Appendix F | Methodology

This Appendix describes datasets used in analysis and outlines briefly some of the approaches taken in the statistical analysis and development of cost estimates. For more details, contact the North Carolina Institute of Medicine. For information on the details of the actuarial analyses, interested readers should consult the final report by Mercer Human Resource Consulting (Appendix E).

I. Data Sets

There were three datasets commonly used throughout this report, including the Current Population Survey, the Medical Expenditure Panel Survey, and the Behavioral Risk Factor Surveillance System. They are each described below.

A. The Current Population Survey

The Current Population Survey (CPS) is a monthly survey of about 50,000 US households conducted by the Bureau of the Census for the Bureau of Labor Statistics. The survey has been conducted for more than 50 years.[1]

The CPS is the primary source of information on labor force characteristics of the US population. The sample is scientifically selected to represent the civilian noninstitutional population. Respondents are interviewed to obtain information about the employment status of each member of the household age 15 years and older. However, published data focus on those aged 16 and over. The sample provides estimates for the nation as a whole and serves as part of model-based estimates for individual states and other geographic areas.[1]

The Annual Social and Economic Supplement (ASEC) is a supplement to the CPS conducted in March of each year. The ASEC is a more detailed survey of a subsample of the CPS households and contains information on employment benefits, work history, and detailed income characteristics. Most importantly for the purposes of the Task Force, the ASEC contains a number of questions on health insurance. Therefore, ASEC serves as the source of the official poverty, income, and health insurance estimates published by the Census Bureau every fall. Following the general convention used in the literature on health insurance, throughout this Task Force "CPS" is used to refer to the ASEC.

Sample ASEC questions regarding health insurance status include asking respondents, *"At any time in 2004, (were you/was anyone in this household) covered by Medicare?"*

If the respondent answers affirmatively, the interviewer asks for the names of all those covered by Medicare. This same question is asked numerous times regarding many different types of insurance plans (e.g., Medicaid, employer-sponsored insurance, nongroup coverage). Anyone in the household who was not listed, therefore, did not have any health insurance in the previous year. The CPS asks a confirmation question to double-check the accuracy:

"I have recorded that (name/you) (was/were) not covered by a health plan at any time during 2004. Is that correct?"

Through this process, the insurance status of everyone in the household—not just those 15 and over, as in the Basic CPS survey—is ascertained.

In the 2005 ASEC (referring to 2004 insurance coverage), 4,430 North Carolinians were surveyed. Of these, 4,003 were under the age of 65.

More information can be found at http://www.bls.census.gov/cps/.

B. Medical Expenditure Panel Survey

The Medical Expenditure Panel Survey (MEPS) is a comprehensive set of surveys sponsored by the Agency for Healthcare Research and Quality (AHRQ), an agency of the US Department of Health and Human Services (DHHS). The core survey is known as the Household Component and it collects information from approximately 25,000 individuals across the country. It follows each individual's healthcare utilization at five separate points over a two and a half year period. Households provide a rich set of data on their healthcare utilization and expenditures, as well as characteristics thought to influence healthcare utilization patterns, such as insurance coverage, household income, and attitudes about healthcare treatment. The data are well-suited to analyze most issues surrounding households' decisions about healthcare. A chief limitation of the Household Component for this Task Force is that it is not designed to support state-level analyses. Researchers are able to access state-specific data at the Data Center at AHRQ headquarters in Maryland, and such analysis was performed for the Task Force purposes. There were two main findings from that analysis. The first was that in nearly all respects, North Carolina is very similar to the South in general. The second is that the state-specific analyses undertaken in Maryland relied on a small sample size and therefore could not be considered very reliable. In the end, therefore, MEPS analysis *per se* guided little of the Task Force deliberations, although published research using MEPS was used fairly regularly. The chief exception was the estimates for Healthy North Carolina (see below).

As mentioned above, MEPS consists of many separate components that link to the households, including an Insurance Component. The Insurance Component (IC) is a survey of businesses, which ascertains information about employer-sponsored insurance (ESI) in the establishment. Characteristics of the establishment, such as the number of workers, industry, and average wage of the employees, are also collected. In contrast with the Household Component, the Task Force used the IC a great deal, primarily because it is the best resource for information about ESI premiums and coverage. One limitation of the data is that micro-level data are unavailable; researchers must rely

on the tables published on the AHRQ website. Furthermore, because estimates are imprecise and vary considerably from year to year, two-year averages were used.

More information can be found at http://www.meps.ahrq.gov/.

C. Behavioral Risk Factor Surveillance System

The State Center for Health Statistics, Division of Public Health, NC DHHS, conducts the Behavioral Risk Factor Surveillance System (BRFSS) annually. It is a telephone survey of 15,000 adults across North Carolina that includes questions on insurance coverage, ability to access health services, and use of preventive screenings. Questions about insurance coverage were added to the 2005 BRFSS survey for the first five months. Between January and May, 5,273 people were interviewed. Of those interviewed, 582 reported being uninsured and were asked why they lacked health insurance coverage.[2] The 2005 weights are considered preliminary until they are processed by the Centers for Disease Control. At the time this report was being printed, the 2005 weights had not been finalized. Therefore, 2004 data were used if the questions were asked in 2004. The preliminary 2005 weights were used for the State Planning Grant if no comparable questions existed in years prior to 2005, as in the case of the new questions regarding insurance coverage, access to health services, and use of preventive screenings.

More information can be found at http://www.schs.state.nc.us/SCHS/brfss/.

II. Statistical Analysis

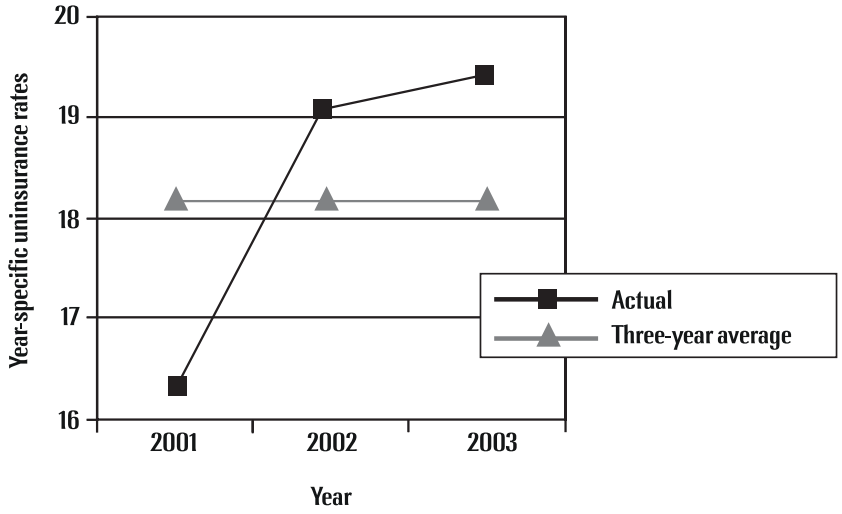
Described below are two details of analysis associated with the Current Population Survey.

A. Current Population Survey Analysis: Development of Multiple-year weights

It is common Census Bureau practice to report multiple-year averages for state-level uninsurance rates. For example, the DeNavas-Walt et al (2004) CPS report presented both two- and three-year averages.[3] We extend this technique using a slightly more sophisticated method outlined here.

At its core, using multiple-year averages is a tradeoff between precision and bias. Using multiple year data generates more precise estimates (smaller sampling error) because it uses a larger sample size. On the other hand, the bias component acknowledges that averaging over longer time periods ignores time trends in the data. For example, a three-year average (2001-2003) is best interpreted as an estimate of the 2002 uninsurance rate. Chart F.1 demonstrates this principle with year-specific estimates from the Annual Social and Economic Supplement (ASEC) and the simple three-year average. It shows that a multiple-year average does not account for a secular increase in the uninsurance rate.

Chart F.1
Effect of Multiple-Year Averaging



Our approach acknowledges the tradeoff between precision and bias by using a three-year average, but placing **greater weight on more recent years**. The weights are calculated empirically. The goal is to develop an estimation method that minimizes the average error—it balances the increased precision from greater years against the increased bias by considering more temporally distant data.

The estimation procedure utilizes a four step process.

Step 1: Generate estimates of the uninsurance rate for age-specific categories *using the most recent year of data only.*

For the approach developed here, we are considering the 2004 uninsurance rate (2005 ASEC). The age-specific uninsurance rates are unbiased, but imprecise, estimates of the actual rate. That is, there is no reason to suspect they are systematically high or low, but we know that they are likely to be imprecise estimates of the truth. These estimates are set aside and treated as the gold standard.

Step 2: Bootstrap the ASEC data for the three most recent years and generate analogous age-specific uninsurance rates for each year.

We randomly sample the ASEC data for the three previous years (2003, 2004, and 2005 here). We sample, with replacement, sample sizes similar to the size of the North Carolina ASEC. Sampling partially accounts for the survey design by sampling counties rather than individuals/families/households. That is, we randomly choose one of the counties in the ASEC and select all households within that county. This accounts for the within-county correlation in the uninsured rate.

Of course, the ASEC does not identify all counties used in the sampling frame; a large number of households have the county code suppressed. These households are randomly divided into 10 similarly sized groups and are treated as "quasi-counties."

The sampling is repeated 100 times, and after each iteration the age-specific estimates are set aside.

Step 3: Determine the optimal year-specific weights.

The goal is to find w_{2002}, w_{2003}, and w_{2004} such that

$E(ACTUAL_{2004} - [w_{2002}*UI_{2002} - w_{2003}*UI_{2003} - w_{2004}*UI_{2004}])$,

(where $ACTUAL_{2004}$ is the true, unobserved uninsured rate in North Carolina in 2004, and UI_{2004} is the 2004 estimate) is as close to 0 as possible, subject to the constraint that the weights sum to 1.

We use a simple regression method to estimate the weights. We regress

$GOLD_{2004} - UI_{2004}$ on UI_{2002} and UI_{2003}

where the $GOLD_{2003}$ is the set of gold standards obtained in Step 1. The subtraction of the 2003 estimate from the left hand side ensures the weights sum to 1, with w_{2004} defined as $1 - w_{2002} - w_{2003}$. The constant is constrained to 0.

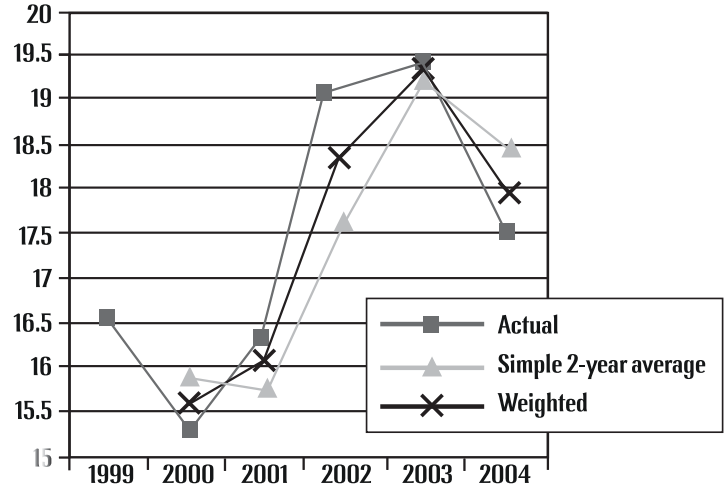
This is a simplification of the approach actually used. We wanted the weights to be independent of the "base year," so repeated this analysis from the perspective of estimating 2004, 2003, and 2002 uninsurance rates. Although we allowed a three-year average, a two-year average performed just as well empirically.

The ideal weights

Current year: 0.7659562
Previous Year: 1- 0.7659562 = 0.2340438

These weights are multiplied by the CPS weight [marsupwt].

Chart F.2
Multiple-Year Weight Estimates



The weighted estimate is much closer to the 2004 specific estimate, but is lower because it incorporates estimates from earlier years.

Source: DeNavas-Walt, Carmen, Bernadette D. Proctor, and Robert J. Mills, U.S. Census Bureau, Current Population Reports, P60-226, Income, Poverty, and Health Insurance Coverage in the United States: 2003, U.S. Government Printing Office, Washington, DC, 2004.

Step 4: Reweight to scale to 2004 population sizes.

For percentage-type metrics, this last adjustment is not necessary, but it is important for population-type metrics (number of individuals). The new weights are finally multiplied by an upweighting factor to generate weights consistent with 2004 population levels.

Continuing our empirical example, we add the multiple-year average to the original figure.

B. Current Population Survey Analysis: Definition of "Family"

The Current Population Survey defines a household as consisting of "all the persons who occupy a house, an apartment, or other group of rooms, or a room, which constitutes a housing unit…."[4]

A family is defined as "a group of two persons or more (one of whom is the householder) residing together and related by birth, marriage, or adoption. All such persons (including related subfamily members) are considered as members of one family…"[4]

So when CPS calculates family poverty, for example, it includes all members of the family—which might include grandparents, brothers, nephews, etc. This is the same definition we use for calculations using family measures, such as in the "at least two full time workers in the family" categories (Chapter 2) and the Venn diagram "family has a small business connection" (Chapter 7).

Recall that *50 percent* of the uninsured have a "small business connection," meaning that someone in the *family* (CPS definition) works for a firm with fewer than 25 employees.

Now, of course, the CPS definition of "family" is broader than that which is relevant for most insurance plans. Most plans will not allow an individual to cover her brother, or her parent, or her adult child. In that sense, when talking about the potential impact of different policy expansions, we should use the **insurance market's** view of "family"—to-wit, spouse and young children (where the definition of "children" includes natural, adopted, and step children). Call this a "traditional family."

This is non-trivial to measure in practice. There are variables that describe the relationship each person has to the householder (the person who owns/rents the home), but it is not as comprehensive as one might hope.

If 50 percent is considered an upper bound on the percent of uninsured in a family with a small business connection, it is straightforward to estimate a lower bound: define a traditional family as only those that are

- the householder
- the spouse of the householder
- the children of the householder (under 18 or under 25 and full time student)

Using this measure, about one third of the uninsured are in a family with a small business connection.

There are two examples showing how this measure is a low estimate.

The first is to design a complex family structure. For example, Grandpa is the householder, and his daughter and grandson also live in the house (daughter works in small business). Or the householder's brother and brother's daughter (householder's niece) live in the same house (and the brother works in small business). The natural inclination is to exhaust all possible situations like this. This is impractical for two reasons. The first is that it is nearly impossible to design logic that considers all possible familial structures. The second is that the relationship variable is insufficient to definitively determine whether two people are related in the traditional sense. In the first example we would know that there is a child and grandchild of the householder—it would be natural to assume that the child is the mother of the grandchild, but this is not known with certainty. In the second, we know the householder's brother and "another relative" live in the household. Thus we would not be able to link the householder's brother and niece as a traditional family.

Another example that illustrates how this measure may be a low estimate is the case where a divorced parent works for a small business but does not live in the household. Such a person is not surveyed at all, although the child would presumably have access to health insurance through the divorced parent if it was offered through his/her employer.

A more practical problem is explaining this process, and, probably more severe, that the definition of family in the Venn diagram differs for income and for connection to small business.

For this reason, we use the CPS definition of *family* (50%) but mention in footnotes that a conservative estimate is one third.

III. Cost Estimates

The following documents the methods used to develop cost estimates for the policy recommendations.

A. Recommendation 5.1 (Healthy North Carolina)

1. Impact of Reinsurance Corridors on Premiums

Although not directly included as an element of the cost estimates presented in Chapter 7, some estimates of the cost of reinsurance corridors were provided in Chapter 5. First, Medical Expenditure Panel Survey (MEPS) data from 2002 were obtained for workers ages 18-64 years old who were covered by employer-sponsored insurance in all twelve months and were employed in a firm with fewer than 50 employees in all periods of observation. The annual total expenditure by private insurers was inflated by 40.1% to 2006 using the estimates of healthcare cost increases.[5] This generates a distribution of expected medical costs to the insurer. It is straightforward to calculate the expected state cost for alternative corridors. For

example, if we know that there are $1 million in claims in the $5,000 to $10,000 corridor and there were 9,000 individuals in the plan, then the state share would be $1 million * 90% or $900,000, or $100 per enrollee. The expected state share was calculated on an annual per member basis. It was commonly represented as a percent of the expected medical claims.

We compared our estimates of the state cost of the Healthy NY corridor to estimates generated by an actuarial firm and they were within one percentage point, lending support to our approach.

Potential Limitations: MEPS is not the ideal data source for such a calculation. It would be preferred to have commercial claims data from North Carolina covering more lives than were used here. In MEPS, plan design (cost-sharing, benefits) varies in ways unknown to the analyst. That is, only the amount the plan paid is known—everything else about the plan covering the employee is unknown. The analysis was limited to employees, not dependents, and those that were insured in 2002. The claims distribution of the group covered under an expansion would likely be increased; actuaries typically assume that the newly insured have higher claims in the first year due to "pent-up demand"—medical care that is desired but not purchased until insurance is active. Estimates are based on 2002 utilization; temporal changes in utilization patterns would affect the estimates.

2. Determining the Number of Potential Eligibles

There are two approaches to determining the number of potential eligibles. The first considers those covered because their firm participates in Healthy North Carolina. The second is for working individuals and the self-employed.

a. Approach: Employees

To estimate the number of potentially eligible employees, we begin with the MEPS Insurance Component tables for 2003. Table II.B.2 presents the percent of North Carolina employees, by firm size, employed in a firm that offers health insurance. Table II.B.1 presents the number of North Carolina employees by firm size. The information in these tables can be combined to calculate the number of employees in North Carolina firms with 1-24 employees that do not offer health insurance: 332,324.

This number is then subjected to the "low wage" criterion: at least 30% of the workers must have a wage below $12 for the firm to be eligible. Although MEPS defines a "low wage" firm, it has a much more stringent definition of 50% earning less than $10. Thus, the percent of small firms qualifying under the "low-wage" qualification had to be estimated. There are no existing data sources that would be useful in estimating this number. We therefore estimate the percent of firms that would qualify by simulating firms, a not uncommon exercise in policy cost estimates. We take CPS data on firm size, industry, and wages and construct 3,000 artificial firms by randomly matching CPS respondents within firm size-industry cells. First, we compare our estimates with those of MEPS using the "50% less than $10" criterion. MEPS does not include low wage by firm size at the state level, so we cannot compare our estimates for North

Carolina directly to the national MEPS estimates. Nationally, 32 percent of firms with 1-24 employees (that are classified as either high wage or low wage) are classified as low wage. Our estimates for North Carolina are slightly higher at 39 percent, but examining all firm sizes, North Carolina firms are about three percentage points more likely to be low wage than the national rate, so the estimates are reasonable.

With our simulation method validated, we then subject the recommended "30% less than $12" criterion to the simulations. The estimated percentages of workers that would qualify, by industry and firm size, are presented in Table F.1.

Table F.1
Estimated Percent of Employees Employed by a Firm with at Least 30 Percent of Employees Earning Less than $12 an Hour

	Number of employees		
Industry	Less than 9	10-24	Total 1-24
Agriculture	97.8%	100.0%	98.1%
Construction	91.3%	99.0%	92.4%
Manufacture	64.5%	90.5%	72.0%
Transport	59.7%	85.0%	62.1%
Trade	80.2%	79.5%	80.0%
Health & Education	84.2%	100.0%	88.7%
Finance	75.8%	41.5%	69.7%
Hospitality	99.8%	100.0%	99.9%
Other	83.0%	92.5%	84.2%
Total	83.9%	91.4%	85.3%

Overall, the estimated percent of individuals in firms with 1-24 employees in North Carolina that would meet this criterion is 85.3%. We then multiply the estimated number of employees in firms not offering health insurance (332,324) by this 85.3 percent to calculate 283,472 potential eligibles.

We assume that the risk corridor will elicit a thirty percent reduction in premiums. Gruber and Lettau (2004) estimates an offer elasticity of -.537 for small firms (less than 100 employees),[6] suggesting a percent change in the offer rate of .537 * .30 = 16.1 percent increase in the offer rate. This is multiplied by the number of potential eligibles to obtain 283,472 * .161 or 45,639 newly offered employees. We assume 60% eligibility (Table II.B.2.a) and 80% take-up among those eligible (Table II.B.2.a.i), or 21,910 newly insured employees. The average contract size for Healthy NY was 1.44, 1.62 for small business enrollees. According to the CPS, in North Carolina in 2004, the number of individuals covered as a dependent on an ESI was 2,080,509. The number of individuals with an employee-only plan was 1,174,378; the number of individuals with a family plan was 1,042,385. The average contract size, therefore, is 1.94. To project estimated enrollees in Healthy North Carolina, we assume the midpoint of 1.94 and 1.62, or 1.78. Therefore, we upweight the 21,910 employees by 1.78 to get 39,000 new enrollees.

According to MEPS, the average premium for a North Carolina employee in 2003 was $3,411. The average family premium was $8,463. The total amount paid for ESI, thus, was 1,174,378 * $3,411 + 1,042,385 * $8,463 = $12,827,508,000. According to the CPS numbers presented in the preceding paragraph, 4,297,272 were covered by ESI, implying that the premium for the average covered life was $2,985.04 (total premiums divided by covered lives). This estimate is for 2003. Inflated by 7.5% three times to translate the 2003 estimates to 2006, we obtain an average premium of $3,708.31. This is the expected per member per year (PMPY) baseline premium (that is, the market price for ESI) in 2006.

The recommendation is for a reinsurance corridor generating a 30% discount to the premium. Given the $3,708.31 estimated PMPY premium, this is a $1,112.49 annual cost to the state. However, this is the cost in the "steady state" version of the program, in which every enrollee is enrolled for an entire year. Since the reinsurance is calculated on a calendar year, members who enroll later in the year are, other things equal, less likely to achieve the minimum cumulative claim amount necessary to qualify for reinsurance. Based on the Healthy NY experience, we estimate that in periods of substantial program expansion, the actual reinsurance per member may be roughly half of the steady state estimate. For example, in 2004 the estimated state cost per member enrolled in Healthy NY for the entire year was just over $1,000, while the cost per mid-year enrollment was just over $500.[7] This value is more difficult to estimate than the full-year cost; fifty percent of the full year cost is our best guess. Note, however, that the total premium net of discount should be identical under the "steady-state" cost and the "expansion." Therefore, if the "expansion" cost to the state is $550 (half of the "full-year" cost), then the employees and employers will pay more.

The recommendation is that the employer pays 75% of the employee share, with additional incentives for subsidy of family coverage and the employer paying a greater share of the employee coverage. We assume, therefore, that the employee pays 2/3 of the (expected) after-reinsurance cost. Thus, the employer pays from 2/3 of ($3,708.31 – $1,112.49) [$1,730.55] under the "steady-state" cost to 2/3 of ($3,708.31 – $550) [$1,730.55] under the "expansion" phase of the program.

Table F.2
Summary of Annual Cost Estimates per Healthy North Carolina Small Employer Member

Program Period	Steady-State	Expansion
Total Premium	$3,708.31	$3,708.31
State reinsurance payment	$1,112.49	$550.00
After reinsurance	**$2,595.82**	**$3,158.31**
Employee	$865.27	$1,052.77
Employer	$1,730.55	$2,105.54

b. Approach: Individuals and Self-Employed

Many of those that are uninsured are not eligible for Healthy North Carolina because they were offered employer-sponsored insurance (ESI) from their employer but declined coverage, presumably because they were required to contribute to the premium. Because these individuals are not eligible, we must eliminate them from

the estimate of eligible enrollees. To do so, we must adjust the estimated number of uninsured *downward* by the estimated number of workers who were offered ESI but declined coverage.

Using CPS data we estimate that there are 384,000 full-time workers with income below 250% FPG who have health insurance from their own employer. If 20% of those that are offered ESI decline coverage (MEPS, Table II.B.2.a.(1)), then the number offered ESI from their employer is 384,000 / .8 = 480,000. About 96,000 of these (480,000 – 384,000) are assumed to be offered ESI, but declined coverage. There are 350,000 full-time uninsured workers with incomes below 250% FPG and 67,000 who enroll in non-group insurance, making a total of 417,000. About 96,000 of these (480,000-384,000) are assumed to be offered but decline ESI from their employer, leaving 321,000. Take up of nongroup insurance is estimated to be 67,000 / (67,000 + 350,000), or 16%. The estimated elasticity on the take-up rate due to a 25% decrease in price of nongroup insurance is -.081.[8] This is inflated by .3/.25 to account for the larger discount to obtain an elasticity of .0972. This generates 6,500 newly enrolled workers. This is inflated by 1.44 (to account for dependents) to generate 9,360 covered lives. We assume the cost to the state is the same as the cost to the state for working employees—$550 – $1,100.

Limitations: This method depends heavily on what are known as behavioral parameters —estimates of how firms and individuals respond to changes in prices. There is no accounting for crowd-out (enrollment by those that are currently covered by health insurance). There is only a limited assessment of dependent coverage. Due to data limitations, we often assume that estimates for a large category of individuals apply to a subcategory. For example, we assume that the average premium for small groups is the same premium that a firm that is indifferent between providing coverage would receive. In other words, it is likely that the firms that would be enticed by a small decrease in the premium would face larger premiums than those that are currently offering health insurance (the fact that they are facing higher premiums is one reason they are not currently offering insurance). Our approach does not account for this fact. We also assume that the offer rate in small firms is the same as the offer rate in small firms that meet the low-wage criterion.

The variation in expected state cost under the different phases of the program is particularly important. In 2004, Healthy NY began the year with approximately 40,000 enrollees and ended with about 80,000 enrollees. The total reinsurance cost for the year was just over $31 million. It is also important to note that our predicted enrollee distribution is quite different from the experience of Healthy NY. These differences underscore the importance of the formal actuarial analysis.

B. Recommendation 5.4 Tiered Benefits

Approach: Mercer developed price estimates of $150 (Tier I), $232 (Tier II), and $270 (Tier III). There are approximately 550,000 uninsured full-time workers in North Carolina. We assume that 5% of these workers would enroll in the tiered benefit plan. This rate was considered reasonable by a group of individuals familiar with the insurance market. We assume that the workers would divide equally among the three tiers and that employers would pay 75% of cost of the lowest Tier.

Limitations: There is no evidence supporting the net take-up of 5%, nor the distribution among the Tiers. The 75% contribution by the firm is lower than the current proportion contributed by firms for small firms; this may be appropriate, however, given that these are likely to be newly offering firms (or firms that would otherwise cease offering ESI to employees).

C. Recommendation 6.1 Medicaid Outreach

Approach: Medicaid eligibility is a function of three main eligibility criteria: income, assets, and category. Although the CPS contains rich information on households, including income, the exclusion criteria used by the Division of Medical Assistance renders it difficult to conclude definitively on an individual's potential eligibility for Medicaid. Therefore, best approximations were used to develop estimates of the number of potentially eligible individuals who are not enrolled in Medicaid. For example, the number of potential eligibles qualifying as pregnant women was estimated using women who had a child under the age of 1 year living in the household with income below 185% of the FPG; individuals potentially eligible under the disabled qualification were identified as those receiving Social Security income due to a disability. For the most part, asset tests were not imposed in determining the number of potential eligibles. Due to these reasons, the numbers given are likely high estimates. Furthermore, many of these individuals who appear to be uninsured may actually be covered under Medicaid, since it is well known that CPS undercounts the number of Medicaid eligibles. For example, CPS indicates that 936,898 were *ever* covered by Medicaid or NC Health Choice in 2004, while the Division of Medical Assistance reports 1,125,624 were covered by Medicaid and an additional 121,836 were covered under NC Health Choice in December 2004. The number covered at any time in 2004 will exceed this monthly enrollment count.

The average per-beneficiary cost is lower for the outreach than might be expected because so few disabled potential eligibles—the most expensive of the four groups considered here—are estimated to be potentially eligible but not enrolled. This lowers the average per-beneficiary cost.

D. Recommendation 6.5 High-Risk Pool

Approach: BlueCross BlueShield of North Carolina estimates that 90,000 North Carolinians would be eligible for the high-risk pool and 20% of these would enroll, implying 18,000 enrollees in the pool. The recommendation includes a provision for a premium subsidy ranging from a 95% subsidy for those below 100% FPG to a 0% subsidy for those with income above 300% FPG. The distribution of high-risk pool enrollees is approximated by assuming a distribution proportional to the distribution across income for uninsured non-elderly individuals self-designating as having fair or poor health status:

Table F.3
Estimated Distribution and Average Premium Subsidy of High-Risk Pool Enrollees, by Income

Income	Distribution	Average Premium Subsidy
<100% FPG	14%	95%
100-200% FPG	39%	75%
200-300% FPG	35%	25%
>300% FPG	12%	0%

The state premium subsidy cost is estimated by multiplying the base premium ($1,800) inflated to 150% of risk ($2,700), computing the income group-specific per enrollee subsidy, and then aggregating based on the predicted distribution of members across income cells. This leaves a $1,385.10 premium subsidy per enrollee for the state. The average enrollee in the plan pays $1,314.90. The amount of the revenue generated by the assessment on insurers would equal $66 million, the difference between expected claims and the revenue.

Appendix F | Methodology

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