June 28, 1998

IMSA TRAFFIC SIGNAL TEST RESULTS

Now that we have had some experience with the new Traffic Signals Level II course and exam, I thought it might be a good idea to summarize test results to date. Sharon Earl of IMSA headquarters in Newark, New York was kind enough to send me the basic test result information and I spent some time summarizing it by month and by section of the country. I then combined the monthly results to obtain total results for the 2-year period from July of 1996 (when the test was first given) thru June of 1998. These results are provided as Table 1.

The overall failure rate is 23%, or slightly more than 1 in 5 persons. This is a reasonable rate and indicates that the test is neither too hard nor too easy.

Since the test was developed by a Florida firm, one might suspect that Florida participants would do very well on the test. However, this is not the case with the failure rate in Florida being 17%, which is only a little better than the overall rate of 23%

It is also somewhat surprising to find that the Canadian sections are doing the best, with failure rates of well less than 10%   Conversely, the area surrounding my home town (Toledo, Ohio) isn't doing quite so well. Maybe because there are so many exciting things to do instead of studying for some boring IMSA test! However, the Tri-State section should be given credit for taking the most tests in the two year period (291), which would indicate strong support for IMSA certification.

A similar analysis was also performed for the new Level I Traffic Signal course and the results are provided in Table 2. The results span the 1-year period from July of 1997 (when the test was first given) thru June of 1998.

The overall failure rate is 14%, suggesting that this test is somewhat easier than the level II test. This is desirable since we would want the entry level test to be a little easier than the more advanced test.

Once again, Florida is towards the middle of the pack with a 10% failure rate, and the Tri-State section has taken the most tests during this one year period (222).

For comparison purposes, an analysis was performed for the old Level I Traffic Signal course and the results are provided in Table 3. The results span the period from July of 1996 thru June of 1997. The overall failure rate for the old Level I test was only 5%, suggesting that the test was much too easy. In fact, during this period, almost half of the sections had no failures at all!

In summary, it appears that the current tests are appropriate and that reasonable failure rates are occurring.

The new courses have much more material than the old courses and this material covers both a wider range of areas and more depth within each area. Essentially, things have gotten tougher, which should make those who have passed the new tests proud of their accomplishment. It's not a walk in the park and one needs to study the material in order to pass the test.

Some have criticized the tests as containing more material than your average signal technician needs to know, especially with respect to engineering and construction issues. In response I would point out that, at some point in their career, many signal technicians are called upon to assist engineers in completing engineering duties or to work on construction teams. They need to know this information.

A really good signal technician is one who not only understands how signals work, but also has an understanding of the principals involved in their planning, design, and construction. A technician who mistakenly grants permission for a contractor to a move a support pole into the clear zone will quickly find out that ignorance of this important engineering concept will not protect him or her from liability.

I am currently finishing-up the traffic signal inspection course for IMSA and I expect that this test will be even tougher than the Level II test, with a higher failure rate. Given the important safety and cost implications of improperly constructed traffic signals, I don't think we would want it any other way.

TABLE I
NEW TRAFFIC SIGNALS LEVEL II
Test Results Summary
July 1996 thru June 1998

Section	Taken	Fail	% Fail
Southern NY	2	0	0%
Ontario	102	3	3%
British Columbia	16	1	6%
Midwest	175	13	7%
Far Western	59	4	7%
New England	48	6	13%
Empire State	16	2	13%
Florida	182	31	17%
Middle Atlantic	48	8	17%
Northwest	61	11	18%
Southwestern	55	10	18%
Central (Kansas)	26	5	19%
Southeastern	65	15	23%
Arizona	39	9	23%
Rocky Mountain	25	6	24%
New Jersey	16	4	25%
New Mexico	8	3	38%
Michigan	43	18	42%
Tri-State (OH, KY, WV)	291	125	43%
Indiana	75	37	49%
Overall	1352	311	**23%**

TABLE 2
NEW TRAFFIC SIGNALS LEVEL I
Test Results Summary
July 1997 thru June 1998

Section	Taken	Fail	% Fail
Ontario	25	0	0%
Southern NY	1	0	0%
Empire State	0	0	0%
Midwest	182	8	4%
Southwestern	75	3	4%
Far Western	97	5	5%
British Columbia	38	2	5%
New Mexico	11	1	9%
Florida	136	13	10%
Southeastern	119	16	13%
Northwest	58	8	14%
Arizona	25	4	16%
New Jersey	11	2	18%
Tri-State (OH, KY, WV)	222	43	19%
New England	26	5	19%
Michigan	35	8	23%
Rocky Mountain	24	6	25%
Middle Atlantic	123	33	27%
Central (Kansas)	14	4	29%
Indiana	32	12	38%
Totals	1254	173	**14%**

TABLE 3
OLD TRAFFIC SIGNALS LEVEL I
Test Results Summary
July 1996 thru June 1997

Section	Taken	Fail	% Fail
Northwest	53	0	0%
New England	36	0	0%
Indiana	33	0	0%
Midwest	32	0	0%
Rocky Mountain	31	0	0%
Middle Atlantic	26	0	0%
New Jersey	10	0	0%
New Mexico	5	0	0%
Southern NY	1	0	0%
Ontario	102	1	1%
Southeastern	97	3	3%
Tri-State	287	12	4%
Florida	142	5	4%
Southwestern	75	4	5%
Arizona	21	1	5%
Central (Kansas)	16	2	13%
Far Western	54	8	15%
Michigan	5	1	20%
Empire State	17	5	29%
British Columbia	17	6	39%
Totals	1060	48	**5%**