Teenage Automobile Accident Rates

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Abstract

The subject of this analysis is the public management issue of high automobile accident rates among teenage drivers in the United States. Adolescents are the cause of many accidents which lead to thousands of injuries and deaths each year. 5,500 young people aged 16 through 20 are killed in car accidents each year. In 2004, 7700 teenagers were behind the wheel in an incident in which someone was fatally injured. In addition, about 450,000 teens are injured every year in accidents, with 27,000 of those requiring hospitalization. This study looks at this problem in detail, and analyzes what policy actions should be taken, if any, from the standpoint of an effective public manager. Alternative policies are presented and evaluated based on the criteria and suggestions are made to the policymakers, and the best policy options are selected. Ultimately, suggested implementation strategies of the alternatives are detailed, and suggestions regarding the analysis and monitoring of the new policies are presented.
Introduction

The facts about teen driving are alarming. Teen drivers are more likely to get into car accidents than any other group of drivers, including the elderly. Their inexperience on the road often leads to more hazardous conditions for themselves, their passengers and other drivers. The accidents that occur can obviously lead to injuries and deaths, which could be avoided by alterations and amendments to policy surrounding the legal driving age, drivers’ education, and drivers’ license requirements. The problem is developing policy that will decrease teen driver accident rates, and increase safety on the road for all drivers. According to Cohen, Eimicke, and Heikkila, “effective public managers try to make things happen; they pursue programmatic goals and objectives by thinking and acting strategically. Effective managers attempt to understand why things are happening and how things can be changed” (2008, p. 33). With regards to this issue, public managers have the task of finding out why teen accident rates are so high, and then discovering actions that can help to lower these rates.

In order to understand the scope and magnitude of this public safety concern, the problem must be described statistically. According to the American Academy of Pediatrics, automobile accidents are the leading cause of death among teens, as approximately 5,500 young people aged 16 through 20 are killed in car accidents each year. In 2004, 7700 teenagers were behind the wheel in an incident in which someone was fatally injured. Of the teens that lose their lives in automobile accidents, about 63 percent are drivers and 37 percent are passengers. Although teens only account for six percent of all licensed drivers, they are the cause of 14 percent of all fatal car crashes, and they account for 14 percent of all fatalities from accidents. In addition to fatalities, about 450,000 teens are injured every year in accidents, with 27,000 of those requiring hospitalization (Pediatrics, 2006). Furthermore, the high accident rates also result in high costs
in terms of vehicle damages and medical bills. This is a public management issue that truly requires policy action.

**Background**

As far as detailing the potential causes of teen auto accidents, much of it is related to inexperience behind the wheel. Clearly, recently licensed drivers do not have the skills and the wherewithal on the road to be able to deal with difficult situations that may lead to accidents. Not surprisingly, the first month after a teen is licensed presents the greatest risk for accidents. Lack of experience is also highlighted by the fact that the crash rate for 16 year olds is almost nine times as great as the crash rate of the general pool of licensed drivers. Furthermore, the crash rate for 16 to 19 year olds is nearly twice that of 20 to 24 year olds, three times that of 25 to 29 year olds, and four times as great as the rate for 30 to 69 year olds (Pediatrics, 2006).

Most of teen accidents are the result of distractions. Statistics show that approximately 87 percent of fatal crashes involving teens were caused by some form of distraction. Cell phone use is one form of distraction which increases the risk of crash by 300 percent; eating at the wheel is another distraction, causing 2 percent of teen crashes (Readersdigest.com, 2009). Time of day is also a factor, as late-night driving also increases the crash risk for adolescents (Simons-Morton, et al., 2005). Fatigue is often a factor in these night crashes, as teen drivers account for 55 percent of fatigue-related accidents (Readersdigest.com, 2009). In addition, drugs and alcohol also play a part in teen accidents, as 12 percent of those fatally injured were under the influence of alcohol from the period between 1995 and 2001 (Pediatrics, 2006). Another interesting statistic shows that teens are more likely to be involved in accidents when other passengers are in the car. In fact, in 2003, 40 percent of 16 year olds who caused fatal one-vehicle crashes had at
least one other teen in the car at the time of the crash. This raises the likely possibility that other teen passengers may cause distractions for teen drivers (O’Donnell, 2005). Young passengers, often siblings of older teen drivers are often victims in auto accident, possibly due to the distractions that they cause. More than half of children ages 8-17 who are killed in auto accidents are in cars with teenage drivers (Winston, et al., 2008).

Other factors, such as race, economic status and gender also have an effect on the likeliness of teens to be involved in accidents. Specifically, studies have shown that minority teens are more likely than Caucasian teens to be involved in fatal car crashes. Additionally, economic standing is also a factor, as teens in lower income communities also have higher accident rates (Juarez, et al, 2006). Gender also plays a role in these accidents, as “teens' risk of dying nearly doubles with the addition of one male passenger... It more than doubles with two or more young men in the car” (O’Donnell, 2005). Also, male teen drivers and passengers are one and a half times more likely to be fatally injured in a car accident than their female counterparts (O’Donnell, 2005).

Furthermore, speeding and other traffic violations play an additional role in teen accidents, as teens are more likely to speed and break other traffic laws than any other age group in the population. In fact 38 percent of males between 15 and 20 that were killed in car accidents were also speeding. Approximately 25 percent of teen girls were speeding during fatal accidents. Also, injury rates are related to the fact that teens have the lowest rates of seatbelt use of any age group. In fact, 58 percent of teens killed in auto accidents in 2004 were not wearing seatbelts (Pediatrics, 2006).
Analysis of the Management Issue

As Cohen et al. assert, “The key to effective management is an active, aggressive, and innovative effort to overcome constraints and obstacles” (2008, p. 33). This type of approach will be necessary when formulating and analyzing policy alternatives. The criteria by which these alternative policies will be evaluated will be related to the goals and objectives of the public managers and decision makers in this arena. The proposed policies should do one or more of the following:

1.) Lower teen automobile accident rates
2.) Lower the likelihood of injuries and deaths in auto accidents caused by teens
3.) Lower monetary costs of automobile accidents caused by teens

The policies can achieve those goals by addressing any of the varying causes of teen auto accidents. As outlined in the problem statement and definition, those causes are quite numerous and are very broad. They are related to inexperience behind the wheel, the time of day and the day of week that teens are allowed to drive, fatigue, drug and alcohol use, and the fact that teens are more likely to speed and break other traffic laws. Additionally, the fact that they are more likely to not wear their seatbelts than any other age group makes them more likely to be seriously or mortally injured in car accidents. Policies may also seek to remove or limit potential distractions such as cell phones, radios, food, and other passengers. Thus, all of these causes should be examined in the evaluative process. Do the proposed policies successfully address any of these causes?

In addition, the policies will be evaluated for political, financial and administrative feasibility. That is, it must be probable and likely that voters and policy makers would be receptive to the proposed changes. How is the political environment in that area of policy in the
region or state? The policies must also be evaluated based on past precedents. Do similar policies exist in some of the states or in other countries? In addition, if the policy will cost money, it must be affordable to the states, governments, taxpayers and citizens (drivers). Furthermore, equity and efficiency will also play a role in the evaluative process. The stakeholders in this case are many: teenage drivers, parents, pedestrians, other motorists, passengers, local governments, local law enforcement officials, and taxpayers. We will have to raise the question: Are some parties punished and or treated unfairly by the policy action in question? Another question that must be raised is: Does the policy proposal efficiently address the issue of car accidents among teens without having other unwanted or undesirable results? Some sort of standard of measures should be developed to help gage the potential effect that the policies will have.

The costs and benefits must be utilized as evaluative criteria. This includes monetary costs, as well as opportunity costs. The benefits must be closely analyzed, as well. It must be deciphered if there are positive benefits that stem from the policy in question. For example, does the policy also reduce the risk of accidents among adults? Or, will the policy make further adults better overall drivers? When costs and benefits are examined, the standing of the individuals and groups that are affected by the policy must be considered. Evaluative questions that must be raised are: Who has the greatest standing? What groups are affected the most: teen drivers, other drivers and passengers on the road, taxpayers, local governments, police officers? Is it important to please all of these players?
Analysis of Alternative Policies

1.) Create a policy to increase the minimum age to obtain a driver's license from 16 to 18 years of age.

Increasing the driving age from 16 to 18 years of age is a viable course of action to attempt to limit teen caused auto accidents. As one study shows: “The part of the brain that weighs risks and controls impulsive behavior isn't fully developed until about age 25, according to the National Institutes of Health. Some state legislators and safety activists question whether 16-year-olds should be licensed to drive” (O’Donnell, 2005). However, if this piece of information were to be followed fully, the driving age should be 25. And, statistics show that drivers in their early 20’s are far safer than those in their teens. This leads us to the possibility that the high accident rate of teen drivers may be tied more to their inexperience than to their underdeveloped brains, (considering that this study shows that these functions of the brain aren’t fully developed until age 25). Thus, raising the driving age may just result in bad drivers ages 18-22, instead of the current 16-20 problem that we currently face. Furthermore, the policy may also be politically infeasible. Although some countries, such as Germany and Britain, have higher legal driving ages, 18 and 17, respectively, American citizens may be a lot less receptive to the idea (O’Donnell, 2005). In Europe, much of the urban areas are transit-oriented, and it is plausible to navigate without a personal vehicle. Most U.S. cities are less walkable and far more car-dependent. Imagine an unlicensed 17 high school graduate trying to find a job without a car in the sprawling metropolis of Los Angeles.

2.) Create a policy that would restrict newly licensed teen drivers from transporting other teens until the driver reaches age 17. The policy would allow room for extreme cases where teens must transport younger siblings to be reviewed on a case by case basis.
Creating a policy to restrict teens from transporting other teens would undoubtedly have a positive effect on the high teen accident rates. This policy is a form of the graduated driver’s license, an approach that has embraced by more than half of the states in the U.S. The National Highway Traffic Safety Administration also supports this concept (Aaseng, 2000). As a study by Jayne O’Donnell states, “in some states, the rules restrict whom teens can transport and when they can drive. Teen fatalities have declined in states with the programs, according to a new report by the insurance institute” (O’Donnell, 2005). In spite of the definite positive outcome of such a policy, this proposal would likely be met with much political opposition. Teens would be outraged by the law, which would basically limit the ability for teens to go out in groups, or hang out with friends. People may tend to feel that such a policy punishes all teen drivers, even the good, responsible ones. Teens would be losing out on a hint of freedom, but overall the policy would help lead to increase safety on the streets and highways. This is a solid policy that should receive serious consideration.

3.) Change provisional requirements for new licensees to require an accompanying adult driver until age 17.

Changing provisional requirements of new licensees to require an accompanying adult driver would in essence change the first two years of a 16 years driving life into a permit-like state. In other words, the first two years of driving would be the same as having a learners’ permit. Thus, this policy would in essence be the same as raising the legal driving age to 17. Such a policy would be met with political opposition similar to that of policy alternative. Although it may produce more experienced, more mature drivers, who have learned from their experienced parents, this policy is politically infeasible.
4.) Increase the intensity, content and curriculum of drivers’ education and drivers training courses for new licensees, regardless of age, by requiring more permit driving hours and drivers training hours. The training should also include a mandatory “close-call” course which would be somewhat of an obstacle course designed to help them avoid accidents.

Requiring more permit hours and drivers’ training hours is a solid policy alternative that definitely deal with the issue of teen drivers being accident prone. This policy attacks one of the root causes of teen accidents, which is their inexperience on the road. Requiring more driving hours before they are licensed will give them more time to familiarize themselves with streets, highways, and difficult driving conditions. More time behind the wheel will allow them to develop better reaction time, and allow them to experience difficult driving decisions. The required “close-call” course, which would take place with professional safety precautions, is an important addition to the policy. This element deals directly with the issue of auto accidents, providing teens artificial but valuable experience behind the wheel which could mean the difference between life and death for the drivers, their passengers, as well as other drivers and passengers on the road. This increased curriculum could give teen drivers the skills they need to avoid accidents, injuries and fatalities on the road. The downside to this policy alternative is the cost. Because there would be an increased amount of hours required for learning drivers, there would be an increase in cost for driving school, which parents and teens would incur. In addition, driving schools would have costs related to providing the additional curriculum, including the fees to set up and design the “close-call” courses. This policy option is politically feasible since it does not limit drivers once they are licensed; rather it seeks to deal with the issue before they are licensed. In spite of the cost, taxpayers and citizens would likely be willing to support the policy even if the states need tax money, because this involves and issue of safety on the road.
5.) Create a policy to increase restrictions to new teenage drivers: drivers would be allowed to drive only under the supervision of an accompanying adult after 9pm every night, and on weekends until they reach the age of 18.

A policy developed to limit teen drivers from driving unsupervised on the weekends and at night would basically take away two time intervals when teens are the most prone to accidents. Because of the high rate of accidents during these times, requiring parents to accompany teens while driving is a good option, in theory. However, statistics showed that adding additional drivers, regardless of age, may cause a distraction for teens. Thus a curfew, limiting teens from driving at all during the nights and weekends may have a greater effect on reducing the teen accident rate.

6.) Create a policy that would restrict teens from driving after 9pm and would also restrict them from driving on weekends until they are 18.

This is similar to the previous alternative in that it seeks to address the issues of night time driving and weekend driving. Many cities already have laws that restrict teens from being out past certain hours (Truly, 2005). As hinted, this policy is likely to be more effective in dealing with the issue of accident rates because it completely prohibits teens from driving during these high risk times. However, some may argue that restricting teens from driving after 9 until they are 18 will only delay the problem of inexperienced night time driving. At age 18, when they are finally allowed to drive at night, they will be unfamiliar with those situations, perhaps causing the same problems of inexperience. Furthermore the severity of the restriction makes it a prime candidate for much political opposition. Furthermore many parents and citizens in general may object, citing cases where teens are much needed to drive during these times to help with other
siblings, help run errands, or even to commute to work or other activities. This alternative would likely be met with too much political opposition to be passed.

7.) Create a policy that would increase and elongate the on-the-road drivers’ license test, requiring more precision in order to receive a license.

Creating a more rigorous, longer on-the-road drivers examination would likely intimidate teens into being more prepared drivers. In addition, such a requirement would allow the DMV testers to take a closer look at the potential licensed driver, and it would allow themselves to answer important questions: Does this driver really have what it takes to avoid potential danger on the road? Does this driver seem mature enough behind the wheel to make important decisions regarding the safety of his passengers and other drivers on the road? However, requiring longer drivers’ tests would result in some potentially negative outcomes, such as increased costs related to the extra DMV employees needed to handle drivers’ tests. This could also lead to longer lines at the DMV, and the thought of that would lead to much political opposition from the public. Furthermore, the fact that a teen performs well on a longer drivers’ exam does not mean that they would be better prepared on the road. Someone may drive well when a DMV employee is watching, but still chose to break traffic laws that can end in catastrophe. For this reason, this alternative may not be a viable one.

8.) Create a policy that would lower the drivers permit age to 14 years, in order to allow and require new teen drivers to obtain more driving experience under the supervision of adults before they are able to apply for a drivers’ license.

Lowering the drivers’ permit age to 14 is a policy option that seeks to deal with the issue of inexperience on the road. With more practice behind the wheel, under the supervision of an adult, teens may be more apt to deal with the pressures and difficulties that driving can cause.
This option may be met with a lot of political opposition. Many people will think that age 14 is too young to drive, considering that the voting age is still 18, and the drinking age is 21. In spite of the inevitable political opposition, I think this policy option should be explored simply because of the maxim “practice makes perfect.” The more that teenagers are able to practice behind the wheel, the better drivers they will become.

9.) Create a policy that would increase the penalties for providing drugs and alcohol to minors, making it a federal felony to do such, and increasing jail time and fines. The creation of a policy that requires more severe penalties for criminals who provide alcohol and drugs to minors would likely help to deter individuals from doing such. This policy aims to deal with the role that drugs and alcohol play in teen car accidents. In addition, it deals with the issue of teen drinking and drug use, in general, which is a major problem in itself. This is a viable alternative with a potential positive impact extending beyond the arena of teen accidents.

10.) Create a policy that would increase the penalties for drivers under the age of 21 who receive moving violations, setting minimum fines at $1000, or equivalent community service where appropriate. The increase of fees and penalties for moving violations would be aimed at deterring teens from breaking traffic laws. As outlined in the problem statement, teens are more likely than other group to break traffic laws. This fact makes them more likely to cause accidents. Thus this policy deals directly with the causes of many teen accidents and subsequent fatalities: speeding, cell phone use, and failure to wear seatbelts. It would likely result in a decrease in teen accidents, as teens would be more likely to obey the laws, knowing the steeper consequences. The policy would be met with some political opposition on the grounds of equity. Some would argue that
teens are being treated unfairly. However, the fact that this policy deals with the issue of making teens safer drivers make this a feasible alternative.

11.) Create programs and commercials that highlight the reality of high teen accident rates and the risks of teen driving.

As Cohen et al. point out, “the mass media is often the public manager’s most effective method of communicating with the public” (2008, p.291). This alternative could be quite useful in targeting low income and minority teens in particular. The following is a suggestion from Juarez, et al.:

Safe driving campaigns should consider using a range of engaging delivery media such as foreign language radio stations and other non-traditional media outlets to reach the widest audience. For urban African American youth, this may mean using hip-hop music, advertising, youth websites, and text messaging as potential media for getting the message out. In rural areas, by contrast, strategies might include use of billboards, flyers, and talk radio.

There would be some monetary costs associated with this policy, such as money needed for ad campaigns, pamphlets and videos. However, this is an important and politically feasible option that should definitely be considered as an alternative.

12.) Create policy and programs that will encourage parents to be more active in teaching their teens driving skills, and related life skills, even after they are licensed.

Creating programs and commercials to get parents more involved in the lives and driving experiences of their teen motorists is another feasible policy alternative. Studies have proven the importance of parents’ involvement in their children’s lives on many different arenas. As Timothy C. Smith asserts, “kids are not just observing, they’re actually following [their parents]
behavior” (2006, p. 18). According to a study completed by the Insurance Institute for Highway Safety, there is a clear connection between teen driving habits and their parents. For example, teens whose parents had three or more traffic violations over the last five years were 38 percent more likely to be cited for violations than teens whose parents had no violations. Additionally, each parental crash results in a 7 percent increase in teens’ crash rates, and each traffic violation results in a 13 percent increase in a teen’s likelihood of being in an accident (Smith, 2006). This policy also deals indirectly with a number of the causes of teen automobile accidents including the issue of teen drinking and drug use. When parents are aware of and being to be more involved in their teens’ activities and whereabouts, the likelihood of teens being involved in drinking or drug use, especially in connection with driving, greatly decreases. One study completed in Southern California shows that children who stay at home unsupervised have alcohol drinking rates that are twice as high as those who are supervised more frequently (Aaseng, 2000). In addition, parents may develop written or unwritten agreements with their children, outlining rules for driving once they receive their license. When these rules are broken, parents should limit or take away their driving privileges. Parents have a sort of parallel with public managers, as they must be concerned with effectively communicating with their teens in order to set the rules of what is acceptable and what is not. As Phillip g. Clampitt states, “communicators who fail to understand the probabilistic nature of interpretations may encounter serious difficulties” (2005, p. 24). One such program that seeks to include parents more in the process of teen driving is the Checkpoints program by encouraging parents to impose restrictions on their children’s driving privileges. “The Checkpoints Program is designed to increase parent limits on novice teen independent driving, especially under high risk conditions” (Simons-Morton & Ouimet, 2006). Considering the stakeholders, policy makers and public managers
should partner with interest groups such as Mothers Against Drunk Driving (MADD). As Cohen, et al. state, working with interest groups at the right capacity can be highly beneficial to public officials.

**Conclusion**

The alternative policies presented here are very diverse in terms of their approach and scope. They all seek to address some of the causes of high rates of teen automobile accidents. Some seek to address traffic laws and penalties, some to change the driving and permit ages, some to increase parent responsibility, some to limit the freedom of young drivers, some to deal with outside criminals who are partially responsible for teen accidents, while others seek to increase the skill and preparedness of teen drivers.

I recommend that policy alternatives 2, 4, 8, 9, 10, 11 and 12 be implemented. The others are infeasible for a variety of reasons. After the policies are implemented, they must be closely monitored to determine their effect on teen accident rates and traffic safety in general. Thus, teen accident incidents must be closely monitored in the months prior to the policy changes and, they must continue to be monitored in the years following the changes. Some of these policies may take some time to see some effect; however others should create results immediately, if they are to be effective at all. In depth analysis and statistics must be collected, including public opinion polls. Politically, it will be important to gage whether the public feels if the policies are doing more good than harm, and if they are adding to traffic safety at all.

Some of the effects of these policies are overlapping, as some of them attempt to deal with the same causes. For this reason, if the policies are implemented at the same time, it may be difficult to decipher which of the policies are actually having the greatest effect on the accident
rates. Policymakers may consider implementing one policy before the others to see if one or two of the policies are enough to decrease the accident rates without incurring the costs of implementing the additional ones. For example, it may be a good idea to implement Policy 12 first since it is possible that this one may have the greatest effect.

As Cohen, et al. state, one of the rewards of public service and public management is the contribution that one can have towards the common good of society. Public managers in this policy issue can have a direct positive impact on the general public by increasing traffic safety for all drivers and passengers under the jurisdiction of the law. Effective policy in this arena can potentially save thousands of lives each year, and effective public managers will always be relied upon in the field of transportation to keep the roads and highways as safe as possible.
References


