

recommends changing the field of vision standard from 70° to 120°, while leaving the visual acuity standard unchanged. (See Frank C. Berson, M.D., Mark C. Kuperwaser, M.D., Lloyd Paul Aiello, M.D., and James W. Rosenberg, M.D., "Visual Requirements and Commercial Drivers", October 16, 1998, filed in the docket, FHWA-98-4334.) The panel's conclusion supported the FMCSA's (and previously the FHWA's) view that the present standard is reasonable and necessary as a general standard to ensure highway safety. The FMCSA also recognizes that some drivers do not meet the vision standard, but have adapted their driving to accommodate their vision limitation and demonstrated their ability to drive safely.

The 33 applicants fall into this category. They are unable to meet the vision standard in one eye for various reasons, including amblyopia, retinal and macular scars, and loss of an eye due to trauma. In most cases, their eye conditions were not recently developed. All but seven of the applicants were either born with their vision impairments or have had them since childhood. The seven individuals who sustained their vision conditions as adults have had them for periods ranging from 6 to 40 years.

Although each applicant has one eye which does not meet the vision standard in 49 CFR 391.41(b)(10), each has at least 20/40 corrected vision in the other eye and, in a doctor's opinion, has sufficient vision to perform all the tasks necessary to operate a CMV. The doctors' opinions are supported by the applicants' possession of valid commercial driver's licenses (CDLs) or non-CDLs to operate CMVs. Before issuing CDLs, States subject drivers to knowledge and performance tests designed to evaluate their qualifications to operate a CMV. All these applicants satisfied the testing standards for their State of residence. By meeting State licensing requirements, the applicants demonstrated their ability to operate a commercial vehicle, with their limited vision, to the satisfaction of the State. The Federal interstate qualification standards, *i.e.* the FMCSRs, however, require more.

While possessing a valid CDL or non-CDL, these 33 drivers have been authorized to drive a CMV in intrastate commerce, even though their vision disqualifies them from driving in interstate commerce. They have driven CMVs with their limited vision for careers ranging from 3 to 40 years. In the past 3 years, one of the drivers has had a conviction for a traffic violation—speeding. Five drivers were involved in

an accident but did not receive a citation.

The qualifications, experience, and medical condition of each applicant were stated and discussed in detail in the December 12, 2002, Notice. Since there were no docket comments on the specific merits or qualifications of any applicant, we have not repeated the individual profiles here. Our summary analysis of the applicants is supported by the information published at 67 FR 76439.

Basis for Exemption Determination

Under 49 U.S.C. 31315 and 31136(e), the FMCSA may grant an exemption from the vision standard in 49 CFR 391.41(b)(10) if the exemption is likely to achieve an equivalent or greater level of safety than would be achieved without the exemption. Without the exemption, applicants will continue to be restricted to intrastate driving. With the exemption, applicants can drive in interstate commerce. Thus, our analysis focuses on whether an equal or greater level of safety is likely to be achieved by permitting each of these drivers to drive in interstate commerce as opposed to restricting him or her to driving in intrastate commerce.

To evaluate the effect of these exemptions on safety, the FMCSA considered not only the medical reports about the applicants' vision, but also their driving records and experience with the vision deficiency. To qualify for an exemption from the vision standard, the FMCSA requires a person to present verifiable evidence that he or she has driven a commercial vehicle safely with the vision deficiency for 3 years. Recent driving performance is especially important in evaluating future safety, according to several research studies designed to correlate past and future driving performance. Results of these studies support the principle that the best predictor of future performance by a driver is his/her past record of accidents and traffic violations. Copies of the studies have been added to the docket. (FHWA-98-3637)

We believe we can properly apply the principle to monocular drivers, because data from the vision waiver program clearly demonstrate the driving performance of experienced monocular drivers in the program is better than that of all CMV drivers collectively. (See 61 FR 13338, 13345, March 26, 1996.) The fact that experienced monocular drivers with good driving records in the waiver program demonstrated their ability to drive safely supports a conclusion that other monocular drivers, meeting the same qualifying conditions as those

required by the waiver program, are also likely to have adapted to their vision deficiency and will continue to operate safely.

The first major research correlating past and future performance was done in England by Greenwood and Yule in 1920. Subsequent studies, building on that model, concluded that accident rates for the same individual exposed to certain risks for two different time periods vary only slightly. (See Bates and Neyman, University of California Publications in Statistics, April 1952.) Other studies demonstrated theories of predicting accident proneness from accident history coupled with other factors. These factors—such as age, sex, geographic location, mileage driven and conviction history—are used every day by insurance companies and motor vehicle bureaus to predict the probability of an individual experiencing future accidents. (See Weber, Donald C., "Accident Rate Potential: An Application of Multiple Regression Analysis of a Poisson Process," Journal of American Statistical Association, June 1971.) A 1964 California Driver Record Study prepared by the California Department of Motor Vehicles concluded that the best overall accident predictor for both concurrent and nonconcurrent events is the number of single convictions. This study used 3 consecutive years of data, comparing the experiences of drivers in the first 2 years with their experiences in the final year.

Applying principles from these studies to the past 3-year record of the 33 applicants receiving an exemption, we note that the applicants have had only five accidents and one traffic violation in the last 3 years. The applicants achieved this record of safety while driving with their vision impairment, demonstrating the likelihood that they have adapted their driving skills to accommodate their condition. As the applicants' ample driving histories with their vision deficiencies are good predictors of future performance, the FMCSA concludes their ability to drive safely can be projected into the future.

We believe the applicants' intrastate driving experience and history provide an adequate basis for predicting their ability to drive safely in interstate commerce. Intrastate driving, like interstate operations, involves substantial driving on highways on the interstate system and on other roads built to interstate standards. Moreover, driving in congested urban areas exposes the driver to more pedestrian and vehicular traffic than exists on interstate highways. Faster reaction to traffic and traffic signals is generally