

**Private supplemental health insurance:  
retirees'demand**

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## Private supplemental health insurance: retirees' demand

Running title: "*Private health insurance: retirees' demand*"

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### **Abstract:**

In France, private health insurance, that supplements public health insurance, is essential for access to health care. About 90% of the population is covered by a private contract and around half of them obtain their coverage through their employer. Considering the financial benefits associated with group contracts compared to individual contracts, we assume that the switching behaviors vary among different beneficiaries during the transition to retirement. Indeed, despite a 1989 law, the gap in premiums increases at retirement between group and individual contracts affords the opportunity to study the marginal price effect on switching behaviors. In this study, we consider the nature of the contract prior to retirement (compulsory or voluntary membership group contract and individual contract) as an indirect measure of the price effect. We focus on its role and check for a large number of individual characteristics that may influence the new retirees' health insurance demand.

**Keywords:** private health insurance, retirement, switching behavior.

***JEL classification:*** D12, G22, I19

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# Private supplemental health insurance: retirees' demand

## 1. Introduction

Numerous studies have already been carried out on health insurance demand. They show dramatic differences in measures of price elasticities depending on the overall health care organization and more precisely on the existence of a social health insurance, but depending also on data available and on the econometric method used.

Based on data collected on US families in a Rand Health Insurance experiment, Marquis and Phelps (1987) estimated at  $-0.6$  the price elasticity (defined by the change in enrollment of full supplementary insurance resulting from 1% increase in premium). More recent studies carried out in US provided measures of price elasticity which range from  $-1.8$  (Royalty and Solomon, 1999) to  $-0.2$  (Feldman, 1989). Buchmueller and Ohri (2005) used data concerning employees and new retirees in a medium size US firm to estimate the price elasticity of health insurance demand. The authors estimated at  $-0.16$  the price elasticity taking into account both the change over time in the employer's involvement in the payment of the premium, and the employee's seniority in the firm. In Germany, Schut et al. (2003) estimated price elasticity of market shares between 1996 and 2001 and found that it was quite high:  $-2.90$  and increasing over time. Using data from a complete panel of all German health insurers active between 2001 and 2004, Tamm et al. (2007) applied a range of econometric techniques to model the dynamic process. Their results appeared to be quite closely related to those of Schut et al. (2003). In Switzerland, Frank and Lamiraud (2006) have examined consumer responses to price differences by considering the annual switching percentage that appears to have been quite stable since 2000, at around 3%. Recent international comparisons of five countries which have a social health insurance system with health plan choice point out that switching rates are higher in Germany (5% in 2000) and Switzerland (from 2% in 2000 to 4% in 2002) than in Belgium ( $<1$  before 2000 but reaching 2.5% in 2003), the Netherlands or Israel ( $<1\%$  in these two countries) [Laske-Aldershof et al. (2004)]. These authors explain the higher rates by three main factors: first, the nature of the basic insurance, which may offer a possible deduction level (in Switzerland); second, the potential monetary gains of switching, which depend on the differences between premiums (larger in Germany or Switzerland than in other countries); and, last but not least, the level of competition, which depends on the size of the market, and in Germany and Switzerland the level of market concentration is relatively low. Nevertheless, analyses of individual responses to premium differences in competitive health insurance markets show a stark contrast between actual market outcomes and the theoretical results that might be expected based on standard models of consumer demand and competitive markets. Different explanations have been explored to understand this phenomenon. First, there are limitations on consumers' rationality [Samuelson and Zeckhauser, (1988)] and on their ability to opt for efficient contracts in highly competitive health insurance markets. Moreover, Frank and Lamiraud (2006) have shown that a broader range of contracts, meaning more competition, might be inefficient as the available information for the consumer becomes unreadable, thus decreasing the consumers' responsiveness to differences in premiums. This has to be considered in addition to well-known transparency problems in the context of health insurance<sup>1</sup>. The health insurance market is always regulated and sometimes a significant part of the benefits package is standardized across private operators (95% in Germany). Second, as emphasized by Laske-Aldershof et al. (2004), the trade-off between switching cost and expected benefits depends on the overall organization of the health system. More than describing individual choice, market outcomes describe the reality of the situations faced by the consumers. The choice of the insurer as well as the choice to purchase or not a supplemental health insurance contract may be free or restricted. For instance, in the context of a compulsory group contract, individuals choose neither the operator nor the warranties of the contract. As there are different types of switching costs (suspension period, additional premium for late enrollment, etc.)<sup>2</sup>, the monetary benefits may appear quite low compared to the total cost. Another

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<sup>1</sup> Beaulieu (2002) studied the influence of information quality on consumers' health plan choices.

<sup>2</sup> In the context of HMO, we should add the potential switching cost of the health care provider

barrier to switch from one insurer to another is the provision of an insurance package including health insurance but also provident benefits. Such a type of contracts is quite currently offered by operators in the context of group contracts. This makes it difficult for consumers to compare actually different premiums as things are much more complex to identify the price of each type of warranty.

In the French context, no studies have been yet carried out on the influence of prices on switching behavior. This is probably due to the high complexity of supplementary health insurance added to difficulties to collect the actual prices paid by individuals<sup>3</sup> which makes it difficult to simultaneously control variations in premiums and in warranties. Nevertheless, switching behaviors have already been studied in France through the influence of socioeconomic and health characteristics. Working on a representative sample of the French population, Grignon and Sitta (2003) have evaluated at 12% the annual switching rate in the competitive health insurance market (mobility between different private health insurance operators). The authors consider a quite large number of factors to explain the switching behavior: they assume on the one hand that the choice to switch may be either the result of an individual trade-off or that it may be constrained. Thus, they showed that the switching behavior appears to be motivated as much by individual characteristics such as age, education, state of health, etc. as by circumstances. The authors emphasized in particular the significant role of “a change in the individual social economic status”<sup>4</sup>. These results suggest that switching behavior could be individually concentrated at some period of life such as retirement. This period is currently characterized by a potential income effect due to the decrease in financial resources. Moreover, depending on the way in which individuals obtained private health insurance contract, by his own decision (individual contract) or by his worker position (group contract), retirement can be associated to an additional price effect due to the potential increase in premiums. This increase may be the result of the loss both of the employer’s subsidy in the payment in the premium and of the benefit of the pooling risk premium.

Considering the financial advantages offered to workers enrolled in a health insurance group contract, it seems rather coherent to assume that the switching of private supplementary coverage may differ from one type of insured to one other. Thus, switching behavior of new retirees should be explained by the nature of the former contract. In the French context, the difference of magnitude of premiums increases at retirement between group and individual contracts affords the opportunity to study the marginal price effect on switching behaviors. Indeed, the nature of the contract (compulsory group contract, voluntary group contract and individual contract) may be considered as an indirect measure of the price effect. In this analysis, we therefore focus on the role of “the nature of the former contract” (prior to retirement) and check for a large number of individual characteristics that may influence the health insurance demand. Moreover we pay a particular attention to the effect of the type of the private insurer administrating the contract owned prior to retirement.

The rest of the paper is organized as follows. Section 2 describes the context of French private health insurance that supplements the public health insurance. Section 3 describes the data set and the model used. Our results and estimations are presented in Section 4. Finally, we discuss our results in Section 5 and conclude in Section 6.

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<sup>3</sup> As explained later on, in the context of group contracts, a significant share of the premium is directly paid by the employer. Buchmueller (2000) showed that this subsidy is usually considered as a part of the wage, but clearly it changes the burden of the insurance premium in the view of the insured [Currie and Madrian, (1999)] for a survey of the studies on the link between wages and employers’ provision of a health insurance contract.

<sup>4</sup> In-work to retirement, in-work to unemployment, in good health to bad health, and so on.

## 2. Background

In France, health insurance is organized in two parts: public insurance and supplementary private health insurance. Public health insurance is compulsory and universal<sup>5</sup> and funds about 75% of health care expenditures and this share is rather stable over the past ten years. Its contribution is particularly high for hospital care (92%), lower for ambulatory care (66%) and poor for some specific types of care such as eyewear and dental prostheses [Couffinhal and Perronnin, (2004)]. Supplementary private health insurance covers co-payments left by the public health insurance. The share of total expenditures funded by private supplementary insurance might appear rather modest (around 13% of total health care expenditures) even if supplemental private health insurance is nowadays recognized to have a fundamental role in the access to health care. The share of health care expenditures funded by private health insurance is symmetrically very high when the co-payments left by the public insurance are the highest (dental care, eyewear and extra-fees for consultations with certain specialists). This is the reason why nearly 90% of the French benefit from a private supplementary coverage (despite a large heterogeneity across private contracts in terms of warranties provided) and why public authorities have tried since 2004 through a voucher system to favor the access to private insurance for the poor<sup>6</sup>.

There is a highly competitive market for private insurance where individuals and or employers purchase contracts. The French private health insurance market is weakly concentrated. The top ten operators account for hardly 25% of total turnover whereas in the German social health insurance market, for example, this share exceeds 50%. Three types of insurers are active in the French market: *mutuelles* (mutual benefit societies), the historical providers are non-profit organizations mainly offering individual contracts (75% of their turnover) and still having a limited use of risk-rating or risk-selection strategies; provident institutions (PI) are non-profit organizations mostly specialized in compulsory group contracts (80% of their turnover); finally, commercial health insurance companies are for-profit organizations that share their health insurance activities between the individual and group markets (60% of their turnover on individual contracts and 40% on group contracts) and practice a rather strong adjustment on individual risk for individual contracts. The three types of operators differ in many respects: their organizational objectives, the share health represents in their respective overall portfolio and the way they are regulated, etc.<sup>7</sup>

Contracts most often build in the form of menus offering a broad range of warranties are complex and hard to compare. This is partly due to the fact that these contracts supplement public health insurance and concern a part of the overall health risk. They are not standardized even if the 2004 reform defined for the first time a minimal required package, in the context of the *responsible* contract, and in return prohibits the compensation of certain extra-fees (for non compliance to the “gatekeeper” system).

Supplementary health insurance contracts can be purchased either by the individuals themselves or by their employer, who will add it as a benefit to the employee’s salary package (40% of French firms employing 72% of employees offer group contracts). Around half of the insured obtain their coverage through their employer. Usually and whatever the type of the insurer, group contracts offer several advantages compared to individual contracts. On average, the warranties offered are much more generous than the ones available through individual contracts [Couffinhal and Perronnin, (2004)]. This can be explained by a lower degree (or even a lack, in the case of compulsory contracts) of adverse selection on these contracts. Moreover, for a given set of warranties, premiums are lower than those achievable in the context of individual contracts. This is due simultaneously to the employer contribution, which has to finance on average half of the premium [Couffinhal *et al.*, (2004)], to a

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<sup>5</sup> In 2000, the Universal Health Insurance Act changed the public insurance entitlement criteria from professional activity to residence allowing all individuals to benefit from the same rights.

<sup>6</sup> Not poor enough to benefit from the supplementary health insurance coverage provided for by the CMU Act.

<sup>7</sup> See [Buchmueller and Couffinhal (2004)].

community-rated premium (systematically for compulsory contracts and almost systematically for optional contracts) and, finally, to tax exemptions for employees' contributions to the residual premium.

At retirement, former group contract beneficiaries lose all these financial advantages. The "Loi Évin" of 31 December 1989, which was the first main public intervention in the private health insurance market, aimed primarily at limiting "risk selection" and increasing the portability of warranties. For compulsory group contracts, the law requires insurers both to offer the new retiree a contract providing similar warranties to the group contract, and to cap the increase in premiums. In fact, by adding different premium increases due to the loss of group pricing (capped at 50%), and to the loss of the employer's contribution, the premium actually paid by the new retiree can increase by almost 200%. Sharper increases may be observed in the context of voluntary group contracts for which increases in premiums are not regulated by law.

### 3. Materiel and Methods

#### ***Data source and sample construction***

This study is based on the *Health, Health Care and Insurance Survey* (ESPS) carried out between 1994 and 2004 on French individuals covered by the public health insurance program<sup>8</sup>. This survey, conducted on around 20 000 insured individuals, was carried out every year between 1988 and 1997 and became bi-annual in 1998. For each insured individual, in addition to data on the insurance contract, the panel<sup>9</sup> includes standard socioeconomic characteristics and individual indicators of health status.

The period comprises three survey waves during 1994 to 2004 (see Figure 1). Two consecutive surveys for the same household are unequally spaced. In order to select new retirees, we had to choose individuals whose status had changed from in-work to retired between two consecutive surveys. This enabled us to compare their supplementary health coverage just before and just after retirement (with a four-year interval or, less frequently, an eight-year interval). For the sake of simplicity, we talk about switching (or not) of supplementary health coverage at the moment of retirement.

Only subscribers of a private supplementary health insurance contract have been retained as we assumed that switching from one private operator to another is the result of their own decision. Furthermore, because of recoding problems, we excluded individuals who subscribed to several insurance contracts. Finally, the sample displays information on 910 subscribers whose average retirement age is 59. The database provides a wide variety of information for each subscriber, which can be classified in two groups. First, it provides both standard individual information such as age, sex, education, occupation<sup>10</sup> and income, allowing us to compare income before and after retirement<sup>11</sup>, and information on the subscriber's health. Health is measured by several indicators: the vital risk corresponding to the higher probability of death established on the basis of individuals' response to a

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<sup>8</sup> Three different non-competing health insurance funds catering for the different segments of the labor market constitute the public health insurance system: CNAMTS, for salaried workers, MSA for agricultural workers and the RSI for self-employed workers.

<sup>9</sup> The survey covers data from the same households collected at in average every four years, on average. For the availability of ESPS data, contact IRDES [www.irdes.fr](http://www.irdes.fr)

<sup>10</sup> The retirement date corresponds to the last wave in the survey in which the individuals in our sample were in employment.

<sup>11</sup> Taking into account household income adjusted for inflation, we build a variable to apprehend the change in income experienced during the transition to retirement: "same income", "higher income after" and "lower income after"

statement on a 6-point Likert scale i.e. “no essential risk” to “a definite poor prognosis” and defined as an 80% probability of death within five years; disability based on potential chronic illnesses resulting in a permanent handicap determined by an 8-point Likert scale answer i.e. “no impairment” to “permanently bed-ridden”; and, last but not least, the perceived health status based on the individual score from “very poor health” (0) to “excellent health” (10). Second, the database gives information on the insurance contract that supplements the public health insurance coverage such as the nature of the former and the last contract (compulsory, voluntary group contract or individual<sup>12</sup>), the type of private operator (mutual benefit society, provident institution, insurance company), the residual co-payment after reimbursement by private insurance, and the individual assessment of the warranties provided by their insurer, particularly for specialist care: “poor opinion” of payments, “fair opinion”, “good opinion”.

We analyze the role of all those factors in the decision to switch from one insurer to another. Due to the nature of the dataset, we have had to disregard the decision to switch from one contract to another provided by the same insurer, and thus to underestimate the total switching rate. Table 1 describes the 910 individuals in the sample in terms of available variables. Table 2 describes more accurately switching behaviors depending on the type of insurer administrating the contract prior to retirement.

### **Method**

We use a probit model to estimate the probability of switching of providers. Taking into account that the nature of the former contract may generate quite large ranges in increase in premiums at retirement, we have to estimate the switching behavior by controlling effects that are not directly linked to the nature of the contract. Thus, we consider the binary variable  $y_i$  defined by  $y_i = 1$  if the individual switched and  $y_i=0$  otherwise.

$$P(Y_i = 1 / Z_i, X_i, \Delta R_i) = \alpha + \beta \cdot Z_i + \gamma \cdot X_i + \delta \cdot \Delta R_i + \varepsilon$$

where  $Z_i$  represents the nature of the contract (compulsory, voluntary or individual);  $X_i$  and  $\Delta R_i$  represent controls variables:  $X_i$  is a vector of individual characteristics (education, age of retirement, retirement wave, type of provider, individual assessment of payments for specialist care, public fund, public co-payment exemption and vital risk) and  $\Delta R_i$  represents the variation of income: “same income”, “higher income after” and “lower income after”. The standard error  $\varepsilon$  is assumed to follow a cumulative normal distribution.

In the sample, almost 22% of individuals benefit from a compulsory group contract, 25% from a voluntary group contract and 49% from an individual contract. Table 3 provides summary statistics about switching rates according to the nature of contract.

Thus, the model allows us to estimate the individual probability to switch from one insurer to another through the estimation of the parameters ( $\alpha$ ,  $\beta$ ,  $\gamma$  and  $\delta$ ). We compute these estimated probabilities to calculate the mean probabilities for the different groups defined by our variables, every thing else being equal. Finally, we analyze the magnitudes of the differences in mean probabilities to understand the differences in switching behavior.

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<sup>12</sup> We rank health insurance contracts of state employees among individual contracts due to their non-binding nature and the employer’s non participation in financing the premium.

## 4. Results of the estimation

Table 4 presents the results deduced from the probit regression estimations. All factors being equal, the switching probability is significantly higher for subscribers of group contracts than for those of individual contracts: 13% higher for retirees formerly covered by a voluntary group contract and 21% higher for those previously covered by a compulsory contract. It is interesting to note that among group contract subscribers, the switching behavior is much more frequent for those insured through a collective mandatory membership.

The switching behavior depends on the type of provider: the part of individuals who still subscribe to the same type of provider (prior to and after retirement) is very high for mutual benefit societies (94%) and much lower for provident institutions (73%) and commercial insurance companies (68%) (Table 2). Thus, everything else being equal, the probability that a retiree formerly covered by a commercial insurance company will switch is 26% higher than in the case of a retiree formerly covered by a mutual benefit society.

It appears that health status prior to retirement has a significant impact on the switching behavior. Subscribers in very poor health (high vital risk) have a lower probability (-10%) of changing from one provider to another compared to very healthy individuals (zero vital risk). Note that our model did not highlight other significant effects of health indicators such as "disability" and "perceived health status".

Due to the gap until 2002 between public compensation provided by the two public health insurance funds, the CNAMTS and the RSI<sup>13</sup>, policyholders covered by the RSI relied more in their private insurance to access to the health care system than policyholders covered by the two other public funds (CNAMTS and MSA). These results are consistent with our intuitions, as individuals covered by the main public funds, the CNAMTS, have a much higher probability (+13pts) of switching from one private insurer to another.

Finally and more surprisingly, no variation in income appears to have an impact on the switching behavior.

## 5. Discussion

We have emphasized that, in line with our assumptions, switching behavior depends strongly on the nature of the contract held prior to retirement. The estimated switching rate is significantly higher for group contract holders than in the case of individual contracts (respectively 21pts and 13pts higher in the case of compulsory and voluntary group contracts than in the case of individual group contracts). Given the various financial benefits available for employees enrolled in a group contract, retirement may lead to potentially higher increases in premiums. This is because the loss of the pooled pricing, added to the loss of the employer's subsidy generates a sharp rise in premiums. The difference in estimated switching behavior between people insured through a group contract and those with individual contracts is due to a rational reaction of individuals faced with this rate increase, and reflects the theoretical concept of a price effect.

We have also highlighted different switching behaviors within the population insured via group contracts: the probability of switching from one provider to another is much higher in the case of compulsory membership (+21pts vs. individual contracts) than in the case of voluntary membership (+13pts). This result cannot be explained only in terms of differences in premium variation. Whereas for voluntary contracts employers do not have to finance a share of the premium, average levels of

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<sup>13</sup> Until 2002, public co-payments left by the RSI were higher than the ones left by the two other public funds i.e. the CNAMTS and the MSA. Note that most of the individuals not covered by the CNAMTS are beneficiaries of the RSI.



participation are similar for the two types of group contract: 49% of cases for optional group contracts compared to 52% in the case of compulsory contracts [Couffinhal et al., (2004)]. Whereas providers managing voluntary contracts do not have to apply group pricing, it appears that almost all providers operate on the basis of this type of pricing, since only 4% of them adjust their pricing for individual risk [Couffinhal et al., (2004)]. Thus, there is no reason to believe that the magnitude of the increase in premiums is on average different between compulsory and voluntary membership contracts. It follows that the switching behavior cannot be explained only by the direct effect of the rise in premiums. These results can alternatively be understood in terms of degree of substitution effect and income effect. The Income effect involves a negative effect on the well-being of policyholders since it translates into a rationing of cover, while substitution effect is neutral since it is simply a question of adjusting the level of cover to the needs of the individual. Less frequent switching decision among voluntary contract-holders can therefore probably be ascribed to a weaker substitution effect, due to the freedom of choice offered by these contracts. In fact, their final decision (to opt or not for the voluntary contract) represents a rational choice of the optimal coverage already based on cost and personal needs (utility). People covered by a compulsory contract do not have this option. Therefore, even though the average level of cover for compulsory contracts is high, this cover is not necessarily tailored to the care requirements of retirees who may prefer a higher level of cover for hospital care and a lower level for optical or maternity care. However, note that the difference in switching behavior between policyholders' covered by a compulsory contract and those covered by a voluntary contract is not statistically significant, which probably stems from a lack of statistical power.

It is interesting to note that switching rates are highly dependent on the type of insurer prior to retirement: 25% of retirees initially covered by a mutual benefit society have switched compared to 43% in the case of a provident institution and 55% when the insurer was a commercial insurance company. Two classes of switching behavior are highlighted by our results and presented in table 2: the first behavior corresponds to switching from one insurer to another of the same type – in other words, switching for instance from one commercial insurance company to purchase another contract administrated by another commercial insurance company; the second behavior of the new retiree corresponds to switching from one insurer to another of a different type – for instance, from a commercial insurance company to purchase another contract administrated by a mutual benefit society. The share of individuals that still purchase a contract from the same type of provider (prior to and after retirement) is very high for mutual benefit societies (94%). This proportion is lower for provident institutions (73%) and commercial insurance companies (68%). Moreover, switching to the same type of provider is more frequent among people covered by a commercial insurance company (33% compared to 22% for members of a provident institution and 20 % for mutual societies). The lower switching rate estimated among people previously covered by a mutual society is consistent with results presented above. Actually, mutual benefit societies concentrate a large part of their activities on individual contract supply (75% of their turnover) and the individual contract-holders are those who switch the least from one provider to another at retirement. However, this explanation does not hold for commercial insurance companies that provide mainly individual contracts (60% of their turnover), which actually demonstrates the greatest level of mobility. Finally, provident institutions which predominantly provide group contracts (80% of their turnover) have intermediate mobility rates, whereas the holders of group contracts are those who most often change supplementary health coverage at the moment of retirement. Finally, the fact that policyholders covered by a commercial insurance company before retirement had changed their insurer more frequently than those previously covered by a mutual benefit society and by a provident institution may be summarized in two main switching behaviors: first, frequent changes to other types of providers (and particularly to mutual benefit societies), which may reflect that policyholders anticipate less favorable premiums over time, due to a closer link between price and risk in a commercial insurance company; and, second, greater mobility within commercial insurance companies, which may illustrate more competition between insurance providers, resulting from a broader range of level of coverage for this type of provider (Martin-Houssart et al., 2005).

We have also noted that, all other factors being equal, people who have experienced a reduction in their resources on retirement do not change provider more frequently, which suggests that income may not play a significant role. This unexpected result may be a consequence of the approximate and irregular method for monitoring income over the course of time, leading to the creation of increasingly broad income bands, and to no available information.

We have observed that the most highly educated people have a lower probability of changing provider. This result, contradicting the fact that the most educated individuals have easier access to information, is in line with those obtained in general population studies (Grignon and Sitta, 2003). However, the impact of a high level of education on the ability to read or understand the information, in order to be able to compare contracts, does not really hold in the case of retirees.

Finally, note that individuals who have no public co-payments mainly because of a long-term disease (ALD) do not adopt a particular switching behavior. However, this type of classification (ALD) may reflect a relatively deteriorated state of health. This result can be explained by the fact that public insurance coverage can significantly restrict the additional risk characterizing these individuals, placing them in the private insurance market in a comparable situation to other retirees, despite observed "poor" health. Likewise, the invalidity score and health have also been tested as indicators of health status. However, they have no respectively measurable effect. In fact, only the vital risk prior to retirement has a significant impact: individuals with a high vital risk, that is, a high risk of dying, have a lower probability (-10 percent) of changing supplementary cover than individuals with a zero risk. Although these results are interesting, they are not very robust.

## 6. Conclusion

The results of our study show that switching behaviors from a private health insurer to another one are relatively frequent during the transition to retirement, since an average of one retiree in three decides to switch. Compared with the estimated switching rates on samples of the general population, it appears that the change in status in the labor market is a major cause of mobility in the market for private health insurance. Far from being contradictory to earlier work, our results confirm the findings of Grignon and Sitta (2003). Retirement is a key period where the effects of both income and insurance premiums accumulate. Thus, the effects of a lower direct income combine with a potentially steep increase in insurance premiums, which themselves result in the addition of price effects and income effects.

We also show that switching behaviors cannot be explained only in terms of the addition of different price effects. The switching behavior adopted by retirees formerly covered by a group contract depends on whether the membership was compulsory or voluntary. For comparable levels of premium increases, the individuals who had compulsory group contracts change more frequently than others and probably take advantage of the transition to retirement to build up a set of insurance policies that suit them better. Those who already had the possibility of freely choosing to subscribe or not before their retirement are less likely to change at retirement. Hence, the lower switching rate observed.

Our study is limited in some respects. The main one is the consequence of our data: we underestimate mobility as we consider only inter-company mobility. We have no data on intra-company mobility, meaning that we know only that an individual from one private insurer switched to another one, but we have no information on the contract itself. Thus, we are not able to identify the cases where a new retiree continues to subscribe with the same insurer while changing the contract or set of warranties. Likewise, without any information on the content of the contracts, a more qualitative analysis of the demand for insurance is excluded. Yet the contracts are characterized by their heterogeneity, and subscription to a supplementary health insurance policy is not always a guarantee of access to all forms of health care.

In France, private insurance covers only a segment of the policy-holder's health care: primarily ambulatory, eye and dental care. Hospital care, on the other hand, is almost entirely covered by public health insurance. The question is whether this situation is likely to increase mobility during the transition to retirement. Due to a lower overall risk covered by private insurance, individuals might be expected to be more sensitive to price changes corresponding to a more elastic insurance demand, which should be reflected in higher switching rates. In contrast, if we consider health insurance as a

superior good and since public health insurance covers the most expensive part of the risk, then those individuals who feel 'richer' raise their expenditure share of private health insurance.

Despite the obvious underestimation, in our study 33% of new retirees switched. Our results clearly show that mobility is high during the particular period of retirement characterized by a change in both socioeconomic status and in the risk status due to age. This period may be summarized by the sum of two effects on the new retiree: a "price effect" added to a "revenue effect". In the French context this addition applies only to the private insurance that supplements the public insurance.

New retirees are one of the most mobile population groups in the supplementary health insurance market. Considering the high level of saturation of this market, this group can be an attractive target for insurers. The downside is that new retirees are likely to be in a fragile position due to more difficult access to private health insurance and therefore to the health care system in general.

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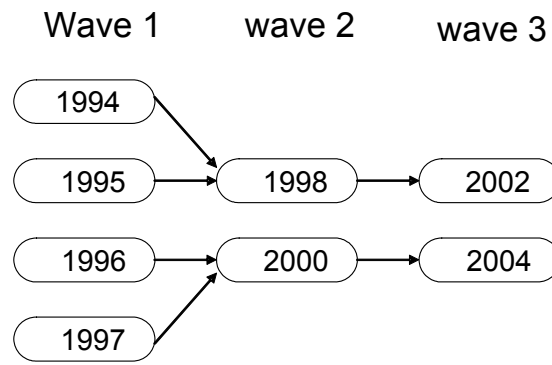
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**Figure 1:** Three survey waves during 1994 to 2004



**Table 1:** description of the 910 retirees

	<b>Number</b>	<b>Percentage</b>
<b><u>total</u></b>	910	100.0
<b><u>Switching behavior</u></b>		
Switch to an insurer to another	303	33.3
No switch to an insurer to another	607	66.7
<b><u>Gender</u></b>		
Male	531	58.4
Female	379	41.6
<b><u>Nature of the former contract</u></b>		
Compulsory membership group contract	201	22.1
Voluntary membership group contract	226	24.8
Individual contract	448	49.2
unknown	35	3.9
<b><u>Type of insurer</u></b>		
Commercial company	177	19.5
Mutual benefit society	609	66.9
Provident institution	124	13.6
<b><u>opinion about benefits</u></b>		
Bad	46	5.1
Fair	123	13.5
Good. excellent	520	57.1
Unknown	221	24.3
<b><u>public fund</u></b>		
Main public fund CNAMTS	496	54.5
other public funds MSA. RSI	414	45.5
<b><u>co-payments</u></b>		
regular co-payments	821	90.2
co-payments exempted	89	9.8
<b><u>age at retirement</u></b>		
before 59 yrs	492	54.1
after 59 yrs	418	45.9
<b><u>Education</u></b>		
high school or lower	691	75.9
higher education	175	19.2
unknown	44	4.9
<b><u>vital risk</u></b>		
none	239	26.3
moderate	444	48.8
high	111	12.2
unknown	116	12.7
<b><u>income variation</u></b>		
increase	146	16.0
no change	314	34.5
decrease	61	6.7
unknown	389	42.8
<b><u>period of retirement</u></b>		
between waves 1 and 2	332	36.5
between waves 2 and 3	362	39.8
between waves 1 and 3	216	23.7

**Table 2:** type of insurer chosen by the retiree according to the one prior to retirement

		Insurer after retirement				Total <i>n=910</i>
		Insurance company <i>n=140</i>	Provident institution <i>n=128</i>	Mutual benefit society <i>n=626</i>	None <i>n=16</i>	
Insurer prior to retirement	Insurance company <i>n=177</i>	<b>68%</b> [33%]†	<b>13%</b>	<b>18%</b>	<b>1%</b>	<b>100%</b>
	Provident institution <i>n=124</i>	<b>5%</b>	<b>73%</b> [22%]†	<b>18%</b>	<b>4%</b>	<b>100%</b>
	Mutual benefit society <i>n=609</i>	<b>2%</b>	<b>2%</b>	<b>94%</b> [20%]†	<b>2%</b>	<b>100%</b>

†: percentages into brackets represent the switching rate within a type of insurer: among the 68% who still benefit from a contract administrated by an insurance company, nevertheless 33% of them switch from an insurer to another.

**Table 3:** Switching rate according to the nature of the contract

Nature of former contract	Subscribers <i>n=910</i>	Switching rate
Compulsory group	201	51%
Optional group	226	39%
Individual	448	23%
Unknwon	35	3%

**Table 4:** Marginal probability of switching behavior

	variation of probability percentage points	significance
<b>complementary health insurance characteristics</b>		
<i>type of contract: individual contract</i>	<i>ref.</i>	<i>ref.</i>
compulsory group contract	21	***
voluntary group contract	13	***
unknown	12	
<i>provider: mutual benefit society</i>	<i>ref.</i>	<i>ref.</i>
commercial company	26	***
provident institution	6	
<i>opinion about benefits: Bad</i>	<i>ref.</i>	<i>ref.</i>
fair	3	
good, excellent	-3	
unknown	2	
<b>public health insurance characteristics</b>		
<i>Main public fund CNAMTS</i>	<i>ref.</i>	<i>ref.</i>
other public funds MSA, RSI	-13	***
<i>regular co-payments</i>	<i>Ref.</i>	<i>ref.</i>
co-payments exempted	1	
<b>individual characteristics</b>		
<i>age at retirement: before 59 yrs</i>	<i>ref.</i>	<i>ref.</i>
after 59 yrs	3	
<i>high school or lower</i>	<i>ref.</i>	<i>ref.</i>
higher education	-10	**
unknown	6	
<i>vital risk: none</i>	<i>ref.</i>	<i>ref.</i>
moderate	-5	
high	-10	*
unknown	-8	
<i>income variation: increase</i>	3	
<i>no change</i>	<i>ref.</i>	<i>ref.</i>
decrease	4	
unknown	-3	
<b>period of retirement</b>		
<i>between waves 1 and 2</i>	<i>ref.</i>	<i>ref.</i>
between waves 2 and 3	-3	
between waves 1 and 3	12	***
<p><b>The results of the model (<math>\alpha</math>, <math>\beta</math>, <math>\gamma</math> and <math>\delta</math>) are available upon request.</b></p> <p>Effect of each characteristic on the dependent variable is given as percentage points with regard to the reference (Ref). [***], [**], and [*] indicate that the effect is significant at the 1% level, 5% level and 10% level. ns indicates no significance at these levels.</p>		