	2.1%	778	0.9%	197.0	3,945	1.4%	778	0.6%	197.2	5,655	1.8%	2,561	1.7%	417.5			
Heart Attack	5,622	3.0%	2,486	3.0%	442.2	7,511	2.7%	14,300	11.5%	1,889.2	7,251	2.3%	2,486	1.7%	342.8			
High Blood Pressure	401,68	21.2%	15,771	19.1%	392.6	52,837	19.3%	13,008	10.5%	246.2	55,491	17.5%	15,771	11.0%	284.2			
Other Heart Disease	21,451	11.3%	8,155	9.6%	380.2	23,797	8.7%	9,676	7.8%	406.6	27,780	8.7%	11,369	8.0%	409.3			
Stroke	3,432	1.8%	2,937	3.6%	853.8	5,117	1.9%	14,640	11.8%	2,861.1	5,044	1.6%	4,519	3.2%	893.9			

Source: UI Analysis of Augmented Washington State Database
 1. Other includes: among the non-Hispanic population, American Indian/Alaskan Native, Native Hawaiian/Other Pacific Islander, and Multiracial
 2. "Mortgage" includes health insurance units with a married individual even if the spouse is not within the unit
 3. Not listed in table 2a, the firm size breakdown of adults likely to take up Medicaid is as follows: -17K Unemployed, -50K Under/Notable Firm Size, -44K Small Firm, -53 Medium/Large Firm
 4. Except for asthma, all prevalence reflect any diagnosis of the disease in question, regardless how long ago the diagnosis occurred. The asthma prevalence reflects a current asthma diagnosis.
 Note: Tackled from indicates a weighted sample under 70,000
 Note: Tackled and greyed from indicates a weighted sample under 30,000



Table III.6b. Hospital Utilization of Nonelderly Eligibles Unlikely to Enroll in Medicaid Post-reform

	Low takeup prediction				Medium takeup prediction				High takeup prediction						
	Those Unlikely to Enroll in Medicaid (Current Medicaid utilization)		Post-Reform Medicaid Coverage (Current Medicaid utilization)		Those Unlikely to Enroll in Medicaid (Current Medicaid utilization)		Post-Reform Medicaid Coverage (Current Medicaid utilization)		Those Unlikely to Enroll in Medicaid (Current Medicaid utilization)		Post-Reform Medicaid Coverage (Current Medicaid utilization)				
	N	%	Days	% Days per 1,000	N	%	Days	% Days per 1,000	N	%	Days	% Days per 1,000			
Total Nonelderly Population	815,278	100.0%	447,734	100.0%	585.3	711,007	100.0%	359,433	100.0%	505.5	615,296	100.0%	349,544	100.0%	568.1
Baseline Coverage															
Private	566,857	69.5%	183,730	41.1%	324.1	501,468	70.5%	173,682	48.5%	346.3	433,522	70.5%	140,134	40.1%	323.2
Uninsured	188,000	23.1%	126,327	28.3%	672.0	149,098	21.0%	48,273	13.6%	327.1	121,333	19.7%	72,433	20.7%	597.0
Health Status															
Excellent/Very Good/Good	678,308	83.2%	181,016	40.5%	787	591,564	83.2%	109,483	30.5%	567	504,203	81.9%	104,693	30.0%	628
Fair/Poor	136,971	16.8%	266,019	59.5%	4,619.7	119,643	16.8%	249,950	69.5%	4,717.3	111,094	18.1%	244,851	70.0%	4,995.4
MAID															
Under 138% FPL	416,638	51.1%	313,723	70.2%	753.0	343,680	48.3%	257,467	71.6%	749.1	288,395	46.9%	249,326	71.3%	864.5
138%+ FPL	398,640	48.9%	133,311	29.8%	1419.0	367,326	51.7%	101,964	28.4%	1,007.2	326,902	53.1%	100,216	28.7%	1,030.5
Age															
0 - 18 years	336,131	41.2%	105,789	23.7%	314.7	315,972	44.4%	59,564	16.5%	187.9	264,329	43.0%	68,574	19.6%	259.4
19 - 24 years	93,033	11.4%	12,528	2.8%	134.7	67,214	9.5%	11,839	3.3%	176.1	59,246	9.6%	9,832	2.8%	166.0
25 - 44 years	233,522	28.6%	168,698	37.7%	722.4	199,565	28.0%	131,483	36.6%	659.5	170,201	27.7%	129,157	37.0%	758.8
45 - 64 years	152,592	18.7%	160,019	35.8%	1,048.7	128,456	18.1%	156,747	43.6%	1,220.2	121,520	19.7%	141,981	40.6%	1,168.4
Race/Ethnicity															
White, Non-Hispanic	570,340	70.0%	304,112	68.2%	533.9	490,849	69.0%	214,731	59.7%	437.5	426,033	69.2%	223,968	64.1%	525.7
Black, Non-Hispanic	44,641	5.5%	7,807	1.7%	174.8	35,848	5.0%	7,805	2.2%	217.7	30,760	5.0%	7,803	2.2%	253.7
Hispanic	89,520	11.0%	45,594	10.2%	599.3	80,477	11.4%	40,472	13.3%	594.1	68,308	11.1%	30,429	8.7%	443.5
Other ¹	110,378	13.5%	88,925	19.9%	805.6	103,563	14.6%	88,925	24.7%	888.7	90,196	14.7%	87,343	25.0%	968.4
HU Type²															
Single, With and Without Dependents	355,499	43.6%	248,448	55.6%	1,333.3	280,216	39.4%	217,315	60.5%	1,542.8	235,732	38.3%	203,781	58.3%	1,694.2
Married, With and Without Dependents	448,434	54.8%	195,528	43.7%	1,045.5	413,614	58.2%	139,659	38.7%	890.6	363,219	59.0%	142,706	40.8%	1,008.0
Res Only	16,346	2.0%	3,058	0.7%	187.1	17,177	2.4%	3,058	0.9%	178.0	16,346	2.7%	3,058	0.9%	187.1
Adult Nonelderly Population	479,147	100.0%	341,245	100.0%	712.2	395,035	100.0%	300,669	100.0%	759.6	350,967	100.0%	280,970	100.0%	800.6
Employment Status³															
Unemployed	227,563	47.5%	279,665	82.0%	1,239.0	191,646	48.5%	240,683	80.2%	1,255.9	179,862	51.2%	251,004	89.3%	1,395.5
Employed - Unidentifiable Firm Size	100,623	21.0%	15,240	4.5%	151.5	87,006	22.0%	15,240	5.1%	175.2	85,830	24.5%	15,240	5.4%	177.6
Small Firm (< 50 Employees)	72,299	15.1%	39,522	11.6%	546.6	58,406	14.8%	38,747	12.9%	663.4	38,626	11.0%	241.4	3.3%	241.4
Medium/Large Firm (50+ Employees)	78,663	16.4%	6,818	2.0%	183.3	57,976	14.7%	5,798	1.8%	203.4	46,650	13.3%	5,398	1.9%	258.4
Tobacco Use															
Yes	1,20,986	27.1%	126,345	37.0%	927.0	109,117	27.6%	94,378	31.5%	864.9	98,912	28.2%	92,697	33.0%	937.2
No	340,101	72.9%	214,900	63.0%	615.5	285,918	72.4%	205,690	68.5%	719.4	252,166	71.8%	188,272	67.0%	746.9
Chronic Condition Prevalence⁴															
<i>Angina</i>	7,773	1.6%	22,828	6.7%	2,936.8	5,639	1.4%	9,603	3.2%	1,703.0	6,310	1.8%	21,306	7.6%	3,376.5
<i>Asthma</i>	68,970	14.8%	109,217	32.0%	1,883.5	63,483	16.0%	109,698	36.6%	1,756.2	55,812	15.9%	105,332	37.5%	1,887.6
<i>Coronary Heart Disease</i>	46,019	9.6%	35,373	10.4%	788.7	39,738	10.1%	37,914	12.4%	936.2	36,552	10.4%	34,440	12.3%	4,447.3
<i>Diabetes</i>	8,939	1.9%	22,749	6.6%	2,530.2	6,208	1.6%	11,460	3.7%	1,779.3	6,468	1.8%	22,749	8.1%	3,517.2
<i>Emphysema</i>	37,198	7.8%	60,220	17.6%	1,618.9	35,491	9.0%	60,133	20.0%	1,604.3	32,328	9.2%	57,470	20.4%	1,774.6
<i>Heart Attack</i>	4,779	1.0%	3,738	1.1%	786.4	4,784	1.2%	3,738	1.3%	785.5	3,074	0.9%	2,176	0.8%	707.9
<i>High Blood Pressure</i>	9,331	1.9%	22,879	6.7%	2,451.9	7,443	1.9%	11,176	3.7%	1,501.5	7,703	2.2%	22,879	8.1%	2,970.1
<i>Other Heart Disease</i>	86,858	18.1%	123,563	36.2%	1,422.6	74,189	18.8%	126,326	42.1%	1,702.8	71,556	20.4%	123,563	44.0%	1,777.3
<i>Stroke</i>	29,400	6.1%	11,272	3.3%	383.4	27,054	6.8%	9,750	3.2%	360.4	23,071	6.6%	8,057	2.9%	349.2
	10,860	2.3%	34,970	10.2%	3,220.1	9,175	2.3%	23,267	7.8%	2,535.9	9,248	2.6%	33,388	11.9%	3,610.3

Source: UI Analysis of Augmented Washington State Database
 1. Other includes among the non-Hispanic population American Indian/Alaskan Native, Native Hawaiian/Other Pacific Islander, and Multiracial
 2. "Married" includes health insurance units with a married individual even if the spouse is not within the unit
 3. Not listed in table 2a, the firm size breakdown of adults likely to take up Medicaid is as follows: -12K Unemployed, -50K Unidentifiable Firm Size, -44K Small Firm, -53 Medium/Large Firm
 4. Except for asthma, all prevalences reflect any diagnosis of the disease in question, regardless how long ago the diagnosis occurred. The asthma prevalence reflects a current asthma diagnosis.
 Note: Italicized and grayed font indicates a weighted sample under 70,000
 Note: Italicized and grayed font indicates a weighted sample under 30,000



Table III.7a. Average Annual Medical Expenditure Per Person for Nonelderly Likely to Enroll in Medicaid Post-Reform (2011 dollars)

	Low take-up prediction	Medium take-up prediction	High take-up prediction
Total Nonelderly Population	6,471	5,799	5,312
Baseline Coverage			
Private	4,752	5,054	4,099
Uninsured	6,935	6,191	6,216
Health Status			
Excellent/Very Good/Good	5,420	4,997	4,300
Fair/Poor	8,695	7,950	8,692
MAGI			
Under 138% FPL	6,831	6,325	5,967
138%+ FPL	3,878	3,381	3,166
Age			
0 - 18 years	1,811	2,364	1,810
19 - 24 years	2,731	2,355	2,515
25 - 44 years	9,738	6,833	6,625
45 - 64 years	8,847	9,804	9,921
Race/Ethnicity			
White, Non-Hispanic	7,502	6,490	5,855
Black, Non-Hispanic	2,429	1,880	3,850
Hispanic	4,043	4,896	4,042
Other ¹	4,268	3,859	3,851
HIU Type²			
Single, With and Without Dependents	6,258	5,253	5,246
Married, With and Without Dependents	7,150	7,278	5,476
Kid Only	1,147	103	1,147
Adult Nonelderly Population	7,320	6,486	6,485
Employment Status³			
Unemployed	10,018	8,662	8,600
Employed - Unidentifiable Firm Size	6,352	5,481	6,467
Small Firm (< 50 Employees)	4,934	5,578	4,636
Medium/Large Firm (50+ Employees)	2,971	2,954	3,749
Tobacco Use			
Yes	10,142	8,248	7,747
No	6,373	5,898	6,070
Chronic Condition Prevalences⁴			
Angina	18,112	33,299	37,663
Arthritis	16,064	15,658	15,587
Asthma	5,756	6,031	8,102
Coronary Heart Disease	12,576	10,033	10,499
Diabetes	15,757	22,267	19,927
Emphysema	19,580	24,905	23,072
Heart Attack	10,086	13,023	13,563
High Blood Pressure	10,209	10,580	11,203
Other Heart Disease	13,739	18,011	16,175
Stroke	3,809	5,513	7,788

Source: UI Analysis of Augmented Washington State Database

1. Other includes, among the non-Hispanic population, American Indian/Alaskan Native, Native Hawaiian/ Other Pacific Islander, and Multiracial

2. "Married" includes health insurance units with a married individual even if the spouse is not within the unit

3. Not listed in table 2a, the firm size breakdown of adults likely to take up

Medicaid is as follows: ~127K Unemployed, ~50K Unidentifiable Firm Size, ~44K

Small Firm, ~53 Medium/Large Firm

4. Except for asthma, all prevalences reflect any diagnosis of the disease in question, regardless how long ago the diagnosis occurred. The asthma prevalence

Note: Italicized font indicates a weighted sample under 70,000

Note: Italicized and grayed font indicates a weighted sample under 30,000



Table III.7b. Average Annual Medical Expenditure Per Person for Nonelderly Eligibles Unlikely to Enroll in Medicaid Post-Reform (2011 dollars)

	Low takeup prediction	Medium takeup prediction	High takeup prediction
Total Nonelderly Population	3,458	3,438	3,601
Baseline Coverage			
Private	3,178	2,937	3,063
Uninsured	1,962	2,155	1,957
Health Status			
Excellent/Very Good/Good	2,358	2,170	2,312
Fair/Poor	8,877	9,663	9,410
MAGI			
Under 138% FPL	4,711	4,877	5,123
138%+ FPL	2,162	2,106	2,277
Age			
0 - 18 years	1,563	1,456	1,571
19 - 24 years	1,808	2,146	2,017
25 - 44 years	2,349	2,632	2,473
45 - 64 years	10,303	10,208	10,328
Race/Ethnicity			
White, Non-Hispanic	3,686	3,639	3,957
Black, Non-Hispanic	3,029	3,513	2,068
Hispanic	2,196	2,016	2,110
Other ¹	3,479	3,562	3,576
HIU Type²			
Single, With and Without Dependents	4,094	4,485	4,699
Married, With and Without Dependents	3,055	2,844	3,024
Kid Only	534	577	534
Adult Nonelderly Population	4,799	5,038	5,147
Employment Status³			
Unemployed	6,107	6,488	6,600
Employed - Unidentifiable Firm Size	4,410	4,885	4,342
Small Firm (< 50 Employees)	2,867	1,988	1,947
Medium/Large Firm (50+ Employees)	3,352	3,646	3,795
Tobacco Use			
Yes	3,731	3,900	4,032
No	5,201	5,478	5,592
Chronic Condition Prevalences⁴			
Angina	30,395	26,484	24,061
Arthritis	10,918	10,799	10,717
Asthma	10,329	11,033	10,182
Coronary Heart Disease	10,506	12,900	12,313
Diabetes	14,283	12,136	12,539
Emphysema	18,059	16,037	14,788
Heart Attack	9,234	7,298	6,994
High Blood Pressure	11,417	11,774	11,550
Other Heart Disease	17,240	15,084	16,588
Stroke	17,092	18,876	17,470

Source: UI Analysis of Augmented Washington State Database

1. Other includes, among the non-Hispanic population, American Indian/Alaskan Native, Native Hawaiian/ Other Pacific Islander, and Multiracial

2. "Married" includes health insurance units with a married individual even if the spouse is not within the unit

3. Not listed in table 2a, the firm size breakdown of adults likely to take up Medicaid is as follows: ~127K Unemployed, ~50K Unidentifiable Firm Size, ~44K Small Firm, ~53 Medium/Large Firm

4. Except for asthma, all prevalences reflect any diagnosis of the disease in question, regardless how long ago the diagnosis occurred. The asthma prevalence Note: Italicized font indicates a weighted sample under 70,000

Note: Italicized and grayed font indicates a weighted sample under 30,000



Table III.8a. Total Annual Medical Expenditure for Nonelderly Eligibles Likely to Enroll in Medicaid Post-Reform (2011 dollars, thousands)

	Low takeup prediction	Medium takeup prediction	High takeup prediction
Total Nonelderly Population	1,447,207	1,901,752	2,250,448
Baseline Coverage			
Private	225,852	570,596	741,197
Uninsured	1,221,355	1,331,155	1,509,251
Health Status			
Excellent/Very Good/Good	823,269	1,193,461	1,401,774
Fair/Poor	623,938	708,290	848,674
MAGI			
Under 138% FPL	1,341,520	1,703,740	1,937,057
138%+ FPL	105,686	198,011	313,390
Age			
0 - 18 years	62,404	129,162	192,348
19 - 24 years	154,620	194,142	227,399
25 - 44 years	626,901	673,305	845,966
45 - 64 years	603,282	905,143	984,735
Race/Ethnicity			
White, Non-Hispanic	1,194,362	1,551,697	1,779,478
Black, Non-Hispanic	20,136	32,120	85,365
Hispanic	124,695	193,975	210,401
Other ¹	108,014	123,959	175,203
HIU Type²			
Single, With and Without Dependents	1,024,810	1,255,828	1,487,481
Married, With and Without Dependents	421,296	645,910	761,865
Kid Only	1,102	13	1,102
Adult Nonelderly Population	1,384,803	1,772,590	2,058,099
Employment Status³			
Unemployed	911,577	1,099,321	1,192,808
Employed - Unidentifiable Firm Size	231,407	274,293	331,246
Small Firm (< 50 Employees)	146,565	243,180	293,822
Medium/Large Firm (50+ Employees)	95,254	155,797	240,223
Tobacco Use			
Yes	481,967	564,081	608,875
No	902,836	1,208,509	1,449,225
Chronic Condition Prevalences⁴			
Angina	47,509	158,418	153,904
Arthritis	481,664	560,108	672,454
Asthma	153,859	199,098	294,875
Coronary Heart Disease	53,314	70,132	70,660
Diabetes	194,926	313,466	343,537
Emphysema	77,344	98,252	130,483
Heart Attack	56,705	97,813	98,341
High Blood Pressure	410,094	559,047	621,689
Other Heart Disease	294,714	428,603	449,341
Stroke	13,073	28,208	39,286

Source: UI Analysis of Augmented Washington State Database

1. Other includes, among the non-Hispanic population, American Indian/Alaskan Native, Native Hawaiian/ Other Pacific Islander, and Multiracial

2. "Married" includes health insurance units with a married individual even if the spouse is not within the unit

3. Not listed in table 2a, the firm size breakdown of adults likely to take up Medicaid is as follows: ~127K Unemployed, ~50K Unidentifiable Firm Size, ~44K Small Firm, ~53 Medium/Large Firm

4. Except for asthma, all prevalences reflect any diagnosis of the disease in question, regardless how long ago the diagnosis occurred. The asthma prevalence reflects a Note: Italicized font indicates a weighted sample under 70,000

Note: Italicized and grayed font indicates a weighted sample under 30,000



Table III.8b. Total Annual Medical Expenditure for Nonelderly Eligibles Unlikely to Enroll in Medicaid Post-Reform (2011 dollars)

	Low takeup prediction	Medium takeup prediction	High takeup prediction
Total Nonelderly Population	2,806,314	2,431,081	2,202,059
Baseline Coverage			
Private	1,788,940	1,461,300	1,316,041
Uninsured	368,831	321,239	237,476
Health Status			
Excellent/Very Good/Good	1,590,454	1,274,938	1,156,676
Fair/Poor	1,215,860	1,156,143	1,045,383
MAGI			
Under 138% FPL	1,944,501	1,657,379	1,457,665
138% + FPL	861,813	773,703	744,395
Age			
0 - 18 years	525,433	460,153	415,329
19 - 24 years	165,482	140,954	116,461
25 - 44 years	543,190	518,652	415,218
45 - 64 years	1,572,209	1,311,323	1,255,051
Race/Ethnicity			
White, Non-Hispanic	2,092,212	1,774,962	1,673,325
Black, Non-Hispanic	135,205	125,921	63,609
Hispanic	194,922	161,262	142,585
Other ¹	383,974	368,936	322,540
HIU Type²			
Single, With and Without Dependents	1,452,472	1,253,761	1,104,495
Married, With and Without Dependents	1,345,110	1,167,409	1,088,833
Kid Only	8,732	9,911	8,732
Adult Nonelderly Population	2,280,881	1,970,928	1,786,731
Employment Status³			
Unemployed	1,366,207	1,218,426	1,161,802
Employed - Unidentifiable Firm Size	443,699	425,012	372,715
Small Firm (< 50 Employees)	207,289	116,107	75,193
Medium/Large Firm (50+ Employees)	263,686	211,384	177,020
Tobacco Use			
Yes	484,955	425,588	398,807
No	1,795,926	1,545,341	1,387,923
Chronic Condition Prevalences⁴			
Angina	236,269	149,342	151,829
Arthritis	752,984	682,294	598,159
Asthma	475,315	438,442	370,147
Coronary Heart Disease	94,122	80,083	79,642
Diabetes	531,308	430,730	405,347
Emphysema	86,310	76,726	45,457
Heart Attack	86,167	54,316	53,875
High Blood Pressure	991,624	873,484	826,227
Other Heart Disease	506,867	408,075	382,709
Stroke	185,615	173,199	161,555

Source: UI Analysis of Augmented Washington State Database

1. Other includes, among the non-Hispanic population, American Indian/Alaskan Native, Native Hawaiian/ Other Pacific Islander, and Multiracial

2. "Married" includes health insurance units with a married individual even if the spouse is not within the unit

3. Not listed in table 2a, the firm size breakdown of adults likely to take up Medicaid is as follows: ~127K Unemployed, ~50K Unidentifiable Firm Size, ~44K Small Firm, ~53 Medium/Large Firm

4. Except for asthma, all prevalences reflect any diagnosis of the disease in question, regardless how long ago the diagnosis occurred. The asthma prevalence reflects a current asthma diagnosis.

Note: Italicized font indicates a weighted sample under 70,000

Note: Italicized and grayed font indicates a weighted sample under 30,000



Table III.9. Uncompensated Care Costs of the Initially Uninsured Taking Up Medicaid After Reform (Nonelderly)

	Low takeup prediction	Medium takeup prediction	High takeup prediction
Taking up Medicaid			
Average costs	\$2,706	\$2,438	\$2,504
Total costs	\$476,667,055	\$524,259,117	\$608,022,463
Not taking up Medicaid			
Average costs	\$1,962	\$2,155	\$1,957
Total costs	\$368,830,914	\$321,238,852	\$237,475,506
Source: UI Analysis of Augmented Washington State Database			



Table III.10. Projected Medicaid Costs and Outcomes, 2013-2019 (Nonelderly)

	2013	2014	2015	2016	2017	2018	2019	Total
Enrollment								
New eligibles	0	256,921	258,151	259,226	260,167	261,160	262,223	
Pre-reform eligibles	1,056,407	1,141,999	1,154,116	1,167,757	1,181,689	1,196,032	1,210,784	
<i>Both</i>	1,056,407	1,398,920	1,412,267	1,426,983	1,441,856	1,457,192	1,473,006	
Total Medicaid costs (millions of 2011 dollars)								
New eligibles	1,972	2,095	2,231	2,374	2,510	2,653	2,799	16,632
Pre-reform eligibles	4,856	5,140	5,430	5,796	6,152	6,515	6,903	40,812
<i>Both</i>	6,828	7,235	7,680	8,170	8,661	9,168	9,702	57,445
State share of costs (millions of 2011 dollars)^{1,2,3,4}								
New eligibles	0	0	0	0	125	159	196	481
Pre-reform eligibles	2,413	2,432	2,553	2,716	2,898	3,072	3,259	19,342
<i>Both</i>	2,413	2,432	2,553	2,716	3,023	3,231	3,455	19,822
Medicaid inpatient hospital days	658,889	667,110	673,373	680,965	686,932	693,435	699,973	

Source: UI Analysis of Automated Washington State Database, and HIPSM/2011.
 1. Uses a 50% FMAP and 65% Enhanced FMAP for CHIP enrollees, effective the 2011 fiscal year.
 Source: <http://aspe.hhs.gov/health/frnpl1.htm>
 2. Note that adults who are Medicaid eligible through the Waiver program get the new-eligible match rate
 3. The federal match rate for CHIP enrollees increases by 23%, with a cap at 100%, in 2015.
 Source: <http://www.dfi.org/healthreform/updated/8061.pdf>
 4. Since the future of CHIP is unclear, we assume that CHIP enrollees will be re-categorized as Medicaid eligibles after CHIP funding runs out. Given that CHIP has higher cost sharing than Medicaid and CHIP benefits are less comprehensive than Medicaid benefits in most states, we consider CHIP enrollees under 138% FPL to receive limited benefits and thus are new eligibles in reform.



Table III.11. Distribution of New Nonelderly Medicaid Enrollees by Region, Medium Take-Up

	Currently Eligible, Not Enrolled	%		Newly Eligible	%	Total	%
Region							
North Puget	6,761	8.7%	✓	12,217	4.9%	18,978	5.8%
West Balance	5,339	6.9%	✓	22,547	9.0%	27,886	8.5%
King County	17,248	22.1%	✓	61,738	24.7%	78,986	24.1%
Puget Metro	7,025	9.0%	✓	19,682	7.9%	26,706	8.1%
Clark County	5,494	7.1%	✓	23,137	9.2%	28,631	8.7%
East Balance	6,426	8.2%	✓	25,220	10.1%	31,646	9.6%
Spokane City	6,201	8.0%	✓	24,142	9.6%	30,343	9.2%
Tri-Cities	2,448	3.1%	✓	15,213	6.1%	17,661	5.4%
Snohomish County	12,521	16.1%	✓	17,185	6.9%	29,707	9.1%
Pierce County	8,450	10.8%	✓	29,227	11.7%	37,678	11.5%
All	77,913	100.0%	✓	250,309	100.0%	328,222	100.0%

Source: UI Analysis of Augmented Washington State Database



About the Authors

Matthew Buettgens, Ph.D., is a mathematician leading the development of the Urban Institute’s Health Insurance Policy Simulation (HIPS M) model. The model is currently being used to provide technical assistance for health reform implementation in Massachusetts, Missouri, New York, Virginia, and Washington as well as to the federal government. His recent work includes a number of papers analyzing various aspects of national health insurance reform, both nationally and state-by-state. Topics have included the costs and savings of health reform for both federal and state governments, state-by-state analysis of changes in health insurance coverage and the remaining uninsured, the effect of reform on employers, the role of the individual mandate, the affordability of coverage under health insurance exchanges, and the implications of age rating for the affordability of coverage. Dr. Buettgens was previously a major developer of the HIRSM model—the predecessor to HIPS M—used in the design of the 2006 roadmap to universal health insurance coverage in the state of Massachusetts.

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