

## RECOMMENDATIONS – ARIZONA DRIVER LICENSE MANUAL

### SUMMARY

Most of the topics considered to be best practice already appear in the Arizona manual. The few exceptions are denoted with a double asterisk (\*\*) in Table 4. More frequent, however, are best practice topics that appear in the Arizona manual but would benefit from expanded coverage and/or a more logical, reader-friendly location in the text. Additionally, a few topics of importance to drivers are addressed in the *Customer Service Guide* portion of the publication and could be overlooked by individuals learning to drive or preparing to take the licensure test. Consequently, we believe that a revision of the overall organization of subject matter in the Arizona driver license manual would achieve the following:

- ▶ Presentation of the material in a logical order corresponding to contemporary driver education curricula
- ▶ Greater emphasis on critical knowledge items
- ▶ Improved driver awareness and comprehension of the driving process as a whole, involving anticipation of and strategic responses to risk and safety threats to oneself and to other drivers.

At the request of ADOT, this report contains an Arizona driver license manual prototype (Appendix C). Because the original art files for the publication were not available to us, the prototype was created using Adobe Acrobat PDF files, which reduce the image quality of both text and graphics.

It is important to note that this prototype provides a general reorganization of the current Arizona manual based on best practices in content and editorial organization of subject matter. Where text relevant to the topic exists in the current manual, it was simply moved, in whole, to the appropriate general section of the prototype. No editorial reworking of the text was done for the prototype, since that would extend far beyond the scope of this research project.

Nor does the prototype represent a recommended graphic treatment or design for the manual. In fact, it is our belief that the Arizona driver license manual – and its users – would benefit greatly from a graphic redesign of the publication. Included below are recommendations related to the overall graphic treatment of the manual, aimed at improving communication and comprehension of the material.

## SUBJECT MATTER CONTENT AND ORGANIZATION

Specific recommendations are presented below in the same order as the topics appear in Table 4.

- ▶ Identification of major sections by number and title, and revision of Table of Contents accordingly.
- ▶ Creation of a brief “Before You Drive” section that highlights the critical tasks drivers should complete before driving.

New topics/tasks to be included are:

1. Driver adjustment of the seat and mirrors for the best view of the area around the vehicle.
2. Locking the vehicle doors
3. Dependent on whether the vehicle is equipped with both driver and passenger airbags and whether children are being transported, the driver should confirm that children are positioned so as not to be injured if the airbags should inflate. Additionally, the driver should grip the wheel in a manner that will not trap his or her hands under an inflated airbag.
4. Driver should make a quick confirmation that the vehicle’s signals and lights are clean and in working order, and that the windows and windshield are sufficiently clean for good visibility.

Existing topics/tasks to be included are:

1. Occupant protection topics (child car seat safety, seatbelt law) to be relocated here from pages 20–21 in the *Customer Service Guide*.
  2. Vehicle equipment information from page 31 of the manual, along with vehicle dimension information currently on page 30 of the manual, placed here in a newly created subsection, “Required Vehicle Equipment.” Considerable space can be saved by handling these as bulleted items rather than the way they now appear, as full paragraphs under headings. This treatment will also minimize the repeated discussion of seatbelts and child safety seats while acknowledging their importance among an itemization of required vehicle equipment.
- ▶ In Section 2, “Safe Driving Practices,” under “Positioning Vehicle,” the current Arizona manual cites a two-second following distance as sufficient under normal circumstances. It is strongly recommended that this distance be changed to three or four seconds, as discussed in the findings from the literature review.

Discussion of the cushion of space principle and the need to avoid blind spots have been moved to this section as well.

- ▶ In Section 2, “Safe Driving Practices,” under “Entering and Crossing Traffic,” it is suggested that brief discussions be added on ensuring clearance ahead before crossing or entering traffic. Also in this section, brief discussions should be added on two

items related to safely crossing the path of oncoming vehicles – (1) waiting for an unobstructed view and (2) not “trusting” the display of a turn signal by the oncoming vehicle – since these are important contributing factors to intersection safety.

- ▶ In Section 2, “Safe Driving Practices,” under “Parking & Exiting Parking Spaces,” it is suggested that a brief statement be added to the introductory paragraph recommending that drivers always lock their cars when leaving them. Currently, this recommendation is made only within the “Emergency Parking” topic.
- ▶ In Section 2, “Safe Driving Practices,” under “Special Tips for Freeway Driving,” it is suggested that a brief explanation of the purpose of entrance ramp signals be added as a new topic.
- ▶ In Section 3, “Rules of the Road,” under “Right-of-Way Laws,” the existing topic of red light running (currently addressed on page 54 of the manual) has been included under “Intersections.” While it could also be appropriately discussed elsewhere in this same section, red light running has been identified as a significant factor in intersection safety and we believe the primary discussion should be handled in that context.

In its current location in the manual (page 54), red light running is addressed with other “driver improvement” topics, most of which relate to DUI violations. Unless one is specifically seeking information on penalties for driving infractions, particularly DUI-related penalties, the information on red light running is easily overlooked. Furthermore, the research indicates that most drivers know that red light running is “wrong,” but do not consider it a serious crime, and therefore, would be unlikely even to seek out information on its penalty unless already cited. Thus, in this location within the manual, the material on red light running forfeits whatever educational and preventive value it might have. In addition to moving the material as suggested above, we also suggest that its potential preventive value be strengthened by broadening the discussion to include not only the financial and license suspension consequences of red light running for the violator, but also a brief discussion of its deadly nature and the consequences for other drivers and pedestrians, etc.

- ▶ In Section 3, “Rules of the Road,” under “Speed Limits,” a new task is suggested – encouraging drivers to monitor their own adherence to speed limits by checking their speedometer from time to time. Also recommended is addition of a brief discussion of special speed limit areas, including construction zones and school zones. An “Other” category was included because it was unknown to the researcher whether Arizona designates additional special speed limit areas, such as for elder care facilities. If this is not the case, the topic should naturally be deleted from the best practices list.
- ▶ In Section 3, “Rules of the Road,” under “Traffic Controls,” it is suggested that two sign examples be added. The first is a warning sign example for “Lane Drops/Merges,” as it is used frequently and should become readily recognized by drivers. (It is also suggested that an example of the corresponding pavement markings

be included in that section as well.) The second is the all too frequently ignored school zone speed limit “at all times” sign. Inclusion of only general school zone signs may suggest to drivers that the “at all times” is not treated seriously.

- ▶ In Section 3, “Rules of the Road,” under “Pavement Markings & Use of Lanes,” it is suggested that a new topic, pedestrian crosswalk markings, be displayed and explained. While adherence to the markings may not prevent intersection crashes, driver understanding of the markings should nevertheless be considered a knowledge requirement to be addressed in the driver manual, and drivers should be encouraged to respect the meaning of these markings with regard to pedestrian safety.

As noted above, it is also suggested that a graphic example be provided of the pavement markings denoting the dropping or merging of a lane.

The existing topics of reversible lanes and two-way turn lanes are addressed on page 40, under “City Driving,” while the topic of reserved lanes is only partially addressed with a mention of the HOV lane restrictions on page 41 under “Freeway Driving.” (We consider the topic only partially addressed because bicycle lanes, which are also considered reserved lanes, are not discussed at all – and, of course, could not appropriately be discussed under “Freeway Driving.”) There is some merit in these subsections directed at a particular driving environment. However, we believe that novice drivers in particular would benefit from being able to find all similar information (e.g., lane usage and controls) in a single area, since their awareness level of specific differences between city and freeway driving (other than speed limits) may be somewhat limited.

Consequently, it is recommended that the topics of reversible lanes and reserved lanes both be addressed under “Pavement Markings and Use of Lanes.”

- ▶ In Section 3, “Rules of the Road,” under “Turns,” it is suggested that the topic of U-turns be added, describing the law (if applicable) or guidelines concerning safe and appropriate U-turn locations and circumstances. Currently, the depiction of the No U Turn sign on page 26 is the only mention of U-turns contained in the manual.
- ▶ In Section 5, “Actively Avoiding Accidents,” under “Use of Alcohol and Other Drugs,” it is suggested that the “It’s Tough to be Young” section addressing youthful drivers on page 21 of *the Customer Service Guide* portion be moved into the driver manual itself with other information on the same topic. While we have no evidence on this issue, we suspect that youthful drivers are more likely to be interested primarily in the driver manual and less in the Guide – unless the information were placed on the same page as information about testing facilities. Additionally, combining the information eliminates repetition of the topic and saves space.

## GRAPHIC TREATMENT

- ▶ Undertake an overall graphic redesign of the driver license manual. This redesign should encompass not only a reorganization of the text but also increased use of graphic elements to clarify and illustrate complex concepts, thereby improving reader comprehension of those concepts.

Accompanying this report is a prototype manual that can be used as the basis for reorganization of the content.

The current manual makes use of color and point size to indicate hierarchy of headings and subheadings – presumably to eliminate the wasted space associated with starting new sections on new pages. However, the frequency of subheadings – sometimes as many as eight on a page, and many of which are followed by a single paragraph – distract the reader, and the distinctions by color and point size are too subtle for most readers.

As the text is consolidated and reorganized, the designer can make use of numerous graphic elements to enhance clarity and readability and increase comprehension of the material. Examples include the use of bulleted lists, call-outs, and boxed items to group related text, as well as additional graphic representations to illustrate difficult concepts.

It is also recommended that the two components of the combined publication be reversed – that is, place the driver manual in front, followed by the customer service guide.

- ▶ As part of the overall redesign, create a new external cover for the combined *Guide and Manual*:
  1. Include “Arizona” or “State of Arizona” in the title, e.g., “Arizona Driver License Manual and Customer Service Guide.”
  2. Develop a cover design aimed at “humanizing” the manual, communicating its function as an information guide about driving, and giving it an identity that Arizonans can make a connection with. As an example, our prototype cover design incorporates close-up shots of drivers and passengers representing Arizona’s primary age and cultural demographic segments.
- ▶ A smaller-sized manual, such as 5 ½” by 8 ½”, is likely to be more convenient for the user, since it fits easily in a purse, glove compartment of car, etc. ADOT may likewise find a smaller size manual beneficial, since it would require smaller display racks in facilities and smaller storage space for inventory. It is recommended that ADOT look into production costs to determine whether economic benefits are associated with reducing the size of the Arizona manual to 5 ½" x 8 ½" or similar.
- ▶ The Hispanic population of Arizona represents 25.3 percent of the entire state population (U.S. Census 2000). In addition, according to the Pew Internet &

American Life Project, the three-state region referred to as the Border States (Arizona, New Mexico, and Texas) are tied with California for the largest proportion of Hispanic Internet users in the country (21 percent of the nation's Internet users).

Therefore, it is recommended that ADOT update the Spanish translation of the manual to correspond with the current update of the English-language version, and add the Spanish-language version to the ADOT website to be accessed online in the same manner as the English-language version.

- ▶ Finally, because of the high accident rates among novice teen drivers, it is suggested that ADOT undertake additional research to examine the views of teens and their parents regarding a specialized manual directed at them – what would make it most helpful, topics it should address, suggestions for activities involving parent and teen interaction, etc. Should ADOT decide to produce this specialized version, it may wish to seek out an appropriate organization or agency to co-sponsor and share production costs of the publication.