

Individual Versus Job-Based Health Insurance: Weighing The Pros And Cons

If tax treatment of individual coverage could be brought in line with that of employer-group coverage, it might be a better choice for some workers.

by Mark Pauly, Allison Percy, and Bradley Herring

PROLOGUE: In a system dominated by private group health insurance, individual coverage has never been a very attractive option for most people. Indeed, for several reasons, less than 7 percent of the population obtains nongroup health insurance. It's unaffordable for many people—in part because of very high administrative costs—and it may be difficult to obtain for some persons who have preexisting medical conditions. But as policymakers search for other private-sector alternatives to job-based group coverage, options once considered less attractive—particularly when government-sponsored or -administered solutions to broadened coverage held greater political appeal—are emerging as possible approaches. In this paper Mark Pauly and his colleagues at the University of Pennsylvania's Wharton School discuss how individual insurance could be improved and thus made more attractive to more prospective buyers.

Pauly, a leading health economist who believes in market-based solutions to problems of insurance coverage, is the Bendheim Professor and chair of the Department of Health Care Systems. His classic study on the economics of moral hazard was the first to point out how insurance coverage may affect patients' use of medical care. Allison Percy, a doctoral student at Wharton, is writing a dissertation on the impact of small-group and individual insurance market reforms on health coverage patterns. Bradley Herring is also a doctoral candidate, examining the extent to which access to care for the uninsured makes purchasing health insurance less likely.

ABSTRACT: Although the majority of insured Americans receive their health insurance through their employers, some depend on the individual health insurance market. However, with increased criticism of the lack of choice in group coverage and various proposals including subsidies or tax credits to decrease the number of uninsured, the individual market may start to play a larger role. In this paper we conclude that although efficient large-group insurance will appropriately continue to exist, the individual market appears to be improving, in both administrative cost and protection against high premiums associated with high risk. For diverse workers now in small groups with little plan choice, the individual market might become a reasonable alternative.

THE GREAT MAJORITY OF AMERICANS who obtain private health insurance are insured through an employment-based group. This method of selecting and financing coverage has recently come under criticism, across the political spectrum, for reasons of cost, quality, and fairness. Both patients' bills of rights and proposals for "individually owned insurance" envision changes from current arrangements in which employers select and offer health insurance options as part of employee compensation.

In this paper we consider a number of criticisms of the current system, focusing on one: the fact that employers choose one or a limited set of health insurance options to offer employees, and pay part of the premium, so that employees do not have the same ability (or responsibility) to choose health insurance as they have to choose other types of insurance. For most other types of insurance, people can select from a wide range of options, and this opportunity for choice is generally valued positively. Is it possible to offer a similar level of choice for health insurance, and would this be desirable?

For some persons who now obtain group insurance or purchase no insurance, an improved individual insurance option might be feasible, even desirable. Moreover, it seems virtually certain that any policy that encourages the nonpoor uninsured to obtain insurance will make some use of the individual market, so an improved individual market should appeal to those interested in such policies. Here we make it clear when individual markets may help and when they will not.

In constructing an alternative to the current system, two strategies are possible. The one that has received the most policy discussion is to take an employer-based group setting, modify it to more closely resemble a multiple-choice individual market, and suggest arrangements in which small groups or individuals might participate. The best example of this is the Federal Employees Health Benefits Program (FEHBP). The FEHBP offers more choices than the typical large employer offers, and in some years its rate of growth in costs has been moderate. Trying to clone the FEHBP and adapt it

to a multiple-employer setting therefore has attracted some policy-makers' attention: It was to some extent the model for the Clinton administration's health insurance purchasing cooperatives (HIPCs), and it has recently been given a Republican reincarnation in the form of "health marts" proposed by members of the House Commerce Committee.

Apart from the FEHBP, we have little actual experience to show how these "individualized group insurance" strategies might work. The other alternative, using individual (nongroup) insurance institutions and possibly modifying them, does have a basis in observable empirical data; we do know how individual health insurance markets work. That knowledge may be the most serious obstacle to taking this approach seriously, since it is commonly believed that, despite their survival over decades, such insurance markets are so flawed that they should be ignored. Here we present the case for a less dismissive view. We do not argue that individual markets can ever be perfect (indeed, we argue that no market, group or individual, can ever be perfect). However, we offer some reasons, based on trends and speculation, for cautious optimism about the use of improved individual markets in a portfolio of insurance-purchasing vehicles offered to citizens in a neutral and open insurance market.

We do not discuss at length the regulatory changes some states have made in their individual insurance markets. The stories of what some states have done (primarily with regulation of premium rating) and their consequences, intended and unintended, are numerous, variable, lengthy, and often (as yet) inconclusive. These issues have been treated in detail elsewhere.¹ Our goal here is to discuss the advantages and disadvantages of lightly regulated individual markets (still present in thirty-two states in 1998), to spotlight the "intrinsic" behaviors one would expect in such markets.

■ **Efficiency and equity.** To evaluate alternative ways to provide and finance insurance, we obviously need some criteria for judgment. We adopt the economic notions of efficiency and equity; *efficiency* means that arrangements all provide benefits greater than costs, and *equity* implies that the difference between benefits and costs is distributed fairly, although there is no unique economic criterion of fairness.

We envision insurance plans' being offered in a setting in which plans differ both by the level of patient cost sharing and by the degree of "supplier management," in the sense of the strictness of rules or the strength of provider incentives limiting the volumes of services whose cost will be covered by the insurance. Consumers are assumed to differ in their demands or tastes for these features, even when the consumers are of equal risk.

The efficient insurance for each person provides the optimal combination of services covered and risk protection. The theoretically ideal insurance covers just those services whose marginal benefit is greater than marginal cost, and covers their costs in full. Moral hazard makes this kind of insurance impossible, however, so actual insurance contains costs either by reducing financial protection (through patient cost sharing) in an attempt to reduce the use of services with low benefit relative to their costs, or by using provider rules and incentives to specify or target quantities close to the ideal. For each person with specific values attached to medical services and risk protection, there is some insurance plan design that will represent the best compromise among risk protection, access to care, and premiums; that plan is the efficient plan for that person.

Advantages And Disadvantages

Compared with employment-based group insurance, nongroup insurance has some advantages and disadvantages; neither type is perfect. The choice between insurance types therefore depends on the size of the advantages and disadvantages. Precise quantification is difficult; here we deal primarily with the more tractable question of trends in those magnitudes. The relative disadvantages of nongroup insurance have been shrinking over time, as the advantages of group insurance have also been diminishing, and other feasible policy changes could reinforce these trends. Individual insurance does not necessarily provide an acceptable alternative for everyone, but it deserves a serious look for many.

Individual insurance has three main advantages over group insurance. First, with individual insurance everyone can get the policy he or she wants (given its cost), whereas with group insurance the choices are almost always limited.² Employees with few other employment options, so-called inframarginal employees, are most likely to have their demands ignored. In small groups there is usually no choice of plans at all. Second, even if all employees had similar desires, there is no assurance that the employer will pick the plan they want (or offer any plan at all). Third, individual insurance is more portable and permanent than group insurance is. A person with individual insurance need neither hesitate in changing a job because of the need to change insurance nor fear losing coverage because an employer decides to stop offering it.

Individual insurance also has three disadvantages. First, administrative costs are higher—sometimes much higher—largely because it is always more costly to offer variety and individual choice. Second, it is believed that individual insurance provides less risk pooling or premium averaging than group insurance does. (Whether this

is an advantage or a disadvantage obviously depends on a person's risk level, but we think that protection against jumps in premiums when risk changes because of the random onset of chronic illness is of value to every risk-averse person. However, greater premium averaging has little effect on the total number of uninsured persons, since it drives some away from insurance while lowering premiums for others.) Third, a person who drops nongroup insurance saves the cost of the full premium, whereas employees generally pay less than the full premium for their group insurance.³

There is another difference between group and nongroup health insurance, not intrinsic to the market but nevertheless of profound (and current) policy relevance: Many persons find substantial tax advantages to obtaining health insurance in a group setting. With sufficient planning, the value of the full premium for group insurance can be excluded from one's taxable income, whereas nongroup insurance must be paid for with completely after-tax dollars for those who are not self-employed, and is only partially deductible for the self-employed. The tax system clearly biases the market toward employment-based group insurance.

■ **Some evidence.** There is evidence that the magnitude of the disadvantages of individual insurance may not be as large as conventionally believed and may even be declining. On the issue of risk pooling, there are some surprising findings for both group and nongroup insurance. Our analysis of the 1987 National Medical Expenditure Survey (NMES) data, along with the separate work of Jonathan Gruber and Louise Sheiner, strongly suggests that wages in firms offering group insurance are affected by easy-to-observe risk indicators, such as age or sex.⁴ A young worker who moves from a job that provided insurance for workers of varying ages to one with no coverage should expect higher money wages, but the increase will be smaller than the average cost of coverage in the first firm. It will be closer to the cost of coverage of the young worker only; the young worker only "paid" a relatively low premium in the form of forgone wages.

For nongroup coverage it is important to know whether the premiums people pay for such insurance proportionately reflect risk. The answer from our prior work, surprisingly, appears to be negative.⁵ Using the 1987 NMES data, we divided persons who obtained individual insurance into two sets. One set consisted of the 25 percent of purchasers whose risk level was the highest. ("Risk" was based on expected medical expenses predicted by age, sex, chronic conditions, and geographic location.) The other set consisted of the remainder of the population. Those designated as high risk definitely gave every appearance of being so: Their levels of actual ex-

penses, predicted expenses, and actual benefits received were all approximately three and a half times greater than those in the bottom three-quarters of risk (Exhibit 1). (That both benefits and expenses increased by the same proportion indicates that coverage—benefits divided by expenses—was approximately the same for both groups.) However, premiums for the high-risk persons were less than 40 percent higher than for low-risk persons; premiums increased much less than proportionately with risk. In other words, there was substantial cross-subsidization of high-risk by low-risk persons in the individual insurance market in a period in which there was only minimal state regulation. Premiums do rise with risk, but the increase in premiums is only about 15 percent of the increase in risk. Premiums for individual insurance vary widely, but that variation is not very strongly related to the level of risk.

■ **Loading and administrative costs.** The administrative expense and “loading” (difference between premiums and expected benefits) of nongroup insurance are often said to be high—as much as half of premiums (or 100 percent of claims)—while that of group insurance can fall to about 5 percent in very large groups. Both ends of this comparison are probably overstatements. Large groups can obtain low nominal loadings by using corporate-funded human resources (HR) departments to select the insurance and administer the whole range of benefits and compensation. Some of the general HR cost surely belongs to health insurance, although adding it would appear to leave the loading below 10 percent of “premiums.”⁶ The estimates of loading for nongroup insurance suffer because they often reflect the actuarial estimates of particular insurance firms (the difference between the premiums they propose to charge and the benefits they expect to pay), rather than the average experience of the firms that consumers actually choose to patronize.

The difference between premiums and benefits is twofold: the administrative cost—the cost of selling insurance, collecting premiums, and processing claims—and the insurer’s profit (positive or

EXHIBIT 1

Premiums And Expenses (1997 Dollars), By Risk, In Individual Insurance For The Nonelderly

	Lowest 75 percent of risks	Highest 25 percent of risks	Ratio of high to low risk
Average premium	\$862	\$1,197	1.39
Average benefits	339	1,162	3.43
Predicted expenses	751	2,610	3.48

SOURCE: Authors’ calculations based on 1987 National Medical Expenditure Survey (NMES) data.

NOTE: Predicted expenses use linear regression models incorporating age, sex, location, and a set of eleven preexisting chronic health conditions.

negative). The higher loading in individual insurance is almost entirely the result of the first. Individual insurance is not more profitable than group insurance, and throughout the past decade the underwriting “profit” from individual insurance has consistently been negative.⁷

The reason for the disadvantage of higher loading in individual insurance is, in general, the cost of providing variety and catering to each person’s demand, both of which are among the advantages of that type of insurance. The primary differences are in the cost of selling and billing. It costs more per covered person to sell an insurance policy to an individual than to an employer on behalf of a group. In contrast, the cost of processing a given claim will generally be the same for both. (Underwriting also adds to the cost but is dwarfed by agents’ commissions and billing costs for repeat customers.)

Whatever the current level of loading or administrative cost percentage for this type of insurance, it is clear that these costs have been dropping. Data published by the Health Insurance Association of America (HIAA) and the National Association of Insurance Commissioners (NAIC) show that loading was much higher in 1970 than it is today (Exhibit 2).⁸ These data sources indicate that average loading has fallen from 50 percent of premiums in 1970 to about 35 percent in 1995. Moreover, these data include supplemental insurance policies, which are more costly to administer.

We estimate that administrative costs for standalone individual insurance now average about 30 percent. In contrast, the loading for insurance for groups of fewer than twenty-five averages 20–25 percent. It is still true that nongroup insurance is more costly on average to administer than group insurance, but the difference has been shrinking. For a small company with a heterogeneous workforce

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EXHIBIT 2

Individual Health Insurance Loadings And Expense Ratios, 1970–1995

Year	Loading-to-premium ratio (HIAA)	Loading-to-premium ratio (NAIC)	Expense-to-premium ratio (NAIC)
1970	0.52	— ^a	— ^a
1980	0.39	— ^a	— ^a
1985	0.40	— ^a	— ^a
1988	0.37	0.44	0.45
1990	0.35	0.43	0.43
1995	0.36	0.40	0.34

SOURCES: Authors’ calculations based on Health Insurance Association of America (HIAA), *Source Book of Health Insurance Data* (from HIAA Annual Survey of Health Insurance Companies), various years; and National Association of Insurance Commissioners (NAIC), Annual Statement data, Life and Accident and Health, Schedule H, Accident and Health Exhibit, Part 1, Analysis of Underwriting Operations, 1988–1997.

NOTE: “Loading-to-premium ratio” is defined as premiums minus benefits (claims) as a proportion of premiums, and “expense-to-premium ratio” is defined as administrative expense as a proportion of premiums.

^a Not available.

that can offer only one plan, the modest premium reduction associated with group insurance may not offset the other defects of group insurance.

■ **Lowering the administrative cost.** Despite these improvements, the higher administrative cost of nongroup insurance still remains a formidable obstacle to many buyers choosing it or to policymakers considering it. Accordingly, we looked at ways to lower the administrative cost of such insurance even further.

Probably the most frequently discussed strategy is one that identifies the low administrative cost of very large group insurance as a goal and considers how to modify such arrangements to make them available to employers of all sizes and to expand the range of offerings to employees. The specific model of low administrative cost and wide choice is the FEHBP, whose group-purchasing arrangement for federal employees offers a large number of different plans (although their characteristics do not vary greatly) at a low loading and administrative cost percentage and, in some years, a low rate of growth in premiums. The low loading is due in part to a low-cost administrative system but also may be due to insurers' incentive to hold premiums down to appeal to this large group.

Could these advantages be extended to the employees of other firms who would participate voluntarily? There surely will be some erosion in participation. Selling and billing costs are bound to rise when many small businesses or individuals must be attracted and retained. Small groups with low-risk members may (for reasons to be discussed further below) be unwilling to remain in such pools. Thus, we are somewhat skeptical that arrangements such as health marts can fully solve the problem of providing choice of plans at reasonable cost. The congressional proponents of health marts may have similar doubts, since they added the cost-reducing power of a waiver of state minimum-benefits laws to sweeten the product.

Can the problem be approached from the other direction: modifying individual insurance in ways that may lower its costs, further reduce the chances of unexpected premium jumps because of the onset of a high-risk condition, and offer a wider range of real choices than any health mart could? The answer may be yes.

Two changes could increase the attractiveness of individual insurance; one has actually already been made but is hardly recognized. A major problem with individual insurance is that premiums can be risk-rated. (For many, this is the main problem, even outranking high loading.) From an economic viewpoint, the main problem with risk rating is not that some pay more than others for a given nominal policy, since those higher risks who pay more in premiums get back more value in terms of benefits. Rather, it is that

the occurrence of an extended illness may subject buyers to the risk that their premium may jump, potentially by several multiples. While a thousand-dollar jump in one's annual premium may seem trivial compared with the high medical bills the insurance will cover, risk-averse persons would prefer to avoid it. There is a simple way to do so: Buy insurance when healthy but pay extra for guaranteed renewability or protection from cancellation.⁹

The evidence indicates that even before the Health Insurance Portability and Accountability Act (HIPAA) became effective in 1997, the majority of individual policies contained this feature. The intent of guaranteed renewability can be circumvented (for example, by canceling all policies in a class), but it usually is not, for the obvious reason that sale of this feature requires that it be effective most of the time. Exhibit 3 shows nongroup premiums in policies written between 1988 and 1997 with various kinds of limits on premium increases. In recent years some states have required guaranteed renewability, but it is apparent that this was a common feature of individual (not small-group) policies even before it was required. The presence of guaranteed renewability may account in part for the moderate increase in paid premiums with risk, noted earlier.

The other change would be the development of mass-marketed policies. Consider the experience of automobile insurance. Until the mid-1980s personal automobile insurance was sold as most nongroup indemnity and preferred provider organization (PPO) coverage now is: Brokers would offer premium quotations to people who applied for insurance. The use of brokers or agents does provide a high level of personal service, but it is expensive. In automobile insurance the dominance of the market by agent-arranged insurance was eroded, at a fairly slow but steady pace, by so-called directly written insurance. This insurance usually consisted of simplified policies offered by insurers directly to the public, either through their exclusive agents or through mail and telephone. In 1981 loading for directly written automobile collision insurance was estimated to

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EXHIBIT 3
Percentage Of Premiums In Various Contract Types, 1988- 1997

Year	Noncancelable ^a	Guaranteed renewable	Nonrenewable for stated reasons only	All other
1988	23.4%	56.1%	7.4%	13.2%
1990	24.6	54.4	8.7	12.3
1995	18.7	66.6	7.1	7.6
1997	19.4	66.4	6.0	8.2

SOURCE: National Association of Insurance Commissioners data.

NOTES: Plans are accident and health insurance, excluding accident-only policies. Premiums are "premiums earned."

^a This provision applies almost entirely to disability coverage.

be 32 percent, while that for independent agent automobile insurance was 37 percent.¹⁰ As these data indicate, while automobile insurance sold by agents carried a loading similar to the average loading for nongroup health insurance, directly written automobile insurance had a loading about five percentage points lower. If such economies could be obtained for health insurance, its loading would compare favorably with that for small-group insurance.

For mass-marketed insurance to be offered, however, there needs to be a mass market. At present, less than 7 percent of the population obtains nongroup health insurance; the great bulk of insurance is employment related. A major reason for this configuration, in addition to higher loading, is more favorable tax treatment accorded to premiums paid as compensation in employment-based groups. If the tax treatment were made neutral across all types of insurance, the nongroup market would have new customers (workers and their dependents) who would have steady incomes, be largely normal risks, and be fiscally responsible.

How A Transformed Individual Market Would Work

We now describe how a transformed individual market would function and provide some simulations to illustrate our predictions. We consider the three changes we have discussed: guaranteed renewability, mass-marketed insurance, and neutral tax treatment of insurance purchases.

■ **Guaranteed renewability.** Guaranteeing that one's premium will not jump dramatically at the onset of a chronic high-risk condition appears to be a policy provision for insurance of a given level of quality that virtually every risk-averse person would want. The main problem with such a long-term purchase is the possibility that insurers will respond to the "lock-in" by reducing quality over time. (Of course, group insurance also locks the enrollee into a particular job and to the insurer chosen by the employer for as long as the employer continues to use the insurer.)

The possibility of being locked into low-quality individual coverage is limited by four influences. First, knowing that the insurance chosen is likely to be permanent, buyers presumably will shop more carefully and seek more concrete assurance of quality. Second, as long as the insurer wants to maintain or increase market share, it will want to preserve a reputation for quality. It would be difficult to reduce quality for continuing insured persons and yet maintain it to attract new customers. Third, if quality is reduced, the low risks will leave, and only the high risks will stay. This makes quality reduction an unattractive proposition unless the insurer can target the reduction on services consumed by high risks. Finally, as long as most

“If nongroup insurance became more prevalent, the market for such insurance would be flooded with reasonably good risks.”

individual insurance is closer to indemnity insurance than to intensively managed care, it is difficult to alter quality in a way that will save much money. Recall that the great bulk of administrative expense for nongroup insurance is associated with selling new policies, encouraging renewals of current policies, and collecting premiums. What quality reductions in these dimensions would increase insurers' profit? The claims payment and management costs might be more manipulable, but they are a very small share of total costs; there is not much margin for cutting costs by skimping. This also means that reducing quality for high risks will be much more difficult in the individual market than it would be in managed care.

There is no empirical evidence on the behavior of health insurance policies that guarantee premiums. This provision seems to work reasonably well in life insurance (as close to pure indemnity insurance as one can find), but more information on how it functions in individual health insurance would definitely be useful.

■ **Mass marketing.** The emergence of mass-marketed nongroup health insurance would be greatly assisted by copying some other changes that occurred in automobile (collision) insurance. There, policies were standardized in the 1970s, assisted by changes in state regulation that made it much easier for people to shop for low premiums over the telephone. The development of reliable data on accidents and driving records, and regulations requiring criteria for rating to be specified in advance, paradoxically seemed to have reduced the intrusiveness and importance of risk rating. Both of these features could easily be copied by health insurance and have been replicated in a few states that required that standardized policies be offered. Age and location might be the only risk measures needed to reassure insurers that they were not being selected by disproportionate numbers of high-risk persons in a mass market.

■ **Tax neutrality.** Finally, as noted above, moving the tax treatment of health insurance from its current bias in favor of group insurance to a more neutral approach might further reduce both loading costs per policy and the effort put into risk rating new and continuing insured persons. If nongroup insurance became more prevalent, the market for such insurance would be flooded with large numbers of reasonably good risks who would be expected to remain with the insurer, not drop in and out as jobs changed or employers offered and withdrew coverage. If the loading were re-

duced and the tax treatment were made neutral, that alone would attract low risks. If enough low risks are known to be present, it becomes less profitable to search for the now rarer high-risk person.

There is a pricing paradox in insurance: When premiums are cut, claims and administrative costs may sometimes fall and profits rise. If individuals expect to stay with their insurer indefinitely, those who turn out to be low risks will have less incentive to drop coverage with guaranteed renewability in favor of lower-price coverage based on their current risk level because they know they will be risking a premium jump if they contract a chronic illness.¹¹ Further, the inertia or transaction cost for low-risk persons to drop and switch may stabilize guaranteed renewability in nongroup markets. Some have even speculated that the failure of the small-group market to offer guaranteed renewability as a standard feature may be attributable to the lower cost per insured of switching insurers for the low-risk group compared with the low-risk individual.¹²

Moreover, a subsidy to nongroup insurance (in the form of neutral tax credits) might itself permit a substantial reduction in loading. Recall that the bulk of the additional administrative cost for nongroup insurance arises from selling costs. If there were a subsidy so that the insurance “sold itself,” those selling/persuasion/information costs could be greatly reduced. There is some evidence consistent with this conclusion. Medicare Part B is heavily subsidized individual insurance, and its loading is a little below 10 percent. When individual insurance heavily cross-subsidized by group insurance was offered by New Jersey Blue Cross Blue Shield in the 1980s, its loading was in the 12–15 percent range.

■ **Some simulations.** We can gain insight into what a reformed individual market might be like by considering some simulations based on NMES data—the largest, most detailed data set available on household insurance purchases, benefits, and expenses. NMES data reflect the situation in 1987, but there has been relatively little change in the proportion of individually insured persons since then. Managed care has become much more prevalent, but managed care-related changes probably will not greatly affect our conclusions.

Here we simulate what the nongroup market would be like if there were a substantial influx of workers from group insurance. We simulate two possible causes for such a shift: a change in tax treatment that makes nongroup insurance potentially more attractive to low risks, and a large-scale shift of workers from the small-group into the nongroup market.

The first panel of Exhibit 4 shows the initial situation (with expenses in 1997 dollars). We define two potential benchmarks for the nongroup market for full-time workers under age sixty-five:

EXHIBIT 4**Simulations Of Response To Identical Tax Treatment Of Group And Nongroup Premiums, Among Full-Time Workers Ages Eighteen To Sixty-Four**

	Insured workers only		Insured and uninsured workers	
	Percent	Predicted expense	Percent	Predicted expense
Initial situation				
Large group	69%	\$1,917	59%	\$1,917
Small group	23	1,790	19	1,790
Nongroup	8	1,892	22	1,671
Scenario One: Nongroup loading of 50%, in large and small firms 1.8% and 5.4% switch coverage				
Large group	68	1,942	57	1,942
Small group	22	1,848	18	1,848
Nongroup	10	1,598	24	1,583
Scenario Two: Nongroup loading of 35%, in large and small firms 9.9% and 20.1% switch coverage				
Large group	62	2,008	53	2,008
Small group	18	1,935	15	1,935
Nongroup	19	1,445	32	1,508
Scenario Three: Small-group market disappears, and all obtain nongroup coverage				
Large group	69	1,917	59	1,917
Small group	0	— ^a	0	— ^a
Nongroup	31	1,816	41	1,727

SOURCE: Authors' calculations based on 1987 National Medical Expenditure Survey (NMES) weighted data (N = 7,577).

NOTES: Predicted expenses use linear regression models incorporating age, sex, location, and a set of eleven preexisting chronic health conditions; expenditures are aged to 1997 dollars by the Health Care Financing Administration's (HCFA's) estimates for growth in private spending per capita. Large and small groups are defined as firms above or below twenty-five employees, respectively, with loadings there assumed to be 5 percent and 20 percent, respectively. For Scenarios One and Two we assume that half of those with nongroup premiums lower than pooled-group premiums incorporating an age-related wage offset switch to nongroup coverage.

^a Not applicable.

those who actually purchased such insurance, and those who either bought nongroup coverage or remained uninsured. Under the former definition about 8 percent of workers were in the nongroup market; under the latter the proportion in the "potential" nongroup market rises to 22 percent. As indicated by the average expected expense per person, those in the nongroup market were about the same risk or (under the second definition) only slightly lower in risk than those in group markets.

Under Scenario One we ask which people might switch into the nongroup market if the loading there were 50 percent of premiums, if nongroup insurance reduced premiums proportional to expected expense for those without other high-risk characteristics, if wages for group-insured persons offset age-related effects, and if half of

those low risks who would pay less in the nongroup market would then shift. Since our analysis indicates that nongroup premiums appear not to be greatly affected by these other risk characteristics, we view this as a “worst-case” scenario.¹³ As the exhibit indicates, there would be only a slight shift to the individual market, which would slightly reduce the risk level in the nongroup market; the difference in loading is so great that it offsets almost all differences in risk.

Scenario Two lowers the nongroup loading to 35 percent. Now the shift is substantial, and again the average expense in the nongroup sector drops below its initial level and below that in the group market. Even in this case, however, the shift to nongroup insurance is only partial and is concentrated among employees formerly covered in small groups, not those in more-efficient large groups. It is not true, even in this “worst-case” scenario, that group insurance is destroyed. Rather, some people shift out of situations in which the cost advantages of group insurance were small, but most people remain in employment-based groups.

Scenario Three builds on these results by simply shifting every worker in a group with fewer than twenty-five members. As indicated in Exhibit 4, the nongroup market rises to a share of 31–41 percent, and the average expense changes slightly. These results do not suggest that workers in the group market are of lower risk than those in either the actual or potential nongroup market, in part because the latter includes many uninsured young persons.

When The Other Shoe Drops

Our results suggest that a reformed individual market might be better in terms of both efficiency and equity than many commentators believe. Unfortunately, we have not yet quantified the main advantage of the nongroup market: a better matching of insurance to individual values. The relatively minor increase in loading (relative to small-group insurance) and the probable negligible impact on premiums paid by high and low risks suggest that if the mismatch should be significant, a better nongroup market might be a desirable solution for some workers.

Thus, the key unanswered question concerning the extent of the voluntary switch to the individual market is the extent of variation in demand within the group. An employer whose workers all want the same insurance policy will almost always find it worthwhile to offer group insurance, even if there are neutral credits and tax law changes, because group insurance will always be less administratively costly than individual insurance. However, employers whose workers have very different demands, in either the extent of cover-

age or the strictness with which care is managed, may benefit their workers as well as themselves by paying higher wages instead and letting workers choose exactly what they want in the individual market.

Several possibilities exist. If workers “vote with their feet,” sorting themselves among jobs based on how close the benefits offered come to their preferred outcome, there should be little erosion of group coverage, since there will be little gain from switching. However, we know from the anti-managed care backlash that not all workers like the insurance they are offered, so we know that this perfect-matching equilibrium does not fully describe the group market. Very few data exist that would allow us to estimate the variation in demands among the workers in actual small groups.

However, if we are willing to assume that the variation in demand within the typical group equals that across groups, we can determine the average “welfare loss” attributable to the mismatch between group and individual purchases and then compare that advantage to the extra cost. To calculate this amount, we need to make assumptions for the coefficient of variation (standard deviation divided by the mean) in coverage demanded and the elasticity of demand for insurance. Exhibit 5 shows the welfare loss as a percentage of total spending for various assumptions. Although the range of our estimates of the welfare loss from a uniform group policy vary widely, we can infer that the true value of the welfare loss may actually be in the neighborhood of 5–10 percent, about equal to the

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EXHIBIT 5
Welfare Loss From Group Insurance, As A Percentage Of Total Spending, Under Various Assumptions

Elasticity of demand ^a	Coefficient of variation in coverage demanded ^b			
	8.0%	16.5%	35.0%	154%
-0.25	1.3%	5.4%	24.5%	474%
-0.50	0.6	2.7	12.3	237
-1.00	0.3	1.4	6.1	119
-2.00	0.2	0.7	3.1	59

SOURCE: Authors’ calculations based on the 1987 National Medical Expenditure Survey (NMES).

NOTES: Welfare loss can be calculated by the following: Welfare loss = $0.5 \times \text{total spending} \times \text{the coefficient of variation} \div \text{the elasticity of demand}$. For its derivation based on medical practice variation, see C. Phelps, *Health Economics* (Reading, Mass.: Addison-Wesley, 1997).

^a Empirical estimates for the price elasticity of demand range from -0.2 to -2.0. See Phelps, *Health Economics*.

^b For the variation in demand, we use a measure of the quantity of insurance in the 1987 NMES, as developed by the Agency for Health Care Policy and Research; ranging from zero to one with a mean of about 0.8, its value represents the average percentage of total expenses covered for a given policy (based upon its deductible, coinsurance, and so on) over a standardized distribution of actual expenses. For those in the sample who actually obtained nongroup insurance, this index has a coefficient of variation of 16.5 percent. In addition to examining values roughly half and twice its value, we also determined the coefficient of variation of coverage for our “potential” nongroup market (those employed full time not covered by group insurance, who either obtain nongroup insurance or remain uninsured), giving values of zero to this index for the uninsured; because a majority of this potential nongroup market is indeed uninsured, the coefficient of variation increases dramatically to 154 percent.

estimated difference in loading between the nongroup and small-group insurance markets.

AT THIS POINT WE CANNOT SAY with certainty whether or not greater use of the individual market would improve efficiency. With reasonable tax and regulatory policies in place, we could allow market choices themselves to determine whether there are substantial net advantages. If the individual market can be improved and become superior to the opportunities in some small groups, people will switch to it. If the individual market cannot make the change, or if there is little net advantage to wider choices and greater portability, few will choose it. Our simulations suggest that significantly higher administrative costs are unlikely to accompany greater use of the individual market by employees of the relatively modest number of (primarily) small firms who would switch out of group insurance. There are substantial social gains from avoiding the uncertainty associated with employer choice and employment-related lock-in. There are even greater gains from getting the uninsured covered. Our analysis suggests that it may be possible to have the reasonably well functioning (although not perfect) individual market needed to accommodate the use of credits or subsidies; reliance on the private individual market is not a fatal flaw. As with any market, reliance on the “invisible hand” is still likely to promote nervousness among policy analysts, but that anxiety may be a small price to pay if the scandalously high numbers of uninsured persons can be appreciably reduced.

NOTES

1. See especially the forthcoming special issue of the *Journal of Health Politics, Policy and Law* on the individual health insurance market, which contains state case studies and commentary specifically addressing the nature and impact of individual health insurance market reforms. See also F. Sloan and C. Conover, “Effects of State Reforms on Health Insurance Coverage of Adults,” *Inquiry* 35, no. 3 (1998): 280–293; and T. Buchmueller and J. DiNardo, “Did Community Rating Induce an Adverse Selection Death Spiral? Evidence from New York, Pennsylvania, and Connecticut,” NBER Working Paper 6872 (Cambridge, Mass.: National Bureau of Economic Research, January 1999).
2. In a small number of states, such as New Jersey and New York (after 1996), regulations allowed only a limited number of standardized benefit packages to be sold in the individual health insurance market. In some other states standard benefit packages had to be offered, but other types of plans could be offered as well. Most states, however, did not restrict plan offerings to a small set of standard plans. See the special issue of the *Journal of Health Politics, Policy and Law* (Note 1) for details on states with these types of restrictions.
3. There is a little evidence on how workers evaluate the advantages and disadvantages. Judith Lave and colleagues conducted a series of focus groups with employees at large firms in two cities to determine their attitudes and concerns about having their health insurance chosen by their respective employers. They found that in general the focus-group participants preferred to have

some choice among plans but did not want to go out into the market to shop for insurance themselves. Their reasons included lack of individual bargaining power, loss of the advocacy role of the employer, and complexity of the market. However, this study relied on large-firm employees; large firms are better able to play each of these roles than are small firms, and, as noted in our simulations, large firms will generally be preferred by their employees precisely because of their substantial cost advantage. The same concerns would generally be much less for employees of small firms, for whom individual insurance is close to being cost-competitive. J.R. Lave et al., "Changing the Employer-Sponsored Health Plan System: The Views of Employees in Large Firms," *Health Affairs* (July/August 1999): 112–117.

4. M. Pauly and B. Herring, *Pooling Health Insurance Risks* (Washington: AEI Press, 1999); J. Gruber, "The Incidence of Mandated Maternity Benefits," *American Economic Review* 84, no. 3 (1994): 622–641; and L. Sheiner, "Health Care Costs, Wages, and Aging: Assessing the Impact of Community Rating," Working Paper (Washington: Federal Reserve Board of Governors, 1994).
5. Pauly and Herring, *Pooling Health Insurance Risks*. Although more than a decade old, the 1987 NMES is the best available data on household demographics, health status, and insurance premiums. Although some initial data from its successor—the 1996 Medical Expenditure Panel Survey (MEPS)—have been released, its insurance component containing premium data is not scheduled to be released until 2000.
6. Since much of this coverage is self-insured, it is difficult to find an accurate large-sample measure of administrative costs actually incurred. Much of the "data" actually consist of estimates from consulting firms about what they think costs "typically" are—a procedure certain to understate reality.
7. *Best's Aggregates and Averages* (Oldwick, N.J.: A.M. Best Company, 1995), 183. The underwriting loss is often offset by interest earnings, but the net profit still appears to be "normal" at best.
8. NAIC data used here are largely from commercial health insurers and exclude most health maintenance organizations (HMOs) and some types of specialized indemnity insurance. However, the data also include a small amount (less than 10 percent) of disability insurance and long-term care insurance.
9. A guaranteed renewable policy is a contract under which an insured person has the right to continue the policy in force by the timely payment of premiums, while the insurer can only change premiums by policy class, not by individual insured persons. A noncancelable policy is a contract that the insured person can continue in force by the timely payment of premiums and for which the insurer cannot unilaterally change any contract provision of the policy, including premium rates. Both types of features usually terminate when the insured person reaches a certain age.
10. J. Finsinger and M. Pauly, eds., *The Economics of Insurance Regulation: A Cross-National Study* (New York: St. Martin's Press, 1986), 73.
11. It would only be rational for low risks to drop coverage as they near the age at which they will become eligible for Medicare, since Medicare's premiums are the same for all risk levels. See M. Pauly, A. Nickel, and H. Kunreuther, "Guaranteed Renewability with Group Insurance," *Journal of Risk and Uncertainty* (July/August 1998): 211–221.
12. S. Harrington and G. Niehaus, *Risk Management and Insurance* (New York: Irwin McGraw Hill, 1999). Other reasons for this failure are possible as well; see M. Pauly, H. Kunreuther, and R. Hirth, "Guaranteed Renewability in Insurance," *Journal of Risk and Uncertainty* (March 1995): 143–156.
13. Pauly and Herring, *Pooling Health Insurance Risks*.