

Vehicle Fatalities in Delaware (Policy Analysis): Handouts



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Vehicle Fatalities in Delaware

DAY 1

This week-long activity is designed to reinforce your learning about professional policy analysis, using a topic about which you may be unfamiliar. You will work through the various stages in the process and produce a policy analysis memo for the Governor. Most all of the information you need for this activity is already compiled.

Setup: Split into assigned groups of 3-4 students. Designate one person in your group to be the notetaker and one person to be the time-keeper.

Part 1: Brainstorming the problem (20 minutes)

Review the Motor Vehicle Crash Deaths fact sheet for Delaware from the CDC, available at: <http://www.cdc.gov/motorvehiclesafety/statecosts/>

1.1. What is the problem described in the fact sheet? Who is affected? How does Delaware compare with other states?

1.2. Why is it a problem? (consequences)

1.3. What do you think are the key causes of the problem? (consider both root and proximate causes)

Note: I recommend you draw a causal model for your use throughout this exercise.

1.4. Who do you think are the key stakeholders? How would you initially align them on a map?

High power; unsupportive	High power; supportive



Lower power; unsupportive	Low power; supportive
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Unknown support:

1.5. Together, draft 1-2 paragraphs that describe the problem (with causes, consequences) and the relevant stakeholders in a shared google doc. Use clear, concise, policy-maker friendly language.

Part 2: Assessing the evidence (25 minutes)

Open the fatalities.xlsx file on Canvas. It includes tabs with data on motor vehicle fatalities across states and within Delaware specifically, up to the most current year of data available (2014). The data are from the Fatality Analysis Reporting System (FARS) published by the National Highway Transportation Safety Administration (NHTSA). Specific webpage sources are included at the top of each tab.

2.1. Compare the fatality patterns you see in graphs 1 and 2. Which indicator do you think is preferable to inform your problem description? Why? Additional indicators are available in the tab DE-trend.

---Add to your problem statement at least 1 reference to the extent of the problem in Delaware now, and at least 1 reference to how that problem has changed over time.

2.2. How do Delaware's motor vehicle fatalities compare to fatalities in other states (tab: states-fatal)? How might you use this information in your problem description?

--Add a reference to your problem statement if you think it is important.

2.3. Review the trends of fatalities for vehicle occupants by vehicle type (graph3) and for non-motorists (graph4). What information do you find relevant here for your problem description? The source data are in the tab DE-persons.

---Add to your problem statement at least 1 reference to the types of persons killed in motor vehicle crashes in Delaware now, or over time.

2.4. Review the trend in fatalities by age group in Delaware (graph5). Do you see any important patterns? Look closely at the trend for teens (16-20 years). Do you have any ideas for what might



explain these trends? What might you need to research to support your ideas? The source data are in the tab DE-age.

2.5. One common concern with fatalities is drunk driving. Review the trend in fatalities by alcohol involvement (of at least 1 driver; graph6). How much does drunk driving contribute to fatalities in Delaware? The source data are in the tab DE-alcohol.

--Add to your problem statement at least 1 reference to drunk driving in Delaware.

2.6. Another common concern with fatalities is the extent to which drivers and passengers are using seat belts at the time of the crash. Review the trend in use of restraints in Delaware (graph7). What patterns do you see here? What information does this add to your understanding of the problem? The source data are in the tab DE-restraints.

2.7. A third possible concern with fatalities is the extent to which weather or light conditions may have compromised the abilities of the drivers to avoid accidents. Review the information in the DE-light tab; do you think weather or light was an important factor in crashes in recent years?

--Add a reference on conditions to your problem statement if you think it is important.

2.8. Although more recent official crash data is not yet available from the NHTSA, the state of Delaware published crash data for Jan-Apr 2015 and 2016, in tab DE-2016YTD (YTD = year to date). It is hard to make sense of this information as it is not for a complete year, but what information does this suggest about the problem in Delaware?

2.9. Review your problem statement for coherence and logic. Note any places where you need to find additional information. Divide up research, writing, or editing tasks among your group members to do for homework.

COMPLETE TO THIS POINT BEFORE DAY 2



Vehicle Fatalities in Delaware

DAY 2

Part 3: Recap (5 minutes)

3.1. Review the information that you gathered for homework. Has your understanding of the problem changed at all? How?

3.2. Which causes or consequences of the problem do you think are most important to address with policy?

Part 4: Establishing the base case (30 minutes)

The Centers for Disease Control and Prevention (CDC) identified 14 policy interventions that were found to be *cost-effective* at reducing death and injury from motor vehicle accidents. (Their primary measure of cost-effectiveness is the benefit-cost ratio.) Information on each intervention is available at: <http://www.cdc.gov/motorvehiclesafety/calculator/factsheet/>.

The CDC indicates that the state of Delaware currently has seven of these 14 interventions:

- Primary Enforcement of Seat Belt Laws
- Bicycle Helmet Law for Children
- Automated Red Light Enforcement (Camera)
- Sobriety Checkpoints
- Alcohol Interlocks
- License Plate Impoundment
- Vehicle Impoundment

4.1. Review the descriptions of each intervention to be sure that you understand generally what each policy does: <http://www.cdc.gov/motorvehiclesafety/calculator/factsheet/>

4.2. Open the fatalities2.xlsx file in Canvas. Review the DE-interventions tab. This table indicates the effectiveness of the 14 interventions by the annual reduction of fatalities and injuries (in orange), the annual benefits from reduced injuries (in blue), the annual costs to implement (in purple), the fines and fees generated by the policy (in brown), and the net benefits



and benefit-cost ratio of the interventions (in green). Note that the fines and fees are not included in the net benefits or benefit-cost ratio calculations, as they are a direct transfer of money from the individuals to the government.

4.2.1. What can you say about the effectiveness and efficiency of the currently adopted interventions?

4.2.2. Are there any current interventions that you might recommend be dropped? Why? Why not?

4.3. Together, draft a paragraph on the current policy in place in Delaware to address the problem that you identified (i.e., explain the base case).

Part 5: Identifying alternatives (10 minutes)

5.1. Seven additional interventions could be adopted within the state. Which of these interventions address an important cause or consequence indicated in your problem statement?

- ☐ Increased seat belt fines
- ☐ Seat belt enforcement campaign
- ☐ Speed camera
- ☐ Motorcycle helmet law
- ☐ Saturation patrols - for DWI enforcement
- ☐ Limits on diversion/plea bargains - for DWI offenders
- ☐ In person license renewal for older drivers

5.2. Based on the information in the DE-interventions tab, which of these interventions seem most worth exploring further? Why?

--Draft a few sentences explaining the policy alternatives that you will be evaluating further in your analysis. You should only indicate now what the alternatives are and how they address the problem (review your causal model).

5.3. Divide up the alternatives among your group members for further investigation as homework.

Part 6: Homework

6.1. Review the description of your assigned policy intervention from 5.3 at <http://www.cdc.gov/motorvehiclesafety/calculator/factsheet/>. Then review the cost-effectiveness information on that intervention in the DE-interventions tab of fatalities2.xlsx. Do you think the intervention would be a good option for Delaware? Why or why not?

6.2. Do you have any concerns about the feasibility (political, administrative, technical) of your assigned intervention? Why? Would you drop the intervention from consideration for feasibility reasons, or for any other reason?

--You may consider distributional equity as part of political feasibility.

6.3. Write a few sentences describing the projected outcomes of your policy intervention if adopted in Delaware, and add them to the shared google doc.

COMPLETE TO THIS POINT BEFORE DAY 3



Vehicle Fatalities in Delaware

DAY 3

Part 7: Making a recommendation (50 minutes)

7.1. Review the information you gathered for homework with the group.

7.2. Prepare an outcomes matrix with highlights from your analysis. Consider the trade-offs across criteria, and be sure to compare the outcomes of the alternatives to the base case.

7.3. Compile any additional evidence from other sources that you think you need to complete your analysis.

7.4. Which of the interventions do you think the state should adopt based on your research and its connection to your problem statement? Why? What specifically should the Governor do?

7.5. Together, finish your memo describing your recommendations -- if any -- for policy action to reduce motor vehicle fatalities in Delaware. Explain the expected effectiveness, efficiency, and feasibility of your recommendations as compared to the base case. Include any additional information you would want the Governor to know about your analysis or recommendation.

--Proof-read your entire document.

--Add a memo heading with your names, date, and an action-oriented subject line.

--Share your completed google doc with me, if you have not already, and rejoice in a job well-done!

END HERE DAY 3 -- FINISH BEFORE [[[insert date/time]]]

