Report Prepared for the North Carolina House Oversight and Reform Committee

By Jonathan (Jon) Murphy, Ph.D.
Assistant Professor of Economics, Nicholls State University[1]
Thibodaux, LA 70301

Purpose:

The goal of this report is to understand why North Carolina has so many drivers in the North Carolina Reinsurance Facility (NCRF) relative to the rest of the nation and what effects reforms may have on this rate and on all drivers in North Carolina.

Findings:

Using South Carolina as a case study, I find that North Carolina could accomplish the goal of reducing the number of drivers in the residual market with relatively little cost through specific legislative reforms. Depending on the path taken by the North Carolina General Assembly, the number of drivers in the residual market could quickly fall toward the national average of 0.8 percent. Further, I predict that legislative reforms would likely have the effect of reducing the growth rate of premiums for North Carolinian drivers, although different groups of drivers stand to benefit more than others.

This process would not be without costs. Reducing the size of the residual market in North Carolina may come at the expense of jobs in the NCRF. As the share of drivers in the residual market falls, and thus the demand for the NCRF's services, fewer workers may be required. Additionally, some North Carolina drivers, specifically those who are high-risk but not currently in the Facility, may see their premiums rise in the near-term, depending on the reforms taken by the legislature.

[1] Affiliation provided for identification purposes only. This report was not conducted in the routine course of my duties at Nicholls State University, and nothing in this report should be taken as the opinion of, or endorsement by, the College of Business Administration, Nicholls State University, or the State of Louisiana. All opinions are my own, and I am solely responsible for any errors.

I wish to stress there is no magic bullet. The reforms discussed would help, but North Carolina may still remain above the national average. Geography, density, and meteorological issues may still result in a higher-than-average number of drivers in the residual market. These are factors beyond the control of the General Assembly.

Background:

In any insurance market, there will be some percentage of individuals who are very high risk. In a voluntary market, these individuals may not be willing or able to pay a premium high enough to cover the risk they present to insurers. However, since most states require drivers to have insurance, these high-risk individuals face the possibility of being excluded from much economic activity without insurance. To solve this problem, state regulators can assign high-risk drivers to insurers, or a pool of insurers, and require these insurers to cover them. This involuntary market is known as the residual market. Drivers in the residual market are covered but face substantially higher premiums.

The precise operation of residual markets varies from state to state. The primary method of organizing the residual market is through an Assigned Risk Plan (ARP). In an ARP, high-risk drivers are proportionally distributed among the insurers of the state based on the number of policies they underwrite. For example, if an insurance company underwrites 10 percent of the policies in a state, they are assigned 10 percent of the high-risk drivers.

North Carolina is one of two states who operate a Reinsurance Facility, the other being New Hampshire. A reinsurance facility is an unincorporated, non-profit entity where risk is distributed among the participants in the facility. The North Carolina Reinsurance Facility was created in 1973, replacing an assigned risk plan. All automobile insurance providers in the state must participate in the NCRF. North Carolina requires an insurer to accept an insurance policy, but the insurer can choose to either hold onto the policy (and reap the potential profits or face the losses) or cede the policy to the Facility (and thus forfeit any profit from the policy but also not face the risk of loss). The risk of loss is distributed among the insurers in the Facility. No one insurer faces the entire burden of the risk, but no insurer profits from the ceded policy either. In theory, the lack of potential profit should discourage insurers from ceding too many policies to the Facility.

In order to keep the Facility non-profit (as opposed to negative profit), the General Assembly amended the NCRF's operations in 1979 to allow insurers to cede some "clean-risk" policies. Clean-risk policies are those where the driver has had at least two years of driving experience, with no traffic violations or at-fault accidents on their record. These policies, which are typically profitable, can be ceded to the facility to balance out high-risk losses. Drivers outside the Facility pay an additional fee to cover any remaining losses in a year.

Currently, approximately 25 percent of North Carolina drivers are insured through the NCRF. This is the highest percentage of drivers in a residual market in the United States. Massachusetts, the state with the second-largest percentage of drivers in the residual market, has about 10 percent of drivers in its residual market. The national average is approximately 0.8 percent of drivers in a residual market.

A large share of drivers in a residual market is an indication of unaffordable insurance within a state. Having a policy ceded to the NCRF is costly for both drivers and the Facility. For drivers, their premiums are 35 percent higher than non-NCRF drivers. Naturally, we should expect drivers in a high-risk pool to pay a higher rate than drivers in a low-risk pool, but these premiums are higher than policies for similar drivers in the voluntary market. For the Facility, these policies are expensive given the NCRF currently operates at a loss; the 35 percent higher premiums do not appear to be high enough to cover the risk of this pool. Because of the fee to offset operating losses, drivers outside the facility also pay more.

What is it about North Carolina drivers that results in so many being in the NCRF, and what can be done to fix it?

Discussion:

For this report, I examined the case of South Carolina. South Carolina faced a similar situation to North Carolina in the 1990s. South Carolina had a high number of drivers in the residual market in the 1990s, topping at 40 percent of drivers in 1992. Similarly, South Carolina managed the residual market through an institution known as the South Carolina Reinsurance Facility.

South Carolina is also a proper comparison to North Carolina because its geographic location indicates similar patterns of weather, culture, geography, and other elements that can affect driving conditions. Insurance reform in other states, for example Arizona, would be less helpful as there may be unique variables that influence the number of drivers in the residual market that North Carolina does not possess. In short, South Carolina gives us the best opportunity to identify the relevant factors.

To address the large number of drivers in South Carolina's Facility, the legislature passed a series of reforms to both their insurance rules and the rules governing the Facility. The key reforms in terms of impact for the purpose of this study are:

1. Moving from a "prior approval" requirement to a "flex rating" system for rate hikes
2. Adding a disclaimer on insurance policies about how much of drivers' premiums were supporting the South Carolina Reinsurance Facility and how different driving behavior landed drivers into the Facility

3. Phasing out the Facility over three years

4. Increasing restrictions on the number and type of policies insurance companies could cede to the Facility, prior to phasing it out

5. Removing most limits on Facility rate increases

6. Phasing out the Facility over three years, first to a Joint Underwriting Authority, then to an Assigned Risk Plan system by 2003.

Research by Martin Grace (Temple University), Robert W. Klein (Georgia State University), and Sharon Tennyson (Cornell University) in 2013 found that these reforms reduced the size of the residual market in South Carolina from 40 percent in 1992 to 0.014 percent (that rate has not significantly changed through 2022). Additionally, the reforms led to increased competition among insurance providers and lower premiums for South Carolina drivers (even high-risk ones).

Legislative reforms passed in South Carolina in 1997 and phased in between 1998 and 2003. Taken as whole, these reforms had the desired effect of reducing the number of drivers in the residual market. In 1997, approximately 30 percent of South Carolinian drivers were in the residual market. That number was virtually unchanged in 1998, as the reforms were beginning. By 1999, however, when most of the reforms were underway or announced, approximately 10 percent of drivers were in the residual market. By 2003, when the final reforms were fully implemented, the share of South Carolina drivers in the residual market was *below* the national average. Since 2003, South Carolina has had a below-average share of drivers in the residual market.

Additionally, South Carolina saw premiums fall for many drivers from the start. Like North Carolina, pre-reform South Carolina required premium increases to be approved by the state. This is known as “prior approval.” Premiums were rising in the 1990s due to increasing claims. In 1999, after the reforms were passed, the South Carolina Insurance Services Office requested an 18.5 percent reduction in premiums. Premiums fell for two main reasons:

1) Falling loss ratios
2) Increasing competition among insurance providers

Smaller loss ratios meant insurance companies earned a higher profit per plan because they had to pay out less. Loss ratios were falling because both drivers and insurance companies now faced an incentive to improve their driving. The incentive for South Carolina drivers is obvious: get out of the residual market and reduce their premiums. For insurance providers, however, the incentive is less obvious. In South Carolina, like North Carolina, insurance providers who participated in the Facility pooled the risk (and reward) for the high-risk policies they serviced. Thus, those providers did not face a strong incentive to reduce driver riskiness. Each provider in the pool would face the costs of trying to change behavior but only enjoy a portion of the benefit (the profit from the premium). Since each provider faced this choice, even if collectively they would enjoy more benefit than cost, individually each faced a cost higher than the benefit they would receive to change driver behavior. Thus, the participants in the pool did not have an incentive to try to reform behavior. In a similar manner, insurers outside of the Facility did not have an incentive to try to reduce the risk of high-risk drivers, as they could take the risk off their books simply by ceding the policy to the Facility.

Post-reform, both drivers and insurance providers faced incentives to reduce risk. With risk no longer pooled, insurers faced the entirety of loss from high-risk drivers. In other words, the cost of insuring those drivers, and the benefits of reducing their riskiness, rose. The insurer now had more incentive to offer safe-driving discounts, monitoring technology, and the like. New behaviors among drivers and insurers in response to the new incentives likely contributed to falling loss ratios.

Falling loss ratios can lead to increased profit if the premium charged stays the same. Further, some feared that the insurance companies would increase premiums as much as possible when South Carolina moved from prior approval to “flex” premium-setting regulations . Unlike prior approval, which requires all premium increases to be approved by the state before they go into effect, a flex system allows premiums to increase up to a certain percentage before state approval is required.[2] Additionally, South Carolina eased premium caps on territorial and age-based criteria, allowing more flexibility for insurers to base prices on risk categories.[3] Initially, profits on insurance transactions did rise. Prior to the reforms, most automobile insurance providers in South Carolina operated at a loss. Between 1999 and 2005, profits did rise, eventually reaching 8 percent in 2005. But over this period, new insurers were entering the market as well. The promise of profit lured new insurers into the state. The increased competition among automobile insurance providers made it difficult for any single provider to increase premiums and maintain an abnormally high level of profit. Insurance providers’ profits eventually approached average levels of return for the region and premiums grew at a slower rate. Over the past decade, premiums in South Carolina have risen 25.5 percent compared to a 43.0 percent increase in North Carolina.

[2] In the flex system South Carolina adopted, large increases (over 7 percent) still had to be approved by the state. Smaller increases (7 percent or less) could occur without state approval.

[3] There are still restrictions on “unfair” discrimination based on race, age, sex, territory, and other factors (South Carolina Code of Laws, Title 38, Chapter 77, Article 1, Section 38-77-122). Furthermore, insurers must offer a discount to drivers aged 55+ if they pass a safe driving test.

In absolute terms, South Carolina's premiums remain high compared to both the national average and North Carolina. In 2022, South Carolina's premiums averaged $1,478 compared to $952 in North Carolina. One may worry that the reforms did not have much of an impact on reducing South Carolina's premiums. However, South Carolina has historically had high automobile insurance premiums. One of the reasons South Carolina enacted stricter regulatory control over their rates in the 1970s was to combat high premiums. South Carolina routinely has high rates of deadly automobile accidents. According to the Insurance Institute for Highway Safety, South Carolina has the second highest number of deadly automobile accidents in the nation, adjusting for population. Adjusting for number of miles driven, South Carolina is the highest in the nation, by far: in 2021, South Carolina had 2.08 deaths per 100 million vehicle miles driven. The second highest state, New Mexico, had 1.79 deaths per 100 million miles driven. Thus, while the absolute price of premiums remains high in South Carolina, the relevant metric is the growth rate in premiums; since enacting reforms, South Carolina has seen premiums increase at a much slower rate.

Using the lessons from South Carolina, I argue North Carolina can accomplish the same goal of reducing the drivers in the residual market by following similar steps.

Discussion for North Carolina

Three reforms I think would have the most impact in the shortest time:

1) Restrict the number of policies insurers can cede to the Facility
2) Allow flexible rates by insurers
3) Transition to an Assigned Risk Plan

<u>Ceding Restrictions</u>

For North Carolina, I believe the largest factor contributing to the relatively high number of drivers in the residual market is the fact that there is no limit on the number of policies insurers can cede to the NCRF. Insurers who cede policies to the NCRF do not receive profits from those policies, which is intended to discourage ceding policies. This often works, as many policies can be profitable with premiums that more than cover the expected loss. However, insurance firms have an incentive to cede some "clean-risk" policies to the NCRF. These marginal drivers may be profitable on average given their premiums relative to risk, but they also pose a significant loss risk. A single big claim from a driver in this group could wipe out average profits, especially given rate caps. Consequently, insurance companies face an incentive to shift the burden from themselves to the NCRF by ceding these marginal policies. The incentive problem is well documented in workers' compensation[4] and was also documented in South Carolina's automobile insurance marketplace.[5]

For example, a "clean risk" driver in the Asheville area may have no violations and at least two years of driving experience. But construction along I-26 and the interchange with I-40, could increase this driver's risk of damage from construction claims, increased traffic, etc. Even if, on paper, this individual seems like a safe, profitable driver, the circumstances have changed. The insurance company may reasonably calculate that the risk is too great. Unable to increase the individual's premium for an approved reason, the insurance company may choose to cede them to the NCRF and remove the heightened risk from its books. The individual would not see a

[4] For example, see "Rate Regulation of Workers' Compensation Insurance" by Patricia M. Danzon and Scott E. Harrington, published by the American Enterprise Institute.
[5] See "Effects of Regulatory Reforms in the South Carolina Auto Insurance Market" by Martin F. Grace, Robert W. Klein, Sharon Tennyson in the *Journal of Insurance Regulation*, vol. 32 (2013).

premium increase (clean risks are charged the same inside and outside the Facility), but the insurance company's risk is now lower.

In South Carolina, firms could cede up to one-third of their policies to the Facility without justification. One of the reforms that went into effect right away was increasing the restrictions on the number and types of policies that firms could cede with the deliberate goal of funneling as many drivers back to the voluntary market as possible. As discussed above, that one policy change had dramatic effects: the number of drivers in the residual market went from approximately 30 percent to 10 percent in a single year. Within another two years, South Carolina was at the national average, less than one percent. Tightening restrictions on the number of policies North Carolina insurance companies can cede to the NCRF alone would help reduce the number of drivers in the residual market.

If North Carolina simply tightened restrictions on the number and quality of policies ceded to the NCRF occurs, I expect the number of drivers in the residual market to fall by about half, which would put North Carolina around the level of Massachusetts, but still well above the national average. Adding some rate deregulation would result in a lower share of drivers in the residual market as firms develop ways to encourage safer driving (e.g., defensive driving classes, monitoring technology, etc).

<u>Flexible Rates</u>

Tightening restrictions on ceding policies would be more effective combined with flexible rate setting by insurers and a transition to an Assigned Risk Plan.

South Carolina adopted flexible rate setting among its reforms. It still limits the increase in rates, but under a certain limit the insurer may increase premiums without prior approval. Above that limit, the insurer must seek approval. In South Carolina's case, insurance premium increases of less than 7 percent do not need approval. Increases of more than 7 percent do require approval.

Currently, North Carolina requires automobile insurers receive permission ("prior approval") from the state to increase premiums.[7] Prior approval can prevent sudden and large increases in premiums, but it can also reduce the number of providers in the state.

If Prior Approval remains in effect in North Carolina, the state will likely see higher premiums, contra to the experience of South Carolina. Protected from competition but now facing potentially higher losses due to inflation in automobile repair costs, insurers will ask for higher premiums to cover their risk. If premiums become more flexible and new firms enter the market, insurers will face competition and be forced to reduce risk to remain profitable.

A competitive insurance environment also is key for reducing drivers in the residual market. When rates must be approved, it becomes difficult for firms to enter or exit a market. If insurance rates are kept too low, new firms cannot enter the market because it may not be profitable. While the current rate structure allows for existing North Carolina insurers to earn a reasonable profit, new firms may be priced out of the market, and the current firms can develop market power to entrench their position in the market. If rates are allowed to flex without prior approval, new insurers could enter the market, including insurers who service high-risk drivers. The increased competition would likely lead to lower premiums for most North Carolina drivers

[7] 11 other states also use prior approval: Connecticut, New Jersey, Pennsylvania, West Virginia, Georgia, Alabama, Mississippi, Louisiana, Washington, Nevada, California

as insurance companies search for ways to incentivize safer driving behavior, thus reducing their own risk. Currently, with competition limited and no cede limits, North Carolina insurance companies do not face an incentive to reduce their risk exposure or try to incentivize a change in North Carolina driving habits.

<u>Assigned Risk</u>

Ultimately, closing the NCRF and moving toward an assigned risk plan, thus bringing North Carolina in line with much of the nation,[8] would help reduce the number of drivers in a residual market for the same reason discussed above: it increases the incentive of insurance companies to discover ways to reduce their exposure to risk and encourage safer driving. With the Facility, where risk is pooled, no single provider benefits from reducing risk. An assigned risk plan means each insurer must cover and face the risk of a payout individually, and so is incentivized to find ways to help reduce the risk of its customers.

South Carolina was able to transition from a reinsurance facility to an assigned risk plan quickly and without significant disruption over three years. When the reforms initially passed in 1997, insurers were told that they would be unable to cede policies to the Facility starting on October 1, 1999. Current policies within the Facility could be renewed for up to three years subject to premium increases of up to 10 percent per year, but the Facility was not allowed to take on new policies.

Since the need for residual insurance did not disappear, South Carolina created a Joint Underwriting Association to help transition from the Facility to an assigned risk plan. A joint underwriting association is a halfway step between a reinsurance facility and an assigned risk

[8] New Hampshire is the only other state other than North Carolina that uses a reinsurance facility.

plan. Drivers are assigned to insurers based on the proportion of policies the insurer underwrites, as in an assigned risk plan. Like a reinsurance facility, premiums are paid into a pool and insurance companies pay a pro rata share of losses and expenses of the pool. The goal of transitioning to a joint underwriting association first, then an assigned risk plan, was to prevent sudden disruptions in the market that could have caused the percentage of drivers in the residual market to skyrocket rather than fall. A well telegraphed three-year transition allowed for both insurers and drivers to plan accordingly.

Furthermore, the joint underwriting association was carefully monitored by state regulators. Regulators could review applications of policies designated for ceding to the joint underwriting association. Only drivers who were rejected by at least one insurer were eligible for joint underwriting association plans. Regulators could share these applications with other insurers to see if any would willingly take the policy. In addition, regulators were able to take action against insurers who ceded policies to the Association that could have been covered in the voluntary market.

On March 1, 2003, the joint underwriting association was converted to an assigned risk plan , and the Facility entirely ceased to exist.

A well telegraphed, well communicated, slow transition such as South Carolina's is necessary if North Carolina decides to move away from its Reinsurance Facility. Sudden, abrupt changes can have undesirable consequences and potentially backfire. If there is a sudden change in the market structure, smaller insurance companies may find it difficult to nimbly adjust and consequently go out of business, reducing the number of insurers and possibly increasing premiums or the number of insured in the residual market drastically. In general, rapid changes make it difficult for businesses and individuals to plan. The insurance firms currently operating in North Carolina are structured to operate within the legal and market framework of this state. Suddenly changing the legal and market structures without proper time to adjust would disrupt those firms and could discourage new firms from entering the market.

Effects on Drivers' Premiums

In the short run, some North Carolina drivers may see higher premiums. As some drivers shift out of the residual market and into the voluntary market, the drivers who were relatively high risk but still in the voluntary market would likely face increased premiums as relatively riskier drivers rejoined the pool. In the longer run, however, I expect the growth rate of all premiums in North Carolina would slow, as we saw in South Carolina.

There may be fears that, absent a prior approval system, North Carolina's premiums could rise and approach levels like South Carolina has. This outcome is unlikely, however. As mentioned above, South Carolina has historically had high premiums given an unsafe driving environment: high number of accidents, deadly accidents, etc. All these factors suggest South Carolina drivers are riskier, and thus, insurance companies must charge higher premiums just to cover the risk.

North Carolina, on the other hand, is a much less risky driving environment than South Carolina. North Carolina has less urban density than South Carolina. North Carolina also has relatively few automobile thefts and traffic congestion. These factors naturally lead to lower premiums as insurers do not need to charge as much given lower risks of payouts. In a hypothetical situation where North Carolina dropped prior approval and insurance companies could enter or exit the market more easily, trying to charge higher premiums would be a non-starter for insurance companies. If, for example, an insurance company were to try to charge a low-risk driver a premium comparable to the South Carolina average, other insurance companies in North Carolina would be willing to offer a lower premium to secure the business. Even if all insurers in the state were to collude to try to charge higher prices, new insurance companies could enter the state market and lure those drivers away with lower premiums. In short, I think the driving conditions are sufficiently different between North Carolina and South Carolina to indicate that North Carolina drivers would not see premiums increase toward the South Carolina level.

Inflation is a significant risk to this premium prediction, however. As we have seen over the past few years, automobiles and automobile parts have become very expensive. Consequently, repair costs are rising, putting pressure on insurance company margins. Simply to stay profitable, premiums may have to rise with a general inflationary trend. Inflation is beyond the scope of this report, so I will refrain from offering a prediction here beyond this word of caution.

Conclusion:

The key to reducing the number of drivers in the residual market in North Carolina will be changing the incentives for insurers to cede policies to the Facility and for drivers to drive more carefully. Emulating some of South Carolina's reforms, in particular restricting the number of policies that can be ceded to the Facility and allowing more flexibility for setting premiums, would help reduce the number of drivers in the residual market by changing the incentives for both automobile insurers and drivers.

Any reforms, however, are likely to face economic challenges. The precise nature of these challenges depends on the nature and timing of reforms. Rapid reforms are more likely to cause disruption in the automobile insurance market: premiums would significantly rise for many North Carolina drivers (even with prior approval as more drivers are suddenly in the voluntary market), and automobile insurers would struggle to meet rapidly imposed requirements. Reforms introduced gradually, however, would not cause as significant a disruption as drivers and automobile insurers would have time to plan.

There remain unique challenges that North Carolina faces, however. There are legislative changes that can take place, such as capping the number of cedes and allowing for flexible rates, but there are non-legislative factors as well. North Carolina has a very high instance of drunk driving arrests per capita, ranked seventh highest in the nation. Drunk driving is a significant factor in the insurability of an individual (although not a deal breaker: South Carolina is eighth). Furthermore, North Carolina's unique geography provides many driving risks: Mountain roads in the west can be treacherous and often have low visibility, andcoastal roads in the east can be prone to flooding. North Carolina is also home to several important Interstate highways: I-95, I-40, I-85, and I-26 all carry heavy trucking traffic, increasing risks for North Carolina drivers. The extent to which these factors influence the number of drivers who can only get insurance in the residual market is a question I cannot answer.