Final Report

Work Order #10, Contract No. BC-355, UCF acct no. 16-50-7018

IDENTIFICATION OF INTERSECTIONS' CRASH PROFILES/PATTERNS

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February 2006

Technical Report Documentation Page

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
4. Title and Subtitle IDENTIFICATION OF INTERSECTIONS' CRASH PROFILES/PATTERNS		5. Report Date January 26, 2006 6. Performing Organization Code
7. Author(s) Abdel-Aty M., Lee C., Wang X., Nawathe P., Keller J., Kowdla S., Prasad H.		8. Performing Organization Report No.
9. Performing Organization Name and Address University of Central Florida Department of Civil & Environmental Engineering Orlando, FL 32816		10. Work Unit No. (TRAIS) 11. Contract or Grant No.
12. Sponsoring Agency Name and Address Florida Department of Transportation FDOT Research Center 605 Suwannee Street M.S. 30 Tallahassee, FL 32399-0450		13. Type of Report and Period Covered 14. Sponsoring Agency Code
15. Supplementary Notes		

16. Abstract

The approach proposed in this research is to identify the crash profiles for the major intersection types based on geometric/configuration and traffic volume factors combination. In other words, there is a need to first identify the different intersection configurations that are present in Florida. Second, associate these configurations with the different traffic volumes on these intersections. Third, analyze these intersections to identify the crash patterns for each type of intersection. The most extensive data collection effort for signalized intersections in Florida has been conducted as part of this project. Geometric, traffic and crash data were collected for 1562 signalized intersections. Crash profiles for 45 different types of intersections based on configuration and traffic volume have been developed. The 45 intersection crash profiles will be very useful to engineers and would serve as a crash profile manual that could be used as reference values that would assist in identifying intersections with specific problems, e.g., high number of fatal crashes or high number of angle crashes, etc. A practical approach was developed to identify the expected number of crashes based on the total number of lanes which is a surrogate measure for the size of the intersection and volume. This method is simple to apply and could be used in identifying the expected number of crashes by type given that the number of lanes is known.

17. Key Word	18. Distribution Statement
Signalized intersections, intersection safety, crash profiles, crash patterns, intersection configuration, expected crashes, intersection classification	

19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No. of Pages	22. Price
		312	

Form DOT F 1700.7 (8-72) Reproduction of completed page authorized

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1 INTRODUCTION

1.1 Background

Traffic crashes at intersections result in a huge cost to society in terms of death, injury, lost productivity, and property damage. It is estimated that close to 40 percent of crashes occur at intersections or the approach to intersections. In Florida, in 2003, 96,710 crashes occurred at intersections. These intersection crashes resulted in 929 fatalities and 107,429 injuries (extracted from the 2003 Florida crash database). Unfortunately, the elements that affect the frequency of intersection crashes are not well understood and, as a consequence, it is difficult to predict the effectiveness of specific intersection improvements that are aimed at reducing crash occurrence or severity.

Although many studies have addressed the relationship between traffic and geometric variables and crash frequency or rate, a review of recent literature revealed that surprisingly few have studied the relationship between approach conditions (geometric and traffic related) at intersections and crash frequency or rate – with most focusing on crashes that occur along roadway segments rather than crashes taking place at intersection approaches. Studies have found that modifications to roadway geometrics are an important concern because of the strong association between adverse geometric elements and high-crash locations. Also previous research indicated that the frequency of collisions is related to the traffic flows to which colliding vehicles belong and not the sum of the entering flows. However, no studies looked at a specific type of intersections or related crashes to the traffic flow without considering the different intersection configuration (geometrics and control). Balancing the competing demands for roadway improvements is one of the most serious problems facing agencies responsible for

urban/suburban streets. Operating under financial constraints, the traffic engineer is faced with the problem of choosing between strategies to improve safety or improve on highway traffic flow. Certain traffic flow improvements may also result in safety enhancement. Nevertheless, there is little documentation on the interaction between safety and traffic flow treatments for roadway sections or street intersections.

1.2 Objectives and Approach

From what is presented above, it is clear that roadway geometrics and traffic volumes are important to assessing crash occurrence at intersections. However, traffic crashes, particularly at signalized intersection, are very complicated events, and it is believed that numerous factors affect their occurrence. There is a need to determine which crash patterns are abnormally high at intersections of different configurations and traffic levels, and thus effectively develop countermeasures.

It is important before analyzing traffic safety at specific intersections to understand and define the factors that influence the crash occurrence. This is a difficult task especially if one considers the large number of different intersection designs. The problem is even larger if we consider the different levels of traffic volumes that travel through each identified intersection design. If we add the dimension of different volumes by maneuver at the intersection (i.e., through, left turn, etc.), this problem would compound significantly.

Although this is a complicated problem, one has to attempt to understand the relationship between geometric and traffic characteristics and crashes at intersections. The objective here is to define the most efficient and realistic approach to address the

problem. Another problem is the lack of understanding of the safety of the different intersections. In other words, if we have a specific intersection with a certain configuration and traffic volume, what crash patterns would be considered normal? Therefore, we can determine which crash patterns are abnormally high at intersections and thus effectively develop countermeasures. Also, if we propose a change in the intersection configuration, defined by the number of approach lanes on the intersecting roadways, e.g., change the intersection from 4x4 to 6x4 (i.e., from 4 lanes on the approach of the major roadway to 6 lanes), what should we expect from a safety or crash pattern point of view?

The approach proposed in this research is to identify the crash profiles for the major intersection types based on geometric/configuration and traffic volume factors combination. In other words, there is a need to first identify the different intersection configurations that are present in Florida. Second, associate these configurations with the different traffic volumes on these intersections, by looking at different volume levels for the same intersection configuration. Third, analyze these intersections to identify the crash patterns for each type of intersection.

2 LITERATURE REVIEW

2.1 Introduction

A high percentage of highway crashes in the United States occur at intersections. These crashes result in property damage, lost productivity, injury, and even death. Identifying intersections with high crash rates is very important to minimize future crashes. The purpose of most of the studies was to develop efficient means to evaluate intersections, which may require safety improvements. A comprehensive review of the literature for intersection crashes is provided here based on five main categories of the related studies in the past.

Wong and Nicholson (1992) observed that modifications to roadway geometrics are an important concern because of the strong association between adverse geometric elements and high-crash locations. Other empirical relationships between vehicle crashes and highway geometrics have been studied through the use of statistical models to investigate crash involvement rate, crash probability, geometric design variables critical to safety, and the crash reduction potential of geometric improvements (Hammerslag et al., 1982; Okamoto and Koshi, 1989; Shankar et al., 1995). Hauer et al. (1988) estimated models of safety of intersections based on traffic flow and crash history. A significant finding of this research was that the frequency of collisions is related to the traffic flows to which colliding vehicles belong and not the sum of the entering flows. However, this research as did other research (e.g., Belanger, 1994) first, looked only at a specific type of intersections, and second related crashes to the traffic flow without considering the different intersection configuration.

2.2 Prediction and estimation of traffic crashes at intersections

In most of the studies that were conducted, sampling methods were derived and a sample of each intersection type was taken. Storsteen (1999) located intersections throughout the state of South Dakota and categorized them by geometric type, stop control type and traffic volume. The study used crash statistics from 30 intersections for every type of intersection studied (each type is defined by number of lanes on the roadway approaches and ADT level below 15,000). Coordinates for the selected intersections were obtained and crash reports were run. The information was inserted into a spreadsheet, and the 90th and 95th percentile and mean were calculated. An expected value analysis table was made for each type of intersection category. There were a total of 137 intersections for urban, four-leg signalized intersection with volume below 15,000 from this category, and a sample of thirty intersections was taken. The mean and 90th and 95th percentile were calculated and five more intersections were then added and the calculations were computed again. The difference in the numbers was very insignificant. This showed that the sampling technique used to create the expected value analysis table appeared to be a valid and reliable method. The expected value analysis tables would be very useful in determining if an intersection had an abnormally high number of severe or fatal crashes. The tables were used in assisting the South Dakota Department of Transportation in identifying serious safety problems at intersections.

Hall (1992) explored the relationship between roadway congestion and the level of safety at urban signalized intersections. An extensive study was completed to evaluate the variation in crash rate that accompanied a change in congestion, as reflected by the volume/capacity ratio. Approximately 400 signalized intersections in Albuquerque, New

Mexico were selected for analysis. Three years of crash data along with intersection approach volumes were determined for the identified intersections. In order to determine the effect of intersection congestion on crash rates, it was deemed necessary to select solely morning and evening peak-hour crashes for analysis. The first part of the analysis involved determining the relationship between total entering volume and frequency of crashes by least-squares regression. The relationship implied that as total entering volume increased, there was a corresponding increase in crash frequency. When crash rate as a function of total entering volume was considered, the relationship was weak, but nevertheless, statistically significantly correlated. Thus it could be concluded that crash rates increased as the volume of traffic entering the intersection increased. Capacity was most frequently exceeded for high volume intersections and rarely exceeded for moderate volume intersections. Also, a relationship between crash rate and congestion, or more apparently the v/c ratio, was determined. The morning peak hour exhibited a lower crash rate and v/c ratio than the evening peak. Since this was the case, it was concluded that the higher v/c ratio of the evening peak hour was directly responsible for an increase in crash rate. From the developed relationship it was also concluded that minimum intersection crash rates during peak hour occur for v/c ratios in the range of 0.6 to 0.8.

A study conducted by Brown (1981) also chose a sample size of 30 intersections to develop a method that would serve as a means of rapidly ascertaining the safety performance of existing intersections and which, at the same time, was used to predict the effect of safety performance. From an analysis of the 30 intersections it was found that over 80% of the crashes that occurred involved two motor vehicles, thus justifying the restriction of the investigation to this type of crash. The mean crashes per million

entering vehicles was calculated for each conflict point within the 30 intersections. In order to reduce unnecessary stratification of results and thus produce more values on which to base the relevant statistics, the conflict points were grouped into similar conflict types. Thus, based on 120 observations for 30 intersections, the mean value of the crash rate for each conflict type was estimated, together with the standard deviation and standard error of the estimated mean. The results indicate that it is possible to predict the number of two-vehicle crashes at an intersection with a reasonable degree of accuracy. It would appear that the model would be sensitive to changes in traffic volumes at similar types of intersections. It is therefore recommended that the crash rates given in the tables be used to predict crashes at similar types of intersections with similar flow patterns. Crash rates for similar conflict types at different types of intersection need to be calculated separately using the same basic model. With these data it would be possible also to predict the safety ramifications of major traffic management schemes such as changes in intersection type or alterations in traffic flow, i.e. two-way to one-way operation.

Hauer et al. (1988) estimated the safety of a signalized intersection on the basis of traffic flow and crash history. Crashes were divided into collisions involving pedestrians, single-vehicle, two vehicle, and crashes involving more than two vehicles. Only the two vehicle crashes were used (81 percent of all the intersection crashes). Patterns in which two vehicles at a four-legged intersection can collide were classified into 15 types. Variables were the type of collisions (15 types) and the time of day. They concluded that Given the traffic flow for a signalized intersection, one can predict how many and what kinds of accidents should be expected to occur on it.

Sayed and Zein (1999) described the application of the traffic conflict technique to estimate the traffic safety at intersections. Using the data collected from 94 conflict surveys, traffic conflict frequency and severity standards for signalized and unsignalized intersections had been established. An Intersection Conflict Index (ICI) measure was developed to summarize the conflict risk at intersections. The ICI provides an indication regarding the relative risk of being involved in a conflict at an intersection. In addition, regression analysis was used to develop predictive models which relate the number of traffic conflicts to traffic volume and crashes. The regression analysis results indicated that: (i) the average hourly conflict rate and the average hourly severe conflict rate correlated reasonably well with traffic volume for both signalized and unsignalized intersections, and (ii) strong relationships between crashes and conflicts were obtained for signalized intersections only.

Weerasuriya and Pietrzyk (1998) developed easy-to-use tables for Florida-based unsignalized 3-legged intersections. The tables provided mean, variance, and 90^{th} and 95^{th} percentile conflict rates. The number of lanes (instead of traffic volume) was used as an intersection classification parameter to reduce workloads in field data collection and to simplify the use of the introduced tables. Three unsignalized 3-legged intersection categories were identified as a common in the state of Florida. Number of through lanes of the intersection categories included 2×2, 2×4, and 2×6 (defined by the number of approach lanes on the two intersecting roadways). Twelve examples of each intersection type were sampled in five counties (Hillsborough, Manatee, Pasco, Polk, and Sarasota). After obtaining the list of intersections in the five-county region, using a random sample technique, 38 intersections were determined. Twelve primary conflict types (11 category

and “other”) were observed and recorded. For the 38 intersections, crashes for the 1992-94 period were recorded, corresponding to the 12 conflict types. An expected number of crashes for each conflict type at a given 3-legged intersection type was calculated using what is called “crash/conflict ratio” and some adjustment factors.

Lau et al. (1988) illustrated an intuitive methodology of developing injury, property damage only (PDO) and fatal crash models for signalized intersections based on the Traffic Accident Surveillance and Analysis System (TASAS) in California. They used classification and regression trees as a building block for developing prediction models. The proposed methodology included a 3-level prediction procedure with a “tree” structure for easy interpretations and applications. Macroscopic-type models for injury, and PDO crashes per year were derived, and the following factors were found to be significant: traffic intensity, proportion of cross street traffic, intersection type, number of lanes and left-turn arrangements. Relevant factors for fatal crashes were traffic intensity, intersection type, and design speed. Based on these results, it was also apparent that the models derived from the proposed methodology and TASAS provide more intuition and flexibility than the existing models derived from site observations and crash record system.

Harris et al. (1968) defined the different types of conflicts at intersections – left turn conflict, weave conflict, cross traffic conflict, and rear-end conflicts – and presented a method with which to observe those conflicts at an intersection. At 30 four-way signalized and unsignalized intersections, three twelve hour observations were taken. The types of conflicts were identified by means of a break light and weave criterion. The first two observations were used to observe vehicles, from behind, as they approached the

intersection, in order to observe conflicts defined by the brake light criteria. One observation was used for each of the two intersecting roads. The third observation was of vehicles as they entered the intersection, in order to observe conflicts according to the traffic movement. The observations were made in 15 minute intervals for opposing traffic directions. The conflict types identified in this study were left-turn, right-turn, through, weave, rear-end, and red light. This observation technique provided a mean with which to measure crash potentials at intersections and also to understand the causes of crashes.

Jia and Parsonson (1995) provided a quick and easy-to-use method of identifying intersections experiencing abnormally high number of crashes. Expected value analysis is a statistically based method in which the mean and variance of historical crash data were calculated and used to derive tables of "expected values" of crashes for various types of intersections. Once the average number of crashes had been established, 90^{th} and 95^{th} percentiles of crashes were calculated under the assumption that crashes were normally distributed. If an intersection of interest exhibited crashes greater than the 90^{th} or 95^{th} percentiles, then the intersection was identified to be experiencing an excessive number of crashes. Expected value tables for four counties in the Atlanta area were developed. The analysis included the grouping of intersections into categories based on traffic control type (signalized or unsignalized), number of approach legs (three or four), and total entering volume thresholds. As a result of grouping, a total of 17 categories were developed. In addition, expected values were calculated for collision type, severity, lighting condition, surface condition, season of the year, day of week, and hour of day.

Wolverton and Mounce (1996) assimilated crash trend characteristics and established variables of influence and determined significant casual patterns. Crash trend

characteristics were assimilated for the 3-year period of 1992-1994. Crash trends between Montana's six largest cities were also investigated. Crash type percentages were similar for those cities. Crash rates were calculated along the State Primary routes in Montana to establish variables of influence and significant casual patterns. Twenty-five intersections were selected for further study, in which crash report files were obtained and collision diagrams were constructed. From these collision diagrams, relationships were investigated to determine trends for Montana's signalized intersections. The variables that were considered for this study included type of crash, severity, alcohol involvement, roadway surface conditions, age of drivers and contributing factors. It was found that the high traffic volume and the population were contributing factors for the crashes. The largest percentages of crashes were found to be angle and rear-ends, and they were found to be similar for the six cities.

Najafi et al. (1998) defined a framework to identify the intersection characteristics so as to develop crash frequency tables with associated statistical qualifiers for the identification of abnormal crash patterns at various intersection types in Florida. As a result of the extensive literature search, one final matrix summary was prepared that included potential crash profile variables. Several factors were used to classify the different types of intersections: rural/urban, traffic volume, traffic control, intersection configuration defined by the number of approach lanes on the two intersecting roadways (e.g., 3 v/s 4 legged, 2×2, 2×4 or larger), protected v/s permitted, number of left-turn lanes, etc. The variable 'Design' was divided into two groups: signalized and unsignalized. For each of these groups, further divisions were made based on the number of intersection legs, 4-leg and 3-leg. Next, the variables considering land use (urban and

rural) were considered for each group. The resulting products of this stage were 4 intersection groups that were categorized for both rural and urban design: (i) signalized 4-leg intersection, (ii) signalized 3-leg intersection, (iii) unsignalized 4-leg intersection, and (iv) unsignalized 3-leg intersection. The total intersection types turned out to be 76. Fifty intersections of each type were proposed to be sampled and therefore data was needed for 3,800 intersections. Three years worth of crash data was therefore needed for each of 11,400 intersections. While the framework developed in this study was ambitious, it was unrealistic to actually collect data for this number of intersection types.

PAB Consultants, Inc. (1997) documented a study that was performed to develop expected value tables for crash statistics at intersections in Dade County. The resulting tables provided an "expected value" (or expected value range) for the number of crashes expected to occur along the State Highway System at an intersection in a year. In this study, expected values were developed for 13 different intersection types then expected values for numerous crash statistics were developed. Traffic engineers could use these values as a "measuring stick" against which to compare a particular intersection's crash statistics, to ascertain whether a particular crash statistic appeared likely to be higher than an expected value, and therefore warranted the investigation of corrective actions. Each intersection type (of the 13) included 30 intersections, with the exception of three (3). A spreadsheet template was developed to produce crash statistics for each intersection. The spreadsheet calculated the mean, standard deviation, and the 90^{th} and 95^{th} percentiles for each crash statistic contained in the intersection spreadsheets.

These values were calculated assuming that the occurrence of crashes is reasonably approximated by the normal distribution. The average annual number of right-

angle crashes for 4-legged intersections with total entering volume between 20,000 and 30,000 per day expected was 4.0. The 90th percentile value was seen to be 9.4, which means that only 10% of such sites had more than 9.4 right-angle crashes per year. Similarly, only 5% had more than the 95th percentile of 11.7 crashes. An intersection, with 13 such crashes, was above the 90th percentile and 95th percentile. It stood out abnormally high, particularly if the 13 crashes were an average of several years of data. The 13 crashes were so high that it probably could not be attributed to the normal variation that would be found from intersection to intersection in that volume range. Instead, it could have been due to an intersection specific problem that might be correctable. They concluded that additional studies had to be conducted at the intersection to determine probable causes of the right-angle crash problem and to identify appropriate countermeasures. The intersection classifications that were used in this study were:

4 Lane x 2 Lane, Signalized, with Turn Lanes, T-Intersection

4 Lane x 2 Lane, Signalized, with Turn Lanes, 4 Leg Intersection

4 Lane x 2 Lane, Unsignalized, T-Intersection

4 Lane x 2 Lane, Unsignalized, 4-Leg Intersection

4 Lane x 4 Lane, Signalized, with Turn Lanes, T-Intersection

4 Lane x 4 Lane, Signalized, with Turn Lanes, 4 Leg Intersection

4 Lane x 2 Lane, Signalized, with Turn Lanes, 4 Leg Intersection

6 Lane x 2 Lane, Signalized with Turn Lanes, T-Intersection

6 Lane x 2 Lane, Signalized with Turn Lanes, 4 Leg Intersection

6 Lane x 2 Lane, Unsignalized, T-Intersection

6 Lane x 2 Lane, Unsignalized, 4 Leg Intersection

6 Lane x 4 Lane, Signalized, with Turn Lanes, T-Intersection

6 Lane x 2 Lane, Signalized, with Turn Lanes, 4 Leg Intersection

6 Lane x 6 Lane, Signalized, with Turn Lanes, 4 Leg Intersection

2.3 Modeling methodologies

Chin and Abddul-Quddus (2001) examined the relationship between crash frequencies and the geometric, traffic and regulatory control characteristics of signalized intersections. A total of 52 four-legged intersections in the southwestern part of Singapore were used. Crash data from the years 1992 through 1999 (a total of 832 observations - 8yrs * 52 intersections * 2 approaches) were used in the analysis. They accounted for about 3000 crashes in which 3% were fatal, 5% resulted in serious injuries, and the rest minor injuries. The random effect negative binomial model was used to examine a total of 32 possible explanatory variables. Traffic volumes, geometric elements (approach curvature, sight distance to intersection, road width, median width, left-turn length on slip roads, distances of up stream and down stream bus stops from intersection, uncontrolled left-turn lane, exclusive right-turn lane, acceleration section and the presence of overhead bridge near intersection), and regulatory control measures (existence of surveillance camera, signal control types and signal timing plan). The results showed that 11 variables significantly affected the safety at the intersections. The total approach volumes, the numbers of phases per cycle, the uncontrolled left-turn lane and the presence of a surveillance camera are among the variables that are the highly significant (mostly at the 95^{th} significance level). On the other hand, the presence of an acceleration section and the provision of bus bays as well as the use of adaptive signal

control tend to point to lower total crash occurrence. These findings might, however, be limited by the relatively small sample size used.

Persaud and Nguyen (1998) supplemented the previous models to estimate safety performance for signalized intersections. A total of 270 signalized intersections (40 3-legged, 230 4-legged) maintained by the central and southwestern regions of Ontario were used in this study. Actual layouts and directional traffic flows were obtained. Ramp intersections that carry one-way traffic were excluded from the study. Two levels of models were developed in level 1, equations were calibrated for 3- and 4-legged intersections by crash severity (injury and PDO) for all impact types combined together and individually for the three prominent impact types (angle, rear-end, and turning movement). Models were further disaggregated by time period (daily, weekday morning peak, and weekday afternoon peak and for 4-legged intersections by environment class i.e. semi urban, and rural). In level 2, models were estimated for 4-legged intersections for 12 prominent multi-vehicle and 3 single-vehicle crash patterns defined by the movements of involved vehicles before collision. Only daily models were calibrated, but separate models were estimated for the two environment classes. The final models were:

$$\text{Level 1 and single-vehicle level 2,} \quad P = \alpha S^{\beta}$$

$$\text{Level 2 multi-vehicle,} \quad P = \alpha S_1^{\beta 1} S_2^{\beta 2}$$

where P is the expected number of crashes of a given type and α and β's are regression parameters to be estimated. For level 1, S is the sum of all entering flows for the corresponding time period. For level 2 single-vehicle, S is the sum of the daily flows, as appropriate to the crash pattern of interest. For level 2 multi-vehicles, S_1 and S_2 are AADT for the smaller and larger conflict flows, respectively.

Vogt and Bared (1998) used Poisson and negative binomial models to study the 3-legged and 4-legged intersections' crashes. The data were obtained from Highway Safety Information System (HSIS) files for the states of Minnesota and Washington. Minnesota files were for the time period 1985 to 1989 and Washington files for the period 1993 to 1995. Intersections in Minnesota were selected from a population of HSIS observations divided into four bins, with random selection from each bin. The bins were defined by median values of mainline traffic and minor road traffic. In the case of Washington, no HSIS intersection file was available, but an intersection database was developed through combining video-log information with data provided by the State of Washington. The results showed that right-turn lanes on the mainline increase the likelihood of crashes at 3-legged intersections. For the 4-legged intersections, fewer crashes result at right-angled intersections. The worst case was at $\alpha = 15$ degrees.

Al-Turk and Moussavi (1996) developed a series of regression equations that could be used to predict the effects of changes in the volume-to-capacity ratio and traffic volumes on the average number of crashes. This study tried to determine the nature of the relationship between the degree of congestion, as reflected by the traffic volume to road capacity ratio, and level of safety at signalized intersections. Variables were crash frequency, crash type (rear end, left-turn leaving, left-turn entering, cross traffic collision), volume to capacity ratio, and time of day (a.m., p.m., off peak). Negative Binomial probability distribution was used since the crash variance was greater than crash mean for all three crashes categories.

Poch and Mannering (1996) studied the relationship between roadway geometric/traffic-related elements and crash frequencies at intersections. Four different

crash frequencies were estimated; (i) total crash frequency, (ii) rear-end crash frequency, (iii) angle crash frequency, and (iv) approach-turn crash frequency. Variables were traffic volumes (total entering, left, right, opposing), number of lanes (through, through-right, right turn), signal control (two phase signal, eight phase signal, protected left turn), and approach speed limit. The analysis uncovered important interactions between geometric and traffic-related elements and accident frequencies.

King and Goldblatt (1975) established the relationship between crash patterns and intersection control. The change in crash patterns corresponding to a change in intersection control was investigated by means of previous studies, before and after analysis, and statistical analysis of nationwide crash data. The comprehensive database used in the project was created by the distribution of data forms to traffic engineers throughout the country. In order to evaluate the impact of intersection control on crash patterns, they developed ten measures of effectiveness: crash evaluation index, injury and fatality ratio, rear-end ratio, severity index, right angle ratio, normalized crash total, volume crash rate, crash disutility, right angle frequency, and right angle crash rate. The statistical tests performed on the crash data included analysis of variance, multiple linear regression and hypothesis testing. It was found that intersection signalization reduced the number of right-angle crashes but increased rear-end crashes.

Yiu-Kuen and May (1987) developed crash prediction models for signalized intersections on the basis of intersection characteristics (geometric design elements, traffic control measures, traffic demand patterns, environmental factors, and crash history). The data used was derived from the Traffic Crash Surveillance and Analysis System of California. Only injury crashes were addressed because of the different

reporting levels of property damage crashes and rarity of fatal crashes. In order to find an appropriate derivative of injury crashes for comparison, the data was normalized by time. A base model was developed, with injury crashes per year as the response variable and traffic intensity as the predictor variable. The intersections were grouped in order of crash risk. Three levels of prediction were developed from these models. The power and logarithm transformation was used to fit the data, and a straight-line relationship was selected for analysis purposes. Variables were injury crashes, entering traffic, intersection type, number of lanes, and control type. It was concluded that the proposed methodology was very suitable for the development of macroscopic models.

Rodriguez and Sayed (1999) developed crash prediction models for estimating the safety performance of urban unsignalized intersections. The models are developed using the generalized linear modeling (GLIM) approach that addresses and overcomes the shortcomings associated with conventional linear regression. The safety predictions obtained from the models are refined using the empirical Bayes approach to provide more accurate, site-specific safety estimates. The study made use of sample crash and traffic volume data corresponding to unsignalized (both 3- and 4-legged) intersections located in urban areas of the Greater Vancouver Regional District (GVRD) and Vancouver Island, British Columbia. Four applications of the models are described: identification of crash-prone locations, developing critical crash frequency curves, ranking the identified crash-prone location, and before and after safety evaluation. These applications showed the importance of using crash prediction models to reliably assess the safety of unsignalized intersections.

Bonneson et al (1993) used a generalized linear modeling approach to develop a model that links intersection traffic demands and crash frequency. To do this, the SAS program's nonlinear regression procedure (NLIN) was applied. Various procedures for evaluating model fit were used, and the most trust was placed on the prediction ratio versus expected number of crashes plot. Variables were time period, average daily traffic (major/minor), environmental (urban/rural), traffic control (signal/sign), intersection geometry (number of legs, two-lane major Roads with/without median). The models developed in this study were fit using prediction ratios. The plotted prediction ratio versus expected number of crashes indicated the amount of dispersion in the models. The two-way stop-controlled intersections were analyzed, and the form of this model suggested that the mean crash frequency increases in a nonlinear fashion with increasing major or minor road demand. The results indicated that a negative binomial distribution could explain the distribution of the crash counts. Also, the mean crash frequency for the assembly of similar intersections was found to be gamma distributed.

Worsey (1985) established whether the different crash patterns observed on many roadway elements comprising two urban routes could be explained, in statistical terms, by relationships between road and traffic variables. From these relationships regression equations were developed that could be used to predict crash rates. For the purpose of distinguishing intersection crash rates, crashes occurring within 20 meters of an intersection were analyzed. The multiple regression equations obtained in this study were derived in a stepwise manner, in which an independent variable was added or removed at each step until addition of further variables gave no improvement in the explanation of the model. The variables used in this study were the number of legal maneuvers at

intersection, the total number of conflict points at intersection, the number of vehicle conflict points at intersections, the number of pedestrian/vehicle conflict points at intersection, the number of lanes entering intersection, and the number of branches at intersection. It was found that stratifying the intersection crashes first by form of intersection control and second by intersection alignment, a fairly good statistical explanation of crashes per vehicle throughout was obtained. The final outcome of this research was 15 multiple regression equations, which may be used to predict urban crash rates.

Turner (1998) reviewed models used in practice to relate crashes to traffic flow with particular emphasis on the appropriateness of the model form and the statistical analysis technique employed for parameter estimation. The development of generalized linear models for predicting individual crash types at intersections in New Zealand was then described. The use of covariate analysis to identify the effect of intersection location, an investigation of the effect of non-collision flows, and the use of the models for predicting intersection crashes in three networks were also described. It was concluded that generalized linear models for estimating different crash types (based on the conflicting flows) were better than models for estimating total crashes (based on the approach flows), especially when the cost of different crash types was known. It was also found that intersection location affects the number of different crash types. It was important to consider the interactions between turning flows (to take better account of the mechanisms of crash occurrence) as well as non-collision flows. Comparison of the predicted and observed numbers of crashes showed that there was poor agreement for individual intersections, but fairly good agreement for networks.

2.4 Factors influencing crash patterns

Ogden et al. (1997) conducted a study of signalized intersections in Melbourne, Australia, focusing on the differences in site and operational characteristics between sites with a "high", "normal" and "low" crash frequency over a 5 year period, 1987-91 based upon an analysis of crash data and entering traffic volumes. The study indicated that the majority of the variation in crashes was not explained by traffic volumes, but by other factors. While no single factor was identified which would lead to a dramatic improvement in safety at signalized intersections, a range of measures were identified which would likely contribute to improved safety, if applied at specific sites where relevant.

Hoque and Anderson (1986) identified the predominant crash types occurring on the road network in Victoria, Australia. Their study focused on vehicle crashes from streets and the intersections they occurred at, since they were so prevalent. They classified intersections into four classes as primary/secondary, primary/local, secondary/local, and local/local. They used Metro Melbourne data to demonstrate a technique for determining the performance of road networks by using road class and crash types. The predominant crash types in the whole network were identified and the type with the greatest frequency was used to show the phenomenon of clustering at intersections along the various road classes. The study showed that the higher-level class of intersections had the higher crash rate. The most frequent crash type was “vehicles from two streets” which comprised of 17.5% of all crashes and 30% of intersection crashes. The average number of these crashes at intersections varied according to road

class as follows: primary arterials 1.6, secondary arterials 1.5, collector roads 1.4 and local streets 1.2 with a network average of 1.5.

Bhesania (1991) summarized the crash statistics and characteristics observed in Kansas City, Missouri. Intersection crashes, pedestrian crashes, and midblock crashes were the main focus in this study. Information such as type of collision, severity, and date and time of occurrence was entered into the database. A total of 11,451 crashes at 3,137 intersections were reported. It was determined that signalized locations experienced the largest number of crashes when compared to other forms of traffic control. In Kansas City, the average number of crashes occurring at signalized intersections was 9.6 compared to an average of 2 per year at stop sign or yield-sign locations. The most frequent type of collision was the right-angle followed by rear-end and left-turn crashes. It was noted that implementing mast-mounted signal indication, 12-inch signal lenses and all-red clearance intervals could reduce right-angle crashes at signalized intersections. Overall, it was suggested that using the crash rate method (physically collecting approach volume information) and the database method to arrive at a list of high crash locations. A cut-off point in the number of crashes was then established to identify high-crash locations requiring further study.

Datta et al. (1990) studied how the installation of traffic signals had been found to influence crash patterns at intersections. Their paper focused on different studies conducted at signalized intersections in urban and rural areas. A 1959 study performed at 29 intersections in Michigan demonstrated that the total number of crashes increased by 23%, whereas injuries and fatalities decreased by 20% and 50% respectively. A 1964 study by Clyde analyzed 52 intersections in Michigan. Right-angle crashes decreased by

45% while rear-end, left-turn and other type crashes increased by 98%, 66%, and 46% respectively. Overall, crashes increased by 33%. In a 1976 Virginia study of 2,301 intersection crashes, rear-end and total crashes also increased as a result of traffic signals. In general, signalized intersections were found to have higher crash rates, but these were usually offset by less severity per crash. In all cases, mean crash rates were significantly different before and after signal installations for all locations.

2.4.1 Red light running behavior

The study of red light running continues to need theoretical and conceptual effort. It is a behavior that occurs in a very complex environment of an intersection. Many factors play a role in drivers' decisions to run red or stop at a light, complicating efforts to increase intersection safety. Even with the need for additional research, it seems clear from this literature that red light running interventions must increase consequences for violations. Whether it is with photo enforcement cameras or consistent police enforcement, programs must find ways to teach drivers that red light running will not be accepted. Perhaps such programs would also reduce the level of urban-driving frustration. Without increasing negative consequences, there is no reason to expect red light running rates will decrease at most intersections in the near future. The dangers of red light running have led to an increasing interest in understanding people who run red lights (Porter and Berry, 2000), where and when red light running occurs (Retting et al., 1995), and what interventions exist to reduce this risky driving behavior (Retting et al., 1999 b, c). These studies found that red light runners did more than run red lights. They are less likely to wear safety belts and tend to have more driving violations on their records (Porter and Berry, 2000).

Retting and Greene (1997) demonstrated that the red-light compliance could be increased by lengthening yellow signals, and the safety benefits associated with longer change intervals could be sustained. The results of this study also suggested that increasing yellow signal length might decrease late exits (vehicles existing the intersection after the onset of a conflicting green signal). Retting et al. (1999 a) also found that 3% of all fatal crashes in the US between 1992 and 1996 involved red light running. Red light running related fatalities increased approximately 15% during this time period (from 702 in 1992 to 809 in 1996). Perhaps not surprisingly, urban areas are at greater risk for red light running crashes. Retting et al. (1995) reported that 56% of urban crashes occurred at intersections and running traffic controls accounted for 22% of urban crashes. Red-light running is particularly relevant to urban crashes, presumably because urban areas are more dominated by signal light intersections than other localities. Retting and Williams (1996) studied the actual driver behaviors at intersections. They collected demographic data as well. In an eight-week field study at one intersection in Arlington County, Virginia, They found that 33.6% of 1,373 light-cycle observations included at least one red-light runner (i.e., defined as entering the intersection after the light turned red). Violators were more likely to be under 30 years of age with poorer driving histories than drivers who stopped. The observations also indicated that there were as many as two red-light runners per hour. Unbuckled drivers were more likely to run red lights.

Porter and England (2000) extended the previous effort to observe actual driving behaviors at intersections. The authors provided a study with 5,112 observations of drivers entering six traffic-controlled intersections in three Southeast Virginia cities.

Overall, 35.2% of observed light cycles had at least one red-light runner prior to the onset of opposing traffic. This rate represented approximately 10 violators per observation hour. City differences emerged as important for predicting red-light runners. Higher red-light running rates were observed in cities with larger intersections and higher traffic volumes. After controlling for city and time differences, adjusted odds ratio revealed that drivers who were unbuckled were 1.32 times as likely as those who were buckled to run the red light. Unlike the Retting and Williams (1996) study, this study failed to find support for age as a red-light running predictor.

Porter and Berry (2001) through a nationwide telephone survey of 880 self reported red light running concluded that almost a fifth (19.4%) had run a red light when entering the previous ten signalized intersections. Analyses of age group revealed that the 36–45, 46–55, and 56+ age groups were less likely than 18–25-year-olds to report recent red light running. Drivers aged 56 and older were only 0.30 times as likely as the youngest age group to report recent red light running. Drivers with 26–35 years of age were not significantly different from the youngest group. This study showed also that passengers reduced drivers' tendencies to run red lights. When alone, 25.6% of drivers reported being at least somewhat likely to run a red light. This percentage drops sharply when passengers are in the vehicle. Only 15.8% of respondents reported being at least somewhat likely to run red lights when one adult passenger was present and only 4.8% admitted being likely when there were children in the car. Respondents of this study agreed that increased law enforcement was important for reducing red light running; providing cameras, giving the public more education about red light running were the most repeated suggestions of the respondents.

2.4.2 Effect of clearance interval timing and signal phasing

A study by Zador et al. (1985) analyzed traffic flow and crash data from 91 intersections in eight metropolitan areas throughout the United States to assess the effect caused by departures from the recommended signal-timing practice, on the rate of intersection crashes. The interpretation of the overall pattern of association between intersection characteristics, clearance intervals, traffic flow and crash rates was that the increasing deficiency of clearance interval timing sharply increased the proportion of drivers who entered intersections and did not clear them during the clearance interval.

Stamatiadis et al. (1997) studied the safety of left-turning vehicles at signalized intersections and developed guidelines for the installation of left-turn phasing. The guidelines were based on crash data collected for 408 approaches in Kentucky and delay data simulated for a variety of intersection characteristics. The recommendations made take into account many variables, including left turn volumes, crash rates, product of opposing and left-turn volumes, and left-turn delays.

2.5 Pedestrian safety at signalized intersections

Andersen (2001) established goals to double the percentage of total trips made by bicycling and walking and to reduce the number of bicyclists and pedestrians killed or injured in traffic crashes by ten percent. Kentucky Uniform Police Traffic Collision Reports were obtained for all traffic collisions involving bicycles and pedestrians during 2000 and 2001 in the city of Louisville, Kentucky. These collisions were entered into a database, Pedestrian and Bicycle Crash Analysis Tool (PBCAT), developed by the Federal Highway Administration and the University of North Carolina Highway Safety

Research Center. The first step in reducing deaths and injuries to pedestrians and bicyclists is to analyze the situations where these deaths and injuries occur so specific countermeasures can be developed. According to police collision reports, there were 484 traffic collisions involving one or more pedestrians. Pedestrian collisions were most likely to occur between 4:00 PM and 6:00 PM. Ninety-two pedestrian collisions (or 19%) occurred during these two hours. Thirty-nine percent of all the pedestrian collisions occurred between 2:00 PM and 7:00 PM. Also most collisions occurred on or near roadways with one or two lanes in a travel direction. The analysis provided insight for establishing a community program to address education on behaviors that promote safety for bicyclists and pedestrians, enforcement of traffic rules, and engineering improvements that promote safe cycling and walking.

Leden (2002) studied the safety of pedestrians at signalized intersections using a unique database provided information on pedestrian crashes, intersection geometry and estimates of pedestrian and vehicle flows for the years 1983–1986 for approximately 300 signalized intersections in Hamilton, Ont., Canada. Pedestrian safety at semi-protected schemes, where left-turning vehicles face no opposing traffic but have potential conflicts with pedestrians, were compared with pedestrian safety at normal non-channelized signalized approaches, where right-turning vehicles have potential conflicts with pedestrians. Four different ways of estimating hourly flows for left- and right-turning vehicles were explored. Hourly flows were estimated for periods of 15 min, hours, two periods a day (a.m. and p.m.) and the daily period (7 h). The situation for left- and right-turning traffic was similar (no opposing traffic, no advanced green or other separate phases and no channelization). A multiple regression analysis was used after

transforming the pedestrian and vehicle flows and the observed number of pedestrian-vehicle crashes into logarithmic values. Left-turning vehicles caused higher risks for pedestrians than right-turning vehicles. At low vehicular flows right turns and semi-protected left turns seemed to be equally safe for pedestrians. When risks for pedestrians were calculated as the expected number of reported pedestrian crashes, risk decreased with increasing pedestrian flows and increased with increasing vehicle flow. Leden concluded that promoting walking will have a positive effect on pedestrian risk at signalized intersections.

2.6 Summary

Developed through an extensive literature search, the findings can be summarized as follows:

- A sample size of 30 pertaining to each intersection type was found to be most appropriate size. Sample sizes of 30 or larger generally assured an accurate estimate of the population standard deviation and provided a sample mean closely approximating the population mean.
- The traffic related and geometric variables that were most significant for modeling intersection crashes were traffic volume (ADT), land use (urban/rural), traffic control (signalized in our case), and number of intersection legs (4-leg or T), collision type, number of lanes, left-turn arrangements and time of day.
- The standard models for modeling crash rate or crash frequency are mostly regression analysis, negative binomial, and Poisson models. The empirical Bayesian framework was generally adopted to estimate the safety of an individual intersection.

- Tables were developed to produce crash statistics for each intersection and the 90th and 95th percentile and mean were calculated to evaluate the relative safety and operational problems at intersections.
- The number of lanes or traffic volume (ADT) was used as an intersection classification parameter, ADT being the most often used.
- The various conflict types identified were left-turn, right-turn, through, weave, and rear-end. These, along with monitoring of Red Light Running, were used as a means to measure crash potentials at intersections and also to understand the causes of crashes.
- High traffic volume and the population were contributing factors for the crashes. Right-angled crashes, left-turn crashes and rear-end crashes accounted for the largest percentages, with a high ratio of rear-end crashes and comparatively low ratios of right-angled crashes that were mostly observed at signalized intersections.
- The interpretation of the overall pattern of association between intersection characteristics, clearance intervals, traffic flow and crash rates was that the increasing deficiency of clearance interval timing sharply increased the proportion of drivers who entered intersections and did not clear them during the clearance interval.
- When risks for pedestrians were calculated as the number of reported pedestrian crashes, risk decreased with increasing pedestrian flows and increased with increasing vehicle flow.
- Right-turn lanes on the mainline increased the likelihood of crashes at three-legged intersections.

The literature review presented in this section investigated all the factors that contribute to crash occurrence at signalized intersections. Based on this literature we can proceed with our data collection effort, and provide a more structured approach to classifying intersections into distinct types. These studies have repeatedly pointed to traffic volume and some of the geometric factors as the most important in crash occurrence. Therefore, this confirms our scope and objectives in this study, and our plan to classify intersections mainly based on configuration and traffic volume (although other factors have been also used in some cases as will be shown in the next chapters).

3 DATA COLLECTION

3.1 Introduction

The analysis and results of any project are a reflection of the type of the data used in that project. The data collected should be appropriate and abundant so as to meet both the qualitative and quantitative requirements of a project. This means that efforts have to be made to collect as much quality data as possible, and this data should be useful in a variety of ways to the project. This has been carefully considered while collecting data for the present project, and this chapter describes the various types of data collected and the efforts put in to collect the data.

3.2 Data Collection

Data was collected from five counties and one city: Brevard, Hillsborough, Miami-Dade, Orange and Seminole counties, and the City of Orlando. Data pertaining to various intersections and crashes occurring at these intersections were collected in different formats from each county.

Data collected for the counties were divided into two parts: the geometry database containing all the intersection characteristics, and the crash database containing the details about crashes. To develop the geometry database, CAD files or aerial photos of the intersections were obtained from each county so as to identify the intersections' configuration. Not all of these files were clear, and so a field visit was needed in many cases to identify their configuration. The data collected pertaining to the geometric characteristics of the intersections includes number of through, left, and right lanes for each approach, presence of channelization at each approach and the presence of median

for each approach. Also, the data on the speed limit, traffic volume (AADT) and K-factors for each approach was incorporated in this database.

Different sources were used for developing the crash database, namely the county mailed/handed files, county websites, Department of Highway Safety & Motor Vehicles (DHSMV) data, photocopied crash reports, and F-DOT websites that included the SSO Online Document Retrieval System and the Crash Analysis and Reporting (CAR) database in the FDOT Mainframe. It is important to note that every county saves their data in different ways. There is inconsistency among counties in the way they keep data, which posed a challenge to obtain complete data from each county and maintain uniformity among counties as much as possible. The contents of the crash database have been listed in Table 3-1. Most of these data was available for all counties.

In the crash database, the crashes were sometimes labeled as occurring at an intersection when they actually occurred a mile away from the intersection. To be consistent with the FDOT's definition of an intersection related crash, only the crashes occurring at a radius of 250ft around the intersection were selected as intersection related crashes.

Although efforts were made to collect the maximum amount of data possible for signalized intersections from all counties being considered in this study, not all of the data could be collected for all of the counties. The data collection efforts from each of the counties have been described in the following subsections.

Table 3-1 Format of crash database

	Field #	Field Caption
	1	Crash report number
Intersection Data	2	Node number
	3	Intersection (routes names)
	4	AADT
	5	Type
	6	Category
	7	Speed Limit
	8	K-Factor
Crash Data	9	Crash date
	10	Time of crash
	11	County code
	12	City code
	13	Number of lanes
	14	Divided/undivided highway
	15	Total property damage
	16	Investigating department
	17	Fist harmful event
	18	Subsequent harmful event
	19	Road system identifier
	20	Location type
	21	Lighting condition
	22	Road surface condition
	23	Weather
	24	Road surface type
	25	1st contributing cause-road
	26	2nd contributing cause-road
	27	1st contributing cause-environment
	28	2nd contributing cause-environment
	29	1st traffic control
	30	2nd traffic control
	31	Site location
	32	Trafficway character
	33	Type of shoulder
	34	State road crash
	35	Day of week
	36	Rural/urban
	37	Crash injury severity
	38	Alcohol/drugs
	39	Total number of vehicles
	40	Total number of fatalities
	41	Total number of injuries

3.2.1 Orange County

Data was first collected for Orange County. Signalized intersection drawings were obtained from the county's traffic engineering department. From these drawings, a geometry database was created that contained intersection characteristics. In addition, several other geometric characteristics were collected from these drawings and input into the database. Due to the fact that the drawings were not always consistent, Orange County was contacted again for more information. Through their help, complete geometric characteristics were obtained for the signalized intersections in Orange County. Information received included intersection drawings and several signal time sheets and turning volumes.

While continuing the efforts on building the geometry database, new intersections were identified based on the level of service report published by the county in an effort to collect AADT volumes and k-factors for the new intersections. Next, available turning volumes and signal timings were associated with the appropriate intersections. Finally, a new geometry database was created reflecting the most complete data.

As a next step, efforts were made to identify all intersections that underwent construction during the years 1999 and 2000. If an intersection was under construction during a year it would be excluded from analysis for that particular year.

Based on the available information, the intersections were classified based on the number of lanes on the major and minor road (i.e. 2x2, 4x2, 4x4, 6x2, 6x4, and 6x6). Some intersections contained TWLTL, and were represented as 3x2, 4x3, 5x2, 5x3, 5x5, etc. These intersections were considered in lane configurations without the TWLTL, i.e., 3x2 was considered in 2x2, 4x3 was considered in 4x2, 5x5 was considered in 4x4, etc.

Since there were a significant number of T-intersections, they were further divided as per lane configuration into 2xT2, 4xT2, 4xT4, 6xT2, etc.

The crash database for Orange County was developed for the years 1999 and 2000. It was not possible to retrieve records from 2001 onwards because the county began coding their records in a manner different from that of FDOT crash database, while using a numbering system different from the crash report numbering. As Orange County does not keep a record of the short form crash reports, only the long form crashes were collected.

In the crash database developed for the years 1999 and 2000, several crash records were found missing. In order to remedy this problem, our team visited the Orange County Public Works department for a total of four days and was able to make photocopies of about 500 crash records from 1999 and 2000. This ensured that the database was complete.

Another database was then created in Access to input the data from the crash reports as well as all roadway geometry from the previous database. An Access program was written to collect the required information from the crash reports. In an effort to account for all crashes and to ensure that the final crash database was as accurate and complete as possible, the county, FDOT and DHMSV databases were cross-checked. This ensured the completeness of our data as each of the databases was found to be missing some crash reports.

A SAS program was written to match the crash report number in the crash database to the crash report number in the DHSMV database, and then to extract the information on the hour of the day, day of the week, month, light conditions, surface

conditions, severity and collision type of the crash. Collision type was categorized into rear end, head on, angle, left turn, right turn, sideswipe, pedestrian, fixed object and other collisions. Injury severity was subcategorized into property damage, possible injury, non-incapacitating injury, incapacitating injury and fatal injury. Light condition was branched off to daylight, dusk, dawn, dark (with street lights), dark (without street lights) and unknown. Weather condition was sub divided into dry, cloudy, rain, fog, others and unknown. The fifth category, Surface conditions, was separated into dry, wet, other and unknown. Months of the year consisted of months January through December. Each day of the week was a separate category and time of the day was divided into seven groups. The groups consists of 00:00-06:00, 06:01-09:00, 09:01-11:00, 11:01-13:00, 13:01-15:00, 15:01-18:00, and 18:01-24:00. Using this method, a large amount of the data related to the crash was collected. Similar methods were adopted to extract these variables for the crashes in the other five counties.

After collecting the data, the traffic and geometric characteristics of every intersection were combined along with the information of all the crashes that had occurred at or influenced by that intersection. The following steps were followed during this process:

1. The database containing the crashes contained the Crash Report Numbers (CRN) of the long form crashes for the years 1999 and 2000. The names of the intersecting roads are available, no node number is provided for the intersection.
2. The DHSMV databases for the years 1999 and 2000 were used to extract the information of the above crashes. The CRN was used to link the Orange county Excel spreadsheet with the DHSMV databases.

3. All these missing CRNs were photocopied from the original crash reports to complete the DHSMV databases for Orange County.
4. The crash data developed in this phase was crosschecked with the FDOT Mainframe's CAR database and the missing crashes were added.
5. A unique node number for every intersection was generated for further use.
6. Using CAD drawings for every intersection, the research team developed a database that has the geometric characteristics of each intersection and its unique node number. This job was done manually for each intersection.
7. Using the Orange county traffic reports posted on their website, a database was developed that had the traffic characteristics of each intersection and its unique node number.
8. A SAS code was written to read the above databases and combine them in the master database of Orange county;
    a. The CRN was used to link Orange county Excel spreadsheet with DHSMV databases to produce a dummy database.
    b. The intersecting street names were used to link the dummy database to the geometric and traffic databases to produce the final master database of Orange County.

3.2.2 Seminole County

The website of Seminole County was first reviewed for information such as traffic counts based on the type of roadways. The county was then contacted directly to get additional information. The County provided a list of signalized intersections as well as a CD containing partial intersection geometry and signal details. A geometry database was

built for Seminole County where each intersection was classified based upon the number of through lanes. Other geometric information was also available and inputed into the database as well. Using electronic drawings on Excel spreadsheets for the intersections, a database was developed containing all the geometric characteristics of each intersection and its unique node number. This job was done manually for each intersection.

A unique node number was assigned to every intersection for further use. Using the Seminole county traffic reports posted on their website, a database was developed that contained the traffic characteristics of each intersection and its unique node number. Approach speed limits at the intersections were obtained from the CD. For the intersections for which these values were unavailable, they were obtained by driving on the roadways and noting the speed limits manually.

The K-factor values were searched for Seminole County also to make it compatible to Orange County data. Seminole County K-factors were found on the Florida Department of Transportation's website for state roads only and this information was then input into the geometry database.

Next, crash records were obtained for the county. The database contained the following data:

1. The Crash Report Number (CRN) for both long- and short-form crashes for the years 1999, 2000, and 2001.
2. The crash information, similar to DHSMV data and format.
3. The names of the intersecting roads.
4. No node number was provided for the intersection.

For crashes reported on long forms, a program was written to extract the necessary records from the FDOT and DHSMV databases and input them into a database for Seminole County to serve as a crosscheck for the records provided by the county.

A SAS code was written to read the above databases and fuse them in the master database of Seminole county. The intersecting street names were used to link the Access database to the geometric and traffic databases to produce the final master database of Seminole county.

3.2.3 Hillsborough County

Hillsborough County officials provided a CD containing aerial photographs and field drawings for some of the signalized intersections in the county. Again, the intersections were classified by lanes and included any other information that could be gathered in the geometry database. During the process of collecting the county's information, several items were found missing and it became necessary to meet with the county officials directly. One member of the research team traveled to the main office in Tampa for two days in an effort to retrieve all the possible data.

Hillsborough County did not provide any AADT counts, so they were located on the website in the form of a spreadsheet. The format made the extrapolation of the necessary information very difficult. In order to use this spreadsheet, all intersections had to be located on a map of the county and their location was found relative to the locations where AADT counts were measured. It took several weeks to complete this process. When finished, these AADT values were compared to the AADT values at comparable intersections in both Orange and Seminole counties. It was then evident that the AADT values reported on the Hillsborough spreadsheet were an inaccurate

representation of the actual street volumes because the Hillsborough AADTs were considerably lower than those in Orange and Seminole counties. It was decided that a more credible source was needed for these counts. After searching the Internet, an up-to-date level of service report was found that not only included the AADT and level of service but also the number of lanes on the roadway as well as whether it was divided or not. Upon comparison of the previously used spreadsheet, these numbers were found to be more accurate especially since roadways with relatively low AADT were graded with a better level of service. In addition to replacing the erroneous AADT values in the geometry database, all of the streets were checked to ensure that they were consistent in the number of lanes and roadway division with the official level of service report.

Another task for Hillsborough County included identifying all intersections that went under construction during our data period, 1999, 2000, and/or 2001. If an intersection was under construction between 1999 and 2001 it would be excluded from analysis for that particular timeframe. Modification information was received in spreadsheet form from the county. There were a total of 12 intersections that were to be excluded from at least one year's analysis.

The crash data was then downloaded from the county's ftp site, which included both long and short forms for years 1999 to 2001. Another code was written to extract each crash individually into an Excel spreadsheet, which would allow for much easier manipulations. When this task was finished, each intersection listed in the crash file was manually reviewed and the unique county number was attached to the ones that had been included in the geometry database.

The next step taken was to associate the available intersections with their respective crashes occurring between 1999 and 2001. Crash information was downloaded from the county's FTP site and included both long and short forms with the type clearly stated. To link these crashes, an Excel spreadsheet was created with the different spellings of each intersection as well as the intersection's unique county number that was assigned to the intersection. Then a SAS code was written to perform two tasks; first, to associate the crashes with the link from the Excel spreadsheet and, second, to use the link again to associate crashes with their respective geometry information. Upon completion, a master database was created for Hillsborough County and was crosschecked with the FDOT Mainframe and DHSMV database to ensure completeness.

3.2.4 City of Orlando

Two CD-ROMs were obtained from the City of Orlando; one containing intersection geometry and signal timing details for 355 intersections in the City of Orlando, and the other containing the crash specifications of each city intersection. About one-third of the intersections in the database involved one-way streets.

Of the 355 intersections in the City of Orlando that were received in the drawings from city officials, geometry characteristics could be collected for most of them. The speed limit values for the approach roadways were collected from Internet sources. However, of those the AADT values were known for only 171 intersections. Due to the fact that most of City of Orlando's intersections are nearby at least one other intersection, AADTs for intersections missing this information was interpolated using the two nearest intersections. If the nearby intersections both had AADT counts, then the missing intersection's AADT would be the average of these actual AADTs. This process turned

out to be particularly tedious but worthwhile because AADT could be identified for 124 more intersections, increasing the number of intersections for the City of Orlando to 295.

A geometry spreadsheet was created for the city and the intersections were classified in the same way as for the aforementioned counties.

The crash details for the City of Orlando were obtained in the form of an Access database, in a similar format as for Seminole County. This database contained crashes for the years 2000, 2001 and 2002. The crash list included both long and short forms for the years 2000 to 2002. A SAS code was written to match crashes with the intersection's characteristics by way of a unique number that was assigned to each intersection. This database generated was crosschecked for completeness and accuracy.

3.2.5 Brevard County

Brevard County was originally contacted for cooperation and was able to provide hand-drawings for about 150 signalized intersections. Each drawing was categorized and information was recorded into a geometry database showing each intersection. When this was complete, intersection AADT information was found from the Internet and the database was updated.

After completing the geometry database for the intersections, Brevard County was contacted again for a crash list. The county provided an Excel spreadsheet listing each long and short-form crash for the years 2000 to 2002. A code was written to extract crashes and the unique county numbers were attached to all of their locations. Some additional crashes were added to the database obtained from the FDOT Mainframe's CAR database. The next step was to use the county numbers attached to the crashes to match them individually to the intersection where the crash occurred based on the

geometry database and create another master county database as was done in other counties.

3.2.6 Miami-Dade County

Several CDs were obtained from the county containing geometric information for a total of 3200 intersections. Upon looking into these, it was found that many intersections were not signalized, some were signalized pedestrian crosswalks, and others were mechanical bridges. Also, crash records could not be retrieved from the county. Therefore all crashes had to be downloaded from the FDOT Mainframe's CAR database. The FDOT database reports long-form crashes from state roads only. Hence 1501 state road drawings were identified from the 3200 that the county had sent. Of these intersections the geometric information was recorded for 580 state-road intersections. This information only included size of the intersection, e.g., number of left turn lanes, roadway median type and whether the right turn was channelized. The database contained no information on AADT, k-factors or speed limits. The county was unable to provide any more information. Since the roads in the database were only state road intersections, the AADT and k-factors were extracted from the FTI2003 CD-ROM from FDOT.

The crash list was obtained from the FDOT mainframe database by specifying the intersection in the mainframe and specifying the time period for which the crashes had to be downloaded. This procedure proved to be time consuming but worthwhile because 28,380 (of which 21,176 were unique crashes that were related to the intersections) crashes were downloaded for 413 intersections in Miami-Dade County for the years 1999, 2000, 2001 and 2002. These crashes extracted from the FDOT crash database were crosschecked with the DHSMV database to make sure that the database was consistent.

The final step was to link the crashes to their respective intersections and geometry information. This was done by writing a SAS program to join the intersections to the crashes by the intersection ID common to both the geometry and crash databases. The method was similar to the one used in the joining the geometry and crash files in the other counties. Thus the master database developed included crash and geometric information for 413 intersections in Dade County.

3.3 Summary of the Databases

The data collected for each of the six counties consisted of geometry and crash databases in different formats. These databases were combined to form a Master Database that contained all the characteristics of a particular crash as found in the crash database, and also the intersection characteristics as found in the geometry database. This step provided one final database for each county.

One important aspect that came up while building the Master Database was whether to include short form crashes in the database. A database of both long and short form crashes was developed for City of Orlando, Brevard, Hillsborough and Seminole counties. Although the Orange County crash databases were obtained from the county, Orange County does not keep a record of short forms. As for Miami-Dade, the county was unable to provide the crash database and thus the crash database was downloaded from the FDOT sources that contained only long form crash records for intersections with at least one road being a State Road. Therefore, except for Orange and Miami-Dade Counties, all other counties contained crash databases consisting of both long and short forms. It was decided upon to include these crashes, because, there will be a consistent under reporting some types of crashes (such as PDO crashes, which tend to be rear-end in

many cases) if they are not accounted for. Hence the Master Databases contained both long and short form crashes for the four counties: Brevard, City of Orlando, Hillsborough and Seminole, while they contained only long form crashes for Miami-Dade and Orange counties. Since FDOT was only interested in long-form reported crashes, the focus of the project has been on these crashes. But detailed records of all types of crashes were included.

The complete summary of the Master Databases of all six counties has been tabulated in Table 3-2.

Table 3-2 Summary of data in all six counties

	Intersection Type	Includes Types:	Brevard	Hillsborough	Orange	City of Orlando	Seminole	Miami-Dade	Sub-total	Total
Classification	6 x 4	8 x 6		1					**1**	**90**
		8 x 4		5				2	**7**	
		6 x 6		1	4	1	1	5	**12**	
		6 x 5				1		1	**2**	
		6 x 4	2	8	24	5	6	23	**68**	
	6 x 2	6 x 3			5	3		9	**17**	**158**
		7 x 3					1		**1**	
		8 x 2		6			2	2	**10**	
		6 x 2	7	16	27	14	19	47	**130**	
	4 x 4	5 x 4			1	1	1	6	**9**	**158**
		4 x 4	11	16	40	23	18	41	**149**	
	4 x 2	4 x 3	2	1	14	6		6	**29**	**541**
		5 x 2			1	3		4	**8**	
		4 x 2	76	50	109	90	60	119	**504**	
	2 x 2	3 x 3				1			**1**	**175**
		3 x 2				4	1		**5**	
		2 x 2	17	40	36	33	30	13	**169**	
	SubTotal		115	144	261	185	139	278	**1122**	
	3-Legged		24	32	36	41	55	61	**249**	**249**
	One Ways/Ramps		12	15	15	69	6	74	**191**	**191**
	Total		**151**	**191**	**312**	**295**	**200**	**413**	**1562**	
	AADT		Yes	Yes	Yes	Yes	Yes	Yes		
Data Availability and sources	k Factor		No	Yes	Yes	No	No	Yes		
	Speed Limit		Yes	Yes	Yes	Yes	Yes	Yes		
	Turning Volumes		23 sites only	No	Yes	No	No	No		
	Signal Timings		No	No	Yes	No	No	No		
	Modification dates		No	Yes	Yes	No	Yes	No		
	Long vs. Short Forms		Both Forms	Both Forms	Long Only	Both Forms	Both Forms	Long Only		
	Crash Years		00,01,02	99,00,01	99,00	00,01,02	99,00,01	99,00,01,02		
	Crash Source(s)		Excel file from County	County FTP Site	County, FDOT Site & Copies	CD from the city for the 3 years	Access file from County	FDOT Site		
	Number of crashes		4297	7422	3616	11267	5461	21176	**53239**	
	Long/Short Crashes		1183 / 3114	3706 / 3716	3616 / -	4534 / 6733	2107 / 3354	21176 / -	**36322 / 16917**	
	Master-Database		Done	Done	Done	Done	Done	Done		

4 CLASSIFICATION

4.1 Classification of Intersections

The intersections were classified into various groups in order to study the crash patterns. In order to identify the best AADT values to classify intersections of a particular configuration, the AADT/major-lane values were tabulated for the intersections of Orange County. Orange County was chosen for the analysis because it was the first county to have a complete database. Histograms can be used to display either the frequency or relative frequency of the measurements falling into specific intervals. They are useful in checking the distribution visually. The tabulated AADT/lane values were plotted as relative frequency histograms, as shown in Figure 4.1 for 4 x 2 intersections.

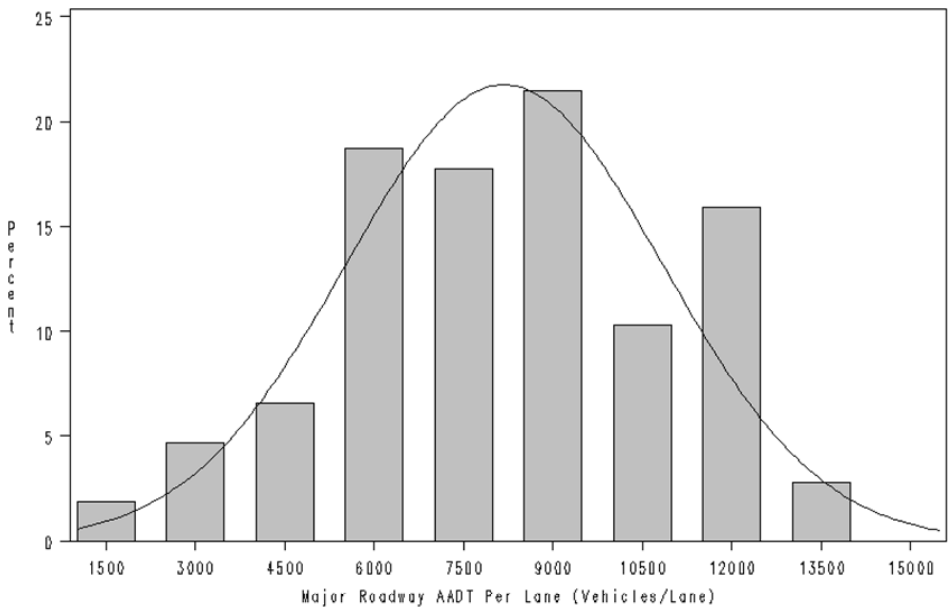

Figure 4.1 Histogram for Major Roadway AADT Per Lane (vehicles/lane) for 4 x 2 Intersections with a Normal Curve

Similarly, histograms were plotted for each type of intersection for AADT/lane for minor roads and total AADT for the entire intersection. Figure 4.2 and Figure 4.3 show such relative frequency plots for 4 x 2 intersections.

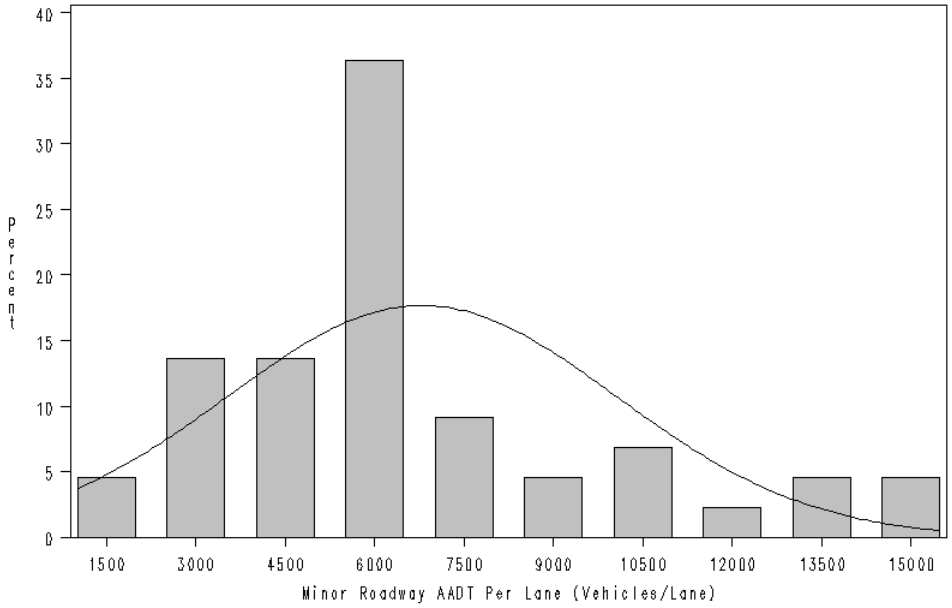

Figure 4.2 Histogram for Minor Roadway AADT Per Lane (vehicles/lane) for 4 x 2 Intersections with a Normal Curve

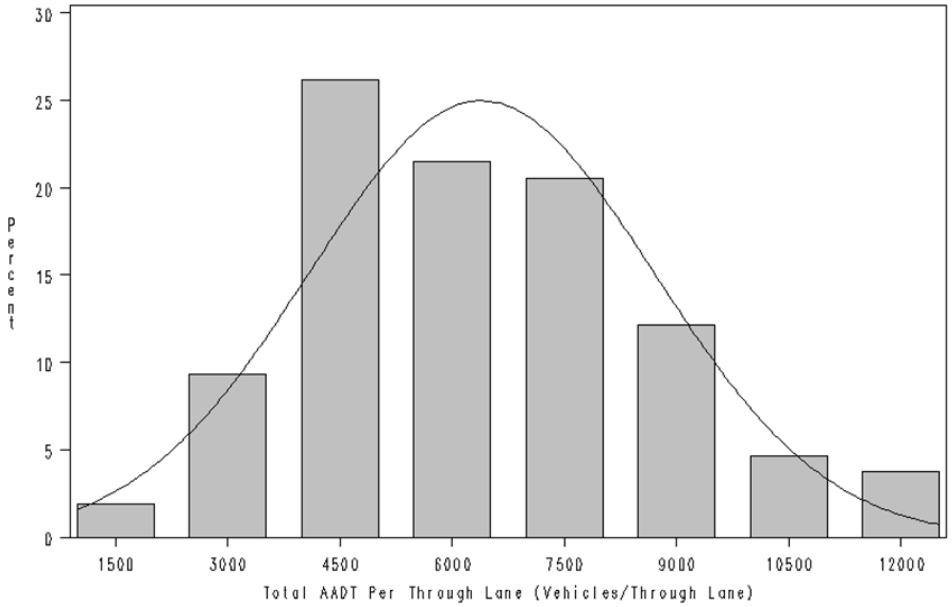

Figure 4.3 Histogram for total AADT per lane (vehicles/through lanes) for the entire intersection for 4 x 2 Intersections with a Normal Curve

Looking at the histograms, it was fairly reasonable to deduce that AADT/lane for the major road followed a somewhat normal distribution and therefore it was decided to use it to classify intersections based on traffic volume. After deciding on using AADT/lane for major road for classification of the intersections, the intersections were further categorized based on AADT/lane.

In case of classifying each intersection configuration into high/low traffic volume, a cut-off AADT/lane had to be identified. The cumulative frequency plots for each type of intersection were carefully analyzed and the 50^{th} percentile volumes were estimated for this purpose. It was checked if a balance was maintained after each type of intersection was classified as per average AADT per lane, i.e. if more or less, equal number of intersections fell in the below and above cut-off points. For example, the cut-off point for 2x2 intersections was set at 5,000 as this resulted in the distribution of intersections below and above 5,000 equally. 4x2 intersections were further classified based on the total number of left-turn lanes (i.e. ≤ 2 or > 2) for all approaches. The complete summary of the categories is listed in Table 4-1. Table 4-2 indicates the category of intersections present in each county.

Table 4-1 Classification of intersections into 19 categories

Size	MJ AADT/ MJ Lane	Category
2 x 2	≥5,000	1
	<5,000	2
4 x 2	≥7,000 (Total LTL ≤ 2)	3
	≥7,000 (Total LTL > 2)	4
	<7,000 (Total LTL ≤ 2)	5
	<7,000 (Total LTL > 2)	6
4 x 4	≥7,500	7
	<7,500	8
6 x 2	≥7,500	9
	<7,500	10
6 x 4 and 6 x 6	-	11
3-Legged (T-intersections)	≥7,500	12
	<7,500	13
One Way Major	-	14
One Way Minor	-	15
Both Major and Minor One-Way	-	16
Ramp Intersections	≥7,500	17
	<7,500	18
3-Legged Intersection with at least one One-Way Street		19

Table 4-2 Categories of intersections present in each county's master database

County	Categories Present
Brevard	1 to 8, 10 to 13, 17, 18
City of Orlando	1 to 4, 6 to 16
Miami-Dade	1, 3 to 19
Hillsborough	1 to 14, 17, 18
Orange	1 to 13
Seminole	1, 2, 4 to 13

Once the intersections were broken down according to type, we began the process of determining means, standard deviations and percentiles for each category. Tables were made to incorporate all the data related to eight (8) different divisions, which consisted of collision type, severity class, light conditions, weather, surface conditions, month of the year, day of the week and hour of the day. A versatile code was written in SAS to

compute crash statistics like mean, standard deviation and the 85th, 90th and 95th percentiles for all the nineteen classification tables that contained the above mentioned categories and their respective crash summary. Table 4-3 gives a sample of the table developed. The top header of the table indicates the category (10) and configuration (6x2) of the intersections used to develop the table, and the number of intersections (16) present in this category. The numbers in the first column indicate the total number of crashes pertaining to their respective crash criteria (Collision type, Severity etc.) averaged over the years 1999, 2000, 2001 and 2002 for Miami-Dade County. The numbers in the second column represent the average crashes per intersection per year. The rest of the columns indicate the mean crashes per intersection per year, the standard deviations for every category, and the 85th, 90th and 95th percentile of crashes.

Similar tables were developed for the 19 categories of intersections in all six counties. The tables for Brevard County can be found in Appendix A, City of Orlando in Appendix B, Miami-Dade County in Appendix C, Hillsborough County in Appendix D, Orange County in Appendix E, and Seminole County in Appendix F.

Table 4-3 A sample of a classification table for Dade County

EXPECTED ANNUAL ACCIDENT TABLE - DADE COUNTY

TYPE 10 - 6 LANE x 2 LANE SIGNALIZED INTERSECTION, AADT PER LANE ON MAJOR ROAD < 7,500

TOTAL NUMBER OF INTERSECTIONS - 16

		Average Number Crashes Per Year*	Mean Crashes Per Year Per Intersection	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	59	3.69	2.87	7	7	7
	Head On	2	0.11	0.20	0	0	0
	Angle	45	2.81	2.47	6	6	6
	Left Turn	30	1.84	1.79	4	5	5
	Right Turn	4	0.22	0.29	1	1	1
	Sideswipe	16	0.97	0.75	2	2	2
	Pedestrian/Bicycle	4	0.22	0.26	0	1	1
	Other/Unknown	17	1.05	1.06	2	2	2
Severity	No Injury	66	4.09	2.56	7	8	8
	Possible Injury	35	2.16	1.85	4	4	4
	Non-Incapacitating Injury	18	1.11	1.22	2	3	3
	Incapacitating Injury	6	0.39	0.57	1	1	1
	Fatal Injury	1	0.06	0.11	0	0	0
Light Conditions	Daylight	124	7.73	5.38	14	15	15
	Dusk	5	0.30	0.31	1	1	1
	Dawn	3	0.17	0.31	0	1	1
	Dark (w/street lights)	43	2.67	1.97	5	5	5
	Dark (w/o street lights)	1	0.03	0.09	0	0	0
Surface Conditions	Dry	146	9.14	6.44	17	18	18
	Wet	26	1.63	1.21	3	3	3
	Others	2	0.14	0.22	0	0	0
Month of Year	January	18	1.14	0.82	2	2	2
	February	14	0.84	0.65	2	2	2
	March	17	1.06	0.70	2	2	2
	April	14	0.89	0.72	2	2	2
	May	17	1.06	0.85	2	2	2
	June	14	0.86	0.61	2	2	2
	July	16	0.98	1.11	2	3	3
	August	18	1.11	0.96	2	3	3
	September	13	0.78	0.55	1	1	1
	October	13	0.78	0.68	2	2	2
	November	11	0.69	0.57	1	2	2
	December	11	0.70	0.61	1	2	2
Day of Week	Monday	20	1.22	1.02	2	3	3
	Tuesday	24	1.48	0.95	2	3	3
	Wednesday	27	1.69	1.34	2	3	3
	Thursday	27	1.70	1.19	3	3	3
	Friday	29	1.80	1.46	3	4	4
	Saturday	27	1.69	1.35	3	4	4
	Sunday	21	1.33	0.83	2	2	2
Hour of Day* **	00:00 - 06:00	14	0.86	0.79	2	2	2
	06:01 - 09:00	14	0.86	0.81	2	2	2
	09:01 - 11:00	11	0.66	0.51	1	1	1
	11:01 - 13:00	11	0.66	0.76	1	2	2
	13:01 - 15:00	12	0.77	0.78	1	2	2
	15:01 - 18:00	31	1.92	1.32	3	4	4
	18:01 - 24:00	34	2.09	1.34	4	4	4

* Crashes extracted for years 1999, 2000, 2001and 2002 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

*** Hour of Day statistics are based upon a portion of the crashes with time information available.

4.2 Summary

This section illustrated the method that was utilized in classifying intersections in each county into 19 categories. AADT per lane on the Major roadway was found to be the best variable using which the classification based on traffic volume was performed. The tables developed for the six counties are helpful in obtaining the average crash frequency in these counties. Depending on the configuration and AADT at the intersection, the tables provide a simplistic method of estimating the average crash frequency at the intersection per year. The tables also provide the crash frequencies at the intersections based on the collision type, severity, light and surface conditions, time, days and months.

5 COMBINING THE DATA

The previous chapters have described the process of building the crash databases of each of the six counties. These crash databases were combined to form a complete database in order to study the crash characteristics for the overall state (represented by the 6 jurisdictions from which data were collected). The database was developed for the years 2000 and 2001 for all counties (except for Orange County for which the 1999 and 2000 year database was used because the 2001 database was not available). This database consisted of 20948 crashes for 1562 intersections for two years. The database consisted of the following fields:

1. Crash Number
2. Intersection ID of the intersection at which the crash occurred
3. Major and Minor roadways of the intersection
4. Traffic Volume (AADT) on the major and minor roadways
5. Speed Limits on the major and minor roadways
6. K-factors for the major and minor roadways
7. Number of through lanes on the major and minor roadways
8. Protected, exclusive and total left turning lanes on the major and minor roadways
9. Channelized right running lanes on the major and minor roadways
10. Divided or undivided roadway segments on all approaches
11. Collision type of the crash
12. Severity of the crash
13. Light conditions at the time of the crash

14. Surface conditions at the time of the crash

15. Date and time of the crash

Tables for the expected number of crashes for the 19 categories were developed for this database. These tables have been listed in Appendix G.

6 TESTS TO COMPARE EACH COUNTY TO THE COMBINED DATABASE

Since the tables for the expected number of crashes on long forms for each county as well as for the combined database were prepared for the 19 categories, statistical tests were conducted to find out if there was a significant difference between the tables for each county and the tables for the combined six counties. This could be used in determining if the tables for the combined database can be referred to for finding the crash characteristics of a county, rather than referring to each county's tables. For example, this analysis would enable us to see if the mean number of sideswipe crashes for a 6 x 2 intersection in Brevard County is any different from the sideswipe crashes for a 6 x 2 intersection for the combined six counties. If they are the same, the characteristics for the sideswipe crashes for the 6 x 2 intersections in Brevard County tables for expected number of crashes would be similar to those in the combined database tables. Hence the tables for the combined database can be used in such a case instead of referring to each of the county tables.

This analysis was completed by conducting a Student's t-test to compare the mean number of crashes of each county to the means of the combined database. The results were tabulated and a sample is shown in Table 6-1. The mark "√" in the table indicates that the mean number of crashes for a particular county is not statistically different at the 95 confidence level to the mean number of crashes in the combined database, indicating that the data from the combined database can be used for these counties and categories (not significantly different). BC denotes Brevard County, CO denotes City of Orlando, HC denotes Hillsborough County, OC denotes Orange County, SC represents Seminole County and DC denotes Dade County. Category 19 was not included because this

category has been assigned only in Dade County. Appendix H includes all the 18 comparison tables.

Table 6-1 Comparison of means of each of six counties to the means of the combined six counties

Type 4

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road ≥ 7000 (LT lanes > 2)

		BC	CO	HC	OC	SC	DC
Collision Type	Rear End		√	√	√	√	
	Head On	√		√	√	√	√
	Angle			√	√		
	Left Turn				√	√	
	Right Turn			√	√	√	√
	Sideswipe	√	√	√	√	√	
	Pedestrian/Bicycle	√	√	√	√	√	√
	Other	√	√	√		√	
Severity	No Injury			√		√	
	Possible Injury	√		√	√	√	
	Non-Incapacitating Injury	√	√	√		√	
	Capacitating Injury	√	√		√	√	√
	Fatal Crashes	√	√	√	√	√	√
Light Conditions	Daylight			√	√	√	
	Dusk	√	√	√	√	√	√
	Dawn		√	√	√	√	√
	Dark (w/street lights)			√		√	
	Dark (wo/street lights)	√	√	√		√	√
Surface Condition	Dry						
	Wet	√	√	√	√	√	
	Others	√		√		√	√
Month of year	January	√	√	√	√	√	
	February	√	√	√	√	√	
	March	√	√	√	√	√	
	April	√	√	√	√	√	
	May	√	√	√	√	√	
	June	√	√	√	√	√	
	July		√	√	√	√	
	August		√	√	√	√	
	September		√	√	√	√	
	October	√	√	√	√	√	
	November	√	√	√	√	√	
	December	√	√	√	√	√	
Day of week	Monday			√	√	√	
	Tuesday		√	√		√	
	Wednesday		√	√		√	
	Thursday		√	√		√	
	Friday			√		√	
	Saturday	√		√		√	
	Sunday	√	√	√		√	
Hour of day	00:00 - 06:00	√	√	√	√	√	
	06:01 - 09:00	√	√	√	√	√	
	09:01 - 11:00	√	√	√	√	√	
	11:01 - 13:00	√	√	√	√	√	√
	13:01 - 15:00	√	√	√	√	√	
	15:01 - 18:00	√	√	√	√	√	
	18:01 - 24:00					√	

7 A SIMPLISTIC PRACTICAL APPROACH TO IDENTIFY TRAFFIC CRASH PROFILES AT SIGNALIZED INTERSECTIONS

7.1 Introduction

It is generally believed that increasing the size of intersections increases capacity and thereby alleviates congestion and improves safety. In fact, the number of lanes is closely associated with capacity and average traffic volume at intersections. Mucsi and Khan (2003) demonstrated that increasing the number of lanes has some marginal effects on increasing capacity and reducing delay at signalized intersections. However, the effect of increasing the number of lanes on crash risk is more complex. For instance, additional lanes may potentially reduce the risk of head-on crashes at intersections but may also result in many drivers traveling at higher speeds, leading to more rear-end crashes. Also, other intersection characteristics may influence driver behavior and cause different crash patterns at different types of intersections.

Many studies on crashes at intersections have examined the effect of the size of intersections on crash risk. Pernia et al. (2002) examined the relationship between the average number of crashes at intersections and the number of lanes. They observed that the average number of crashes increased as the number of lanes on major roads increased. Bauer and Harwood (1996) found contradictory results that the expected number of crashes at the four-legged unsignalized intersections decreases as the number of lanes on the major road increases using a negative binomial regression model. Huang et al. (2000) described the intersection characteristics in more detail. This research examined the impact of the total number of lanes including left-turn and right-turn lanes and the directions of travel (one-way or two-way) on pedestrian crashes at intersections.

However, these studies only considered the number of lanes on major roads or the number of approach lanes, without simultaneously considering the number of lanes on minor roads or the number of crossing lanes.

On the other hand, some studies took into account the number of lanes on both major and minor roads at intersections and its impact on crash risk. Porter and England (2000) concluded that more red-light running tended to occur at intersections with more lanes on both approaches, which could imply that the likelihood of a crash at larger intersections is greater. However, their results are based on the crashes at only six intersections and they did not clearly define the size of intersections in terms of the number of lanes. Therefore, they failed to extensively show the trend of crash risk with an increase in the number of lanes. Mohamedshah et al. (2000) explicitly considered the total number of lanes including turning lanes to examine the effects of number of lanes on red-light running crashes at signalized intersections. They used the total number of lanes on major and minor roads separately as a surrogate measure of intersection width and found that the number of crashes on minor roads increased with each additional lane on major roads. Hill and Lindly (2003) considered both the number of approach lanes and crossing lanes to account for the impact of the size of intersections on crashes. However, the number of approach lanes does not include the number of lanes on the opposite approach. Clearly, these studies focused on the relationship between crashes and the number of lanes in particular directions of travel, rather than the general relationship in all directions of travel.

The limitations with the past studies are summarized as follows. First, since they only considered the number of lanes in the road where crashes occurred, they failed to

take into account the effect of traffic approaching from opposite directions or crossroads at the same intersection. Second, the studies tend to rely on police crash reports which normally include through lanes only in the total number of lanes. However, the number of exclusive left-turn and right-turn lanes increases capacity of intersections and the likelihood of crashes in turning movement. Thus, the turning lanes must be included in the total number of lanes. Third, the studies mainly focus on the number of lanes without distinguishing the different types of intersections. For instance, although total number of lanes may be the same for the four-legged intersections and the three-legged intersections, the crash patterns may be different between the two intersection types.

To overcome these limitations in the past studies, and to account for the intersection types, geometric and traffic characteristics on both major and minor roads, the size of the intersection is used. The size is represented by the sum of the total number of lanes at all approaches including the through, left and right turning lanes. Using this simple and easy to identify measure, the size of the intersection, we can also capture many geometric and traffic features of the intersection, since the number of lanes (size) could be a surrogate to the traffic volume, crossing width, signal cycle length, phasing, etc. While this study investigates the effects of type of intersections and the number of lanes (size of intersection) on the expected number of crashes per intersection per year (crash frequency) by type and severity, in addition a simplistic method is developed to assist traffic engineers in identifying the expected crash patterns at intersection and therefore conduct a quick and efficient safety evaluation of signalized intersections.

7.2 Description of Data

This study used the records of crashes at signalized intersections in Brevard, Seminole, Dade, Orange, and Hillsborough Counties and the City of Orlando, Florida. Each county provided a database of crash reports for three years (except Orange County). There were a total of 26,603 crashes at 1,335 intersections in the six counties over 3 years. The crash database includes information on crash type, severity, month, day and time, average daily traffic (ADT) on the major roadway and the K-factor. Crashes are categorized into the following eight types: rear-end, sideswipe, head-on, angle, left-turn, right-turn, pedestrian-bicycle and other crashes. Injury severity of crashes is categorized into fatal, incapacitating, non-incapacitating evident, possible, and no injuries. Detailed CAD drawings of the intersections were also obtained from the respective counties/city. From the drawings of intersections, the detailed road geometric features (such as the number of through lanes, exclusive left-turn lanes and channelized right-turn lanes, the presence of medians, and the speed limits) were identified.

Intersections were classified into different types. The classification is typically based on the number of lanes on major and minor roads. For example, if the numbers of lanes on major and minor roadways of one intersection are 4 and 2, respectively, the intersection is classified as "4 × 2". However, this way of classification cannot clearly distinguish if one or both roadways are one or two-way roads, or the exact configuration of the intersection based on the number of exclusive left and right turn lanes. Therefore, it is a non-consistent way to identify the size and configuration of the intersection since, for example, a 4x2 intersection with one exclusive left turn lane at all approaches would be comparable to a 4x2 without any left turn lanes, although the first has a total of 10 lanes

(4 +2 + 4 left turn lanes) and the second has only 6 lanes (4 + 2). Although the intersection classifications of these intersections would be the same (4x2), the size and expected crash patterns would be different.

Thus, intersections were classified into the following three types – 1) four-legged two-way intersections; 2) four-legged one-way intersections; and 3) T-intersections (i.e. the three-legged intersections). The four-legged two-way intersections include only intersections where both the major and minor roads are two-way. The four-legged one-way intersections are those intersections where either major, minor or both roadways are one-way. The T-Intersections are those intersections with two-way major and minor roads. Among 1,335 intersections, there are 1,001 four-legged two-way intersections, 132 four-legged one-way intersections, and 202 T-intersections. The summary of the data is shown in Table 7-1.

Table 7-1 Description of crash and intersection data

Type of intersection	Number of intersections	Number of crashes	Average number of crashes per intersection	Range of total number of lanes at intersections
Four-legged two-way intersections	1,001	21,406	21.4	4~21
Four-legged one-way intersections	132	2,495	18.9	3~12
T-intersections	202	2,702	13.4	4~16

In the determination of size of intersections, the total number of lanes, was calculated as the sum of the number of lanes for through, exclusive left-turn, and channelized right-turn lanes. The larger the total number of lanes, the larger the size of

intersections. The range of the total number of lanes for each intersection type is also presented in Table 7-1.

7.3 Discussion of Results

The relationships among the expected crash frequency, type and severity and the total number of lanes were observed and compared across the size and type of intersections. In this study, the expected crash frequency is defined as the total number of crashes per year for each intersection type divided by the number of intersections for corresponding intersection type.

7.3.1 Expected Crash Frequency and Type

It was found that the average number of crashes per intersection per year increased as the total number of lanes increased for all types of intersections. However, the rates of increase differed for each crash type and intersection type. In comparing intersection types, crash frequency varies exponentially with the total number of lanes at the four-legged two-way intersections whereas the frequency varies in the function of a second-order polynomial at the four-legged one-way intersections and T-intersections as shown in Figures 7.1 to 7.3. An equation was fitted for the total average crash rate and all crash types. For space limitation, Figures 7.1 to 7.3 presents the equations for the expected total number of crashes (y_tot) and the most dominant type (rear-end, y_re or angle, y_a), as a function of the total number of lanes (x). The R-squared values indicate a good fit of the models particularly for the 4-leg two-way intersections (the most dominant type). In comparing the types of crashes that occurred in each intersection type, a rear-end crash was the dominant type of crashes followed by angle, left-turn, sideswipe,

right-turn, pedestrian/bicycle, and head-on crashes at the four-legged two-way intersections (Figure 7.1). At the four-legged one-way intersections, the angle crash was the dominant type of crashes followed by rear-end, sideswipe, left-turn, pedestrian/bicycle, right-turn, and head-on crashes (Figure 7.2). At the 3-legged intersections, the rear-end crash was dominant similar to the four-legged two-way intersections (Figure 7.3). The R-squared in Figures 7.2 and 7.3 are not as good as those in Figure 7.1, however the values are reasonable and there is a clear upward trend.

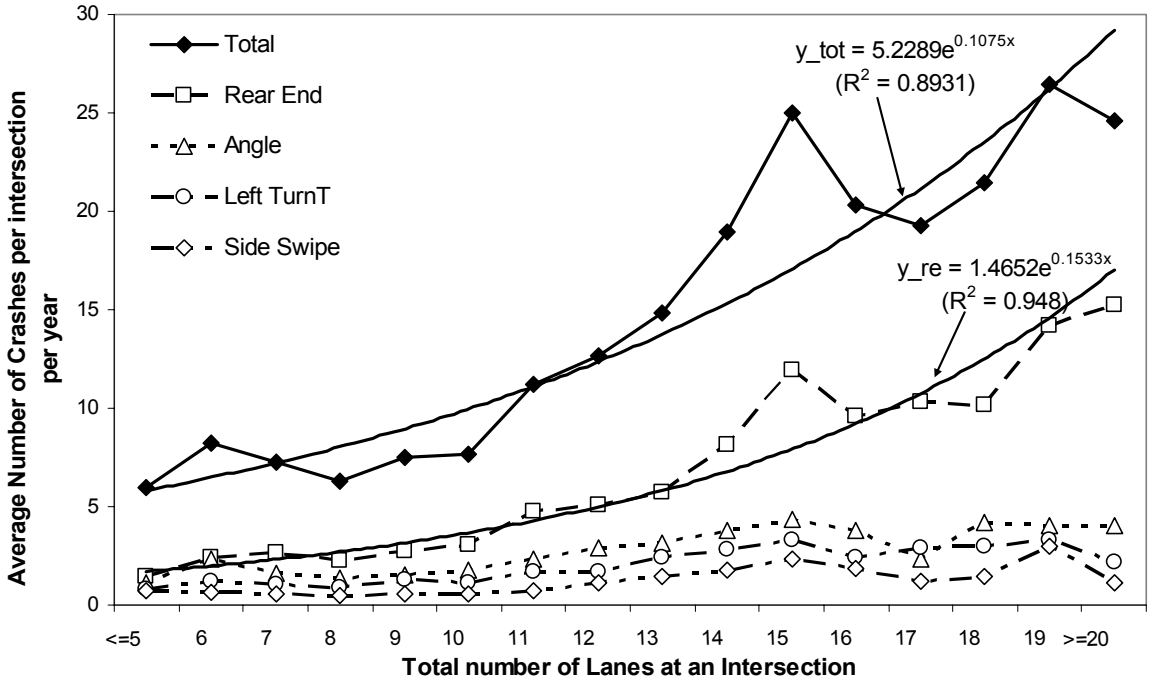

Figure 7.1 Relationship between average number of crashes and total number of lanes by crash types (4-legged two-way intersections)

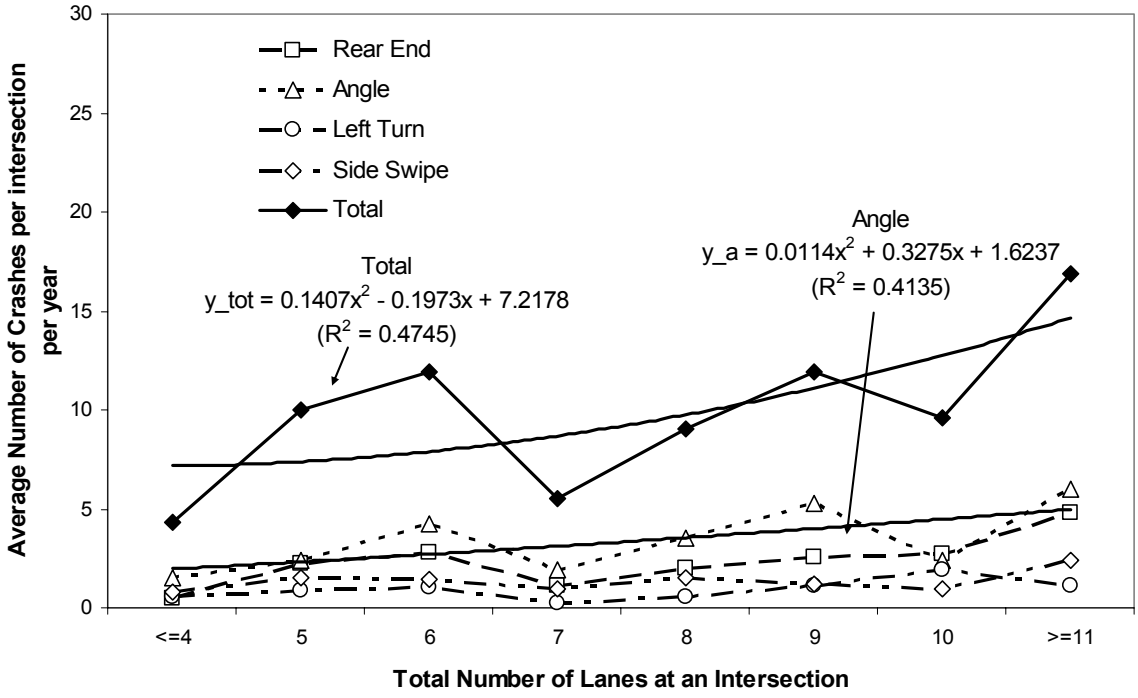

Figure 7.2 Relationship between average number of crashes and total number of lanes by crash types (4-legged one-way intersections)

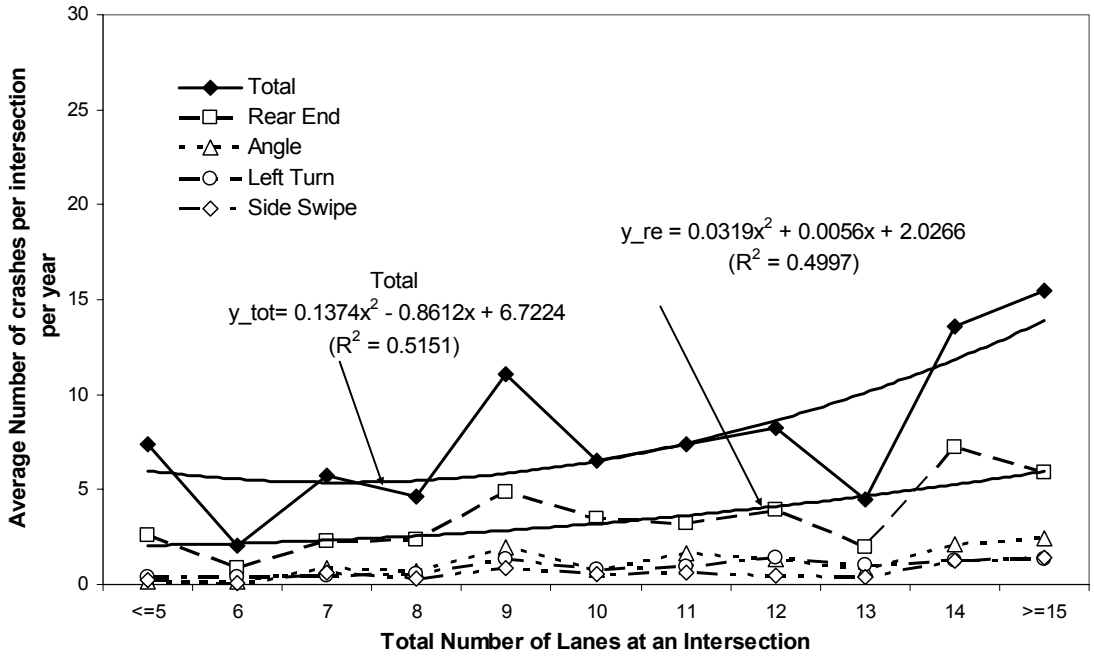

Figure 7.3 Relationship between average number of crashes and total number of lanes by crash types (3-leggedintersections)

These results are useful since they indicate that knowing the intersection's size makes it possible to predict the expected number of crashes and their type. It is important to note that this simplistic but new way of representing the intersection size is powerful. The number of lanes at any intersection is easy to observe and therefore applying the simple equations estimated in this work. Also the size used here represents implicitly many factors including the traffic volume, crossing width (for vehicles and pedestrians), and signal cycle and phasing.

The exponential increase of crash frequency with the total number of lanes at the four-legged two-way intersections implies higher crash risk with the increased size of intersections at this intersection type compared to the other intersection types. This may be because more directions of travel and vehicle movement at the four-legged two-way intersections increased the number of conflict points and consequently, the likelihood of crash occurrence.

It is interesting to note that the dominant type of crashes at the four-legged one-way intersections is the angle crashes unlike the other types of intersections where the dominant type of crashes is the rear-end crashes as shown in Figures 7.4 and 7.5. To investigate the cause of this result, the first contributing causes for the crashes were analyzed. A majority of the first contributing cause for the crashes at all intersection types was "careless driving". However, it was found that the percentage of "disregarded traffic signal" was relatively higher (15.5%) at the four-legged one-way intersections than the other intersection types (8.1% at the four-legged two-way intersections and 6.94% at the T-intersections). Also, there is a possibility that drivers make improper turns to one-way street by misjudging the direction of travel. Therefore, we can speculate that higher

rate of driver's disobeying traffic signals causes higher chances of crashes between vehicles traveling in different directions (i.e. angle crashes).

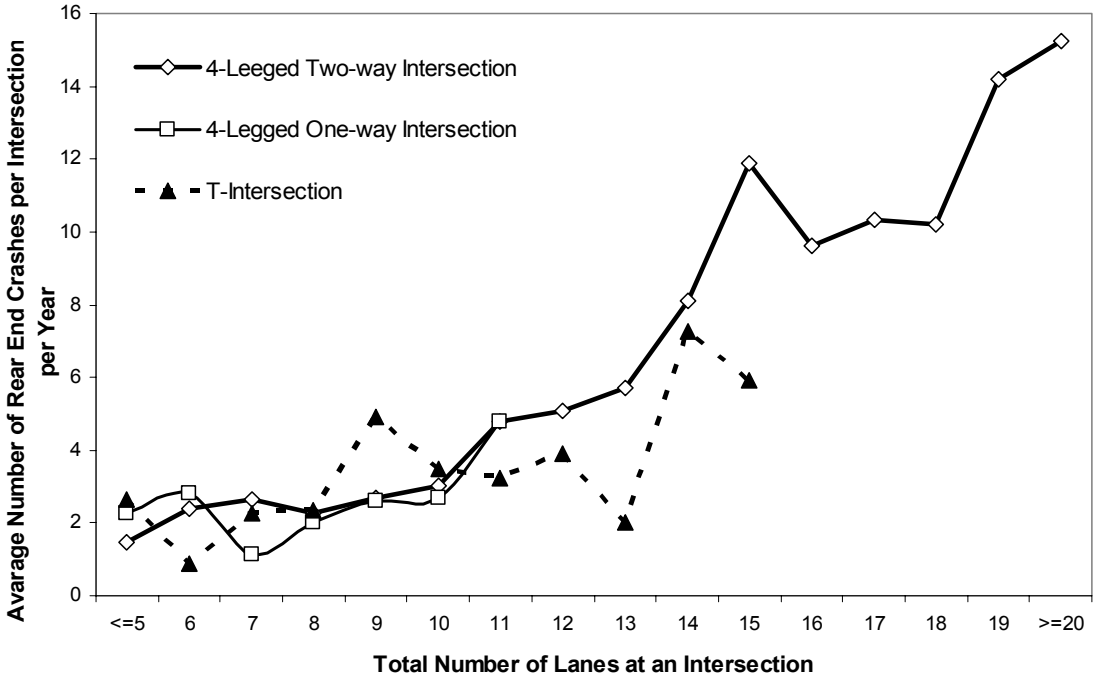

Figure 7.4 Comparison of average number of rear-end crashes among the intersection types

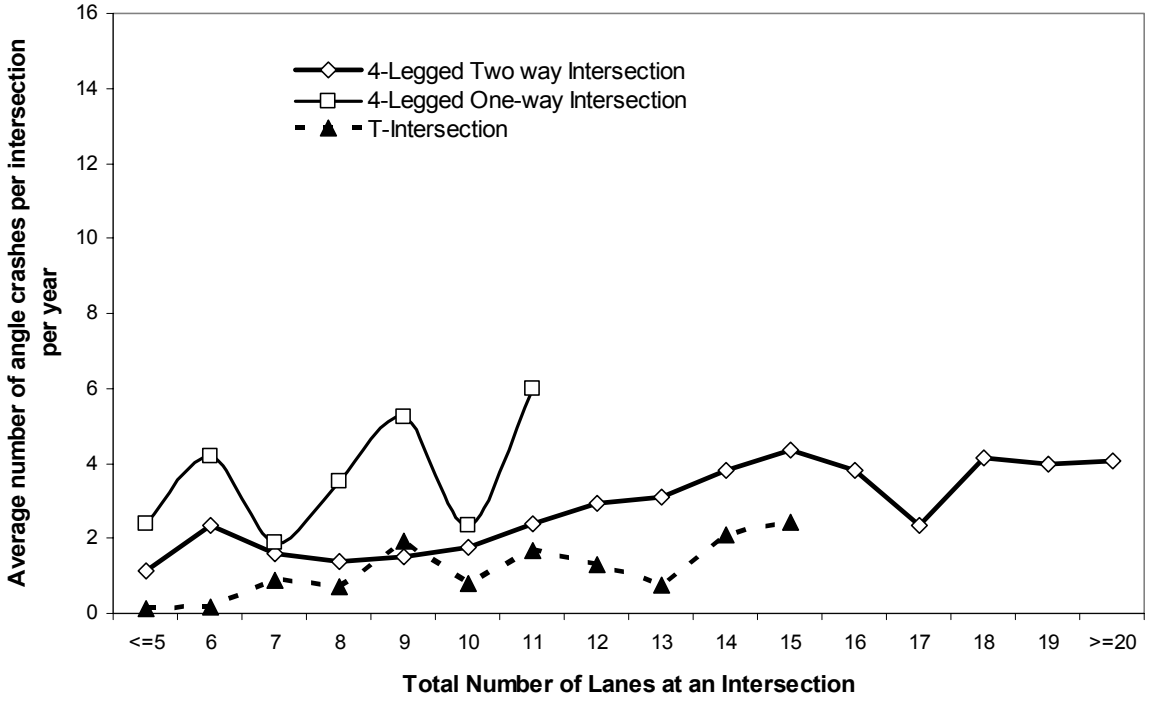

Figure 7.5 Comparison of average number of angle crashes among the intersection types

7.3.2 Injury Severity

In comparing injury severity of crashes by intersection types, the percentage of high injury crashes (i.e. fatal, incapacitating and non-incapacitating evident injuries) in total crashes was higher at the four-legged two-way intersections than the four-legged one-way intersections as shown in Figure 7.6. This is mainly due to more conflict points and the increased chances of higher impact of collisions.

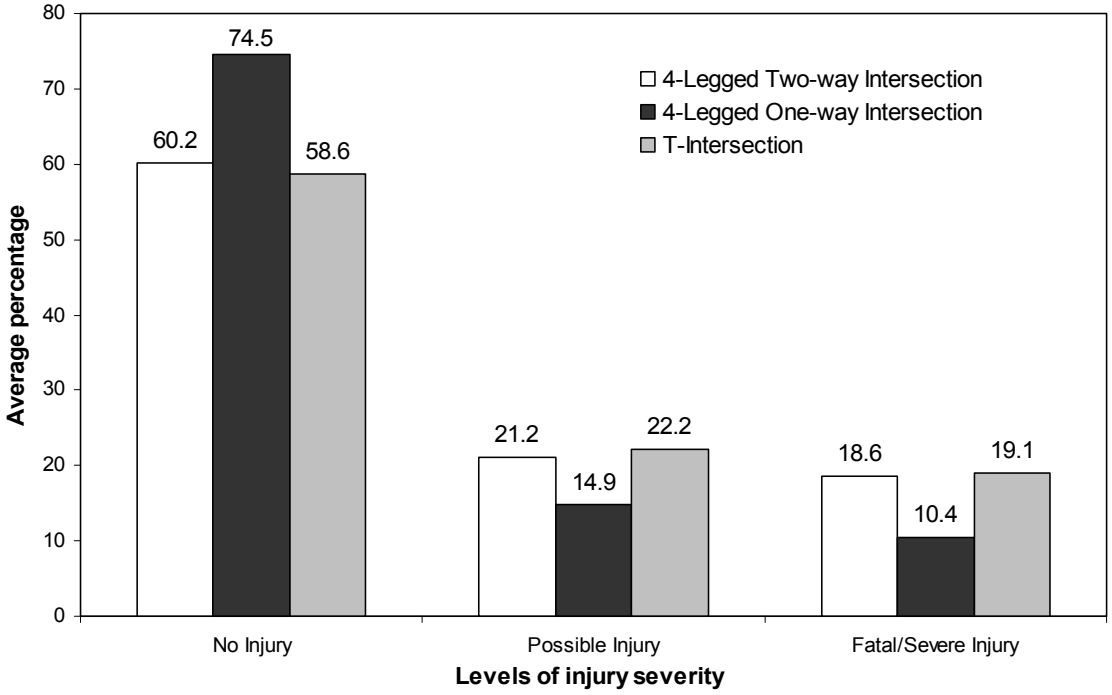

Figure 7.6 Comparison of injury severity among the intersection types

On the other hand, the proportion of high injury (incapacitating and fatal injuries) crashes was higher at the 3-legged-intersections (T-intersections) than the four-legged one-way intersections in spite of less conflict points as shown in Figure 7.6. At the 3-legged-intersections, a priority (e.g. higher speed limit, longer green-time) is usually given to major roads with higher traffic volume. To verify this characteristic, the average

difference in speed limits between major and minor roads per intersection was calculated at the intersections in all counties except Dade and Brevard counties where the speed limit data were not available for the minor roadways. It was found that the average speed limit difference was relatively higher at the T-Intersections (12.55 mph) than the four-legged two-way intersections (10.57 mph) and the 4-legged one-way intersections (6.7 mph). Thus, higher severity at the T-intersections may be because i) large speed difference between the major and minor roads caused higher impact of crashes when vehicles from different roads collide; and/or ii) the duration of red-light phase for minor roads is generally longer than major roads at the T-intersections and drivers on minor roads tend to be more impatient and rush into major roads. Such sudden movement is likely to reduce the amount of time to accelerate to meet the large increase in speed limit on the crossroad. For the same reason, smaller speed limit difference between major and minor roads at the four-legged one-way intersections resulted in relatively lower injury crashes compared to the other intersection types.

7.4 Conclusions

This study examined the variation of crash frequency and severity with the size and type of intersections. The size of intersections was represented by the total number of lanes on all roads including left-turn and right-turn lanes. The type of intersections was classified based on the directions of travel and the connection between major and minor roads. The results showed that the expected crash frequency expressed as the average number of crashes per intersection per year generally increased as the total number of lanes increased at all types of intersections. However, the rates of increase were different - crash frequency increased with the size of intersections at higher rate at the four-legged

two-way intersections than the other intersection types. This result suggests that as the intersection geometry becomes more complex, increasing the size of intersections has more impact on increasing the number of crashes. The result also showed that the dominant crash types were different at different intersection types. An angle crash was dominant at the four-legged one-way intersections unlike the other intersection types where a rear-end crash was dominant. On the other hand, higher severity was observed at the four–legged two-way intersections than the four-legged one-way intersections due to more conflict points. Contradicting results were also observed at the T-intersections where injury severity was higher in spite of less conflict points. This may be because large difference in speed limits between major and minor roads contributed to higher impact when two vehicles from different roads collide.

The findings in this study provide strong evidences that the patterns of crashes by type and severity vary with the size and type of intersections. This indicates that the characteristics of intersections not only change traffic patterns and driver behavior but also the patterns of crash occurrence. Thus, in the future analysis of crashes at intersections, we recommend that the size and type of intersections be considered to account for the effects of intersection characteristics on crash risk.

The appeal of using the approach developed in this research to use the intersection size represented by the total number of lanes from all approaches is the simplicity to apply and therefore identify the crash profile by type and severity. It would be easy for a traffic engineer to apply the simple equations developed here by knowing only the number of lanes, x in the equations shown in Figures 7.1 to 7.3 (an approach similar to the ITE trip generation manual). The engineer can simply calculate the expected crash

profiles (by type and severity), and therefore determine if a specific type or severity at a specific intersection is above these expected profiles and hence warrant a treatment. The attractiveness of using the intersection size is that it represents various traffic and geometric features of the intersection including both major and minor roadways, traffic volume, cycle length, number of phases, pedestrian crossing width, among other factors (i.e., larger intersections are expected to have more traffic, longer cycles and more phases).

8 NEURAL NETWORK TREES AND SIMULATION DATABASES: NEW APPROACHES FOR SIGNALIZED INTERSECTION CRASH CLASSIFICATION AND PREDICTION

8.1 Introduction

According to the Federal Highway Administration (FHWA) (2002), more than 2.8 million intersection-related crashes occurred in the United States in the year 2000, which represented 44% of the total crashes reported. Around 8,500 fatalities, representing 23% of the total fatalities, and almost one million injury crashes had occurred at intersections. FHWA also states that more than half of all rear-end crashes occur at or near intersections and more than one-third of all deaths to vehicle occupants occur in angle crashes. Both human and property damage losses from rear-end crashes cost the United States billions of dollars each year in medical expenses, lost productive time and numerous property insurance claims. The cost to society for intersection-related crashes is approximately $40 billion a year. According to the Bureau of Transportation Statistics, 6,328,000 crashes were estimated to have occurred in the year 2003, of which there were 42,643 fatalities and approximately 3 million injuries. Of these fatalities, 21% were reported as intersection fatalities. Therefore there is a need to analyze the crash patterns at various intersections and come up with models that can make the intersections safer. Therefore, the main objective of this analysis is to analyze the crash characteristics at signalized intersections and to develop models that will be helpful in increasing safety at intersections. This will be accomplished by estimating the frequency of crashes at signalized intersections using various geometric and traffic characteristics of the intersections.

8.2 Literature Review

Various analysis methods have been used in the past to study the safety of highways and intersections. Poch and Mannering (1996) presented a negative binomial analysis to study the relationship between road geometrics/traffic related elements and crash frequencies at intersections. Four different models were developed that predicted total crash frequency, rear-end crash frequency, angle crash frequency and approach turn crash frequency. The models are able to identify the factors that tend to increase/decrease the crash frequencies for various collision types. Hence the authors conclude that the negative binomial regression model can be satisfactorily used in identifying the significant traffic and geometric elements that tend to increase or decrease the crash frequency.

Another study to formulate practicable crash prediction models that would describe the expected number of crashes at junctions and road links in urban areas was conducted by Greibe (2003). A Poisson distribution model was used to identify factors affecting safety, geometry, land use, etc. The results for both roadway segments and intersections indicated that ADT contributed the most to crash frequency.

Abdel-Aty et al. (2005) used the HTBR (Hierarchical Tree Based Regression) model developed to predict the frequency of crashes in each collision type and to determine if there was a difference between models based on complete and restricted datasets. These models clearly indicated the factors that lead to increased crashes at signalized intersections.

Abdelwahab and Abdel-Aty (2001) discuss the classification of injury severities of crashes at signalized intersections into three levels (no injury, possible/evident injury,

and disabling injury/fatality) using Artificial Neural Networks (ANNs). MLP Neural Network and Fuzzy ARTMAP Neural Network are the two ANN models that have been used to classify the injury severities. The MLP neural network indicated a better classification accuracy.

The main objective of the work carried out by Abdelwahab and Abdel-Aty (2002) was to investigate the use of fuzzy Adaptive Resonance Theory MAP (ARTMAP) neural networks to analyze and predict injury severity of drivers involved in traffic crashes. The authors also carried out a simulation experiment to extract knowledge from the trained network. Simulated input patterns were created using all possible combinations of input variables. The variables were plotted and the relationships between them were identified. Then these results were transformed into marginal effects to show the significance of an input variable on driver injury severity.

A more recent publication by Abdelwahab and Abdel-Aty (2004) compares the injury severity level prediction capability of a Multilayer Perceptron (MLP) Neural Network to the prediction capability of a fuzzy Adaptive Resonance Theory (ARTMAP) neural network and an Ordered Probit Model. MLP was found to be a promising model in modeling injury severity.

Liu and Young (2004) developed models using back propagation MLP neural networks to study the effect of intersection characteristics on intersection related traffic crashes. The output obtained was very accurate for the test data. A sensibility study was conducted to find the variables that had a greater influence on the crashes. A scheme for improvement of intersection deficiencies was proposed using the generated model.

8.3 Methodology

Artificial Neural Networks (ANN) have been used in this study to analyze the safety of signalized intersections because of their strong advantages, like their ability to perform massive computations through their massively parallel distributed structure and their ability to learn and generalize (Christodoulou and Georgiopoulos, 2001).

MLP neural networks are an important class of neural networks and are very widely used. Typically, an MLP neural network consists of a set of source nodes that constitute the input layer, one or more hidden layers of computation nodes, and an output layer of computation nodes. A descriptive diagram of the MLP neural network is given in Figure 8.1. The input signal propagates through the network in a forward direction on a layer-by-layer basis.

The aim of the training phase of the MLP neural network is to map a given set of inputs in the training data, say x(1), x(2)…. x(PT), to the output values in the training data, say d(1), d(2),… d(PT) respectively. Hence the input x(p) has to be mapped to the output d(p). For this purpose, the following error function is constructed:

$$E^p(w) = \frac{1}{2}\sum_{i=1}^{I}[d_i^2(p) - y_i^2(p)]^2$$

The objective is to change the weights $\boldsymbol{w}$ so that the error function is minimized, which means that the actual output is being made as close as possible to the desired output. The error is back-propagated through the neural network to adjust for the weights between the layers. The error function is minimized using the gradient descent procedure that changes the weight vector $\boldsymbol{w}$ by an amount proportional to the negative gradient of the function *E(w)*. Using detailed calculations, Christodoulou and Georgiopoulos (2001)

determine the amount by which the weights in each layer can be changed so as to minimize the weight functions.

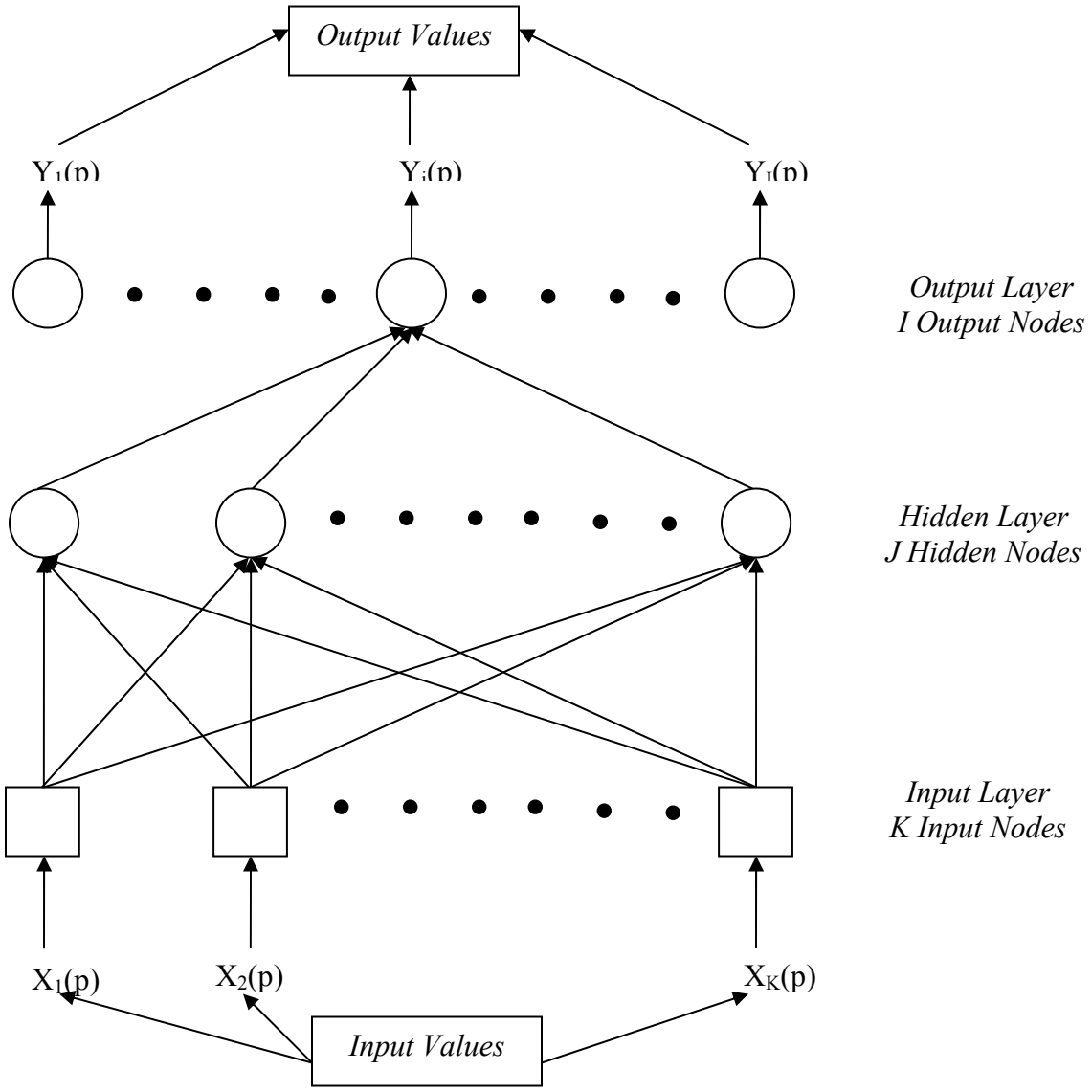

Figure 8.1 Multi Layer Perceptron Feedforward Network (Christodoulou and Georgiopoulos, 2001)

The error is minimized until a stopping criterion is met. The stopping conditions usually set are that the number of epochs (or presentations of the inputs) does not exceed a certain value, or the error function becomes sufficiently small (Christodoulou and Georgiopoulos, 2001).

The probabilistic neural network (PNN) was developed by Donald Specht. This network provides a general solution to pattern classification problems by following an approach of the Bayesian classifiers. The network paradigm also uses Parzen Estimators which were developed to construct the probability density functions required by Bayes theory.

The structure of the PNN has been shown in Figure 8.2. The input nodes provide the same input values to the nodes in the pattern layer. Each pattern unit forms a dot product of the input vector X with the weight vector Wi: Zi = X * Wi, and then performs a nonlinear operation on Zi before outputting its activation level to the summation unit (10). Instead of a sigmoid function commonly used for backpropagation, the nonlinear operation used in PNN is $\exp[(Zi - 1)/\sigma^2]$. Both X and Wi are normalized to unit length which is equivalent to using the probability density function:

$$F(X) = \exp(-(\mathbf{W}_i - \mathbf{X})^t(\mathbf{W}_i - \mathbf{X})/2\sigma^2)$$

Where *i* is the pattern number, **X** is the training pattern and σ is the smoothing parameter or the spread. The network is trained by setting the Wi weight vector in one of the pattern units equal to each of the X patterns in the training set and then connecting the pattern unit's output to the appropriate summation unit. A separate neuron (also called pattern unit) is required for every training pattern. The same pattern units can be grouped

by different summation units to provide additional pairs of categories and additional bits of information to form the output vector.

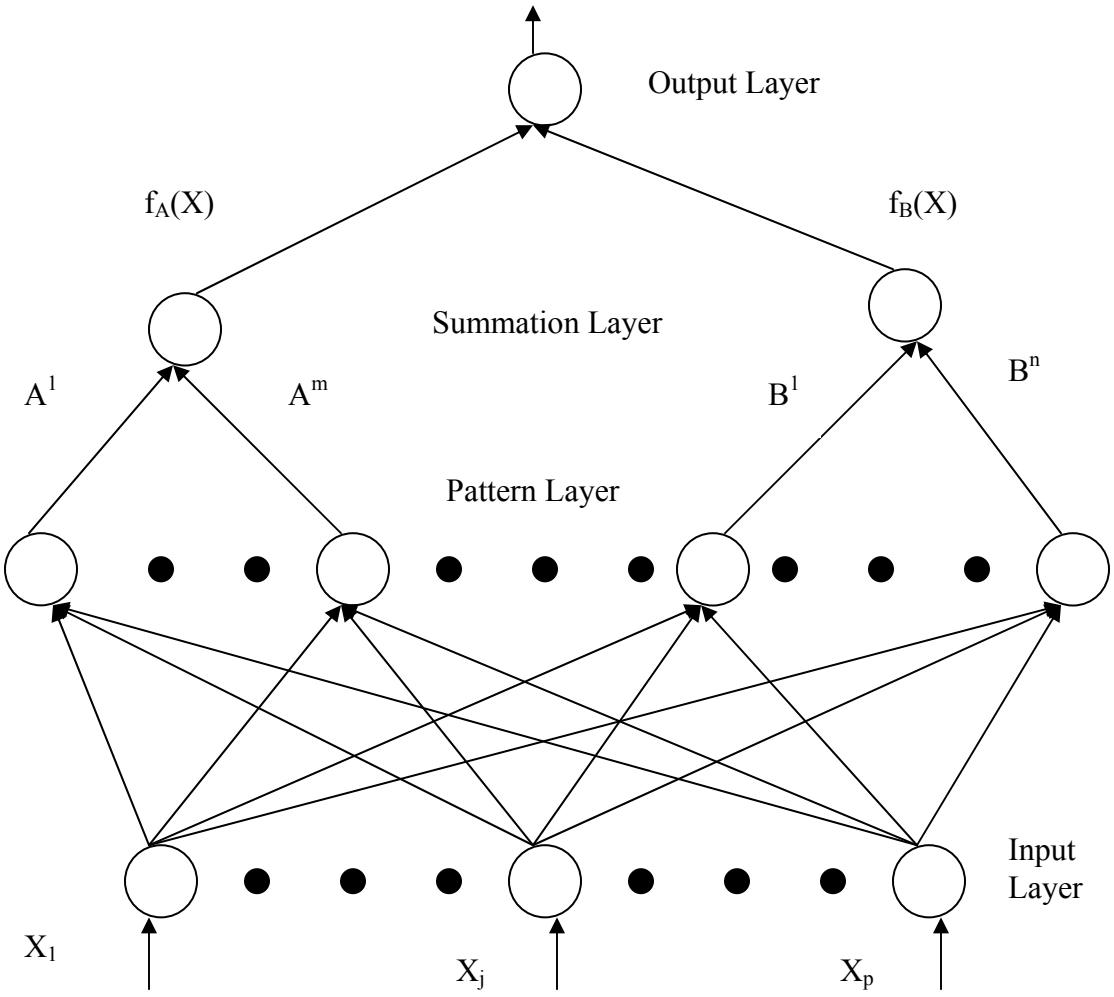

Figure 8.2 Structure of a Probabilistic Neural Network (Chen, 1996)

A GRNN provides estimates of continuous variables and converges smoothly to underlying linear or nonlinear regression surface (Chen, 1996). Like PNN, a GRNN features instant learning and a highly parallel structure. GRNN provides smooth transition from one observed value to another even with sparse data in multidimensional measurement space. The GRNN can also be used for regression problems where an

assumption of linearity is not justified. GRNN uses Parzen's estimators along with a joint continuous probability density function.

8.4 Using Neural Networks to Identify Higher Risk Intersections

Initially, an analysis was carried out to predict the frequency of crashes at various intersections using different neural network models and identifying the geometric and traffic characteristics at intersections that affect particular types of crashes. If the analysis models predict that an intersection incurs a considerable number of crashes, the characteristics of the intersection can be changed so as to make the intersection safer.

In order to accomplish this, a database was developed that contained the geometric and traffic characteristics of the 1562 intersections, which would act as an input to the neural network models predicting the crash frequency, and the frequency of crashes occurring at each intersection averaged per year. Therefore the input database consisted of number of through lanes on the major road and minor roadways, Total Left Turning Lanes (LTL) at the intersection, number of Protected Left Turning Lanes on the major (LTPMJ) and minor (LTPMN) roadways, number of channelized right turning lanes on the major (RTCMJ) and minor (RTCMN) roadways, Speed Limit and AADT on the major road (The speed limit and AADT were not used for the minor roadway as this data was not available for all intersections).

Then the GRNN and MLP neural network models were used to predict the crash frequency at these intersections using "MATLAB". The essential steps in developing the MLP neural network model were:

1. Normalizing the input database with unit variance.

2. Randomizing the input data and take the first 75% of the data for training and the rest 25% for testing.
3. The Resilient Back Propagation (rprop) neural network was used in the training.
4. The activation functions that proved to be the best for the hidden and output layers were hyperbolic tangent sigmoid and pure linear respectively.
5. The maximum number of epochs used was 3000. The learning rate was 0.05.
6. The number of nodes in the hidden layer were varied from 1-15.
7. The Root Mean Squared Error (RMSE) was calculated for the test database for each different number of hidden nodes.
8. The process was repeated for 5 times and the results were averaged.

For the GRNN model, steps 3 to 6 were replaced by a single step where the spread was varied from 0.01 to 4.99 with increments of 0.02. However, the least average RMSE obtained for the GRNN and MLP neural network models was 9.44 and 9.02 crashes/year respectively. Hence this model was not considered suitable for predicting the crash frequencies at signalized intersections.

The possible reason because of which the errors were so large was that the crash frequency per intersection ranged from 0 to 113, and the models were unable to perform well when the intersections had high crash frequencies. A very small percentage of intersections have a very high number of crashes, and the models developed cannot predict these crash frequencies correctly leading to a large error. Hence an appropriate

method was sought after that could accurately predict crashes for all range of crash frequencies.

A new methodology was devised to predict the crash frequencies more precisely at signalized intersections. First, the total number of lanes at each intersection was calculated by summing up the number of through lanes, exclusive left turning lanes and channelized right turning lanes on the major and minor roads. Since this number indicates the total number of lanes at the intersection, it is a representation of the size of the intersection. Then a graph was drawn to observe the variation of the average number of crashes per intersection with the total number of lanes at the intersections. The graph clearly showed an increasing trend of total crashes per intersection as the total lanes at the intersections increase. Thus it can be concluded that the number of crashes at an intersection increase as the size of the intersection increases. Therefore, any intersection can be classified into one of the following types: (a) the intersection has more crashes than the average number of crashes for intersections with the same number of total lanes; (b) the intersection has less than or equal number of crashes than the average number of crashes for the intersections with the same number of total lanes. The intersections in the former category can be considered as "higher risk intersections" while the rest can be considered as "lower risk intersections". Therefore, intersections can be categorized into higher risk or lower risk intersections based on the total crashes it has incurred and the total number of lanes it has. In order to predict the crash frequencies, a model can first be developed that easily and efficiently classifies intersections into higher risk or lower risk categories. Then the frequency of crashes can be predicted for the higher risk or lower risk intersections by developing separate models for the two types. This method develops

models for separate data ranges, and can thus be expected to reduce the error in crash frequency prediction. In order to classify intersections into higher risk or lower risk intersections first, the intersections with total lanes between 3 to 5, 6 to 10, 11 to 15, and 16 and above were grouped together and the average crashes per intersection were found for these groups. If an intersection incurred more crashes than the average number of crashes for its total number of lanes, the intersection was categorized as a higher risk intersection. If not, it was categorized as a lower risk intersection. The neural network models used for this classification were the MLP and PNN models. Separate GRNN and MLP neural network models were developed to predict the number of crashes at higher risk or lower risk intersections. The models that worked the best were used as the final models for predicting the frequency of crashes at the intersections.

The MLP neural network model was developed as was discussed earlier. PNN and GRNN models were developed in a manner similar to the GRNN model developed earlier. The classification accuracy was estimated for the test database in the classification phase. The MLP and PNN models showed a classification accuracy of 64.66% and 65% respectively. The RMSE for the MLP and GRNN models used in the prediction of higher risk or lower risk intersections was 2.75 and 2.79 crashes per year respectively, and the same for higher risk intersections was 5.76 and 5.88 crashes per year. Therefore, the models displayed reasonable accuracies that were better than the error previously obtained.

The significant variables were identified using a Forward Sequential Selection method. According to this method, just one input variable is used at a time to train and test the databases. Once all the inputs have been used individually, the test accuracies are

compared. The variable that gives the maximum accuracy is chosen as the most significant variable. Then training and testing of databases is carried out by using this variable along with the other input variables one at a time. The variable whose combination with the first significant variable gives the highest accuracy is chosen as the next significant variable. This process is repeated till there is no further increase in accuracy by addition of any of the variables. All the variables selected in this process are determined to be the significant variables in the model.

The neural network model that displayed the least error was used for identifying the significant variables in each step of the analysis. For example, the PNN model was used to identify the significant variables in the classification phase, and the significant variables obtained were AADT, speed limit, LTPMJ, LTL and RTCMN. This is a reasonable result because an increase in these factors can be expected to increase the crash frequencies at intersections, thus making them risky. The test accuracy of the model increased to 67.6%. Similarly, LTPMN, AADT and RTCMN were found to be significant in predicting the frequency of crashes at lower risk intersections, and the number of through lanes on the minor roadway, total left turning lanes and through lanes on the major roadway were determined to be significant for predicting the frequency of crashes for higher risk intersections.

Similar models were developed to predict the frequency of rear end, angle, sideswipe and turn crashes. Left turning and right turning crashes were combined into one category as the right turning crashes were very small in number. The summary of results displaying the best neural network models found for each phase and the accuracy of the neural network models have been shown in Table 8.1.

Table 8-1 Best neural network models identified for each phase of the analysis method along with the classification accuracies or the RMSE values

	Total Crashes	**Rear End**	**Angle**	**Turn**	**Sideswipe**
Classification *Model/Accuracy*	PNN/67.6%	PNN/68.22%	PNN/68.24%	PNN/64.43%	PNN/71.6%
Crashes: Lower Risk *Model/RMSE*	MLP/2.62	GRNN/1.37	MLP/0.78	GRNN/0.61	GRNN/0.45
Crashes: Higher Risk *Model/RMSE*	MLP/5.35	MLP/4.3	GRNN/2.65	GRNN/2.3	GRNN/2.3

Identifying the significant variables is the first step in predicting how the input variables affect the output. The affect of a change in input on the output has to be found. The factors that tend to increase the crash frequency at an intersection can be checked and controlled if an intersection is found to have a large number of crashes and hence is risky for travel. For this purpose, a "simulation" database was created that contained all possible combinations of the original 9 input variables. This database contained all possible intersection types that could be generated with the input variables. For example, the AADT was varied from 10000 to 80000 with increments of 10000, speed limit was varied from 30 to 55 mph with increments of 5 mph, and so on. To make the database realistic some constraints were placed. For example, the minor lanes were always set to be equal to or less than the number of major lanes, the number of left turning lanes was always equal to or lower than the sum of major and minor lanes at the intersection, but never exceeding 8, and so on. The total number of intersections obtained using this method was 98928. The frequency of different types of crashes was estimated for all of the intersections by initially identifying if each intersection was higher risk or lower risk and then predicting the frequency of crashes for higher risk and lower risk intersections separately. This was carried out using the models developed earlier. Therefore, the expected frequency of crashes was determined for each intersection in the simulation

database. The number of crashes occurring at intersections with each value of the input variable was found out. For example, the number of crashes occurring at different values of AADT were found and plotted. This plot establishes a trend of variation of the number of crashes occurring at the intersection with a change in AADT. Similar plots were drawn for all input variables and their affect on the output variable was established. One such graph is shown in Figure 8.3, where the increase in the number of through lanes on the major roadway leads to an increase in the frequency of crashes occurring at the intersections. The frequency of rear end, angle, turn and sideswipe crashes was also estimated for the intersections in the simulation database. The effect of the significant input variables on the output was determined. Table 8.2 illustrates the results of testing the models on the simulation database. The cells show the type of pattern each input variable shows for predicting the frequency of different types of crashes. "Increase" means that crashes increase with an increase in the input variable. "-" means that the variable was not found to be significant in predicting the frequency of crashes. Most of the variations obtained are reasonable and comparable to ones obtained by Abdel-Aty et al (2005), Poch and Mannering (1996) and Greibe (2003).

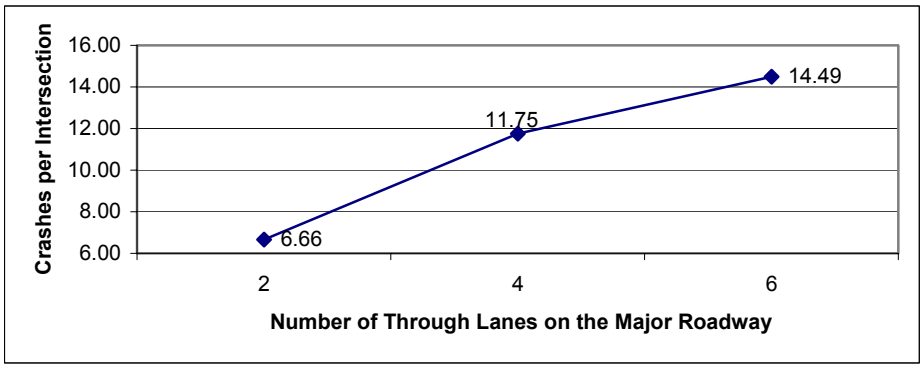

Figure 8.3 The output for the simulation database indicates that the average number of crashes per intersection increases with an increase in the number of through lanes on the major roadway

Table 8-2 Relationship between the input variables and the frequency of various types of crashes

	Total Crashes	Rear End	Angle	Turn	Sideswipe
MJ Lanes	Increase	Increase	Increase	Increase	Increase
MN Lanes	Increase	Increase	Increase	Increase	Increase
Total LTL	Increase	-	-	-	-
MJ LTP	Decrease	Increase	Decrease	Decrease	Increase
MN LTP	Increase	Increase	Increase	Increase	-
MJ RTC	-	-	-	Increase	Increase
MN RTC	Decrease	Increase	-	-	-
MJ Speed	-	Increase	-	-	-
MJ AADT	Increase	Increase	Increase	Increase	Increase

8.5 Classification of Crashes Using Neural Network Trees

Since the output of the previous analysis only indicated if an increase or decrease in an input variable leads to an increase or decrease in the frequency of crashes, it had to be determined the crash type that will be most probable to occur with a change in the input variable. This could be determined by classifying crashes into their individual crash types. An analysis was conducted to estimate the collision type of a crash based on the intersection properties, traffic characteristics and conditions prevalent at the time of the crash. Given any of these characteristics and given the criterion that a crash will occur, the models formed in the analysis would predict the type of collision the crash will be subjected to.

The input variables consisted of the nine input variables used in the previous analysis, along with the light and surface conditions at the time of the crash, month, day and time category of the crash, and the speed limit and AADT on the minor roadway of the intersections at which the crash occurred. Initially, the rear end, angle, turn (right + left turning) and sideswipe crash types were classified into their individual types using

MLP and PNN models. But the test classification accuracies obtained were 50.3% and 39.4%. Since the MLP and PNN performed below expectation to predict the collision type of the crashes, they could not be used to satisfy our objectives. The neural networks were not able to perform well with four output types. Therefore a new strategy had to be used that could deal with this problem and also make the model significantly better. We developed a new idea to use a Neural Network Tree.

In a Neural Network Tree, the classes of collision type could be wisely combined together to obtain two classes instead of four. It was perceived that more often than not, rear-end and sideswipe crashes occur along the same direction. Hence they usually have the same characteristics. On the other hand, angle and turn crashes usually occur because of the interference of traffic from one direction with the other. Therefore, they have a similar pattern. This resulted in a method in which the rear-end and sideswipe crashes together were combined into one category and angle and turn crashes into another category. Thus a neural network model was first developed to classify a crash into these two categories based on the 16 variables identified in the earlier sections. This classification would form the first branch of the neural network tree. The next branch would classify rear-end and sideswipe crashes and the third branch would classify the angle and turn crashes. Then the models could be used to identify the significant variables and identify their effect on the crashes. Overall, the tree structure will be constructed in the following pattern:

1. In the database used for prediction of the collision types, the rear end and sideswipe crashes will be combined to form category 1 and angle and turning crashes will be combined to form category 2.

2. MLP and PNN models will be used to classify the two categories.
3. The model with higher classification accuracy will be identified.
4. Significant variables will be identified for the models.
5. This model will be used on a test database to check how the variation of input affects the output.
6. The previous steps will be repeated to develop the other two branches of the neural network tree.
7. The Neural network tree will be formed with a neural network model at each node.

The MLP and PNN models were developed for each branch using the same method discussed in the previous section. The only difference being that the crash database for the year 2000 was used as the training database, and the crash database for 2001 was used as test database. The results obtained using the Neural Network Tree were considerably better than the previous results, and have been shown in Figure 8.4. The significant variables were identified for all the branches using the Forward Sequential Selection method, and have been listed in Table 8.3.

Table 8-3 List of Significant variables for each branch of the Neural Network Tree

Branch 1	**Branch 2**	**Branch 3**
AADT Major	# through Minor lanes	AADT Minor
AADT Minor	LTPMN	LTPMN
Speed Limit Minor	# through Major lanes	Surface Conditions
Surface Conditions	LTPMJ	LTPMJ
Light Conditions	Speed Limit Major	AADT Major
# through Major lanes		LTL
Speed Limit Major		
LTL		
RTCMN		
LTPMN		
RTCMJ		

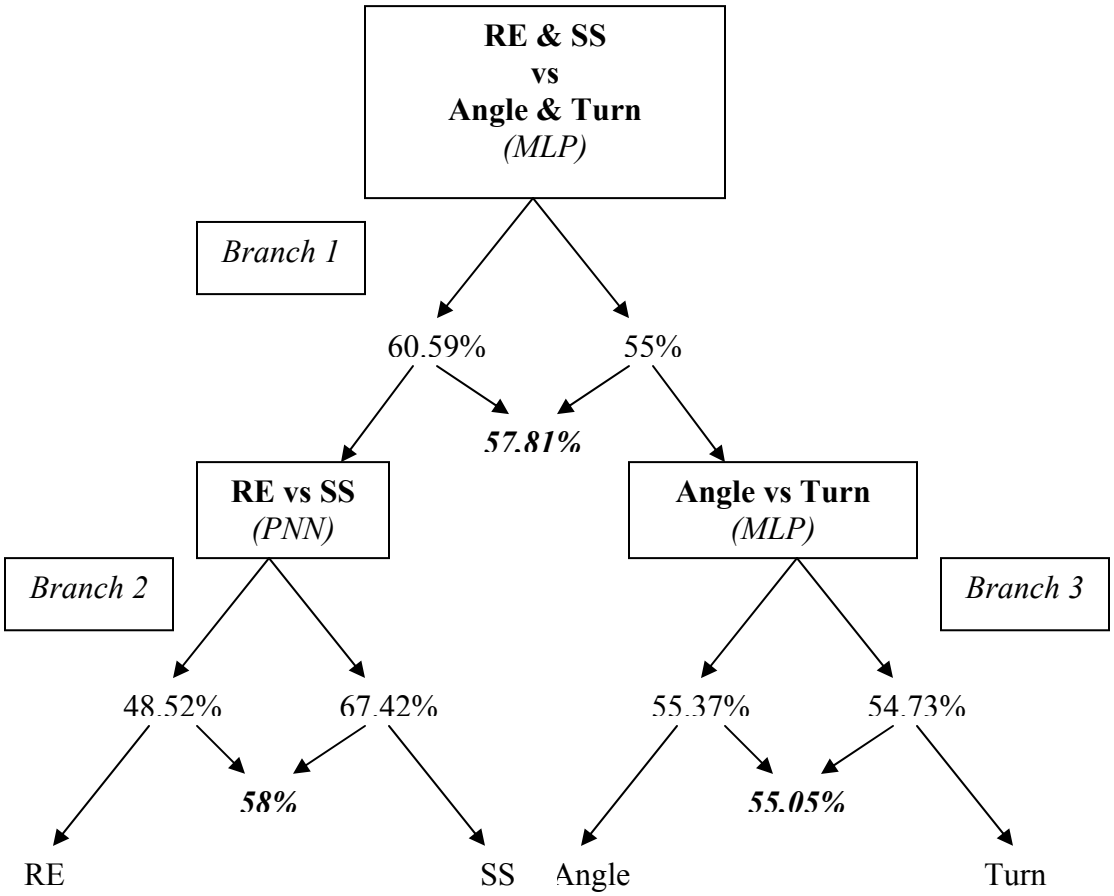

Figure 8.4 Diagram indicating the prediction accuracies of the Neural Network Tree

In order to obtain the exact effect of the input variables on the different types of crashes simulation databases were built for each branch of the Neural Network Tree using the significant variables identified for that particular branch, and the classification was carried out for all the data in this database. To establish a relationship between the input variables and the type of collision for branch 1 of the Tree, the number of rear end and sideswipe crashes was determined for each value of the input variables. This was divided by the total number of crashes in the simulation database with the respective values of input variables to obtain the percentage of rear end and sideswipe crashes. For example, the number of rear end and sideswipe crashes classified by the MLP neural

network model for the value of Major AADT = 10000 was found. This value was divided by the total crashes in the simulation database having Major AADT of 10000 to obtain the percentage of rear end and sideswipe crashes for this value of Major AADT. This percentage signifies a value where if 100 crashes have occurred at different intersections with AADT of 10000 (or any other input value), this percentage of crashes are most probably to be of the rear end or sideswipe collision type. The percentages were similarly found for the other Major AADT values (20000 to 80000). These values were plotted on a graph to obtain the variation of rear end and sideswipe crashes with Major AADT. The same graph contained the variation for angle and turn crashes. Similar graphs were plotted for each branch of the Tree. A sample of such graphs is shown in Figure 8.5. This graph indicates that if a crash occurs at a major roadway with lower speed limit, it is more probable to be an angle or turn crash. But at a higher speed limit it is more probable to be a rear or a sideswipe crash. The study in the previous section found the major speed limit to be significant in predicting the rear end crashes. Therefore, the increase in speed limit can be expected to increase the rear end crash and sideswipe crashes more than the angle and turn crashes. However, at lower speed limits, the rear end and sideswipe crashes are less likely to occur because a vehicle traveling at such speeds can stop easily to prevent such crashes. Therefore, if there is a crash at lower speed limits, it is more likely to be an angle or turn crash. Such graphs were plotted for the significant variables identified for each branch of the Neural Network tree. They were compared to the results from other studies as well as the results obtained in the previous section, and were found to explain the crash phenomenon satisfactorily. Thus the Neural Network Tree can be used as an effective method in classifying various collision types.

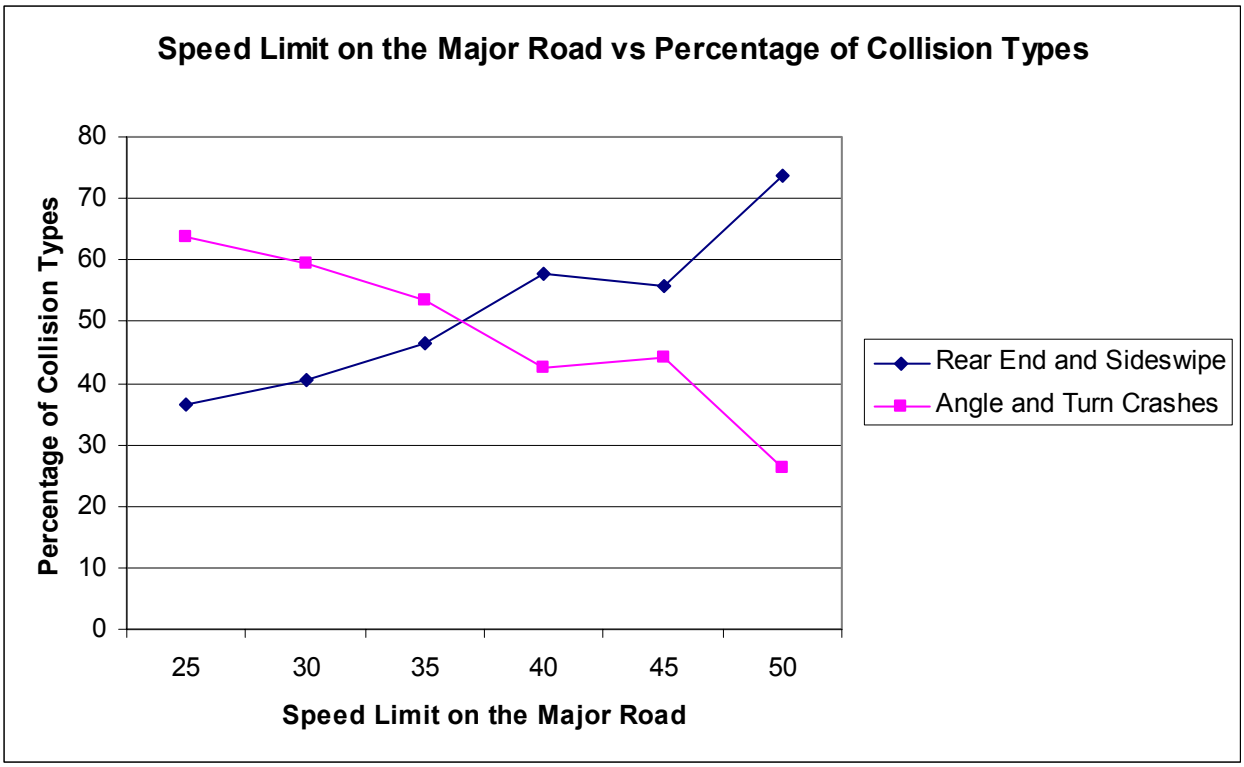

Figure 8.5 Variation of the collision types with Major Speed Limit

8.6 Conclusions

This study has put forth innovative studies that predict the frequency of crashes and also classify crashes into rear end, angle, turn or sideswipe crash types. While predicting the frequency of crashes, the intersections were classified into higher risk or lower risk intersections and the frequency was predicted for each type of intersections separately. This method reduced the error in the crash prediction significantly, when compared to the models where the crash frequency is estimated directly. The advantage of using this method is that the crash frequency is predicted along with an accurate identification of higher risk intersections. The crash frequency and the identification of higher risk intersections was carried for a large simulation database containing all possible combinations of signalized intersections. This database can be used directly for

determining the crash frequency at any intersection, thus eliminating the need for a reuse of the model. The trends derived from the output of the simulation database for the affect of the intersection characteristics on the frequency of crashes was comparable to the results obtained in other studies. The Neural Network Trees demonstrate the flexibility of the neural network methods, and generated output with a satisfactory efficiency. The output for the simulation databases developed was comparable to the output obtained in other studies. On comparison of the MLP and PNN neural networks, both were found to perform better in different cases. But for classifying intersections into higher risk or lower risk with respect to different collision types, PNN always performed better. PNN was faster in training databases compared to MLP. PNN also demonstrated its advantages by not being trapped in local minima and has only one parameter that has to be varied in order to obtain optimum results. The only disadvantage found for PNN was that it takes a long time and consumes a lot of memory in simulating the results of a test database. Therefore large databases had to be split up into parts in order to make the process faster and less taxing on the computer. But on the whole, PNN can be considered as a better method for classification. The GRNN and MLP neural networks showed similar performances and hence can be considered equally efficient in predicting values.

9 CLASSIFICATION OF INTERSECTIONS INTO 45 CATEGORIES

9.1 Initial Classification into 38 categories

As the combined database had larger number of intersections, they could be divided into a larger number of categories. Hence an analysis was conducted to increase the number of categories of intersections in the combined database. All intersections from the six counties were categorized into various types. The first step was to combine the geometry files of all six counties. The geometry files were sorted based on the field "int_id", which is the unique ID assigned to each intersection. Intersections were filtered out from this database based on the lane configuration of each intersection (2x2, 4x2, etc). Separate tables were made for intersections of the same type. As AADT is one of the most important factors affecting the crash frequency, the crashes were categorized based on AADT/number of approach lanes on the major road. For each type of intersection the median value of AADT was noted. The number of intersections for every 1000 AADT values for each configuration of intersection was listed. A sample of such a list is shown for the 2x2 intersections in Table 9-1.

In order to form categories for a particular type, the range of AADT was widened and the number of intersections under each range was noted. Table 9-2 shows this method for 2x2 intersections. The table first shows the initial splits made in AADT/lane, and the intersections present in each of the splits (indicated in brackets). Then the range of AADT/lane was widened to make six categories of intersections of the type 2x2. This range was further increased to form three, and later two categories. It was decided to split

the intersection into three categories (shown in bold) because the split of the intersections was even and each category had sufficient number of intersections.

Table 9-1 Initial sampling of 2 x 2 intersections based on the AADT/Major Lane values

2 x 2

Total number of intersections = 175

Median = 5874 = approximate by 5900 or 6000

Split Number	AADT Range	Number of Intersections
1	=< 3000	11
2	> 3000 and =< 4000	12
3	> 4000 and =< 5000	38
4	> 5000 and =< 6000	31
5	> 6000 and =< 7000	20
6	> 7000 and =< 8000	14
7	> 8000 and =< 9000	15
8	> 9000 and =< 10000	7
9	> 10000 and =< 11000	10
10	> 11000	17

At the end of this process, there were various combinations of categories for each type of intersection. The optimum number of categories for each type was obtained by making sure that (a) the number of intersections in each category was almost the same, (b) adequate sample size is achieved, and, (c) the cutoff AADT/lane values were similar. Categories were formed based on this range so that the number of intersections in all categories was as close as possible. Various combinations of categories were formed for each type of intersection with different range of AADT values.

Table 9-2 Categorizing the intersections based on different AADT/lane for 2x2 intersections

Total number of intersections = 175		
Median = 5874 = 6000 (approx)		
splits:	≤ 3000 (11)	
	> 3000 and ≤ 4000 (12)	
	> 4000 and ≤ 5000 (38)	
	> 5000 and ≤ 6000 (31)	
	> 6000 and ≤ 7000 (20)	
	> 7000 and ≤ 8000 (14)	
	> 8000 and ≤ 9000 (15)	
	> 9000 and ≤ 10000 (7)	
	> 10000 and ≤ 11000 (10)	
	> 11000 (17)	
6 Categories:	≤ 4000 (23)	
	> 4000 and ≤ 5000 (38)	
	> 5000 and ≤ 6000 (31)	
	> 6000 and ≤ 8000 (34)	
	> 8000 and ≤ 11000 (32)	
	> 11000 (17)	
3 Categories:	**≤ 5000 (61)**	
	> 5000 and ≤ 9000 (80)	
	> 9000 (34)	
2 Categories:	≤ 6000 (92)	> 6000 (113)

All the types were categorized based on the AADT values. Since the intersections of type 4x2 were very large in number (541), they were subcategorized based on a new variable. First the intersections were subcategorized based on the number of left-turning lanes. But a majority of the intersections had 4 left-turning lanes. Hence the sub-classification of intersections based on left-turning lanes was not considered appropriate. Thus this variable was discarded for the purpose of sub-classification. Next, the intersections were subcategorized based on the speed limit on the major road. The median speed was 40mph, and sub-classification based on this speed produced satisfactory results. Therefore the 4 x 2 intersections were classified first by AADT and then by the speed limit on the major road.

This method was adapted to develop classifications for all types of intersections. After completing the classification, 38 categories of intersections were developed. These have been tabulated in Table 9-3. Then a summary of intersections was developed indicating the number of categories formed for each type of intersection. This has been shown in Table 9-4.

Table 9-3 Classification of intersections into 38 types

S.No	Type	Condition for AADT/Lane of Major Road	# Intersections
1	2 x 2	=< 5000	61
2		> 5000 and =< 9000	80
3		> 9000	34
4	4 x 2	=< 5000 and MJ speed =< 40	41
5		=< 5000 and MJ speed > 40	37
6		> 5000 and =< 7000 and MJ speed =< 40	48
7		> 5000 and =< 7000 and MJ speed > 40	65
8		> 7000 and =< 9000 and MJ speed =< 40	99
9		> 7000 and =< 9000 and MJ speed > 40	63
10		> 9000 and =< 11000 and MJ speed =< 40	41
11		> 9000 and =< 11000 and MJ speed > 40	42
12		> 11000 and MJ speed =< 40	32
13		> 11000 and MJ speed > 40	73
14	4 x 4	=< 5000	21
15		> 5000 and =< 7000	36
16		> 7000 and =< 9000	35
17		> 9000 and =< 11000	35
18		> 11000	31
19	6 x 2	=< 7000	44
20		> 7000 and =< 9000	49
21		> 9000 and =< 11000	37
22		> 11000	27
23	6 x 4	=< 9000	50
24		> 9000	40
25	2 x T2	=< 8000	26
26		> 8000	20
27	4 x T2	=< 7000	44
28		> 7000	69
29	4 x T4		28
30	6 x T2		42
31	6 x T4		14
32	One Way Major	=< 7000	45
33		> 7000	40
34	One Way Minor		36
35	Both One way		13
36	One way and T		14
37	Ramps	=< 7000	24
38		> 7000	26

Table 9-4 Summary of classifications

S.No	Type	Number of Categories
1	2 x 2	3
2	4 x 2	10
3	4 x 4	5
4	6 x 2	4
5	6 x 4	2
6	2 x T2	2
7	4 x T2	2
8	4 x T4	1
9	6 x T2	1
10	6 x T4	1
11	One Way Major	2
12	One Way Minor	1
13	Both One Ways	1
14	One way and T	1
15	Ramps	2
	Total	38

9.2 Further Classification into 45 categories

The next step was to check if any further classifications in the categories were needed and possible. The number of intersections and the crash statistics for each type were summarized in Table 9-5. Twenty types which have few cases were not enough for separate categories. In addition, these intersections cannot be combined with other types since their mean crashes do not follow similar trends. These abnormal types were highlighted in bold font in Table 9-5 and were removed from further consideration.

Table 9-5 Intersection configurations and summary statistics

Intersection Configurations	Number of Intersections	Mean of Crashes	Standard Deviation	Minimum Number of Crashes	Maximum Number
2x2	169	6.11	7.677302	0	58
3x2	5	6.80	4.604346	1	12
3x3	**1**	**27.00**	**-**	**27**	**27**
4x2	496	11.46	12.59878	0	94
4x3	28	17.93	15.30657	0	43
5x2	6	15.50	19.15985	0	44
5x3	**2**	**53.50**	**45.96194**	**21**	**86**
2x4	9	14.78	21.08778	0	67
3x4	**1**	**88.00**	**-**	**88**	**88**
4x4	149	23.09	20.92565	0	130
5x4	8	31.50	23.07132	0	72
6x2	133	16.77	12.35069	0	55
6x3	17	32.76	23.28231	3	81
7x3	**1**	**6.00**	**-**	**6**	**6**
8x2	9	11.78	14.45491	0	35
8x3	**1**	**40.00**	**-**	**40**	**40**
6x4	69	33.78	22.60978	0	91
6x5	**2**	**73.00**	**12.72792**	**64**	**82**
8x4	7	37.43	25.56597	9	86
6x6	12	45.25	24.57317	0	85
8x6	**1**	**64.00**	**-**	**64**	**64**
2xT2	43	2.72	3.111619	0	15
3xT2	**3**	**6.00**	**9.539392**	**0**	**17**
4xT2	103	5.99	6.272403	0	29
2xT4	**2**	**4.00**	**2.828427**	**2**	**6**
4xT3	**1**	**0.00**	**-**	**0**	**0**
5xT2	**4**	**23.50**	**30.44667**	**6**	**69**
4xT4	26	11.81	15.05993	0	62
3xT4	**1**	**0.00**	**-**	**0**	**0**
5xT4	**1**	**1.00**	**-**	**1**	**1**
T5x4	**1**	**6.00**	**-**	**6**	**6**
6xT2	40	11.18	11.47994	0	53
6xT3	**1**	**0.00**	**-**	**0**	**0**
8xT2	**3**	**24.33**	**11.59023**	**11**	**32**
6xT4	9	11.11	11.63448	0	39
6xT6	**1**	**40.00**	**-**	**40**	**40**
7xT4	**1**	**8.00**	**-**	**8**	**8**
8xT4	**1**	**1.00**	**-**	**1**	**1**
T6x4	**1**	**1.00**	**-**	**1**	**1**
Both One Way	13	10.92	14.25051	0	54
Major One Way	85	13.67	16.91533	0	106
Minor One	36	15.31	14.79154	0	65
One Way & T	12	12.08	7.844608	3	29
Ramps	48	5.98	8.22681	0	35
Total Number of Intersections	1562	-	-	-	-

There were 10 intersection types which have moderate cases as shown in Table 9-5, e.g. ‘3x2’, ‘4x3’, ‘2x4’, ‘5x2’, ‘5x4’, ‘6x3’, ‘8x2’, ‘8x4’, ‘6x6’ and ‘6xT4’. We need to check whether these types should be included into main types or put into new categories. The graphical methods like histogram, box plot, or scatterplot were used and the simple statistics for different intersection types will be calculated for comparison.

9.2.1 Check ‘3x2’

Type ‘3x2’ might be included into main type ‘2x2’. The crash distributions for intersection type ‘2x2’ and ‘3x2’ were compared using histogram as shown in Figure 9.1. The comparative histograms are displayed in two rows per type with the descriptive statistics containing the sample mean, standard deviation, maximum, minimum, and sample size for each type in the corresponding tile.

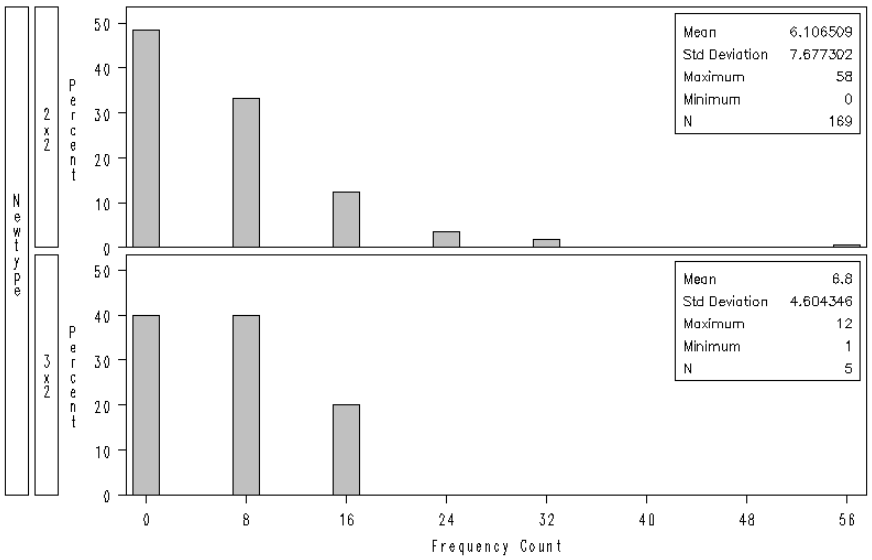

Figure 9.1 Crash comparative histograms for intersection type ‘2x2’ and ‘3x2’

Figure 9.1 shows that the crash distributions for type ‘2x2’ and ‘3x2’ are similar and that the spread for type ‘2x2’ is larger than that for type ‘3x2’. Type ‘2x2’ and ‘3x2’

have similar crash means, and type ‘3x2’ have few cases; therefore, type ‘3x2’ is suggested to being combined into main type ‘2x2’ when creating crash tables.

9.2.2 Check ‘4x3’, ‘2x4’ and ‘5x2’

Type ‘4x3’, ‘2x4’ and ‘5x2’ might be included into main type ‘4x2’. First we compare the crash distributions for intersection type ‘4x3’ and ‘4x2’ using comparative histogram.

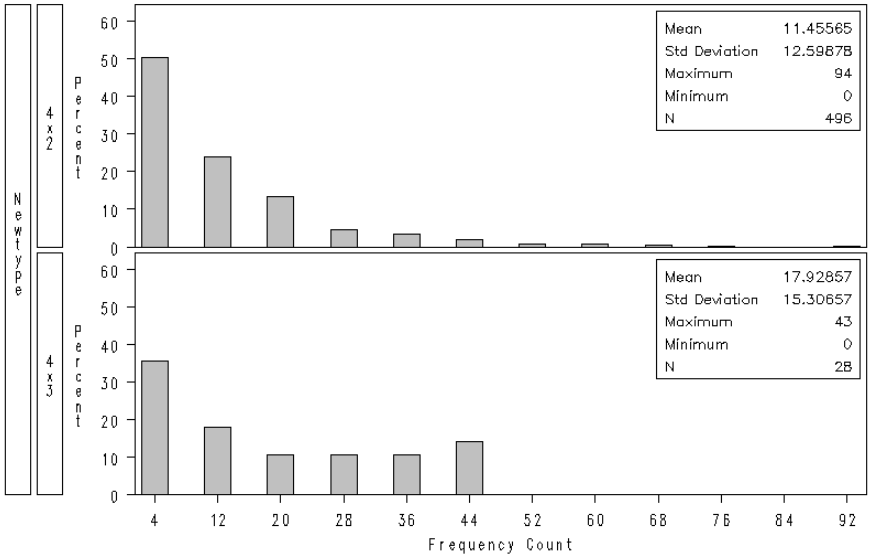

Figure 9.2 Crash comparative histograms for intersection type ‘4x2’ and ‘4x3’

Figure 9.2 shows that the spread for type ‘4x2’ is larger than that for type ‘4x3’, and type ‘4x3’ have a larger percent of higher crash frequencies compared with type ‘4x2’. Type ‘4x2’ and ‘4x3’ have different crash means. A box plot was produced in Figure 9.3 and shows the difference of crash distribution for these two types. Bar width varies with number of observations for different types. It is suggested creating a separate category for type ‘4x3’ when creating crash tables.

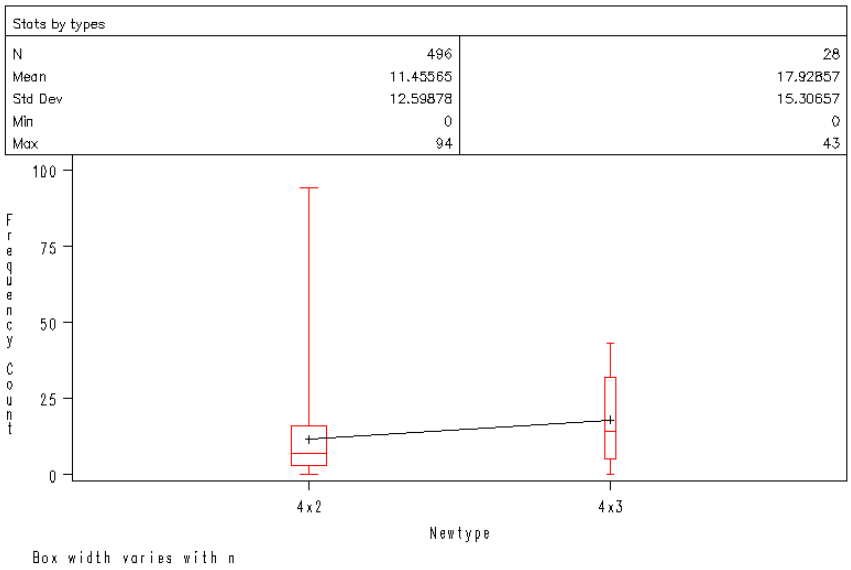

Figure 9.3 Crash box plot for intersection type ‘4x2’ and ‘4x3’

Second we compare the crash distribution for intersection type ‘2x4’ and ‘4x2’ using comparative histogram and box plot as shown in Figure 9.4 and 9.5, respectively.

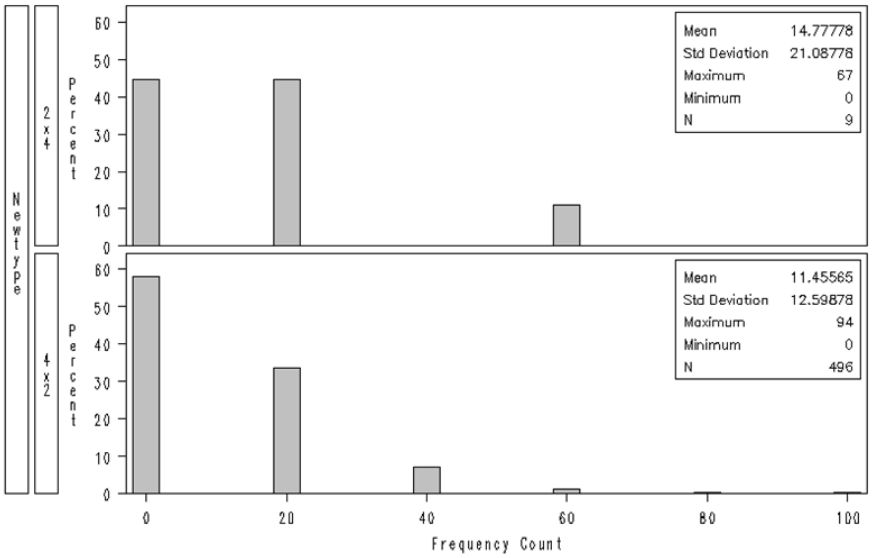

Figure 9.4 Crash comparative histograms for intersection type ‘2x4’ and ‘4x2’

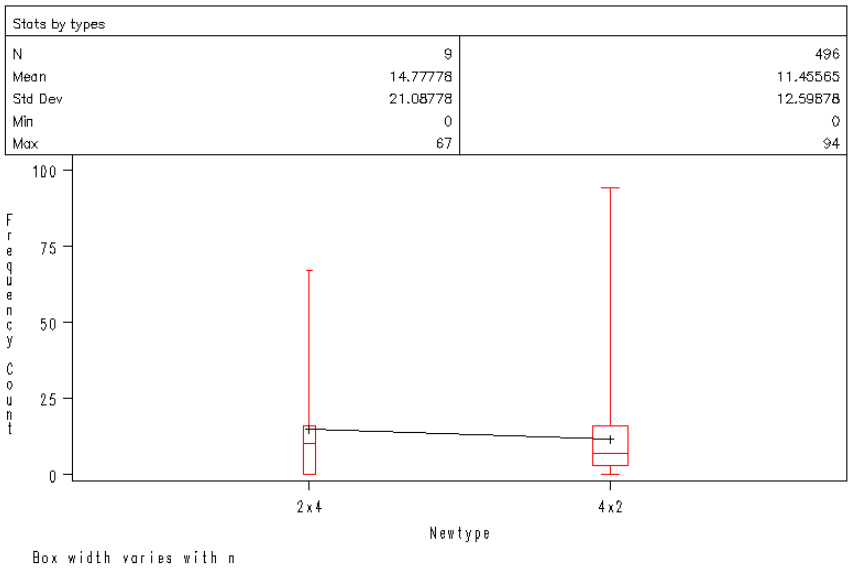

Figure 9.5 Crash box plot for intersection type ‘2x4’ and ‘4x2’

Type ‘2x4’ and ‘4x2’ have the same configuration but different type of major approaches. Later the main type ‘4x2’ will be classified into 10 categories based on major ADT per lane and major road speed limit. As shown in Figure 9.4 and 9.5, type ‘2x4’ and ‘4x2’ have similar crash distributions. It is suggested including type ‘2x4’ into the main type ‘4x2’ when creating crash tables.

Finally, we compare the crash distribution for intersection type ‘5x2’ and ‘4x2’. The crash comparative histogram and box plot for two types were produced in Figure 9.6 and 9.7, respectively.

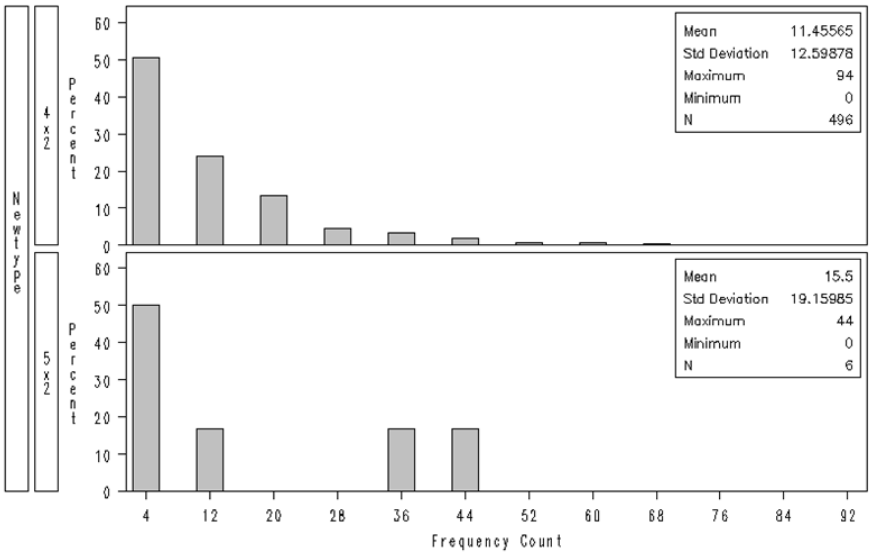

Figure 9.6 Crash comparative histograms for intersection type ‘4x2’ and ‘5x2’

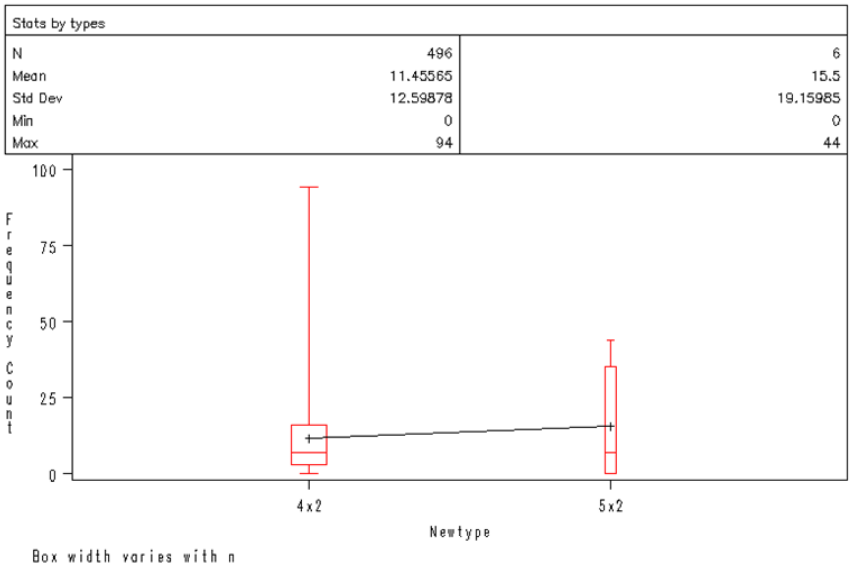

Figure 9.7 Crash box plot for intersection type ‘4x2’ and ‘5x2’

As shown in Figures 9.6 and 9.7, type ‘5x2’ and ‘4x2’ have different crash distributions and crash mean. It is suggested creating a separate category for type ‘5x2’ when creating crash tables, but note that type ‘5x2’ have only 6 cases. As a summary, it was suggested creating separate types for type ‘4x3’ and ‘5x2’ and including type ‘2x4’ into the main type ‘4x2’ when creating crash tables.

9.2.3 Check ‘5x4’

Type ‘5x4’ might be included into main type ‘4x4’. The crash distributions for intersection type ‘4x4’ and ‘5x4’ were compared using histogram and box plot as shown in Figure 9.8 and 9.9, respectively.

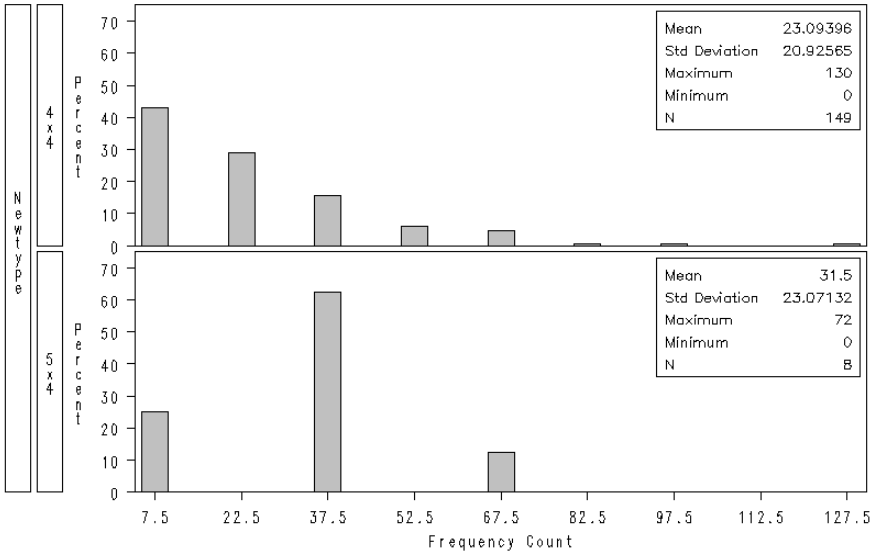

Figure 9.8 Crash comparative histograms for intersection type ‘4x4’ and ‘5x4’

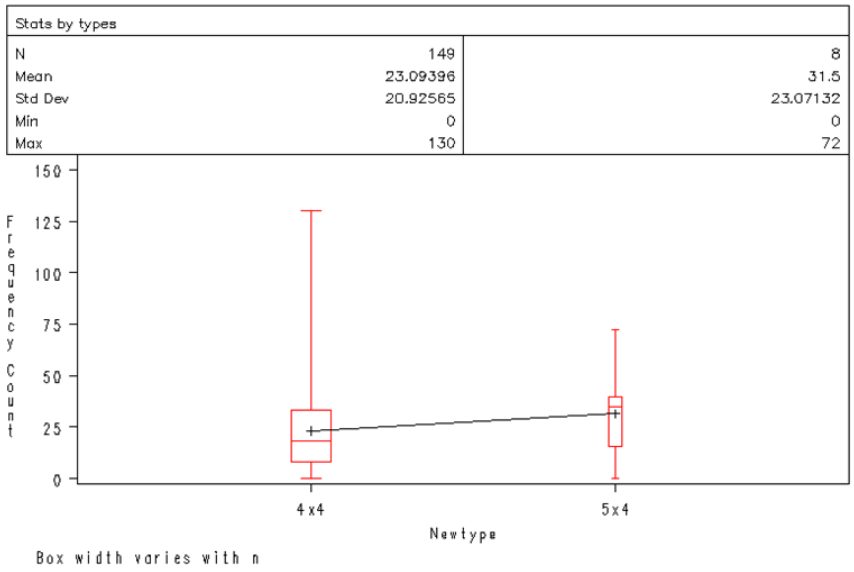

Figure 9.9 Crash box plot for intersection type ‘4x4’ and ‘5x4’

From the above plots and statistics, it seems that both crash means and crash distribution for intersection type ‘4x4’ and ‘5x4’ are different. It is better to separate them.

9.2.4 Check ‘6x3’ and ‘8x2’

Intersections type ‘6x3’ and ‘8x2’ might be included into main type ‘6x2’. We compare the crash distributions for intersection type ‘6x2’, ‘6x3’ and ‘8x2’ using comparative histogram and box plot as shown in Figure 9.10 and 9.11, respectively. The comparative histograms are displayed in three rows per type with the descriptive statistics for each type in the corresponding tile.

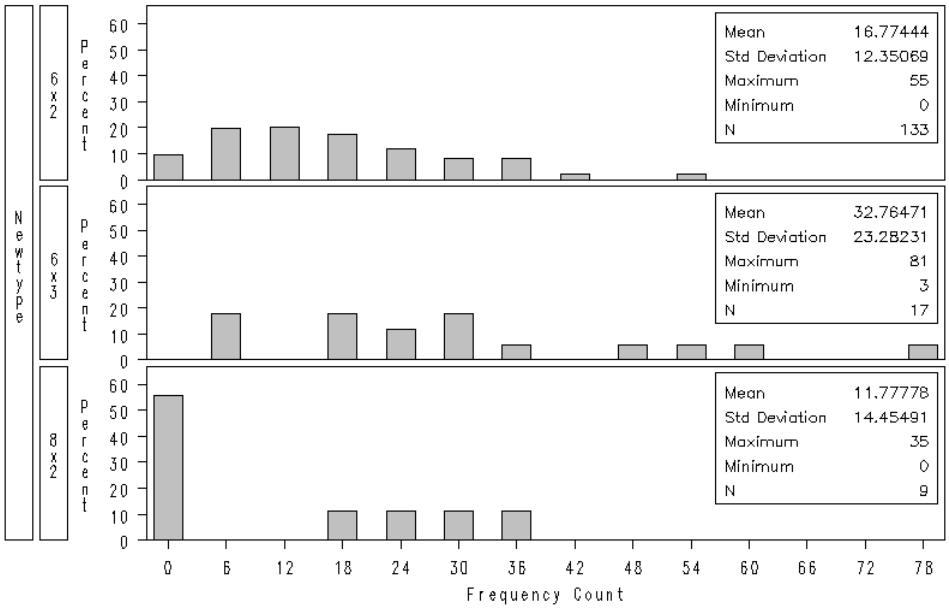

Figure 9.10 Crash comparative histograms for intersection type ‘6x2’, ‘6x3’ and ‘8x2’

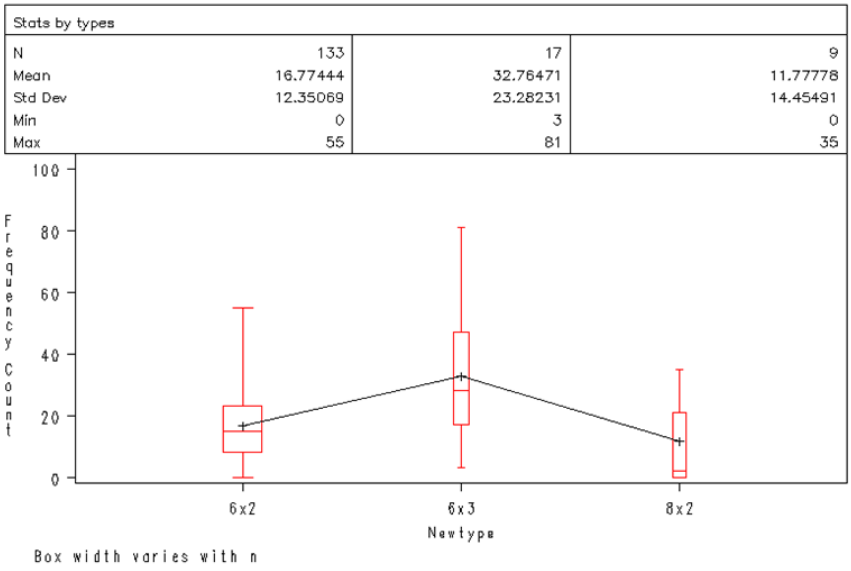

Figure 9.11 Crash box plot for intersection type ‘6x2’, ‘6x3’ and ‘8x2’

From the above plots and statistics, the crash means and distributions for type ‘6x2’ and ‘6x3’ are different. For type ‘8x2’, although it has the similar mean with type ‘6x2’, they have different distribution. It is better to separate them and create two separate categories for ‘6x2’ and ‘8x2’ when creating crash tables.

9.2.5 Check ‘8x4’

Type ‘8x4’ might be included into main type ‘6x4’. We compare the crash distribution for intersection type ‘6x4’ and ‘8x4’ using comparative histogram and box plot as shown in Figure 9.12 and 9.13, respectively.

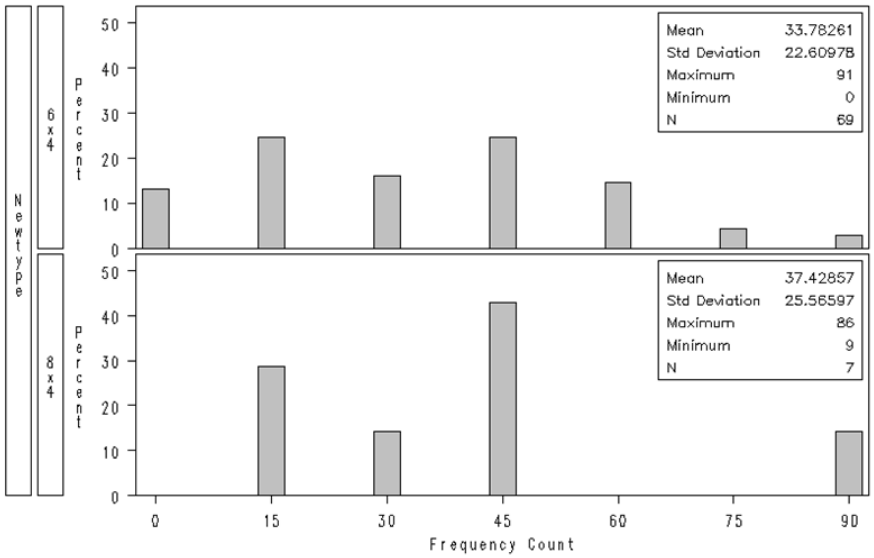

Figure 9.12 Crash comparative histograms for intersection type '6x4' and '8x4'

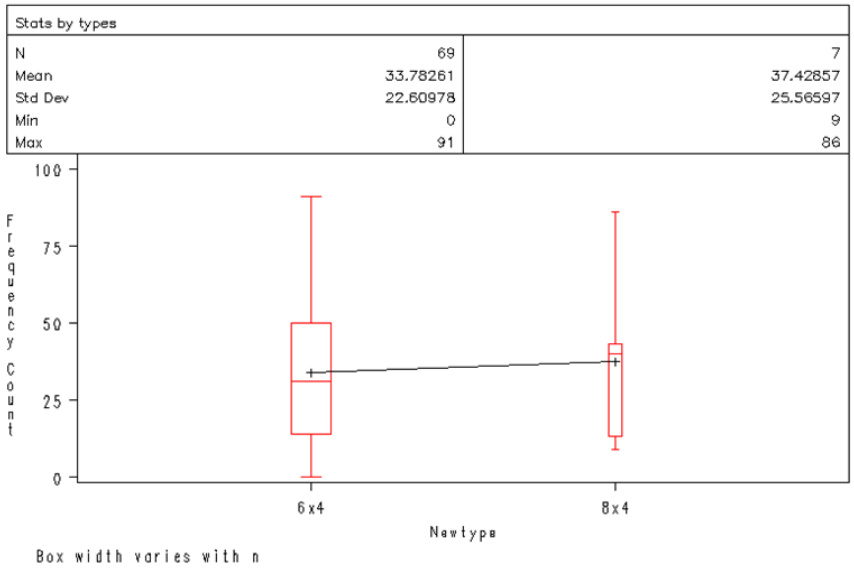

Figure 9.13 Crash box plot for intersection type '6x4' and '8x4'

From the above plots and statistics, the crash means and distributions for type '8x4' and '6x4' are different. It is better to separate them and create a separate category for '8x4' when creating crash tables, but note that type '8x4' has only 7 cases.

Type ‘8x4’ might be combined with type ‘8x2’. We compare the crash distribution for intersection type ‘8x2’ and ‘8x4’ using comparative histogram and box plot as shown in Figure 9.14 and 9.15, respectively.

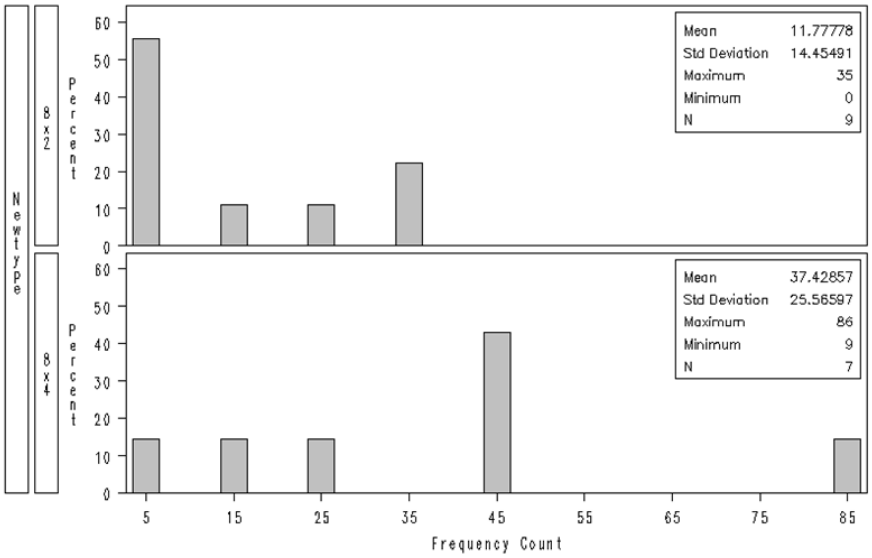

Figure 9.14 Crash comparative histograms for intersection type ‘8x2’ and ‘8x4’

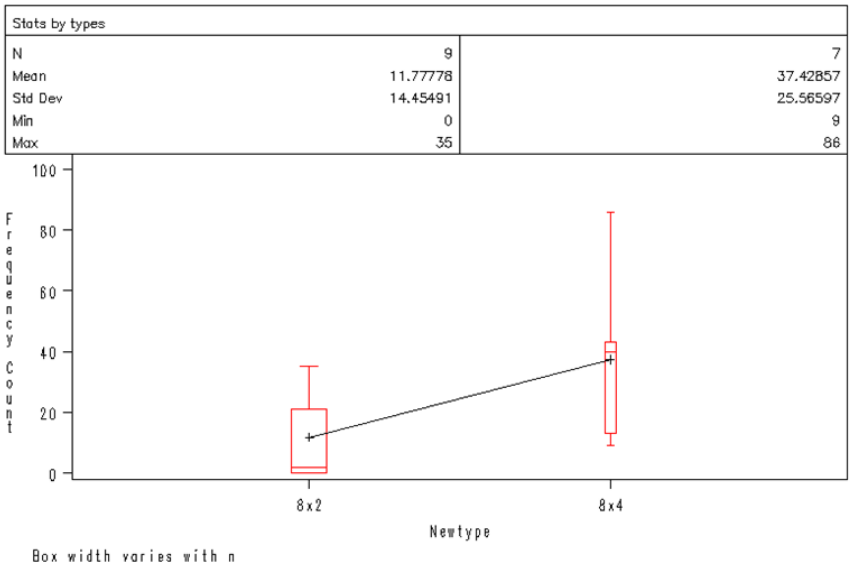

Figure 9.15 Crash box plot for intersection type ‘8x2’ and ‘8x4’

From the above plots and statistics, the crash means and distributions for type ‘8x2’ and ‘8x4’ are different. So, it is better to separate them into two categories.

9.2.6 Check ‘6x6’

Type ‘6x6’ has 12 cases and they might be included into main type ‘6x4’. We compare the crash distribution for intersection type ‘6x4’ and ‘6x6’ using comparative histogram and box plot as shown in Figure 9.16 and 9.17, respectively.

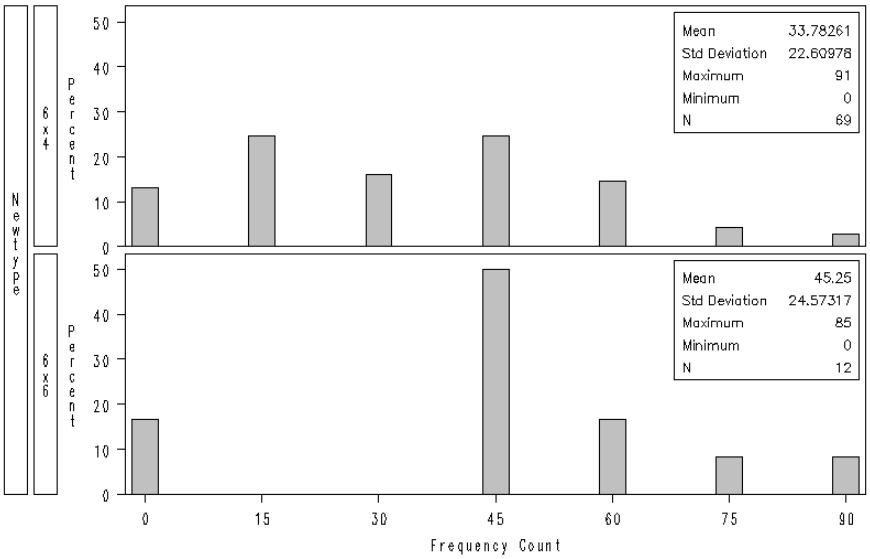

Figure 9.16 Crash comparative histograms for intersection type ‘6x4’ and ‘6x6’

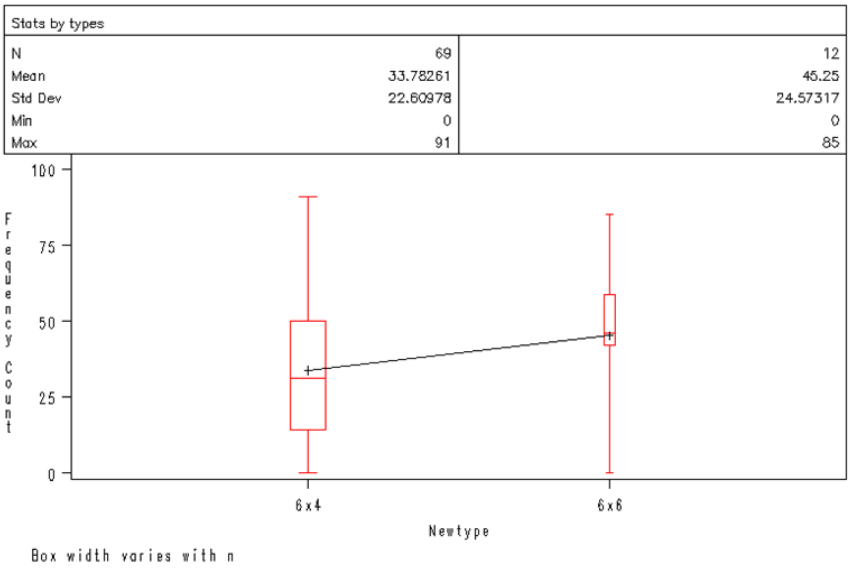

Figure 9.17 Crash box plot for intersection type ‘6x4’ and ‘6x6’

As shown in Figures 9.16 and 9.17, intersection type ‘6x4’ and ‘6x6’ have different crash means; therefore, it is better to separate them.

9.2.7 Check ‘6xT4’

Type ‘6xT4’ has 9 cases and they might be included into main type ‘6xT2’. We compare the crash distribution for intersection type ‘6xT2’ and ‘6xT4’ using comparative histogram and box plot as shown in Figure 9.18 and 9.19, respectively.

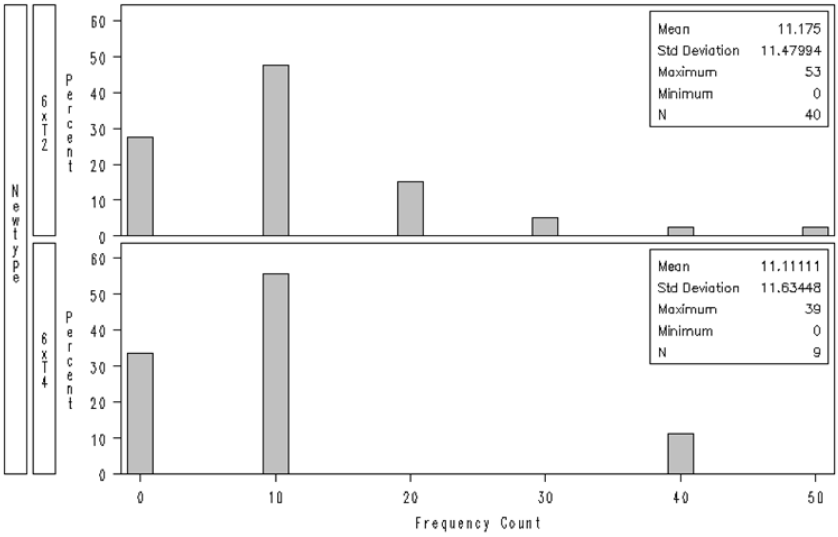

Figure 9.18 Crash comparative histograms for intersection type ‘6xT2’ and ‘6xT4’

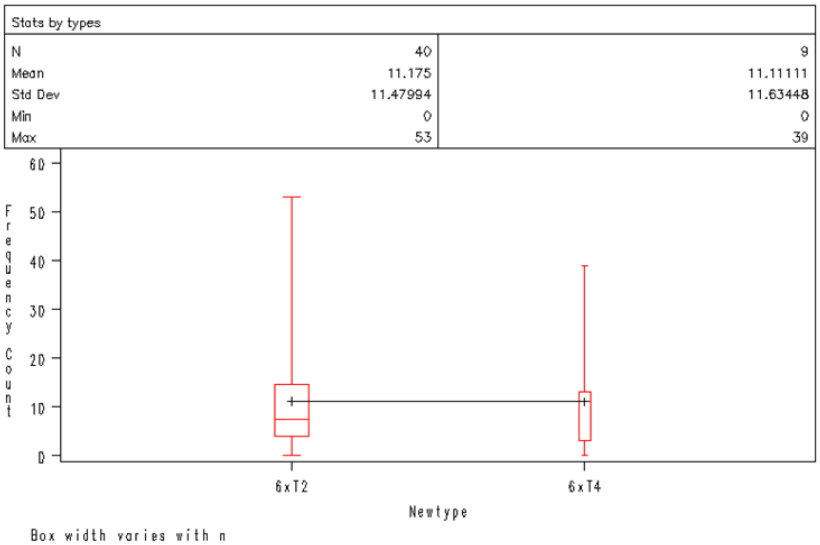

Figure 9.19 Crash box plot for intersection type ‘6xT2’ and ‘6xT4’

In Figures 9.18 and 9.19, the crash distributions and means for type ‘6xT2’ and ‘6xT4’ are similar, while the scatterplots of crash count vs. major ADT per lane for type

‘6xT2’ and ‘6xT4’ are different as shown in Figure 20 and 21; therefore, it is suggested putting type ‘6xT4’ into a separate type when creating crash tables, but noted that type ‘6xT4’ have only 9 cases.

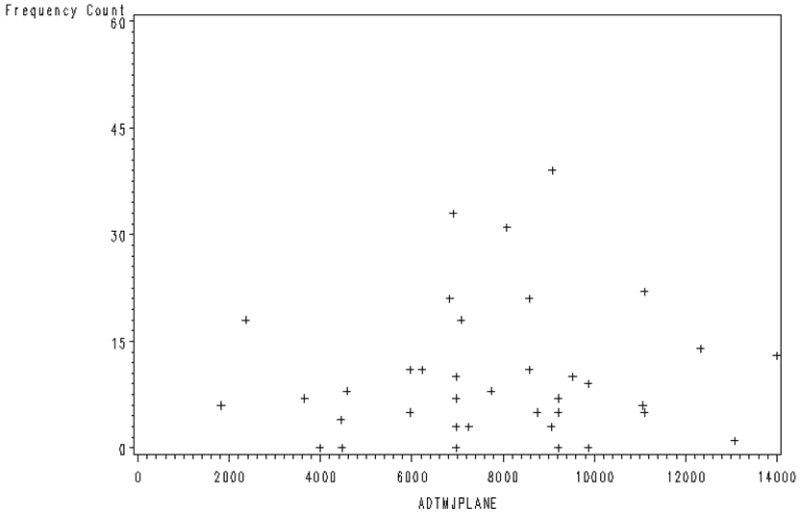

Figure 9.20 Scatterplot of crash count vs. major ADT per lane for type ‘6xT2’

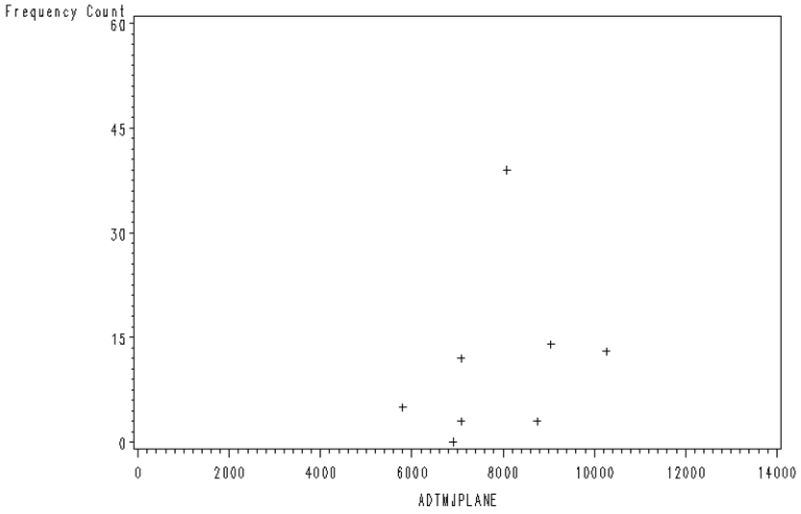

Figure 9.21 Scatterplot of crash count vs. major ADT per lane for type ‘6xT4’

9.2.8 Summary of suggested added categories

There are 10 abnormal intersection types which have moderate cases. After we check these types using graphical and statistical methods, we have several suggestions for creating crash tables:

- Combine type ‘3x2’ into main type ‘2x2’;
- Combine type ‘2x4’ into the main type ‘4x2’; and,
- Create a separate type for type ‘4x3’, ‘5x2’, ‘5x4’, ‘6x3’, ‘8x2’, ‘8x4’, ‘6x6’ and ‘6xT4’.

Twenty abnormal intersection types that have 30 intersections were removed at the first step. Based on the above suggestions and previous analysis, the remaining 1532 intersections were classified into 45 categories for creating crash tables. See the Table 9-6 in the following page for the summary of intersection classification.

Table 9-6 Summary of intersection classification

Category	Main Types	Conditions	Num of Intersections	Mean of Crashes	Std Dev	Minimum	Maximum
1	2 x 2	≤ 5000	61	3.6	4.16	0	16
2		> 5000 and ≤ 9000	79	6.7	6.61	0	29
3		> 9000	34	9.4	12.02	0	58
4	4 x 2	≤ 5000 and MJ speed ≤ 40	39	7.5	8.03	0	38
5		≤ 5000 and MJ speed > 40	32	7.0	7.24	0	26
6		> 5000 and ≤ 7000 and MJ speed ≤ 40	45	9.1	14.45	0	94
7		> 5000 and ≤ 7000 and MJ speed > 40	59	7.0	7.80	0	41
8		> 7000 and ≤ 9000 and MJ speed ≤ 40	97	12.0	12.94	0	56
9		> 7000 and ≤ 9000 and MJ speed > 40	60	9.4	8.87	0	48
10		> 9000 and ≤ 11000 and MJ speed ≤ 40	40	15.4	13.90	0	66
11		> 9000 and ≤ 11000 and MJ speed > 40	39	14.1	13.38	0	49
12		> 11000 and MJ speed ≤ 40	29	23.5	18.91	0	73
13		> 11000 and MJ speed > 40	65	13.9	13.66	0	69
15	5 x 2	-	6	15.5	19.16	0	44
14	4 x 3	-	28	17.9	15.31	0	43
16	4 x 4	≤ 5000	15	11.8	10.35	0	39
17		> 5000 and ≤ 7000	35	**19.3**	25.54	0	**130**
18		> 7000 and ≤ 9000	35	**17.5**	15.55	0	63
19		> 9000 and ≤ 11000	33	30.8	17.56	0	72
20		> 11000	31	30.9	22.87	0	79
21	5 x 4	-	8	31.5	23.07	0	72
22	6 x 2	≤ 7000	41	14.5	13.94	0	53
23		> 7000 and ≤ 9000	37	15.6	9.80	0	37
24		> 9000 and ≤ 11000	33	18.5	12.27	0	54
25		> 11000	22	20.3	12.80	3	55
26	6 x 3	-	17	32.8	23.28	3	81
27	8 x 2	-	9	11.8	14.45	0	35
28	6 x 4	≤ 9000	40	29.2	19.94	0	63
29		> 9000	29	40.2	24.79	0	91
30	8 x 4	-	7	37.4	25.57	9	86
31	6 x 6	-	12	45.3	24.57	0	85
32	2 x T2	≤ 8000	24	2.5	2.67	0	10
33		> 8000	19	3.0	3.65	0	15
34	4 x T2	≤ 7000	42	4.1	4.38	0	18
35		> 7000	61	7.3	7.04	0	29
36	4 x T4	-	26	11.8	15.06	0	62
37	6 x T2	-	40	11.2	11.48	0	53
38	6 x T4	-	9	11.1	11.63	0	39
39	Major 1 Way	≤ 7000	45	8.7	7.34	0	29
40		> 7000	40	19.3	22.23	0	106
41	Minor 1 Way	-	36	15.3	14.79	0	65
42	Both 1 Way	-	13	10.9	14.25	0	54
43	One Way & T	-	12	12.1	7.84	3	29
44	Ramps	≤ 7000	20	5.1	6.77	0	22
45		> 7000	28	6.6	9.20	0	35
Total Intersections		-	1532	-	-	-	-

9.2.9 Remove outlier

As shown in Table 9-6, within the each main type the intersection categories with higher of ADT per lane normally have higher number of average crashes. The only exception is category 17 in main type '4 x 4', which has average of 17.51 crashes (See Table 9-6). It is higher than that for category 18. The reason may be that there is outlier in category 17 as shown in Figure 9.22. The maximum crash count for category 17 is 130. If we delete this observation, the average crash for category 17 is 16.1, which is lower than that for category 18. This intersection was deleted. The summary table was created again based on 1531 intersections as shown in Table 9-7 in following page.

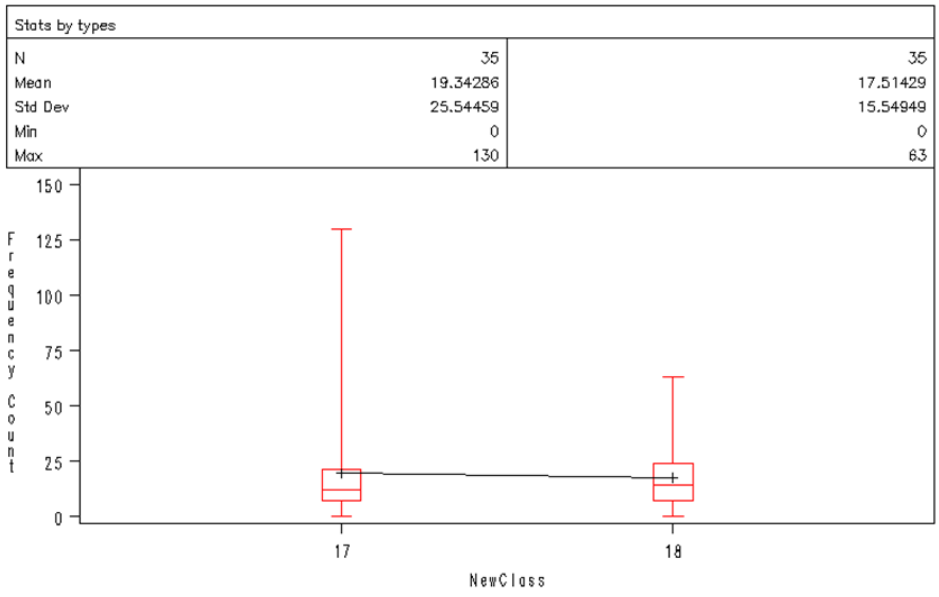

Figure 9.22 Crash box plot for category 17 and 18

Table 9-7 Summary of intersection classification

Category	Main Types	Conditions	Num of Intersections	Mean of Crash	Std Dev	Minimum	Maximum
1	2 x 2	≤ 5000	61	3.6	4.16	0	16
2		> 5000 and ≤ 9000	79	6.7	6.61	0	29
3		> 9000	34	9.4	12.02	0	58
4	4 x 2	≤ 5000 and MJ speed ≤ 40	39	7.5	8.03	0	38
5		≤ 5000 and MJ speed > 40	32	7.0	7.24	0	26
6		> 5000 and ≤ 7000 and MJ speed ≤ 40	45	9.1	14.45	0	94
7		> 5000 and ≤ 7000 and MJ speed > 40	59	7.0	7.80	0	41
8		> 7000 and ≤ 9000 and MJ speed ≤ 40	97	12.0	12.94	0	56
9		> 7000 and ≤ 9000 and MJ speed > 40	60	9.4	8.87	0	48
10		> 9000 and ≤ 11000 and MJ speed ≤ 40	40	15.4	13.90	0	66
11		> 9000 and ≤ 11000 and MJ speed > 40	39	14.1	13.38	0	49
12		> 11000 and MJ speed ≤ 40	29	23.5	18.91	0	73
13		> 11000 and MJ speed > 40	65	13.9	13.66	0	69
14	4 x 3	-	28	17.9	15.31	0	43
15*	5 x 2	-	6	15.5	19.16	0	44
16	4 x 4	≤ 5000	15	11.8	10.35	0	39
17		> 5000 and ≤ 7000	34	16.1	17.04	0	90
18		> 7000 and ≤ 9000	35	17.5	15.55	0	63
19		> 9000 and ≤ 11000	33	30.8	17.56	0	72
20		> 11000	31	30.9	22.87	0	79
21*	5 x 4	-	8	31.5	23.07	0	72
22	6 x 2	≤ 7000	41	14.5	13.94	0	53
23		> 7000 and ≤ 9000	37	15.6	9.80	0	37
24		> 9000 and ≤ 11000	33	18.5	12.27	0	54
25		> 11000	22	20.3	12.80	3	55
26*	6 x 3	-	17	32.8	23.28	3	81
27*	8 x 2	-	9	11.8	14.45	0	35
28	6 x 4	≤ 9000	40	29.2	19.94	0	63
29		> 9000	29	40.2	24.79	0	91
30*	8 x 4	-	7	37.4	25.57	9	86
31*	6 x 6	-	12	45.3	24.57	0	85
32	2 x T2	≤ 8000	24	2.5	2.67	0	10
33		> 8000	19	3.0	3.65	0	15
34	4 x T2	≤ 7000	42	4.1	4.38	0	18
35		> 7000	61	7.3	7.04	0	29
36	4 x T4	-	26	11.8	15.06	0	62
37	6 x T2	-	40	11.2	11.48	0	53
38*	6 x T4	-	9	11.1	11.63	0	39
39	Major 1 Way	≤ 7000	45	8.7	7.34	0	29
40		> 7000	40	19.3	22.23	0	106
41	Minor 1 Way	-	36	15.3	14.79	0	65
42*	Both 1 Way	-	13	10.9	14.25	0	54
43*	One Way & T	-	12	12.1	7.84	3	29
44	Ramps	≤ 7000	20	5.1	6.77	0	22
45		> 7000	28	6.6	9.20	0	35
Total Intersections		-	1531	-	-	-	-

* These intersection types have no sufficient samples. If the number of intersections for a certain type is less than 20, the mean of crashes in the table is just an indication of average crashes for this type based on the current limited cases.

9.3 Tables for the 45 categories

Tables were developed for the expected crash frequencies for the 45 category intersections. These 45 tables are shown in the following pages.

It is worth mentioning that some of the intersection types had relatively small sample sizes due to data availability (a total of 9 out of the 45 types, and are indicated below Table 9-7). Therefore, we advise caution in accepting the significance of the results. Some of the intersection types (e.g., type 21) are rare, e.g., 5x4. In section 9.2, we have investigated whether we should combine them with the 4x4 or treat them separately. In case these types (e.g., 5x4) vary significantly from the main type (i.e., 4x4), we opted to separate them, however their sample size was relatively small. Using them separately to generate the crash profiles is better than including them as outliers with the other main types.

CATEGORY 1

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

2 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road ≤ 5,000

Total Number of Intersections Included - 61

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		110	1.80	2.08	4.00	5.00	6.00
Collision Type	Rear End	33	0.54	0.87	1.00	2.00	2.00
	Head On	3	0.05	0.18	0.00	0.00	0.50
	Angle	34	0.56	0.76	1.00	1.50	2.00
	Left Turn	25	0.40	0.79	1.00	1.50	2.00
	Right Turn	2	0.03	0.12	0.00	0.00	0.50
	Sideswipe	3	0.05	0.18	0.00	0.00	0.50
	Pedestrian/Bicycle	3	0.04	0.14	0.00	0.00	0.50
	Other	8	0.13	0.34	0.50	0.50	0.50
Severity	PDO Crashes	62	1.01	1.43	3.00	3.50	4.00
	Possible Injury	20	0.33	0.50	1.00	1.00	1.50
	Non-Incapacitating Injury	24	0.39	0.48	1.00	1.00	1.00
	Incapacitating Injury	5	0.07	0.20	0.00	0.50	0.50
	Fatal Crashes	1	0.01	0.06	0.00	0.00	0.00
Light Conditions	Daylight	74	1.21	1.50	3.00	3.50	4.50
	Dusk	3	0.04	0.14	0.00	0.00	0.50
	Dawn	2	0.03	0.12	0.00	0.00	0.50
	Dark (w/street lights)	23	0.37	0.64	1.00	1.50	1.50
	Dark (wo/street lights)	9	0.15	0.32	0.50	0.50	1.00
Surface Condition	Dry	95	1.56	1.83	3.50	4.00	6.00
	Wet	14	0.22	0.37	0.50	1.00	1.00
	Slippery	2	0.02	0.11	0.00	0.00	0.00
	Others	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	12	0.19	0.36	0.50	0.50	0.50
	February	9	0.14	0.28	0.50	0.50	0.50
	March	8	0.13	0.30	0.50	0.50	0.50
	April	9	0.14	0.32	0.50	0.50	0.50
	May	12	0.19	0.36	0.50	0.50	1.00
	June	9	0.14	0.28	0.50	0.50	0.50
	July	6	0.09	0.21	0.50	0.50	0.50
	August	17	0.27	0.47	1.00	1.00	1.50
	September	10	0.16	0.32	0.50	0.50	1.00
	October	9	0.15	0.32	0.50	0.50	0.50
	November	6	0.09	0.23	0.00	0.50	0.50
	December	8	0.12	0.30	0.50	0.50	0.50
Day of week	Monday	16	0.26	0.50	0.50	1.00	1.50
	Tuesday	16	0.26	0.45	0.50	1.00	1.00
	Wednesday	16	0.25	0.39	0.50	1.00	1.00
	Thursday	18	0.30	0.43	0.50	1.00	1.00
	Friday	14	0.23	0.41	0.50	1.00	1.00
	Saturday	12	0.19	0.37	0.50	0.50	1.00
	Sunday	19	0.31	0.48	0.50	1.00	1.00
Hour of day	00:00 - 06:00	9	0.14	0.38	0.50	0.50	0.50
	06:01 - 09:00	11	0.18	0.33	0.50	0.50	1.00
	09:01 - 11:00	9	0.14	0.34	0.50	0.50	0.50
	11:01 - 13:00	9	0.14	0.34	0.50	0.50	0.50
	13:01 - 15:00	18	0.30	0.50	0.50	1.00	1.50
	15:01 - 18:00	25	0.40	0.62	1.00	1.50	1.50
	18:01 - 24:00	31	0.51	0.72	1.00	1.50	2.00

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 2

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

2 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road > 5,000 and ≤ 9,000

Total Number of Intersections Included - 79

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		263	3.33	3.30	6.50	7.70	9.55
Collision Type	Rear End	94	1.18	1.47	2.50	3.10	4.00
	Head On	6	0.08	0.21	0.00	0.50	0.50
	Angle	58	0.73	0.95	1.50	2.10	3.00
	Left Turn	54	0.68	0.88	1.50	2.00	2.50
	Right Turn	6	0.08	0.18	0.15	0.50	0.50
	Sideswipe	16	0.20	0.56	0.50	0.50	1.00
	Pedestrian/Bicycle	6	0.07	0.17	0.00	0.50	0.50
	Other	24	0.30	0.69	0.50	0.60	1.50
Severity	PDO Crashes	155	1.96	2.50	4.00	5.00	7.05
	Possible Injury	55	0.69	0.72	1.50	2.00	2.00
	Non-Incapacitating Injury	41	0.52	0.70	1.50	1.50	2.00
	Incapacitating Injury	12	0.15	0.28	0.50	0.50	0.55
	Fatal Crashes	1	0.01	0.08	0.00	0.00	0.00
Light Conditions	Daylight	176	2.22	2.18	4.65	5.50	6.50
	Dusk	5	0.06	0.19	0.00	0.50	0.50
	Dawn	4	0.05	0.15	0.00	0.10	0.50
	Dark (w/street lights)	59	0.75	1.32	1.50	2.00	3.10
	Dark (wo/street lights)	20	0.25	0.47	0.50	1.00	1.05
Surface Condition	Dry	229	2.89	2.85	5.50	6.60	7.20
	Wet	32	0.41	0.59	1.00	1.10	1.50
	Slippery	2	0.03	0.11	0.00	0.00	0.05
	Others	1	0.01	0.06	0.00	0.00	0.00
Month of year	January	21	0.26	0.48	0.50	0.50	1.00
	February	20	0.25	0.47	0.50	0.50	1.05
	March	26	0.32	0.48	0.65	1.00	1.50
	April	21	0.27	0.48	0.50	0.50	1.50
	May	22	0.28	0.47	0.50	1.00	1.00
	June	21	0.26	0.50	0.50	0.50	1.00
	July	21	0.27	0.49	0.65	1.00	1.50
	August	32	0.40	0.57	1.00	1.00	1.50
	September	20	0.25	0.34	0.50	0.50	1.00
	October	19	0.23	0.37	0.50	0.50	1.00
	November	19	0.24	0.43	0.50	0.60	1.05
	December	25	0.31	0.49	1.00	1.00	1.05
Day of week	Monday	34	0.43	0.56	1.00	1.00	1.50
	Tuesday	41	0.51	0.63	1.50	1.50	1.50
	Wednesday	38	0.47	0.55	1.00	1.50	1.50
	Thursday	38	0.48	0.70	1.15	1.50	2.00
	Friday	33	0.42	0.56	1.00	1.10	1.50
	Saturday	35	0.44	0.73	1.00	1.00	2.05
	Sunday	46	0.58	0.84	1.50	1.60	2.05
Hour of day	00:00 - 06:00	24	0.30	0.69	0.50	0.50	1.05
	06:01 - 09:00	33	0.42	0.61	1.00	1.00	1.05
	09:01 - 11:00	21	0.27	0.36	0.50	0.60	1.00
	11:01 - 13:00	28	0.35	0.57	1.00	1.00	1.50
	13:01 - 15:00	29	0.37	0.50	0.65	1.00	1.50
	15:01 - 18:00	56	0.71	0.78	1.50	1.50	2.00
	18:01 - 24:00	72	0.91	1.16	2.15	2.50	3.05

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 3

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

2 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road > 9,000

Total Number of Intersections Included - 34

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		160	4.71	6.01	10.10	12.70	13.35
Collision Type	Rear End	64	1.87	3.23	3.50	3.50	4.00
	Head On	4	0.10	0.24	0.50	0.50	0.50
	Angle	23	0.68	1.02	1.50	1.50	2.68
	Left Turn	37	1.07	1.61	2.03	2.85	4.70
	Right Turn	7	0.19	0.35	0.50	0.50	0.67
	Sideswipe	10	0.29	0.64	0.50	0.85	1.35
	Pedestrian/Bicycle	2	0.06	0.20	0.00	0.00	0.50
	Other	15	0.44	0.82	1.00	1.00	1.18
Severity	PDO Crashes	102	2.99	4.32	5.53	8.80	11.68
	Possible Injury	36	1.06	1.34	2.00	2.35	3.85
	Non-Incapacitating Injury	17	0.50	0.75	1.00	1.35	2.18
	Incapacitating Injury	5	0.15	0.40	0.50	0.50	0.67
	Fatal Crashes	1	0.01	0.09	0.00	0.00	0.00
Light Conditions	Daylight	104	3.04	3.98	6.53	7.00	8.70
	Dusk	7	0.19	0.37	0.50	0.50	1.00
	Dawn	2	0.06	0.20	0.00	0.00	0.50
	Dark (wo/street lights)	5	0.15	0.34	0.50	0.85	1.00
Surface Condition	Dry	136	4.00	4.97	8.53	10.75	12.50
	Wet	22	0.65	1.14	1.00	1.35	2.52
	Slippery	1	0.03	0.12	0.00	0.00	0.17
Month of year	January	15	0.43	0.58	1.00	1.00	1.68
	February	9	0.26	0.39	1.00	1.00	1.00
	March	15	0.43	0.83	0.53	1.00	1.85
	April	16	0.46	0.64	1.00	1.00	1.35
	May	10	0.28	0.46	0.53	1.00	1.00
	June	15	0.44	0.57	1.00	1.00	1.50
	July	13	0.38	0.70	1.00	1.35	1.68
	August	13	0.38	0.77	0.53	1.00	1.50
	September	14	0.40	0.62	1.00	1.00	1.18
	October	12	0.34	0.68	0.50	0.50	2.00
	November	15	0.43	0.79	1.50	1.50	2.50
	December	17	0.49	0.66	1.00	1.00	2.00
Day of week	Monday	19	0.54	0.80	1.50	1.50	2.00
	Tuesday	22	0.65	0.82	1.50	1.50	2.18
	Wednesday	23	0.68	1.00	1.50	1.50	2.18
	Thursday	19	0.54	0.96	1.00	1.35	2.68
	Friday	33	0.96	1.36	2.03	2.50	3.35
	Saturday	29	0.85	1.23	2.03	2.50	3.52
	Sunday	17	0.49	0.85	1.03	1.85	2.50
Hour of day	00:00 - 06:00	18	0.51	0.78	1.50	1.50	1.68
	06:01 - 09:00	14	0.41	0.65	1.00	1.35	1.68
	09:01 - 11:00	9	0.25	0.59	0.50	0.50	1.18
	11:01 - 13:00	17	0.50	0.77	1.03	1.50	2.18
	13:01 - 15:00	17	0.50	0.81	1.00	1.35	2.35
	15:01 - 18:00	43	1.26	1.62	3.00	3.00	3.68
	18:01 - 24:00	43	1.26	1.81	2.50	3.20	4.35

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 4

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road ≤ 5,000 and Major Road Speed Limit ≤ 40 mph

Total Number of Intersections Included - 39

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		146	3.73	4.01	5.50	7.60	9.15
Collision Type	Rear End	36	0.91	1.01	2.00	2.50	2.50
	Head On	4	0.10	0.31	0.00	0.50	0.55
	Angle	49	1.24	1.85	2.00	2.60	4.15
	Left Turn	27	0.69	0.88	1.00	1.60	2.50
	Right Turn	3	0.08	0.27	0.00	0.10	0.50
	Sideswipe	14	0.36	0.72	0.50	1.10	1.55
	Pedestrian/Bicycle	3	0.06	0.20	0.00	0.10	0.50
	Other	11	0.28	0.58	0.50	1.00	1.55
Severity	PDO Crashes	83	2.13	3.00	4.00	5.10	6.45
	Possible Injury	34	0.86	1.05	1.20	2.50	3.05
	Non-Incapacitating Injury	22	0.56	0.59	1.00	1.50	1.55
	Incapacitating Injury	7	0.18	0.31	0.50	0.50	1.00
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	95	2.42	2.57	5.00	5.00	7.20
	Dusk	9	0.22	0.28	0.50	0.50	0.50
	Dawn	2	0.04	0.13	0.00	0.00	0.50
	Dark (w/street lights)	37	0.95	1.61	1.50	2.20	4.10
	Dark (wo/street lights)	4	0.10	0.20	0.20	0.50	0.50
Surface Condition	Dry	126	3.22	3.47	5.65	6.50	7.95
	Wet	17	0.44	0.55	1.00	1.00	1.55
	Slippery	1	0.03	0.11	0.00	0.00	0.05
	Others	2	0.05	0.19	0.00	0.00	0.50
Month of year	January	16	0.40	0.62	1.00	1.10	1.55
	February	13	0.32	0.35	0.50	1.00	1.00
	March	15	0.37	0.65	0.50	1.00	1.55
	April	9	0.23	0.36	0.50	1.00	1.00
	May	13	0.32	0.67	0.50	0.70	1.50
	June	14	0.35	0.50	1.00	1.00	1.05
	July	8	0.21	0.38	0.50	0.60	1.00
	August	10	0.24	0.41	0.50	1.00	1.00
	September	12	0.31	0.42	0.50	1.00	1.00
	October	15	0.37	0.53	1.00	1.00	1.05
	November	12	0.29	0.45	0.50	1.00	1.05
	December	13	0.32	0.45	0.50	1.00	1.05
Day of week	Monday	24	0.62	0.74	1.50	1.60	2.05
	Tuesday	19	0.49	0.81	0.50	1.50	2.50
	Wednesday	20	0.50	0.60	1.00	1.50	1.55
	Thursday	15	0.38	0.53	1.00	1.00	1.50
	Friday	21	0.53	0.63	1.00	1.50	1.55
	Saturday	21	0.53	0.94	0.70	1.50	2.00
	Sunday	27	0.69	1.07	1.50	1.50	2.65
Hour of day	00:00 - 06:00	14	0.36	0.95	0.50	1.00	3.50
	06:01 - 09:00	15	0.38	0.45	0.50	1.00	1.50
	09:01 - 11:00	8	0.21	0.38	0.50	0.60	1.00
	11:01 - 13:00	16	0.40	0.50	1.00	1.00	1.50
	13:01 - 15:00	19	0.49	0.66	1.20	1.50	1.55
	15:01 - 18:00	31	0.78	0.89	1.50	2.00	2.05
	18:01 - 24:00	44	1.12	1.53	1.50	2.50	3.05

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 5

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road ≤ 5,000 and Major Road Speed Limit > 40 mph

Total Number of Intersections Included - 32

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		113	3.52	3.62	6.35	10.60	11.00
Collision Type	Rear End	37	1.14	1.35	2.50	3.40	3.73
	Head On	4	0.13	0.31	0.50	0.50	0.50
	Angle	26	0.80	1.03	1.85	2.50	3.00
	Left Turn	29	0.89	1.00	1.68	2.45	3.00
	Right Turn	2	0.06	0.21	0.00	0.00	0.50
	Sideswipe	5	0.16	0.41	0.17	0.50	1.23
	Pedestrian/Bicycle	1	0.02	0.09	0.00	0.00	0.00
	Other	11	0.33	0.60	0.67	1.00	1.00
Severity	PDO Crashes	68	2.11	2.97	5.00	6.35	8.95
	Possible Injury	23	0.72	0.67	1.50	1.50	1.73
	Non-Incapacitating Injury	17	0.52	0.59	1.00	1.00	1.50
	Incapacitating Injury	6	0.17	0.41	0.50	0.50	0.73
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	78	2.44	2.56	4.68	6.35	8.00
	Dusk	3	0.09	0.24	0.17	0.50	0.50
	Dawn	2	0.05	0.15	0.00	0.00	0.50
	Dark (w/street lights)	20	0.63	0.92	1.18	1.50	2.00
	Dark (wo/street lights)	10	0.31	0.56	0.50	0.95	1.73
Surface Condition	Dry	98	3.06	3.14	6.35	8.80	9.50
	Wet	14	0.42	0.76	0.67	1.45	1.73
	Slippery	1	0.02	0.09	0.00	0.00	0.00
	Others	1	0.02	0.09	0.00	0.00	0.00
Month of year	January	11	0.34	0.69	1.00	1.00	1.00
	February	9	0.27	0.57	0.50	0.50	1.18
	March	11	0.33	0.43	1.00	1.00	1.00
	April	9	0.28	0.49	0.50	0.95	1.23
	May	8	0.25	0.40	0.50	0.95	1.00
	June	10	0.31	0.52	1.00	1.00	1.23
	July	10	0.31	0.56	1.00	1.00	1.00
	August	8	0.25	0.44	0.50	0.50	1.00
	September	9	0.27	0.40	0.50	0.95	1.00
	October	9	0.28	0.40	0.50	0.95	1.00
	November	10	0.31	0.42	0.67	1.00	1.00
	December	10	0.31	0.45	0.50	0.95	1.00
Day of week	Monday	19	0.59	0.63	1.00	1.00	2.00
	Tuesday	14	0.42	0.58	1.00	1.00	1.50
	Wednesday	13	0.39	0.50	1.00	1.00	1.50
	Thursday	17	0.53	0.68	1.00	1.45	1.50
	Friday	20	0.63	0.86	1.50	1.95	2.50
	Saturday	14	0.42	0.62	1.00	1.45	1.73
	Sunday	17	0.53	0.87	1.00	1.45	2.18
Hour of day	00:00 - 06:00	12	0.36	0.61	1.00	1.45	1.73
	06:01 - 09:00	15	0.45	0.66	1.50	1.50	1.73
	09:01 - 11:00	8	0.23	0.40	0.50	0.95	1.00
	11:01 - 13:00	10	0.30	0.51	0.50	0.50	1.18
	13:01 - 15:00	10	0.31	0.49	0.67	1.00	1.50
	15:01 - 18:00	29	0.91	0.94	2.00	2.00	3.00
	18:01 - 24:00	31	0.95	1.09	1.68	2.45	3.23

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 6

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road > 5,000 and ≤ 7,000 and Major Road Speed Limit ≤ 40 mph

Total Number of Intersections Included - 45

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		204	4.53	7.22	7.00	9.50	9.90
Collision Type	Rear End	57	1.26	2.27	2.50	3.00	3.40
	Head On	5	0.10	0.27	0.20	0.50	0.50
	Angle	73	1.62	2.81	3.50	3.80	4.50
	Left Turn	26	0.58	1.02	1.00	1.50	2.30
	Right Turn	5	0.10	0.25	0.20	0.50	0.50
	Sideswipe	13	0.29	0.66	0.50	0.80	1.00
	Pedestrian/Bicycle	7	0.14	0.43	0.20	0.50	0.90
	Other	20	0.44	0.78	1.00	1.30	1.90
Severity	PDO Crashes	123	2.72	4.83	4.40	6.60	7.00
	Possible Injury	47	1.03	1.90	1.50	2.30	2.90
	Non-Incapacitating Injury	24	0.53	0.81	1.00	1.30	1.50
	Incapacitating Injury	11	0.23	0.36	0.50	0.50	1.00
	Fatal Crashes	1	0.01	0.07	0.00	0.00	0.00
Light Conditions	Daylight	139	3.08	4.62	5.00	5.60	7.00
	Dusk	6	0.12	0.30	0.50	0.50	0.50
	Dawn	3	0.06	0.16	0.00	0.30	0.50
	Dark (w/street lights)	54	1.19	2.47	2.20	2.50	2.90
	Dark (wo/street lights)	4	0.09	0.27	0.00	0.50	0.50
Surface Condition	Dry	169	3.76	5.90	6.20	7.90	9.40
	Wet	32	0.71	1.37	1.50	1.50	2.00
	Slippery	0	0.00	0.00	0.00	0.00	0.00
	Others	3	0.07	0.20	0.00	0.30	0.50
Month of year	January	19	0.41	0.90	1.00	1.00	1.50
	February	15	0.33	0.60	1.00	1.00	1.00
	March	19	0.41	0.79	0.70	1.00	1.50
	April	16	0.34	0.60	0.70	1.00	1.00
	May	17	0.38	0.79	0.70	1.00	1.50
	June	16	0.36	0.52	1.00	1.00	1.00
	July	20	0.44	0.76	1.00	1.30	1.90
	August	21	0.47	1.00	1.00	1.00	1.50
	September	20	0.43	0.55	1.00	1.00	1.40
	October	15	0.33	0.55	1.00	1.00	1.00
	November	13	0.29	0.53	0.50	0.50	0.90
	December	15	0.33	0.82	0.50	0.80	1.00
Day of week	Monday	27	0.60	1.13	1.00	1.30	2.00
	Tuesday	27	0.60	0.98	1.00	1.00	1.50
	Wednesday	27	0.60	0.96	1.00	1.30	2.00
	Thursday	38	0.83	1.20	1.50	2.00	3.00
	Friday	33	0.73	1.31	1.50	1.80	2.40
	Saturday	25	0.56	1.23	1.00	1.00	1.40
	Sunday	28	0.61	1.22	1.00	1.30	2.00
Hour of day	00:00 - 06:00	23	0.50	0.78	1.00	1.00	2.40
	06:01 - 09:00	19	0.42	0.75	1.00	1.00	1.50
	09:01 - 11:00	15	0.32	0.61	0.50	1.00	1.00
	11:01 - 13:00	24	0.52	0.97	1.00	1.00	1.50
	13:01 - 15:00	31	0.69	0.96	1.50	2.00	2.40
	15:01 - 18:00	39	0.87	1.40	1.70	2.00	2.40
	18:01 - 24:00	55	1.21	2.65	2.00	2.50	3.30

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 7

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road > 5,000 and ≤ 7,000 and Major Road Speed Limit > 40 mph

Total Number of Intersections Included - 59

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		206	3.49	3.90	6.30	9.00	10.55
Collision Type	Rear End	81	1.37	1.54	2.65	3.60	5.05
	Head On	3	0.04	0.14	0.00	0.00	0.50
	Angle	51	0.86	1.06	1.50	2.00	2.65
	Left Turn	45	0.75	1.41	1.50	2.00	3.05
	Right Turn	3	0.04	0.17	0.00	0.00	0.50
	Sideswipe	7	0.11	0.21	0.50	0.50	0.50
	Pedestrian/Bicycle	4	0.07	0.17	0.00	0.50	0.50
	Other	14	0.24	0.39	0.50	0.50	1.00
Severity	PDO Crashes	94	1.59	2.63	2.15	3.80	7.70
	Possible Injury	56	0.94	1.00	2.00	2.60	3.00
	Non-Incapacitating Injury	44	0.75	0.91	1.50	1.60	2.05
	Incapacitating Injury	12	0.19	0.45	0.50	0.50	1.00
	Fatal Crashes	1	0.02	0.09	0.00	0.00	0.00
Light Conditions	Daylight	137	2.32	2.72	4.50	5.20	6.55
	Dusk	7	0.11	0.26	0.50	0.50	0.50
	Dawn	4	0.06	0.19	0.00	0.10	0.50
	Dark (w/street lights)	41	0.69	1.08	1.15	2.00	2.50
	Dark (wo/street lights)	19	0.31	0.62	0.50	1.00	1.05
Surface Condition	Dry	165	2.80	2.97	4.65	6.50	9.05
	Wet	36	0.60	1.07	1.00	2.00	3.00
	Slippery	2	0.03	0.16	0.00	0.00	0.05
	Others	4	0.06	0.25	0.00	0.00	0.50
Month of year	January	21	0.36	0.57	0.65	1.00	1.50
	February	13	0.21	0.36	0.50	0.60	1.00
	March	17	0.29	0.50	1.00	1.00	1.05
	April	13	0.22	0.53	0.50	0.50	1.05
	May	17	0.28	0.51	0.50	1.00	1.50
	June	16	0.26	0.38	0.50	0.50	1.00
	July	19	0.31	0.52	1.00	1.00	1.50
	August	20	0.34	0.42	0.65	1.00	1.00
	September	16	0.26	0.49	0.50	1.00	1.00
	October	20	0.34	0.47	0.65	1.00	1.50
	November	21	0.35	0.64	1.00	1.00	1.05
	December	16	0.27	0.74	0.50	0.50	1.50
Day of week	Monday	23	0.38	0.50	0.65	1.00	1.50
	Tuesday	27	0.45	0.67	1.00	1.10	2.00
	Wednesday	31	0.52	0.73	1.00	1.50	2.00
	Thursday	30	0.51	0.71	1.00	1.50	2.00
	Friday	27	0.46	0.62	1.00	1.10	2.00
	Saturday	34	0.58	0.81	1.00	1.60	2.50
	Sunday	36	0.60	0.99	1.00	1.50	3.00
Hour of day	00:00 - 06:00	14	0.23	0.36	0.50	0.60	1.00
	06:01 - 09:00	28	0.47	0.76	1.00	1.50	2.05
	09:01 - 11:00	22	0.37	0.59	0.65	1.00	2.00
	11:01 - 13:00	19	0.31	0.63	0.50	1.00	1.05
	13:01 - 15:00	20	0.34	0.47	0.50	0.60	1.05
	15:01 - 18:00	46	0.78	0.89	1.50	2.00	2.50
	18:01 - 24:00	59	0.99	1.37	1.50	2.50	3.65

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 8

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road > 7,000 and ≤ 9,000 and Major Road Speed Limit ≤ 40 mph

Total Number of Intersections Included - 97

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		584	6.02	6.47	12.40	16.00	20.60
Collision Type	Rear End	194	2.00	2.48	4.50	5.20	7.50
	Head On	7	0.07	0.19	0.00	0.50	0.50
	Angle	142	1.46	1.78	3.00	3.50	6.00
	Left Turn	81	0.84	1.12	1.50	2.20	3.00
	Right Turn	16	0.16	0.44	0.50	0.50	1.00
	Sideswipe	52	0.53	0.83	1.30	1.70	2.50
	Pedestrian/Bicycle	23	0.24	0.49	0.50	1.00	1.10
	Other	70	0.72	1.26	1.50	2.00	3.50
Severity	PDO Crashes	403	4.15	5.51	10.80	12.00	15.90
	Possible Injury	97	0.99	1.19	1.80	2.20	3.60
	Non-Incapacitating Injury	66	0.68	0.83	1.50	2.00	2.00
	Incapacitating Injury	19	0.19	0.35	0.50	1.00	1.00
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	423	4.36	4.83	8.80	12.40	15.50
	Dusk	15	0.15	0.31	0.50	0.50	0.50
	Dawn	3	0.03	0.12	0.00	0.00	0.50
	Dark (w/street lights)	137	1.41	1.85	3.00	4.00	5.00
	Dark (wo/street lights)	7	0.07	0.31	0.00	0.00	0.50
Surface Condition	Dry	505	5.21	5.54	10.80	13.70	17.60
	Wet	74	0.76	1.09	1.80	2.20	2.60
	Slippery	1	0.01	0.05	0.00	0.00	0.00
	Others	5	0.05	0.16	0.00	0.00	0.50
Month of year	January	38	0.39	0.59	1.00	1.50	1.50
	February	41	0.42	0.67	1.00	1.50	2.00
	March	47	0.48	0.74	1.00	1.50	2.00
	April	52	0.54	0.73	1.50	1.50	2.00
	May	55	0.56	0.84	1.50	1.50	2.10
	June	48	0.49	0.70	1.00	1.50	2.00
	July	55	0.57	0.94	1.50	1.70	2.50
	August	60	0.61	0.86	1.50	1.70	2.50
	September	44	0.45	0.73	1.00	1.50	2.00
	October	44	0.45	0.61	1.00	1.20	1.50
	November	48	0.49	0.67	1.30	1.50	2.00
	December	55	0.56	0.80	1.00	1.50	2.00
Day of week	Monday	79	0.81	1.15	2.00	2.50	3.10
	Tuesday	95	0.97	1.03	2.00	2.50	3.00
	Wednesday	71	0.73	1.12	1.50	2.00	2.60
	Thursday	78	0.80	0.96	1.80	2.00	3.00
	Friday	96	0.98	1.27	2.00	2.50	3.50
	Saturday	92	0.94	1.22	2.30	3.00	3.50
	Sunday	76	0.78	0.96	1.50	2.00	3.00
Hour of day	00:00 - 06:00	54	0.56	0.98	1.30	2.00	2.60
	06:01 - 09:00	70	0.72	0.99	1.50	2.50	3.00
	09:01 - 11:00	45	0.46	0.66	1.00	1.50	1.60
	11:01 - 13:00	65	0.67	0.87	1.50	2.00	2.60
	13:01 - 15:00	74	0.76	1.05	1.50	1.70	2.60
	15:01 - 18:00	144	1.48	1.81	3.00	3.50	5.00
	18:01 - 24:00	132	1.36	1.71	3.30	4.20	5.00

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 9

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road > 7,000 and ≤ 9,000 and Major Road Speed Limit > 40 mph

Total Number of Intersections Included - 60

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		283	4.71	4.44	9.00	10.00	11.15
Collision Type	Rear End	129	2.15	2.55	4.00	4.60	6.03
	Head On	2	0.03	0.13	0.00	0.00	0.50
	Angle	57	0.95	1.17	2.00	2.50	3.03
	Left Turn	54	0.89	1.03	2.00	2.50	3.00
	Right Turn	4	0.06	0.16	0.00	0.50	0.50
	Sideswipe	17	0.28	0.65	0.50	0.50	1.03
	Pedestrian/Bicycle	7	0.12	0.28	0.50	0.50	0.50
	Other	14	0.23	0.40	0.57	1.00	1.00
Severity	PDO Crashes	110	1.83	2.90	3.50	4.10	6.58
	Possible Injury	93	1.55	1.36	3.00	3.50	4.03
	Non-Incapacitating Injury	62	1.03	1.06	2.00	2.05	3.05
	Incapacitating Injury	17	0.28	0.41	0.50	0.50	1.00
	Fatal Crashes	1	0.02	0.09	0.00	0.00	0.00
Light Conditions	Daylight	197	3.28	3.30	5.50	6.15	9.00
	Dusk	4	0.06	0.19	0.00	0.05	0.50
	Dawn	3	0.05	0.15	0.00	0.05	0.50
	Dark (w/street lights)	56	0.93	1.12	2.00	2.50	2.58
	Dark (wo/street lights)	24	0.39	0.62	1.00	1.00	2.00
Surface Condition	Dry	239	3.98	3.80	7.08	7.60	10.18
	Wet	41	0.68	0.81	1.50	1.55	2.50
	Slippery	1	0.01	0.06	0.00	0.00	0.00
	Others	3	0.04	0.19	0.00	0.00	0.02
Month of year	January	26	0.43	0.59	1.00	1.50	1.50
	February	23	0.38	0.53	1.00	1.00	1.50
	March	24	0.40	0.53	1.00	1.00	1.50
	April	25	0.42	0.66	1.00	1.00	1.53
	May	24	0.40	0.64	1.00	1.05	2.00
	June	25	0.42	0.50	1.00	1.00	1.50
	July	25	0.42	0.65	0.57	1.05	1.50
	August	23	0.38	0.50	1.00	1.00	1.03
	September	18	0.29	0.47	0.50	1.00	1.00
	October	24	0.40	0.49	1.00	1.00	1.50
	November	23	0.38	0.52	1.00	1.00	1.50
	December	24	0.40	0.61	1.00	1.00	1.53
Day of week	Monday	42	0.70	0.73	1.50	1.55	2.03
	Tuesday	37	0.61	0.73	1.50	2.00	2.00
	Wednesday	41	0.68	0.97	1.50	1.55	2.55
	Thursday	40	0.66	1.03	1.50	1.50	2.03
	Friday	43	0.71	0.68	1.50	1.50	2.00
	Saturday	44	0.73	0.80	1.58	2.00	2.50
	Sunday	38	0.63	0.80	1.50	2.00	2.50
Hour of day	00:00 - 06:00	19	0.32	0.47	1.00	1.00	1.00
	06:01 - 09:00	34	0.56	0.63	1.00	1.50	2.00
	09:01 - 11:00	20	0.33	0.46	0.57	1.00	1.03
	11:01 - 13:00	30	0.50	0.90	1.00	1.50	1.50
	13:01 - 15:00	37	0.62	0.74	1.50	1.55	2.00
	15:01 - 18:00	64	1.07	1.09	2.08	3.00	3.50
	18:01 - 24:00	80	1.33	1.36	2.58	3.05	4.03

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 10

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road > 9,000 and ≤ 11,000 and Major Road Speed Limit ≤ 40 mph

Total Number of Intersections Included - 40

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		307	7.68	6.95	14.38	17.10	18.63
Collision Type	Rear End	104	2.60	2.89	5.00	6.05	7.00
	Head On	7	0.18	0.33	0.50	0.50	0.52
	Angle	80	2.00	1.98	4.50	5.05	5.58
	Left Turn	57	1.43	1.66	3.58	4.00	4.50
	Right Turn	8	0.19	0.33	0.50	0.50	0.52
	Sideswipe	20	0.49	0.59	1.00	1.05	1.50
	Pedestrian/Bicycle	6	0.14	0.30	0.50	0.50	1.00
	Other	27	0.66	0.76	1.50	1.55	2.50
Severity	PDO Crashes	200	4.99	5.50	10.50	11.35	14.55
	Possible Injury	61	1.51	1.35	2.58	3.55	4.03
	Non-Incapacitating Injury	36	0.90	0.94	1.58	2.50	3.00
	Incapacitating Injury	11	0.28	0.61	0.50	0.50	1.53
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	194	4.85	4.39	9.50	12.10	13.08
	Dusk	10	0.24	0.39	0.50	0.50	1.03
	Dawn	5	0.13	0.27	0.50	0.50	0.52
	Dark (w/street lights)	85	2.13	2.78	3.58	4.05	5.65
	Dark (wo/street lights)	14	0.34	0.60	0.57	1.00	1.50
Surface Condition	Dry	255	6.38	5.45	10.88	15.50	16.58
	Wet	45	1.11	1.76	1.58	2.50	3.03
	Slippery	1	0.01	0.08	0.00	0.00	0.00
	Others	7	0.18	0.35	0.50	1.00	1.00
Month of year	January	22	0.55	0.70	1.00	1.55	2.03
	February	24	0.60	0.63	1.50	1.50	1.53
	March	22	0.55	0.58	1.00	1.05	1.53
	April	25	0.61	0.83	1.08	1.50	2.50
	May	25	0.63	0.85	1.08	1.55	2.53
	June	23	0.56	0.57	1.08	1.50	1.50
	July	32	0.79	0.85	1.50	2.00	2.50
	August	25	0.61	0.91	1.08	1.55	2.03
	September	25	0.61	0.69	1.08	1.50	2.00
	October	34	0.84	1.11	2.08	2.55	3.03
	November	28	0.70	0.89	1.08	2.00	3.00
	December	25	0.63	0.69	1.08	1.50	2.03
Day of week	Monday	47	1.18	1.36	2.50	3.00	3.10
	Tuesday	40	0.99	0.98	1.58	2.00	2.58
	Wednesday	42	1.04	1.04	2.50	2.50	3.00
	Thursday	54	1.35	1.22	2.50	3.00	3.53
	Friday	45	1.11	1.09	2.08	2.50	3.03
	Saturday	48	1.20	1.56	2.00	2.55	3.00
	Sunday	33	0.81	0.99	1.50	1.60	3.00
Hour of day	00:00 - 06:00	36	0.90	0.98	2.00	2.00	2.55
	06:01 - 09:00	24	0.59	0.62	1.50	1.50	1.53
	09:01 - 11:00	24	0.59	0.76	1.08	2.00	2.50
	11:01 - 13:00	28	0.69	0.66	1.50	1.55	2.00
	13:01 - 15:00	39	0.98	1.07	1.50	2.05	2.55
	15:01 - 18:00	56	1.40	1.32	2.58	3.55	4.03
	18:01 - 24:00	102	2.54	2.95	5.50	6.05	6.50

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 11

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road > 9,000 and ≤ 11,000 and Major Road Speed Limit > 40 mph

Total Number of Intersections Included - 39

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		276	7.06	6.69	13.50	15.50	19.95
Collision Type	Rear End	127	3.26	3.25	6.00	7.60	9.70
	Head On	4	0.09	0.23	0.15	0.50	0.50
	Angle	59	1.50	1.77	2.80	3.60	5.10
	Left Turn	49	1.24	1.49	2.65	3.20	4.00
	Right Turn	4	0.09	0.23	0.15	0.50	0.50
	Sideswipe	16	0.41	0.66	1.15	1.50	1.55
	Pedestrian/Bicycle	5	0.12	0.27	0.50	0.50	0.55
	Other	14	0.36	0.46	1.00	1.00	1.00
Severity	PDO Crashes	129	3.29	3.43	7.50	7.60	9.10
	Possible Injury	78	1.99	2.35	3.15	4.10	5.50
	Non-Incapacitating Injury	60	1.53	2.13	3.15	5.10	6.50
	Incapacitating Injury	10	0.24	0.38	0.50	0.60	1.00
	Fatal Crashes	1	0.01	0.08	0.00	0.00	0.00
Light Conditions	Daylight	180	4.60	4.45	7.95	10.10	12.05
	Dusk	7	0.18	0.31	0.50	0.50	1.00
	Dawn	3	0.08	0.22	0.00	0.50	0.50
	Dark (w/street lights)	61	1.56	1.87	2.80	4.10	6.00
	Dark (wo/street lights)	25	0.64	1.29	1.00	1.80	3.65
Surface Condition	Dry	242	6.19	5.90	11.65	13.60	18.70
	Wet	31	0.78	0.95	2.15	2.50	2.55
	Slippery	2	0.05	0.19	0.00	0.00	0.50
	Others	2	0.04	0.13	0.00	0.00	0.50
Month of year	January	23	0.58	0.63	1.00	1.60	2.00
	February	29	0.73	0.88	2.00	2.00	2.05
	March	23	0.58	0.79	1.65	2.00	2.00
	April	24	0.60	0.70	1.00	1.60	2.00
	May	19	0.49	0.59	1.00	1.10	1.50
	June	21	0.54	0.73	1.15	1.50	2.00
	July	22	0.56	0.84	1.15	1.50	1.50
	August	23	0.59	0.87	1.50	1.50	2.55
	September	25	0.63	0.70	1.50	1.50	2.00
	October	25	0.64	0.71	1.50	1.50	2.00
	November	21	0.54	0.76	1.00	1.10	2.05
	December	23	0.59	1.02	1.50	1.50	2.00
Day of week	Monday	41	1.05	1.06	2.50	2.60	3.00
	Tuesday	35	0.90	1.06	1.50	2.00	3.55
	Wednesday	33	0.83	1.05	1.65	2.00	3.00
	Thursday	45	1.14	1.15	2.00	2.60	3.50
	Friday	46	1.17	1.30	2.00	3.20	4.00
	Saturday	40	1.03	1.20	2.50	2.60	3.05
	Sunday	37	0.95	1.30	2.15	2.60	4.05
Hour of day	00:00 - 06:00	26	0.67	1.13	1.15	1.70	3.00
	06:01 - 09:00	24	0.62	0.68	1.50	1.50	1.55
	09:01 - 11:00	20	0.50	0.71	1.15	1.50	1.55
	11:01 - 13:00	23	0.58	0.79	1.15	2.00	2.05
	13:01 - 15:00	35	0.88	0.98	2.00	2.10	3.00
	15:01 - 18:00	61	1.56	1.72	3.00	3.70	5.05
	18:01 - 24:00	88	2.26	2.42	5.30	6.50	7.10

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 12

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road > 11,000 and Major Road Speed Limit ≤ 40 mph

Total Number of Intersections Included - 29

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		341	11.74	9.46	18.70	24.50	32.30
Collision Type	Rear End	139	4.78	3.94	8.30	10.60	11.30
	Head On	5	0.17	0.43	0.50	0.50	0.80
	Angle	76	2.60	3.09	4.90	6.30	7.80
	Left Turn	52	1.78	1.74	3.90	4.20	5.00
	Right Turn	5	0.16	0.42	0.40	0.50	0.80
	Sideswipe	28	0.95	1.11	2.00	2.10	2.50
	Pedestrian/Bicycle	9	0.29	0.43	0.90	1.00	1.00
	Other	30	1.02	1.11	1.90	2.20	3.30
Severity	PDO Crashes	253	8.71	7.62	14.80	18.30	25.60
	Possible Injury	52	1.78	1.53	3.40	3.50	3.80
	Non-Incapacitating Injury	30	1.03	0.92	1.90	2.60	3.00
	Incapacitating Injury	5	0.17	0.31	0.50	0.50	0.80
	Fatal Crashes	2	0.05	0.15	0.00	0.10	0.50
Light Conditions	Daylight	229	7.88	6.38	11.80	17.90	21.50
	Dusk	10	0.34	0.57	1.00	1.00	1.00
	Dawn	4	0.14	0.23	0.50	0.50	0.50
	Dark (w/street lights)	96	3.31	3.19	6.00	6.20	8.20
	Dark (wo/street lights)	2	0.07	0.22	0.00	0.10	0.50
Surface Condition	Dry	288	9.93	7.88	14.50	20.50	27.70
	Wet	46	1.57	1.70	3.30	3.80	5.30
	Slippery	1	0.02	0.09	0.00	0.00	0.00
	Others	7	0.22	0.43	0.50	0.60	1.30
Month of year	January	29	1.00	0.92	2.00	2.10	2.80
	February	21	0.71	0.76	1.50	1.60	2.30
	March	27	0.91	1.04	2.00	2.10	2.80
	April	30	1.03	1.18	1.90	2.60	3.60
	May	28	0.95	0.94	2.00	2.10	2.50
	June	29	0.98	1.33	1.90	2.70	3.50
	July	31	1.07	1.02	2.00	2.60	3.00
	August	31	1.05	0.95	2.00	2.20	3.00
	September	34	1.16	1.24	2.50	3.10	3.50
	October	35	1.19	1.18	2.50	2.60	3.00
	November	25	0.86	0.94	1.90	2.10	2.50
	December	24	0.83	0.85	2.00	2.00	2.30
Day of week	Monday	42	1.45	1.35	2.90	3.00	3.90
	Tuesday	51	1.76	1.41	2.90	4.00	4.00
	Wednesday	51	1.76	1.68	2.90	5.00	5.30
	Thursday	51	1.76	1.62	3.00	4.10	5.40
	Friday	56	1.93	1.73	3.50	4.00	4.90
	Saturday	41	1.41	1.46	3.00	3.50	4.40
	Sunday	49	1.67	1.67	3.80	4.00	4.00
Hour of day	00:00 - 06:00	35	1.19	1.45	2.90	3.60	4.00
	06:01 - 09:00	36	1.22	1.41	2.90	3.10	4.10
	09:01 - 11:00	28	0.95	0.95	2.00	2.10	2.80
	11:01 - 13:00	34	1.16	0.94	2.00	2.10	2.50
	13:01 - 15:00	42	1.45	1.11	2.90	3.00	3.00
	15:01 - 18:00	69	2.38	2.14	4.00	4.10	6.60
	18:01 - 24:00	99	3.40	3.14	6.80	8.10	8.80

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 13

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road > 11,000 and Major Road Speed Limit > 40 mph

Total Number of Intersections Included - 65

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		452	6.95	6.82	11.00	14.30	19.90
Collision Type	Rear End	222	3.42	3.56	5.50	6.50	9.30
	Head On	6	0.08	0.23	0.00	0.50	0.50
	Angle	87	1.33	1.84	2.50	3.00	5.50
	Left Turn	77	1.18	1.60	2.50	3.00	4.30
	Right Turn	5	0.08	0.22	0.00	0.50	0.50
	Sideswipe	23	0.35	0.63	1.00	1.00	1.50
	Pedestrian/Bicycle	9	0.14	0.27	0.50	0.50	0.50
	Other	25	0.38	0.47	1.00	1.00	1.40
Severity	PDO Crashes	199	3.06	4.50	6.00	6.00	8.80
	Possible Injury	139	2.13	2.17	5.00	5.80	7.00
	Non-Incapacitating Injury	92	1.42	1.57	2.50	3.30	4.40
	Incapacitating Injury	20	0.31	0.47	1.00	1.00	1.00
	Fatal Crashes	2	0.03	0.15	0.00	0.00	0.00
Light Conditions	Daylight	300	4.62	4.37	7.50	9.30	12.80
	Dusk	12	0.18	0.31	0.50	0.50	1.00
	Dawn	2	0.03	0.12	0.00	0.00	0.40
	Dark (w/street lights)	106	1.63	2.64	4.00	4.00	5.50
	Dark (wo/street lights)	32	0.49	0.84	1.20	1.50	2.40
Surface Condition	Dry	376	5.78	5.50	9.50	12.40	17.10
	Wet	68	1.05	1.55	2.00	2.50	3.00
	Slippery	7	0.11	0.29	0.20	0.50	0.50
	Others	1	0.02	0.09	0.00	0.00	0.00
Month of year	January	26	0.39	0.53	1.00	1.30	1.50
	February	37	0.57	0.83	1.00	1.50	2.00
	March	34	0.52	0.60	1.20	1.50	1.50
	April	48	0.73	0.91	1.50	1.80	2.00
	May	41	0.63	0.80	1.00	1.50	2.00
	June	31	0.47	0.65	1.00	1.00	1.80
	July	37	0.56	0.69	1.20	1.50	1.90
	August	42	0.64	0.84	1.00	1.50	2.40
	September	41	0.62	0.88	1.50	1.50	2.00
	October	43	0.66	0.82	1.00	1.50	2.00
	November	40	0.62	0.72	1.50	1.50	1.50
	December	35	0.54	0.75	1.00	1.50	1.90
Day of week	Monday	51	0.78	0.85	1.50	1.80	2.40
	Tuesday	67	1.02	1.23	1.70	2.50	3.40
	Wednesday	68	1.05	1.15	2.00	2.30	2.90
	Thursday	60	0.92	0.96	1.70	2.30	2.90
	Friday	73	1.12	1.34	2.00	2.50	3.00
	Saturday	80	1.22	1.54	2.50	2.80	4.30
	Sunday	54	0.83	1.15	1.50	1.80	2.90
Hour of day	00:00 - 06:00	37	0.56	0.76	1.20	1.50	1.50
	06:01 - 09:00	49	0.75	0.84	1.70	2.00	2.40
	09:01 - 11:00	32	0.48	0.63	1.00	1.50	1.90
	11:01 - 13:00	39	0.59	0.73	1.00	1.50	2.00
	13:01 - 15:00	65	1.00	1.17	1.70	2.00	3.00
	15:01 - 18:00	99	1.52	1.86	2.70	3.50	6.00
	18:01 - 24:00	133	2.04	2.35	3.50	5.00	6.40

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 14

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

4 Lane x 3 Lane Intersection, Signalized

Total Number of Intersections Included - 28

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		251	8.96	7.65	18.98	20.15	20.83
Collision Type	Rear End	122	4.36	4.63	9.98	10.65	12.30
	Head On	2	0.05	0.16	0.00	0.15	0.50
	Angle	53	1.89	1.79	3.50	4.00	4.98
	Left Turn	31	1.09	1.10	2.00	2.15	2.83
	Right Turn	4	0.14	0.33	0.50	0.50	0.50
	Sideswipe	22	0.79	0.89	1.50	1.50	2.15
	Pedestrian/Bicycle	3	0.09	0.31	0.00	0.15	0.50
	Other	16	0.55	0.77	1.00	1.50	2.15
Severity	PDO Crashes	128	4.55	4.96	10.95	12.00	14.28
	Possible Injury	66	2.36	2.51	4.50	6.00	6.33
	Non-Incapacitating Injury	50	1.77	1.75	4.00	4.65	5.00
	Incapacitating Injury	8	0.27	0.37	0.50	1.00	1.00
	Fatal Crashes	1	0.02	0.09	0.00	0.00	0.00
Light Conditions	Daylight	153	5.45	4.81	11.50	11.50	12.15
	Dusk	7	0.25	0.42	0.50	1.00	1.00
	Dawn	2	0.05	0.16	0.00	0.15	0.50
	Dark (w/street lights)	70	2.50	2.80	6.48	6.80	7.83
	Dark (wo/street lights)	20	0.71	0.98	2.00	2.15	2.50
Surface Condition	Dry	221	7.88	6.87	16.93	17.15	19.13
	Wet	29	1.04	1.02	1.50	2.65	3.33
	Slippery	1	0.02	0.09	0.00	0.00	0.00
	Others	1	0.04	0.19	0.00	0.00	0.00
Month of year	January	16	0.55	0.66	1.00	1.65	2.00
	February	22	0.79	0.87	1.50	2.00	2.33
	March	31	1.09	1.03	2.48	2.50	2.50
	April	21	0.73	0.87	1.50	2.00	2.33
	May	17	0.59	0.71	1.48	2.00	2.00
	June	24	0.84	0.99	2.00	2.00	2.00
	July	14	0.48	0.71	1.48	1.50	1.83
	August	18	0.64	0.83	1.00	1.65	2.00
	September	22	0.77	0.89	1.98	2.00	2.00
	October	22	0.79	0.81	1.50	1.65	2.33
	November	23	0.82	0.90	1.50	2.00	2.00
	December	25	0.88	0.86	1.98	2.00	2.33
Day of week	Monday	37	1.30	1.24	2.98	3.00	3.33
	Tuesday	33	1.18	1.23	2.48	3.15	3.50
	Wednesday	37	1.32	1.44	2.50	3.65	4.00
	Thursday	45	1.61	1.60	3.95	4.15	4.50
	Friday	36	1.27	1.24	2.50	3.00	3.33
	Saturday	36	1.27	1.19	2.50	3.00	3.33
	Sunday	29	1.02	1.19	1.98	2.30	3.65
Hour of day	00:00 - 06:00	29	1.02	1.24	2.50	3.00	3.33
	06:01 - 09:00	21	0.75	0.92	1.98	2.00	2.33
	09:01 - 11:00	14	0.50	0.59	1.00	1.15	1.83
	11:01 - 13:00	20	0.70	0.70	1.50	1.65	2.00
	13:01 - 15:00	28	1.00	0.94	2.00	2.15	2.50
	15:01 - 18:00	53	1.88	2.14	3.98	5.00	5.33
	18:01 - 24:00	88	3.13	2.79	6.43	6.65	8.30

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 15

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

5 Lane x 2 Lane Intersection, Signalized

Total Number of Intersections Included - 6

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		47	7.75	9.58	18.63	19.75	20.88
Collision Type	Rear End	16	2.58	3.11	6.25	6.50	6.75
	Head On	1	0.17	0.26	0.50	0.50	0.50
	Angle	16	2.58	2.78	5.63	5.75	5.88
	Left Turn	8	1.33	2.16	3.50	4.00	4.50
	Right Turn	2	0.25	0.61	0.38	0.75	1.13
	Sideswipe	3	0.42	0.80	0.88	1.25	1.63
	Pedestrian/Bicycle	1	0.17	0.41	0.25	0.50	0.75
	Other	2	0.25	0.27	0.50	0.50	0.50
Severity	PDO Crashes	32	5.33	7.74	14.63	15.25	15.88
	Possible Injury	11	1.75	1.78	3.25	3.50	3.75
	Non-Incapacitating Injury	4	0.58	0.74	1.50	1.50	1.50
	Incapacitating Injury	1	0.08	0.20	0.13	0.25	0.38
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	33	5.42	7.00	11.25	13.50	15.75
	Dusk	1	0.08	0.20	0.13	0.25	0.38
	Dawn	0	0.00	0.00	0.00	0.00	0.00
	Wet	11	1.83	2.11	4.50	4.50	4.50
	Slippery	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	3	0.50	0.45	1.00	1.00	1.00
	March	2	0.33	0.82	0.50	1.00	1.50
	May	2	0.33	0.41	0.63	0.75	0.88
	June	4	0.58	1.02	1.38	1.75	2.13
	July	8	1.25	1.47	2.38	2.75	3.13
	August	3	0.42	0.58	0.75	1.00	1.25
	September	5	0.83	1.03	1.75	2.00	2.25
	October	6	0.92	1.36	1.63	2.25	2.88
	November	4	0.67	0.98	1.38	1.75	2.13
	December	7	1.08	1.69	3.13	3.25	3.38
Day of week	Monday	6	1.00	1.22	2.50	2.50	2.50
	Tuesday	5	0.83	0.98	1.75	2.00	2.25
	Wednesday	9	1.50	2.07	3.50	4.00	4.50
	Thursday	6	1.00	1.30	1.63	2.25	2.88
	Friday	6	1.00	1.38	2.63	2.75	2.88
	Saturday	8	1.25	1.64	2.88	3.25	3.63
	Sunday	7	1.17	1.47	3.00	3.00	3.00
Hour of day	00:00 - 06:00	6	1.00	1.67	2.50	3.00	3.50
	06:01 - 09:00	5	0.83	1.03	1.75	2.00	2.25
	09:01 - 11:00	6	0.92	1.39	2.00	2.50	3.00
	11:01 - 13:00	3	0.42	0.49	1.00	1.00	1.00
	13:01 - 15:00	9	1.42	1.99	3.13	3.75	4.38
	15:01 - 18:00	9	1.50	1.73	3.50	3.50	3.50
	18:01 - 24:00	10	1.67	2.14	3.88	4.25	4.63

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 16

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

4 Lane x 4 Lane Intersection, Signalized, AADT/lane for Major Road ≤ 5,000

Total Number of Intersections Included - 15

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		89	5.90	5.18	8.80	12.30	16.00
Collision Type	Rear End	36	2.37	2.82	3.95	4.30	6.45
	Head On	0	0.00	0.00	0.00	0.00	0.00
	Angle	26	1.73	1.36	2.95	3.60	4.15
	Left Turn	12	0.80	1.07	2.40	2.50	2.65
	Right Turn	1	0.03	0.13	0.00	0.00	0.15
	Sideswipe	7	0.43	0.56	0.95	1.00	1.30
	Pedestrian/Bicycle	3	0.20	0.32	0.50	0.50	0.65
	Other	5	0.33	0.62	0.50	1.10	1.65
Severity	PDO Crashes	43	2.87	3.73	6.30	7.70	9.70
	Possible Injury	25	1.63	1.54	2.45	3.10	4.25
	Non-Incapacitating Injury	19	1.23	1.33	2.50	2.50	3.10
	Incapacitating Injury	2	0.13	0.30	0.45	0.50	0.65
	Fatal Crashes	1	0.03	0.13	0.00	0.00	0.15
Light Conditions	Daylight	65	4.33	4.05	5.45	8.80	12.35
	Dusk	1	0.07	0.18	0.00	0.30	0.50
	Dawn	2	0.10	0.28	0.00	0.30	0.65
	Dark (w/street lights)	17	1.10	1.24	2.45	3.10	3.50
	Dark (wo/street lights)	5	0.30	0.49	0.95	1.00	1.15
Surface Condition	Dry	75	4.97	4.48	7.75	10.40	13.50
	Wet	12	0.80	0.73	1.45	1.80	2.15
	Slippery	1	0.07	0.26	0.00	0.00	0.30
	Others	1	0.07	0.18	0.00	0.30	0.50
Month of year	January	7	0.47	0.64	1.00	1.30	1.65
	February	6	0.40	0.69	0.95	1.00	1.45
	March	8	0.53	0.55	1.00	1.00	1.30
	April	11	0.70	0.70	1.45	1.50	1.80
	May	9	0.57	0.65	1.45	1.50	1.65
	June	7	0.43	0.46	0.95	1.00	1.15
	July	5	0.30	0.37	0.50	0.80	1.00
	August	9	0.57	0.70	1.50	1.50	1.65
	September	12	0.80	0.77	1.50	1.80	2.15
	October	8	0.50	0.53	1.00	1.00	1.15
	November	4	0.23	0.37	0.50	0.80	1.00
	December	6	0.40	0.81	0.95	1.00	1.60
Day of week	Monday	14	0.90	0.78	1.45	2.10	2.50
	Tuesday	12	0.80	0.94	1.95	2.00	2.30
	Wednesday	13	0.87	0.90	1.45	2.10	2.65
	Thursday	16	1.07	1.53	1.95	2.60	3.75
	Friday	12	0.80	0.82	1.50	1.50	1.80
	Saturday	11	0.73	0.73	1.50	1.80	2.00
	Sunday	11	0.73	0.98	1.00	1.00	1.90
Hour of day	00:00 - 06:00	6	0.37	0.61	0.50	1.10	1.65
	06:01 - 09:00	13	0.83	1.16	1.90	2.30	2.95
	09:01 - 11:00	3	0.20	0.37	0.50	0.80	1.00
	11:01 - 13:00	10	0.63	0.67	1.45	1.50	1.65
	13:01 - 15:00	10	0.67	1.25	0.95	1.00	2.20
	15:01 - 18:00	23	1.53	1.17	2.45	3.10	3.65
	18:01 - 24:00	25	1.67	1.36	2.90	3.30	3.95

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 17

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

4 Lane x 4 Lane Intersection, Signalized, AADT/lane for Major Road > 5,000 and ≤ 7,000

Total Number of Intersections Included - 34

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		274	8.04	8.52	11.53	15.15	20.80
Collision Type	Rear End	94	2.76	3.26	3.60	5.50	6.50
	Head On	7	0.19	0.41	0.50	0.50	0.67
	Angle	78	2.28	2.76	4.50	4.50	7.10
	Left Turn	41	1.21	1.61	3.00	3.35	4.52
	Right Turn	6	0.16	0.38	0.50	0.50	0.85
	Sideswipe	17	0.50	0.90	1.03	1.85	2.18
	Pedestrian/Bicycle	7	0.19	0.43	0.50	0.85	1.18
	Other	26	0.75	0.72	1.50	1.50	1.85
Severity	PDO Crashes	162	4.75	6.78	9.50	12.30	18.60
	Possible Injury	64	1.87	2.04	3.03	3.50	4.18
	Non-Incapacitating Injury	35	1.03	0.97	2.00	2.00	2.68
	Incapacitating Injury	14	0.40	0.52	1.00	1.35	1.50
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	189	5.54	5.50	9.50	12.30	15.88
	Dusk	5	0.15	0.36	0.50	0.50	1.00
	Dawn	2	0.06	0.16	0.00	0.35	0.50
	Dark (w/street lights)	69	2.01	3.05	3.03	3.50	5.52
	Dark (wo/street lights)	10	0.28	0.43	1.00	1.00	1.00
Surface Condition	Dry	225	6.60	6.52	9.58	13.10	16.88
	Wet	43	1.26	1.96	1.53	2.00	3.72
	Slippery	1	0.01	0.09	0.00	0.00	0.00
	Others	6	0.16	0.40	0.50	0.50	1.18
Month of year	January	21	0.62	0.70	1.00	1.35	1.68
	February	19	0.54	0.66	1.00	1.00	1.18
	March	17	0.50	0.86	1.00	1.00	1.68
	April	27	0.79	0.80	1.53	2.00	2.00
	May	21	0.60	0.68	1.03	1.50	1.68
	June	22	0.65	0.74	1.03	1.85	2.00
	July	23	0.66	1.11	1.03	1.50	2.20
	August	30	0.88	1.08	2.00	2.00	2.18
	September	23	0.68	1.09	1.03	1.50	2.35
	October	27	0.79	0.95	2.00	2.35	2.50
	November	18	0.53	0.74	1.03	1.50	1.85
	December	27	0.79	0.94	1.50	1.85	3.00
Day of week	Monday	36	1.06	1.47	2.00	2.35	2.68
	Tuesday	40	1.18	1.71	2.50	2.50	4.85
	Wednesday	41	1.19	1.32	2.05	3.00	3.18
	Thursday	43	1.26	1.26	2.00	2.35	3.35
	Friday	41	1.21	1.26	2.03	2.85	3.85
	Saturday	42	1.22	1.67	2.03	2.85	4.02
	Sunday	32	0.93	1.17	1.50	1.50	2.52
Hour of day	00:00 - 06:00	22	0.65	0.79	1.03	1.50	2.18
	06:01 - 09:00	29	0.85	1.00	1.53	2.35	2.68
	09:01 - 11:00	24	0.71	0.89	1.03	1.50	2.35
	11:01 - 13:00	32	0.93	0.95	2.00	2.00	2.50
	13:01 - 15:00	28	0.82	0.98	2.00	2.35	2.68
	15:01 - 18:00	61	1.78	2.07	3.03	3.85	5.70
	18:01 - 24:00	79	2.31	3.12	3.53	4.00	5.20

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 18

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

4 Lane x 4 Lane Intersection, Signalized, AADT/lane for Major Road > 7,000 and ≤ 9,000

Total Number of Intersections Included - 35

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		307	8.76	7.77	17.20	20.30	23.20
Collision Type	Rear End	137	3.90	4.07	7.45	8.80	12.65
	Head On	4	0.10	0.32	0.00	0.30	0.65
	Angle	62	1.76	1.83	3.50	4.60	5.50
	Left Turn	45	1.27	1.44	2.50	3.00	3.80
	Right Turn	6	0.16	0.34	0.50	0.50	0.65
	Sideswipe	25	0.71	1.01	1.50	2.00	3.15
	Pedestrian/Bicycle	7	0.19	0.34	0.50	0.50	0.65
	Other	24	0.67	1.39	1.45	1.80	3.15
Severity	PDO Crashes	185	5.29	6.28	10.40	14.60	19.60
	Possible Injury	69	1.96	1.66	3.50	4.00	4.65
	Non-Incapacitating Injury	40	1.14	1.01	2.00	2.30	3.15
	Incapacitating Injury	12	0.34	0.58	0.50	1.00	1.30
	Fatal Crashes	1	0.03	0.12	0.00	0.00	0.15
Light Conditions	Daylight	207	5.91	5.85	10.00	14.90	19.10
	Dusk	8	0.21	0.41	0.50	0.50	0.65
	Dawn	4	0.10	0.27	0.00	0.50	0.65
	Dark (w/street lights)	75	2.13	2.46	5.30	6.10	6.65
	Dark (wo/street lights)	14	0.40	0.72	1.00	1.50	1.80
Surface Condition	Dry	252	7.20	6.31	13.90	15.80	18.60
	Wet	48	1.36	1.32	3.00	3.50	4.00
	Slippery	2	0.06	0.20	0.00	0.00	0.50
	Others	5	0.14	0.39	0.00	0.50	1.15
Month of year	January	21	0.59	0.71	1.45	1.50	1.65
	February	21	0.59	0.71	1.45	1.50	2.00
	March	28	0.80	0.93	1.50	2.00	2.30
	April	21	0.60	0.60	1.00	1.50	1.50
	May	22	0.61	0.80	1.00	1.80	2.00
	June	27	0.77	0.89	1.95	2.30	2.65
	July	32	0.90	1.08	2.00	2.50	2.95
	August	37	1.06	1.21	2.45	2.50	3.30
	September	31	0.89	1.09	1.50	2.00	2.95
	October	27	0.76	0.93	2.00	2.00	2.50
	November	25	0.70	0.77	1.50	1.50	2.00
	December	18	0.50	0.65	1.50	1.50	1.65
Day of week	Monday	40	1.13	1.27	2.50	2.80	3.30
	Tuesday	51	1.44	1.46	2.50	3.30	3.80
	Wednesday	45	1.29	1.35	2.50	2.80	3.60
	Thursday	44	1.24	1.32	2.95	3.30	3.65
	Friday	42	1.20	1.36	2.00	2.50	3.15
	Saturday	44	1.26	1.49	2.50	2.50	3.80
	Sunday	42	1.20	1.35	2.95	3.30	3.65
Hour of day	00:00 - 06:00	32	0.90	1.12	1.50	2.60	3.30
	06:01 - 09:00	41	1.16	1.45	2.00	2.30	3.75
	09:01 - 11:00	25	0.71	0.85	1.00	1.80	2.30
	11:01 - 13:00	32	0.91	1.22	1.95	2.60	3.50
	13:01 - 15:00	36	1.03	1.12	2.00	2.30	3.15
	15:01 - 18:00	63	1.79	1.74	3.00	4.30	5.65
	18:01 - 24:00	79	2.26	2.20	4.40	5.70	6.80

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 19

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

4 Lane x 4 Lane Intersection, Signalized, AADT/lane for Major Road > 9,000 and ≤ 11,000

Total Number of Intersections Included - 33

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		508	15.38	8.78	25.50	29.50	32.50
Collision Type	Rear End	212	6.41	4.31	9.70	10.90	11.90
	Head On	6	0.17	0.30	0.50	0.50	0.70
	Angle	116	3.50	2.98	6.20	7.80	8.90
	Left Turn	94	2.85	2.42	3.60	5.60	7.40
	Right Turn	6	0.18	0.33	0.50	0.50	1.00
	Sideswipe	37	1.11	1.18	2.50	2.50	3.10
	Pedestrian/Bicycle	10	0.30	0.47	0.60	1.00	1.00
	Other	29	0.86	0.78	1.60	2.00	2.20
Severity	PDO Crashes	266	8.06	6.40	14.40	16.40	21.30
	Possible Injury	138	4.18	3.39	6.60	7.00	8.50
	Non-Incapacitating Injury	73	2.21	1.93	4.50	4.90	5.70
	Incapacitating Injury	29	0.88	0.76	1.50	1.50	2.00
	Fatal Crashes	2	0.05	0.15	0.00	0.00	0.50
Light Conditions	Daylight	328	9.92	6.18	18.60	20.20	22.40
	Dusk	12	0.36	0.50	1.00	1.00	1.20
	Dawn	7	0.20	0.33	0.50	0.50	0.50
	Dark (w/street lights)	142	4.29	2.87	7.50	8.30	9.90
	Dark (wo/street lights)	20	0.61	1.07	1.50	1.50	2.40
Surface Condition	Dry	436	13.20	7.80	22.80	26.40	28.30
	Wet	66	1.98	1.37	3.10	3.50	4.10
	Slippery	2	0.06	0.17	0.00	0.40	0.50
	Others	5	0.14	0.36	0.10	0.50	1.00
Month of year	January	32	0.97	0.96	1.50	2.30	3.20
	February	39	1.18	0.98	1.60	2.40	2.90
	March	34	1.03	0.93	2.00	2.40	2.70
	April	46	1.38	1.03	2.00	2.40	3.40
	May	49	1.48	1.11	2.50	2.50	3.60
	June	42	1.27	1.26	2.10	2.90	3.70
	July	44	1.32	0.85	2.10	2.90	3.00
	August	48	1.44	1.17	2.60	3.00	3.50
	September	40	1.20	0.91	2.00	2.00	2.20
	October	40	1.21	0.86	2.10	2.50	2.50
	November	42	1.26	1.02	2.20	3.00	3.00
	December	54	1.64	1.08	2.50	2.90	3.20
Day of week	Monday	72	2.17	1.70	3.50	3.50	6.20
	Tuesday	70	2.11	1.64	4.00	4.00	5.20
	Wednesday	74	2.24	1.40	3.60	4.00	4.90
	Thursday	74	2.23	1.38	3.10	4.30	4.50
	Friday	92	2.79	1.92	4.50	5.30	6.20
	Saturday	69	2.08	1.56	3.60	4.00	4.90
	Sunday	59	1.77	1.43	3.00	3.00	4.10
Hour of day	00:00 - 06:00	57	1.73	1.52	2.70	3.90	4.20
	06:01 - 09:00	61	1.83	1.87	3.50	4.30	5.50
	09:01 - 11:00	44	1.32	1.00	2.00	2.40	2.70
	11:01 - 13:00	49	1.47	1.22	2.50	3.70	4.00
	13:01 - 15:00	62	1.88	1.52	3.60	4.00	4.00
	15:01 - 18:00	93	2.80	1.99	4.80	6.40	6.70
	18:01 - 24:00	144	4.35	2.38	6.60	7.00	9.00

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 20

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

4 Lane x 4 Lane Intersection, Signalized, AADT/lane for Major Road > 11,000

Total Number of Intersections included - 31

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		480	15.47	11.44	27.50	29.00	34.50
Collision Type	Rear End	208	6.69	5.90	12.25	13.50	19.00
	Head On	7	0.23	0.50	0.50	0.50	0.75
	Angle	108	3.48	2.97	6.50	7.50	8.25
	Left Turn	62	2.00	1.97	4.00	4.50	5.00
	Right Turn	6	0.18	0.30	0.50	0.50	0.75
	Sideswipe	43	1.37	1.45	3.00	3.50	4.00
	Pedestrian/Bicycle	14	0.45	0.57	1.00	1.00	1.00
	Other	33	1.06	1.12	2.50	2.50	2.75
Severity	PDO Crashes	309	9.97	9.07	21.25	23.50	24.50
	Possible Injury	86	2.76	2.21	5.50	6.00	6.75
	Non-Incapacitating Injury	71	2.27	2.48	5.25	7.00	7.50
	Incapacitating Injury	15	0.47	0.60	1.00	1.00	2.00
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	285	9.18	6.57	16.25	18.50	21.00
	Dusk	9	0.29	0.46	1.00	1.00	1.00
	Dawn	9	0.27	0.38	0.50	0.50	1.00
	Dark (w/street lights)	161	5.19	5.03	10.00	12.50	14.00
	Dark (wo/street lights)	17	0.53	0.95	1.25	2.00	2.25
Surface Condition	Dry	410	13.21	9.85	23.00	24.50	30.25
	Wet	61	1.97	1.77	3.50	4.00	5.00
	Slippery	2	0.05	0.20	0.00	0.00	0.25
	Others	8	0.24	0.58	0.50	1.00	1.75
Month of year	January	32	1.02	0.94	2.00	2.50	2.75
	February	36	1.15	1.30	2.00	3.00	4.00
	March	39	1.24	1.22	2.75	3.00	3.00
	April	35	1.13	1.12	2.25	2.50	2.75
	May	39	1.26	1.24	2.50	3.00	3.00
	June	42	1.35	1.19	2.25	3.00	3.50
	July	33	1.05	1.21	2.00	2.50	3.00
	August	57	1.84	1.72	3.50	4.50	5.25
	September	42	1.35	1.14	2.50	3.00	3.00
	October	50	1.61	1.43	3.25	3.50	4.25
	November	41	1.32	1.29	2.75	3.00	3.75
	December	36	1.15	1.11	2.50	3.00	3.00
Day of week	Monday	79	2.55	1.89	4.50	4.50	5.50
	Tuesday	68	2.19	1.79	4.00	5.00	5.50
	Wednesday	64	2.06	1.90	4.00	5.50	5.75
	Thursday	58	1.85	1.47	3.50	4.00	4.25
	Friday	65	2.10	2.01	4.75	5.00	5.50
	Saturday	68	2.18	2.04	4.25	4.50	6.00
	Sunday	79	2.53	1.95	4.25	5.00	5.50
Hour of day	00:00 - 06:00	79	2.53	2.23	4.50	5.00	6.25
	06:01 - 09:00	47	1.50	1.28	2.75	3.50	3.50
	09:01 - 11:00	36	1.15	1.23	2.25	3.00	3.75
	11:01 - 13:00	47	1.52	1.17	2.50	2.50	3.25
	13:01 - 15:00	41	1.31	1.10	2.50	2.50	3.00
	15:01 - 18:00	90	2.89	2.50	5.25	6.00	8.00
	18:01 - 24:00	142	4.58	4.11	7.50	10.00	12.00

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 21

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

5 Lane x 4 Lane Intersection, Signalized

Total Number of Intersections Included - 8

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		126	15.75	11.54	19.98	24.80	30.40
Collision Type	Rear End	34	4.19	3.39	7.43	7.80	8.15
	Head On	3	0.31	0.46	0.98	1.00	1.00
	Angle	43	5.31	5.25	8.83	11.10	13.55
	Left Turn	24	2.94	3.78	3.98	6.25	8.88
	Right Turn	3	0.38	0.58	0.98	1.15	1.33
	Sideswipe	11	1.31	1.60	2.48	3.10	3.80
	Pedestrian/Bicycle	1	0.13	0.23	0.48	0.50	0.50
	Other	10	1.19	1.10	2.45	2.65	2.83
Severity	PDO Crashes	88	11.00	10.52	14.50	19.75	25.88
	Possible Injury	18	2.19	1.87	3.98	4.00	4.00
	Non-Incapacitating Injury	17	2.06	3.99	3.38	5.90	8.70
	Incapacitating Injury	4	0.50	0.53	0.98	1.15	1.33
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	81	10.06	8.42	13.48	17.10	21.30
	Dusk	2	0.25	0.38	0.50	0.65	0.83
	Dawn	2	0.19	0.26	0.50	0.50	0.50
	Dark (w/street lights)	30	3.75	2.99	5.48	6.55	7.78
	Dark (wo/street lights)	12	1.50	4.24	0.00	3.60	7.80
Surface Condition	Dry	106	13.25	9.90	17.48	21.55	26.28
	Wet	16	1.94	1.45	3.45	3.65	3.83
	Slippery	0	0.00	0.00	0.00	0.00	0.00
	Others	5	0.56	0.42	1.00	1.00	1.00
Month of year	January	10	1.19	1.03	1.98	2.30	2.65
	February	12	1.44	1.12	2.48	2.65	2.83
	March	11	1.31	1.25	2.50	2.65	2.83
	April	11	1.31	0.84	2.00	2.15	2.33
	May	6	0.69	0.75	1.48	1.65	1.83
	June	10	1.19	1.03	1.98	2.30	2.65
	July	12	1.50	1.54	2.93	3.45	3.98
	August	13	1.56	1.43	2.98	3.15	3.33
	September	13	1.56	1.72	1.50	2.70	4.10
	October	10	1.19	1.22	1.98	2.45	2.98
	November	11	1.38	1.22	2.48	2.65	2.83
	December	12	1.44	1.66	3.45	3.65	3.83
Day of week	Monday	17	2.06	1.50	3.48	3.65	3.83
	Tuesday	14	1.69	1.89	1.98	3.20	4.60
	Wednesday	17	2.13	1.66	3.95	4.15	4.33
	Thursday	22	2.69	2.39	5.88	6.00	6.00
	Friday	22	2.69	2.20	3.98	4.90	5.95
	Saturday	22	2.75	2.71	5.90	6.30	6.65
	Sunday	14	1.75	1.36	3.00	3.15	3.33
Hour of day	00:00 - 06:00	12	1.44	1.82	1.98	3.05	4.28
	06:01 - 09:00	14	1.75	1.79	2.98	3.60	4.30
	09:01 - 11:00	13	1.56	1.29	3.00	3.00	3.00
	11:01 - 13:00	13	1.56	1.61	2.98	3.45	3.98
	13:01 - 15:00	10	1.25	1.31	2.48	2.80	3.15
	15:01 - 18:00	28	3.50	2.93	5.48	6.40	7.45
	18:01 - 24:00	38	4.69	4.77	6.98	9.25	11.88

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 22

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

6 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road ≤ 7,000

Total Number of Intersections Included - 41

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		298	7.26	6.95	17.00	17.50	20.00
Collision Type	Rear End	111	2.71	3.09	6.00	6.50	7.50
	Head On	4	0.10	0.26	0.00	0.50	0.50
	Angle	82	2.00	2.45	4.50	5.50	6.00
	Left Turn	51	1.24	1.53	3.00	4.00	4.50
	Right Turn	5	0.11	0.26	0.50	0.50	0.50
	Sideswipe	19	0.46	0.71	1.00	1.50	2.00
	Pedestrian/Bicycle	7	0.16	0.28	0.50	0.50	0.50
	Other	20	0.48	0.59	1.00	1.50	1.50
Severity	PDO Crashes	180	4.39	5.16	11.00	13.00	13.50
	Possible Injury	54	1.32	1.35	2.50	3.00	3.50
	Non-Incapacitating Injury	49	1.20	1.47	3.00	3.50	4.00
	Incapacitating Injury	14	0.34	0.48	1.00	1.00	1.00
	Fatal Crashes	1	0.01	0.08	0.00	0.00	0.00
Light Conditions	Daylight	199	4.85	4.70	9.00	12.50	14.00
	Dusk	11	0.27	0.40	0.50	1.00	1.00
	Dawn	3	0.07	0.21	0.00	0.50	0.50
	Dark (w/street lights)	73	1.77	2.13	4.00	5.50	6.00
	Dark (wo/street lights)	12	0.29	0.58	0.50	1.00	1.50
Surface Condition	Dry	250	6.10	5.89	13.50	14.50	18.00
	Wet	45	1.09	1.19	2.50	3.00	3.00
	Slippery	1	0.01	0.08	0.00	0.00	0.00
	Others	3	0.06	0.20	0.00	0.00	0.50
Month of year	January	29	0.70	0.89	1.50	2.00	2.50
	February	27	0.65	0.78	1.50	1.50	2.50
	March	26	0.63	0.78	1.50	1.50	2.00
	April	25	0.61	0.68	1.50	1.50	1.50
	May	32	0.78	1.04	1.50	2.00	3.00
	June	24	0.57	0.68	1.00	1.50	2.00
	July	22	0.54	0.86	1.00	2.00	2.00
	August	32	0.78	1.01	2.00	2.50	2.50
	September	22	0.52	0.57	1.00	1.50	1.50
	October	17	0.41	0.67	1.00	1.50	1.50
	November	20	0.48	0.62	1.00	1.00	1.50
	December	24	0.59	0.84	1.50	1.50	2.50
Day of week	Monday	35	0.84	0.90	2.00	2.00	2.00
	Tuesday	44	1.07	1.03	2.00	2.50	2.50
	Wednesday	38	0.93	1.29	1.50	1.50	2.50
	Thursday	49	1.18	1.48	2.50	3.50	4.00
	Friday	53	1.29	1.35	2.50	3.00	4.00
	Saturday	40	0.98	1.27	2.00	2.50	4.00
	Sunday	40	0.96	0.96	2.00	2.50	3.00
Hour of day	00:00 - 06:00	26	0.62	0.85	1.50	1.50	2.50
	06:01 - 09:00	34	0.82	1.08	1.50	2.00	3.00
	09:01 - 11:00	21	0.51	0.64	1.00	1.50	1.50
	11:01 - 13:00	28	0.67	0.93	1.50	1.50	2.00
	13:01 - 15:00	32	0.78	0.87	2.00	2.00	2.50
	15:01 - 18:00	70	1.70	1.81	3.50	3.50	5.00
	18:01 - 24:00	89	2.16	2.22	4.50	6.50	6.50

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 23

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

6 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road > 7,000 and ≤ 9,000

Total Number of Intersections Included - 37

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		290	7.82	4.90	13.00	15.70	18.00
Collision Type	Rear End	143	3.85	3.34	7.00	9.40	10.80
	Head On	2	0.04	0.14	0.00	0.00	0.50
	Angle	55	1.49	1.34	2.50	2.70	3.10
	Left Turn	42	1.14	1.11	2.30	2.70	3.10
	Right Turn	5	0.12	0.25	0.50	0.50	0.50
	Sideswipe	18	0.47	0.62	1.30	1.50	1.60
	Pedestrian/Bicycle	11	0.28	0.38	0.50	0.70	1.00
	Other	16	0.43	0.58	1.00	1.00	1.20
Severity	PDO Crashes	154	4.16	3.18	7.50	8.70	10.20
	Possible Injury	66	1.77	1.39	3.00	3.50	4.50
	Non-Incapacitating Injury	53	1.43	1.09	2.00	2.70	3.60
	Incapacitating Injury	16	0.43	0.57	1.00	1.00	1.60
	Fatal Crashes	1	0.03	0.11	0.00	0.00	0.10
Light Conditions	Daylight	211	5.69	3.94	9.60	11.20	12.80
	Dusk	4	0.09	0.26	0.00	0.50	0.60
	Dawn	2	0.05	0.16	0.00	0.20	0.50
	Dark (w/street lights)	53	1.43	1.36	2.50	2.70	3.50
	Dark (wo/street lights)	21	0.55	1.03	1.30	2.00	2.30
Surface Condition	Dry	252	6.81	4.31	11.40	12.90	14.60
	Wet	35	0.95	0.98	1.80	2.20	3.10
	Slippery	1	0.03	0.11	0.00	0.00	0.10
	Others	2	0.04	0.14	0.00	0.00	0.50
Month of year	January	22	0.59	0.62	1.00	1.20	1.50
	February	22	0.58	0.60	1.00	1.50	1.50
	March	28	0.76	0.72	1.50	1.70	2.00
	April	32	0.85	0.94	1.50	2.00	2.60
	May	24	0.65	0.70	1.30	1.50	2.10
	June	25	0.66	0.72	1.50	1.70	2.10
	July	26	0.69	0.72	1.30	1.70	2.00
	August	22	0.59	0.59	1.00	1.20	1.60
	September	26	0.69	0.66	1.30	1.50	2.10
	October	21	0.55	0.62	1.30	1.50	1.50
	November	25	0.68	0.61	1.50	1.50	1.60
	December	20	0.53	0.70	1.00	1.20	1.50
Day of week	Monday	40	1.07	0.87	2.00	2.00	2.50
	Tuesday	43	1.16	0.89	2.50	2.50	2.50
	Wednesday	45	1.22	1.16	2.50	2.70	3.30
	Thursday	44	1.18	1.19	2.30	2.70	4.00
	Friday	40	1.08	1.10	2.50	2.50	3.10
	Saturday	44	1.18	0.95	2.00	2.50	2.60
	Sunday	35	0.95	0.73	1.50	1.50	2.00
Hour of day	00:00 - 06:00	27	0.73	0.88	1.50	2.00	2.10
	06:01 - 09:00	36	0.96	0.97	1.50	2.00	2.30
	09:01 - 11:00	25	0.66	0.82	1.00	1.70	2.50
	11:01 - 13:00	33	0.89	0.80	1.50	1.70	2.00
	13:01 - 15:00	37	1.00	1.38	2.00	2.70	3.20
	15:01 - 18:00	67	1.80	1.33	3.00	3.20	4.10
	18:01 - 24:00	66	1.78	1.49	3.00	3.70	4.20

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 24

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

6 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road > 9,000 and ≤ 11,000

Total Number of Intersections Included - 33

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		306	9.27	6.14	14.70	15.90	19.70
Collision Type	Rear End	141	4.27	3.06	7.60	9.20	10.00
	Head On	3	0.08	0.22	0.00	0.40	0.50
	Angle	60	1.80	1.57	3.50	3.90	4.50
	Left Turn	44	1.32	1.50	2.50	3.30	4.90
	Right Turn	4	0.11	0.24	0.50	0.50	0.50
	Sideswipe	32	0.97	0.98	2.00	2.00	2.90
	Pedestrian/Bicycle	8	0.24	0.42	0.60	1.00	1.00
	Other	16	0.48	0.49	1.00	1.00	1.50
Severity	PDO Crashes	169	5.12	4.52	9.20	10.80	12.60
	Possible Injury	72	2.18	1.55	3.60	4.00	5.20
	Non-Incapacitating Injury	52	1.56	1.21	2.60	3.40	3.70
	Incapacitating Injury	13	0.39	0.46	1.00	1.00	1.00
	Fatal Crashes	1	0.02	0.09	0.00	0.00	0.00
Light Conditions	Daylight	216	6.53	4.31	10.60	11.40	13.70
	Dusk	4	0.11	0.24	0.50	0.50	0.50
	Dawn	2	0.06	0.17	0.00	0.40	0.50
	Dark (w/street lights)	79	2.38	1.98	5.00	5.00	5.20
	Dark (wo/street lights)	7	0.20	0.41	0.50	0.50	1.20
Surface Condition	Dry	262	7.92	5.36	12.00	14.40	15.90
	Wet	41	1.24	1.34	2.60	3.00	3.70
	Slippery	3	0.08	0.22	0.00	0.40	0.50
	Others	1	0.03	0.17	0.00	0.00	0.00
Month of year	January	28	0.85	0.72	2.00	2.00	2.00
	February	21	0.62	0.61	1.00	1.40	1.50
	March	27	0.80	0.87	1.60	2.00	2.20
	April	30	0.89	0.75	1.50	1.90	2.20
	May	22	0.67	0.74	1.50	1.50	2.20
	June	27	0.82	0.76	1.50	1.50	2.20
	July	26	0.77	0.76	1.50	1.90	2.50
	August	26	0.77	0.72	1.00	1.40	2.50
	September	20	0.59	0.83	1.10	1.50	1.70
	October	29	0.86	0.77	2.00	2.00	2.00
	November	28	0.83	0.99	1.60	2.00	2.90
	December	26	0.79	0.71	1.50	1.50	2.00
Day of week	Monday	47	1.42	1.15	2.50	2.90	3.20
	Tuesday	41	1.24	1.12	2.00	2.80	3.50
	Wednesday	41	1.24	1.19	2.50	2.90	3.40
	Thursday	47	1.42	1.47	2.60	3.40	3.70
	Friday	43	1.29	1.10	2.50	2.90	3.00
	Saturday	45	1.36	1.05	2.50	2.90	3.50
	Sunday	43	1.29	1.08	2.50	2.90	3.00
Hour of day	00:00 - 06:00	31	0.92	0.77	2.00	2.00	2.20
	06:01 - 09:00	30	0.89	0.92	1.60	2.00	2.00
	09:01 - 11:00	33	0.98	0.81	1.60	2.00	2.20
	11:01 - 13:00	39	1.17	1.31	2.60	3.40	3.70
	13:01 - 15:00	36	1.09	1.02	2.00	2.40	3.00
	15:01 - 18:00	59	1.79	1.64	3.00	3.40	4.70
	18:01 - 24:00	80	2.42	1.85	4.50	4.50	5.60

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 25

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

6 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road >11,000

Total Number of Intersections Included - 22

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		224	10.16	6.40	15.50	17.30	18.93
Collision Type	Rear End	108	4.91	3.40	8.93	9.45	9.50
	Head On	3	0.14	0.44	0.00	0.45	0.50
	Angle	34	1.55	1.36	2.93	3.00	3.00
	Left Turn	34	1.52	1.63	2.93	3.00	3.48
	Right Turn	3	0.14	0.28	0.50	0.50	0.50
	Sideswipe	20	0.91	0.91	1.93	2.00	2.48
	Pedestrian/Bicycle	2	0.09	0.20	0.42	0.50	0.50
	Other	20	0.91	0.75	1.50	1.50	2.45
Severity	PDO Crashes	130	5.91	4.76	10.43	10.50	13.83
	Possible Injury	53	2.41	1.44	3.50	4.40	4.98
	Non-Incapacitating Injury	27	1.23	1.08	2.00	2.00	3.43
	Incapacitating Injury	10	0.45	0.53	1.00	1.45	1.50
	Fatal Crashes	4	0.16	0.28	0.50	0.50	0.50
Light Conditions	Daylight	150	6.80	4.61	10.28	10.50	15.25
	Dusk	4	0.18	0.25	0.50	0.50	0.50
	Dawn	3	0.14	0.23	0.50	0.50	0.50
	Dark (w/street lights)	65	2.93	2.33	5.50	5.95	6.95
	Dark (wo/street lights)	3	0.11	0.26	0.42	0.50	0.50
Surface Condition	Dry	181	8.23	5.42	12.35	13.40	15.40
	Wet	39	1.77	1.29	3.35	3.95	4.00
	Slippery	1	0.05	0.21	0.00	0.00	0.00
	Others	3	0.11	0.31	0.00	0.45	0.98
Month of year	January	14	0.64	0.54	1.00	1.00	1.48
	February	13	0.57	0.70	1.00	1.45	1.50
	March	16	0.70	0.59	1.43	1.50	1.50
	April	22	0.98	1.06	1.50	1.50	1.98
	May	21	0.95	0.79	1.50	1.50	2.45
	June	16	0.70	0.78	1.00	1.00	2.43
	July	26	1.16	1.10	2.50	2.95	3.00
	August	21	0.93	0.70	1.50	1.95	2.00
	September	17	0.75	0.63	1.50	1.50	1.50
	October	25	1.14	1.15	2.00	2.45	3.45
	November	17	0.75	0.88	1.50	1.50	2.45
	December	20	0.89	0.75	1.93	2.00	2.00
Day of week	Monday	26	1.18	1.18	1.93	2.00	2.48
	Tuesday	36	1.64	1.16	2.93	3.00	3.00
	Wednesday	34	1.55	1.38	2.43	3.40	3.98
	Thursday	28	1.25	0.84	2.00	2.00	2.00
	Friday	39	1.77	1.08	2.93	3.00	3.00
	Saturday	36	1.64	1.42	2.93	3.45	4.45
	Sunday	25	1.14	0.99	2.43	2.50	2.98
Hour of day	00:00 - 06:00	20	0.91	1.17	1.50	2.40	3.45
	06:01 - 09:00	15	0.66	0.75	1.00	1.45	2.45
	09:01 - 11:00	15	0.68	0.61	1.00	1.45	1.98
	11:01 - 13:00	24	1.07	0.73	1.50	1.95	2.00
	13:01 - 15:00	28	1.25	0.95	2.50	2.50	2.50
	15:01 - 18:00	54	2.45	1.85	3.50	4.40	4.50
	18:01 - 24:00	69	3.14	2.51	5.85	7.35	7.50

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 26

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

6 Lane x 3 Lane Intersection, Signalized

Total Number of Intersections Included - 17

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		279	16.38	11.64	28.60	33.00	38.10
Collision Type	Rear End	125	7.32	6.51	11.80	14.40	18.30
	Head On	3	0.18	0.39	0.50	0.50	0.70
	Angle	60	3.53	2.65	6.20	7.60	8.70
	Left Turn	37	2.18	2.23	3.30	4.90	7.10
	Right Turn	4	0.21	0.44	0.50	0.70	1.10
	Sideswipe	23	1.35	1.57	2.80	3.20	3.90
	Pedestrian/Bicycle	8	0.44	0.66	1.30	1.50	1.60
	Other	20	1.18	1.22	2.00	2.60	3.70
Severity	PDO Crashes	168	9.88	8.82	19.90	23.90	26.30
	Possible Injury	64	3.74	2.44	5.00	5.60	7.40
	Non-Incapacitating Injury	35	2.06	1.58	3.60	4.20	4.80
	Incapacitating Injury	10	0.59	0.54	1.00	1.00	1.20
	Fatal Crashes	2	0.12	0.22	0.50	0.50	0.50
Light Conditions	Daylight	187	11.00	8.58	18.60	24.80	29.30
	Dusk	8	0.47	0.70	1.00	1.20	1.70
	Dawn	1	0.06	0.24	0.00	0.00	0.20
	Dark (w/street lights)	79	4.62	3.64	8.60	9.20	9.70
	Dark (wo/street lights)	4	0.24	0.40	0.80	1.00	1.00
Surface Condition	Dry	234	13.76	9.91	25.70	28.30	31.20
	Wet	43	2.50	2.38	4.00	4.60	6.30
	Slippery	1	0.06	0.24	0.00	0.00	0.20
	Others	1	0.06	0.17	0.00	0.20	0.50
Month of year	January	25	1.47	1.17	2.50	2.90	3.60
	February	19	1.09	1.12	2.10	2.90	3.50
	March	21	1.21	0.95	2.30	2.50	2.60
	April	18	1.06	1.47	2.50	2.90	3.80
	May	25	1.44	1.26	2.80	3.20	3.60
	June	22	1.29	1.21	2.30	2.90	3.60
	July	20	1.18	1.17	2.30	2.50	2.80
	August	28	1.62	1.92	2.80	4.00	5.70
	September	31	1.82	1.30	3.30	3.50	3.70
	October	26	1.50	1.37	3.10	3.50	3.80
	November	24	1.41	1.14	2.60	3.20	3.60
	December	22	1.29	1.12	2.80	3.00	3.00
Day of week	Monday	39	2.26	2.17	4.80	5.60	6.60
	Tuesday	42	2.47	1.59	3.50	3.90	4.90
	Wednesday	45	2.62	2.18	4.60	5.60	6.70
	Thursday	35	2.06	1.61	3.70	4.70	5.10
	Friday	47	2.76	2.24	5.00	5.40	6.30
	Saturday	39	2.29	1.98	4.20	5.20	5.90
	Sunday	33	1.91	1.73	4.00	4.20	4.60
Hour of day	00:00 - 06:00	24	1.41	1.28	3.00	3.00	3.00
	06:01 - 09:00	30	1.76	1.47	3.60	4.00	4.20
	09:01 - 11:00	26	1.53	1.37	2.80	3.40	4.20
	11:01 - 13:00	31	1.82	1.63	3.80	4.20	4.70
	13:01 - 15:00	36	2.12	2.25	5.10	5.70	6.30
	15:01 - 18:00	56	3.26	2.40	5.60	6.60	7.70
	18:01 - 24:00	76	4.47	3.00	7.70	8.50	8.80

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 27

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

8 Lane x 2 Lane Intersection, Signalized

Total Number of Intersections Included - 9

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		53	5.89	7.23	14.50	15.90	16.70
Collision Type	Rear End	19	2.11	2.67	5.50	6.10	6.30
	Head On	1	0.06	0.17	0.00	0.10	0.30
	Angle	16	1.72	2.20	4.40	4.60	4.80
	Left Turn	10	1.06	1.49	2.70	3.20	3.60
	Right Turn	3	0.28	0.51	0.50	0.70	1.10
	Sideswipe	3	0.28	0.57	0.80	1.10	1.30
	Pedestrian/Bicycle	1	0.11	0.22	0.40	0.50	0.50
	Other	3	0.28	0.36	0.50	0.60	0.80
Severity	PDO Crashes	35	3.83	4.99	10.00	11.20	11.60
	Possible Injury	11	1.22	1.33	2.40	2.70	3.10
	Non-Incapacitating Injury	7	0.72	0.91	1.90	2.00	2.00
	Incapacitating Injury	1	0.11	0.33	0.00	0.20	0.60
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	39	4.33	5.37	9.20	10.40	12.20
	Dusk	1	0.06	0.17	0.00	0.10	0.30
	Dawn	1	0.06	0.17	0.00	0.10	0.30
	Dark (w/street lights)	13	1.44	2.13	3.50	3.90	4.70
	Dark (wo/street lights)	0	0.00	0.00	0.00	0.00	0.00
Surface Condition	Dry	47	5.17	6.16	12.40	13.30	13.90
	Wet	7	0.72	1.18	2.10	2.60	2.80
	Slippery	0	0.00	0.00	0.00	0.00	0.00
	Others	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	6	0.61	1.08	2.10	2.50	2.50
	February	4	0.44	0.46	1.00	1.00	1.00
	March	6	0.61	0.96	1.70	2.10	2.30
	April	3	0.33	0.50	1.00	1.00	1.00
	May	4	0.44	0.58	1.00	1.10	1.30
	June	6	0.61	0.78	1.40	1.60	1.80
	July	4	0.39	0.55	0.90	1.10	1.30
	August	5	0.56	0.88	1.30	1.70	2.10
	September	3	0.28	0.44	0.90	1.00	1.00
	October	7	0.72	0.97	2.00	2.00	2.00
	November	3	0.33	0.56	0.90	1.10	1.30
	December	5	0.56	0.68	1.40	1.50	1.50
Day of week	Monday	6	0.67	1.03	1.40	1.80	2.40
	Tuesday	8	0.89	1.14	2.00	2.20	2.60
	Wednesday	7	0.72	0.91	1.90	2.00	2.00
	Thursday	12	1.28	1.66	3.30	3.60	3.80
	Friday	10	1.06	1.29	2.80	3.00	3.00
	Saturday	7	0.72	0.97	1.80	2.10	2.30
	Sunday	5	0.56	0.92	1.40	1.70	2.10
Hour of day	00:00 - 06:00	2	0.17	0.50	0.00	0.30	0.90
	06:01 - 09:00	8	0.83	1.20	2.30	2.60	2.80
	09:01 - 11:00	5	0.56	0.68	1.40	1.50	1.50
	11:01 - 13:00	5	0.56	0.68	1.00	1.20	1.60
	13:01 - 15:00	7	0.72	0.97	1.80	2.10	2.30
	15:01 - 18:00	12	1.33	2.14	2.00	2.90	4.70
	18:01 - 24:00	16	1.72	2.15	4.40	4.60	4.80

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 28

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

6 Lane x 4 Lane Intersection, Signalized, AADT/lane for Major Road ≤ 9,000

Total Number of Intersections Included - 40

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		583	14.58	9.97	26.23	27.70	30.05
Collision Type	Rear End	273	6.83	5.19	12.23	13.55	14.65
	Head On	6	0.15	0.28	0.50	0.50	0.52
	Angle	114	2.84	2.62	5.15	7.10	8.08
	Left Turn	100	2.49	2.62	5.58	6.50	7.03
	Right Turn	13	0.31	0.48	0.57	1.00	1.03
	Sideswipe	39	0.96	1.24	2.08	2.55	3.53
	Pedestrian/Bicycle	10	0.25	0.51	0.50	0.55	1.03
	Other	30	0.75	0.78	2.00	2.00	2.00
Severity	PDO Crashes	344	8.59	7.31	16.80	19.15	21.58
	Possible Injury	130	3.24	2.32	6.08	6.50	8.00
	Non-Incapacitating Injury	86	2.15	2.27	3.58	4.65	7.05
	Incapacitating Injury	22	0.54	0.61	1.00	1.50	1.53
	Fatal Crashes	3	0.06	0.17	0.00	0.50	0.50
Light Conditions	Daylight	365	9.13	6.20	16.15	17.05	18.53
	Dusk	19	0.46	0.58	1.50	1.50	1.50
	Dawn	8	0.19	0.39	0.50	1.00	1.00
	Dark (w/street lights)	154	3.85	3.65	7.58	8.50	9.67
	Dark (wo/street lights)	38	0.95	1.54	1.58	2.50	3.60
Surface Condition	Dry	503	12.56	8.58	22.15	24.25	26.53
	Wet	73	1.83	1.50	3.50	3.55	4.53
	Slippery	3	0.08	0.21	0.00	0.50	0.50
	Others	5	0.11	0.42	0.00	0.50	0.50
Month of year	January	45	1.11	1.05	2.00	2.55	3.03
	February	48	1.20	1.08	2.50	2.50	2.55
	March	56	1.40	1.28	2.58	3.00	3.53
	April	45	1.13	1.10	2.50	3.00	3.00
	May	54	1.34	1.35	3.00	3.10	4.00
	June	49	1.23	1.17	2.08	2.55	4.00
	July	43	1.08	1.04	2.50	2.55	3.00
	August	55	1.36	1.25	2.50	3.05	3.53
	September	49	1.23	1.24	2.50	3.00	3.53
	October	49	1.21	1.23	2.58	3.05	3.53
	November	42	1.05	0.99	2.08	2.55	3.00
	December	50	1.25	1.15	2.50	2.55	3.05
Day of week	Monday	81	2.03	1.73	4.00	4.00	4.50
	Tuesday	86	2.15	1.69	3.58	4.55	5.50
	Wednesday	92	2.30	1.84	4.08	4.55	5.53
	Thursday	80	1.99	1.64	3.58	4.50	5.00
	Friday	86	2.14	1.94	4.50	5.00	6.00
	Saturday	82	2.05	1.76	4.08	5.00	5.50
	Sunday	77	1.93	1.62	3.58	4.00	4.55
Hour of day	00:00 - 06:00	61	1.53	1.60	3.50	4.00	4.53
	06:01 - 09:00	56	1.40	1.09	2.58	3.00	3.03
	09:01 - 11:00	47	1.18	1.03	2.00	2.05	3.03
	11:01 - 13:00	60	1.49	1.12	2.50	3.00	3.55
	13:01 - 15:00	62	1.54	1.31	3.00	3.05	4.03
	15:01 - 18:00	120	3.00	2.38	5.58	6.50	6.58
	18:01 - 24:00	178	4.45	3.47	8.50	9.00	10.08

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 29

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

6 Lane x 4 Lane Intersection, Signalized, AADT/lane for Major Road > 9,000

Total Number of Intersections Included - 29

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		583	20.09	12.39	33.70	37.60	40.70
Collision Type	Rear End	296	10.21	6.33	16.80	19.70	20.50
	Head On	7	0.22	0.32	0.50	0.50	0.80
	Angle	98	3.38	3.07	6.80	7.70	9.40
	Left Turn	76	2.60	3.25	4.90	5.40	7.30
	Right Turn	12	0.40	0.59	0.90	1.10	1.80
	Sideswipe	49	1.67	1.57	3.00	3.20	4.30
	Pedestrian/Bicycle	6	0.21	0.31	0.50	0.50	0.80
	Other	41	1.40	1.31	2.40	2.60	3.60
Severity	PDO Crashes	347	11.95	10.11	20.50	20.90	30.00
	Possible Injury	141	4.84	4.12	7.30	9.10	15.00
	Non-Incapacitating Injury	79	2.71	2.38	4.00	5.60	7.20
	Incapacitating Injury	16	0.55	0.56	1.00	1.00	1.00
	Fatal Crashes	1	0.03	0.13	0.00	0.00	0.30
Light Conditions	Daylight	365	12.59	7.66	20.40	21.90	24.10
	Dusk	8	0.28	0.47	0.50	1.00	1.00
	Dawn	8	0.26	0.54	0.50	0.50	1.10
	Dark (w/street lights)	170	5.86	4.48	10.30	11.30	14.60
	Dark (wo/street lights)	32	1.10	2.39	1.80	3.80	7.00
Surface Condition	Dry	482	16.62	10.27	29.40	32.70	33.50
	Wet	85	2.91	2.07	5.00	5.50	6.40
	Slippery	1	0.03	0.13	0.00	0.00	0.30
	Others	15	0.52	0.98	0.50	1.30	2.80
Month of year	January	44	1.50	1.13	2.50	2.70	3.50
	February	47	1.62	1.27	2.90	3.60	4.30
	March	54	1.84	1.20	3.00	3.60	4.00
	April	40	1.36	1.13	2.50	2.60	3.00
	May	44	1.50	1.25	2.50	3.10	3.80
	June	42	1.43	1.24	2.50	3.10	3.50
	July	50	1.72	1.51	3.00	3.60	4.30
	August	57	1.97	1.48	3.50	3.60	4.30
	September	46	1.59	1.49	2.90	3.70	4.80
	October	55	1.88	1.66	3.40	3.60	4.30
	November	55	1.88	1.44	3.00	3.60	4.60
	December	52	1.79	1.60	3.40	3.70	4.80
Day of week	Monday	78	2.69	1.70	4.50	5.00	5.60
	Tuesday	89	3.05	2.11	5.00	5.60	6.30
	Wednesday	89	3.07	2.06	4.90	5.70	6.80
	Thursday	68	2.33	2.10	4.90	5.60	6.00
	Friday	107	3.69	2.69	7.00	7.50	8.10
	Saturday	91	3.12	2.21	5.00	5.60	6.00
	Sunday	62	2.14	1.70	3.50	4.60	5.00
Hour of day	00:00 - 06:00	78	2.69	2.17	5.00	5.50	6.40
	06:01 - 09:00	64	2.19	1.56	3.50	4.00	4.30
	09:01 - 11:00	41	1.40	1.12	2.80	3.10	3.50
	11:01 - 13:00	54	1.86	1.43	3.50	4.00	4.00
	13:01 - 15:00	70	2.40	1.73	4.40	4.60	5.30
	15:01 - 18:00	116	3.98	2.66	7.20	8.00	8.30
	18:01 - 24:00	162	5.57	4.14	9.40	11.70	12.50

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 30

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

8 Lane x 4 Lane Intersection, Signalized

Total Number of Intersections Included - 7

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		131	18.71	12.78	23.65	30.10	36.55
Collision Type	Rear End	65	9.29	6.29	12.85	15.40	17.95
	Head On	1	0.07	0.19	0.05	0.20	0.35
	Angle	30	4.21	3.92	8.75	9.50	10.25
	Left Turn	18	2.50	1.83	4.10	4.40	4.70
	Right Turn	3	0.43	0.35	0.55	0.70	0.85
	Sideswipe	11	1.57	1.21	2.20	2.80	3.40
	Pedestrian/Bicycle	0	0.00	0.00	0.00	0.00	0.00
	Other	5	0.64	0.63	1.50	1.50	1.50
Severity	PDO Crashes	100	14.21	9.38	18.45	22.80	27.15
	Possible Injury	23	3.21	3.07	4.55	6.20	7.85
	Non-Incapacitating Injury	6	0.86	0.80	1.55	1.70	1.85
	Incapacitating Injury	3	0.43	0.35	0.55	0.70	0.85
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	80	11.36	7.45	17.25	19.50	21.75
	Dusk	4	0.57	0.53	1.05	1.20	1.35
	Dawn	2	0.21	0.27	0.50	0.50	0.50
	Dark (w/street lights)	44	6.29	5.94	12.10	13.90	15.70
	Dark (wo/street lights)	2	0.29	0.39	0.55	0.70	0.85
Surface Condition	Dry	109	15.50	11.21	20.85	26.40	31.95
	Wet	20	2.86	1.91	5.05	5.20	5.35
	Slippery	3	0.36	0.75	0.65	1.10	1.55
	Others	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	13	1.79	1.25	3.50	3.50	3.50
	February	11	1.50	1.83	1.90	3.10	4.30
	March	10	1.43	1.24	2.20	2.80	3.40
	April	13	1.79	1.15	2.65	3.10	3.55
	May	10	1.36	1.46	2.65	3.10	3.55
	June	11	1.50	1.66	1.85	2.90	3.95
	July	12	1.64	1.57	3.15	3.60	4.05
	August	13	1.79	1.82	3.20	3.80	4.40
	September	11	1.57	1.10	2.55	2.70	2.85
	October	12	1.71	1.32	2.65	3.10	3.55
	November	9	1.21	0.95	2.05	2.20	2.35
	December	10	1.43	1.02	2.55	2.70	2.85
Day of week	Monday	19	2.71	1.78	4.55	4.70	4.85
	Tuesday	24	3.36	2.94	6.25	7.00	7.75
	Wednesday	21	3.00	1.61	4.15	4.60	5.05
	Thursday	18	2.57	1.92	5.00	5.00	5.00
	Friday	13	1.86	1.82	2.80	3.70	4.60
	Saturday	15	2.14	2.21	2.50	4.00	5.50
	Sunday	22	3.07	2.49	5.60	5.90	6.20
Hour of day	00:00 - 06:00	15	2.07	2.41	5.10	5.40	5.70
	06:01 - 09:00	12	1.71	1.87	2.80	3.70	4.60
	09:01 - 11:00	8	1.14	0.63	1.55	1.70	1.85
	11:01 - 13:00	16	2.21	2.34	2.10	3.90	5.70
	13:01 - 15:00	13	1.86	1.57	3.55	3.70	3.85
	15:01 - 18:00	27	3.86	2.58	6.10	6.40	6.70
	18:01 - 24:00	41	5.86	4.18	10.30	11.20	12.10

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 31

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

6 Lane x 6 Lane Intersection, Signalized

Total Number of Intersections Included - 12

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		272	22.63	12.29	32.38	33.75	37.83
Collision Type	Rear End	141	11.71	6.32	16.88	18.25	18.73
	Head On	6	0.46	0.75	1.00	1.00	1.68
	Angle	45	3.75	2.86	6.50	6.50	7.85
	Left Turn	32	2.63	2.82	4.00	4.00	6.93
	Right Turn	6	0.46	0.75	1.03	1.85	2.00
	Sideswipe	24	1.96	2.51	2.85	3.40	5.98
	Pedestrian/Bicycle	6	0.50	0.67	1.50	1.50	1.50
	Other	14	1.17	0.86	2.00	2.00	2.23
Severity	PDO Crashes	152	12.63	9.01	21.40	23.60	26.70
	Possible Injury	73	6.08	3.88	9.18	9.45	10.85
	Non-Incapacitating Injury	39	3.25	2.03	5.35	5.90	6.23
	Incapacitating Injury	8	0.63	0.53	1.00	1.00	1.23
	Fatal Crashes	1	0.04	0.14	0.00	0.00	0.23
Light Conditions	Daylight	179	14.88	8.47	23.03	23.85	25.58
	Dusk	9	0.75	0.94	2.00	2.00	2.23
	Dawn	3	0.21	0.40	0.68	0.95	1.00
	Dark (w/street lights)	67	5.54	3.74	9.18	9.45	10.40
	Dark (wo/street lights)	15	1.25	1.83	3.00	3.00	4.13
Surface Condition	Dry	239	19.92	10.71	28.05	29.70	33.15
	Wet	30	2.46	1.94	4.03	4.85	5.68
	Slippery	1	0.08	0.19	0.18	0.45	0.50
	Others	2	0.17	0.33	0.50	0.50	0.73
Month of year	January	29	2.38	1.63	3.50	3.50	4.63
	February	26	2.17	1.59	3.68	3.95	4.45
	March	16	1.33	0.75	2.00	2.00	2.23
	April	22	1.79	1.21	2.68	2.95	3.45
	May	18	1.50	0.95	2.50	2.50	2.73
	June	21	1.75	1.32	3.35	3.90	4.00
	July	18	1.50	1.30	2.85	3.40	3.73
	August	21	1.75	0.92	2.50	2.50	2.50
	September	27	2.21	1.84	3.70	4.80	5.45
	October	30	2.46	1.76	3.85	4.40	4.95
	November	26	2.13	1.43	3.50	3.50	3.73
	December	20	1.67	1.44	3.00	3.00	3.90
Day of week	Monday	44	3.67	2.17	6.00	6.00	6.45
	Tuesday	41	3.42	1.90	5.03	5.85	6.00
	Wednesday	31	2.58	1.81	4.00	4.00	4.90
	Thursday	43	3.58	2.36	5.50	5.50	6.40
	Friday	43	3.54	2.54	6.00	6.00	6.68
	Saturday	41	3.42	2.35	5.38	6.75	7.23
	Sunday	29	2.42	1.87	3.35	3.90	5.35
Hour of day	00:00 - 06:00	28	2.29	1.91	4.00	4.00	5.13
	06:01 - 09:00	37	3.04	1.98	4.53	5.35	5.95
	09:01 - 11:00	20	1.63	1.40	3.00	3.00	3.68
	11:01 - 13:00	28	2.29	1.57	3.68	3.95	4.45
	13:01 - 15:00	25	2.08	1.12	3.00	3.00	3.00
	15:01 - 18:00	52	4.29	3.09	6.68	6.95	8.58
	18:01 - 24:00	84	7.00	4.12	11.18	11.45	11.73

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 32

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

2 Lane x T2 Lane Intersection, Signalized, AADT/lane for Major Road ≤ 8,000

Total Number of Intersections Included - 24

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		30	1.25	1.34	1.78	3.05	4.35
Collision Type	Rear End	13	0.54	0.74	1.28	1.50	1.50
	Head On	1	0.02	0.10	0.00	0.00	0.00
	Angle	3	0.13	0.27	0.50	0.50	0.50
	Left Turn	7	0.27	0.36	0.50	0.85	1.00
	Right Turn	0	0.00	0.00	0.00	0.00	0.00
	Sideswipe	2	0.06	0.22	0.00	0.00	0.42
	Pedestrian/Bicycle	0	0.00	0.00	0.00	0.00	0.00
	Other	6	0.23	0.25	0.50	0.50	0.50
Severity	PDO Crashes	18	0.73	0.66	1.50	1.50	1.93
	Possible Injury	7	0.27	0.44	0.50	0.50	1.35
	Non-Incapacitating Injury	5	0.21	0.46	0.50	0.50	0.92
	Incapacitating Injury	1	0.04	0.14	0.00	0.00	0.42
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	14	0.58	0.80	1.00	1.00	1.85
	Dusk	3	0.10	0.25	0.28	0.50	0.50
	Dawn	0	0.00	0.00	0.00	0.00	0.00
	Dark (w/street lights)	8	0.33	0.55	0.50	0.50	0.92
	Dark (wo/street lights)	6	0.23	0.36	0.50	0.85	1.00
Surface Condition	Dry	24	1.00	1.04	1.50	2.20	3.35
	Wet	6	0.23	0.36	0.50	0.85	1.00
	Slippery	1	0.02	0.10	0.00	0.00	0.00
	Others	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	4	0.17	0.24	0.50	0.50	0.50
	February	2	0.08	0.19	0.28	0.50	0.50
	March	3	0.13	0.34	0.28	0.50	0.50
	April	2	0.08	0.24	0.00	0.35	0.50
	May	3	0.13	0.27	0.50	0.50	0.50
	June	1	0.04	0.14	0.00	0.00	0.42
	July	3	0.10	0.21	0.50	0.50	0.50
	August	4	0.15	0.35	0.50	0.50	0.50
	September	2	0.08	0.24	0.00	0.35	0.50
	October	2	0.06	0.17	0.00	0.35	0.50
	November	1	0.04	0.14	0.00	0.00	0.42
	December	5	0.19	0.29	0.50	0.50	0.50
Day of week	Monday	2	0.08	0.19	0.28	0.50	0.50
	Tuesday	6	0.23	0.39	0.50	0.50	0.92
	Wednesday	5	0.19	0.32	0.50	0.50	0.92
	Thursday	5	0.21	0.36	0.50	0.85	1.00
	Friday	5	0.19	0.46	0.50	0.50	0.92
	Saturday	4	0.15	0.23	0.50	0.50	0.50
	Sunday	5	0.21	0.36	0.50	0.85	1.00
Hour of day	00:00 - 06:00	3	0.10	0.25	0.28	0.50	0.50
	06:01 - 09:00	6	0.23	0.55	0.50	0.50	0.92
	09:01 - 11:00	2	0.06	0.17	0.00	0.35	0.50
	11:01 - 13:00	2	0.06	0.17	0.00	0.35	0.50
	13:01 - 15:00	3	0.10	0.21	0.50	0.50	0.50
	15:01 - 18:00	5	0.19	0.29	0.50	0.50	0.50
	18:01 - 24:00	12	0.50	0.55	1.00	1.35	1.50

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 33

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

2 Lane x T2 lane Intersection, Signalized, AADT/lane for Major Road > 8,000

Total Number of Intersections Included - 19

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		29	1.50	1.83	3.00	3.10	3.90
Collision Type	Rear End	14	0.71	0.93	1.30	2.00	2.15
	Head On	1	0.03	0.11	0.00	0.00	0.05
	Angle	3	0.13	0.33	0.15	0.60	1.00
	Left Turn	5	0.26	0.59	0.50	0.50	0.70
	Right Turn	1	0.03	0.11	0.00	0.00	0.05
	Sideswipe	2	0.08	0.25	0.00	0.10	0.55
	Pedestrian/Bicycle	0	0.00	0.00	0.00	0.00	0.00
	Other	5	0.26	0.42	0.50	0.60	1.05
Severity	PDO Crashes	15	0.76	1.36	1.15	1.50	1.95
	Possible Injury	8	0.39	0.43	0.65	1.00	1.05
	Non-Incapacitating Injury	6	0.29	0.54	0.65	1.00	1.10
	Incapacitating Injury	1	0.05	0.16	0.00	0.10	0.50
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	20	1.03	1.44	2.00	2.10	2.85
	Dusk	2	0.11	0.27	0.15	0.50	0.55
	Dawn	0	0.00	0.00	0.00	0.00	0.00
	Dark (w/street lights)	4	0.18	0.30	0.50	0.50	0.55
	Dark (wo/street lights)	4	0.18	0.30	0.50	0.50	0.55
Surface Condition	Dry	24	1.24	1.67	2.15	2.60	3.40
	Wet	3	0.13	0.23	0.50	0.50	0.50
	Slippery	3	0.13	0.37	0.15	0.50	0.60
	Others	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	5	0.26	0.39	0.50	0.50	0.60
	February	3	0.16	0.37	0.50	0.50	0.60
	March	2	0.11	0.27	0.15	0.50	0.55
	April	1	0.05	0.16	0.00	0.10	0.50
	May	3	0.13	0.23	0.50	0.50	0.50
	June	2	0.08	0.25	0.00	0.10	0.55
	July	1	0.05	0.16	0.00	0.10	0.50
	August	2	0.08	0.25	0.00	0.10	0.55
	September	3	0.13	0.23	0.50	0.50	0.50
	October	1	0.03	0.11	0.00	0.00	0.05
	November	5	0.24	0.51	0.65	1.10	1.50
	December	4	0.18	0.38	0.65	1.00	1.00
Day of week	Monday	6	0.29	0.51	0.50	0.60	1.10
	Tuesday	5	0.24	0.39	0.65	1.00	1.00
	Wednesday	5	0.26	0.45	0.65	1.00	1.05
	Thursday	5	0.24	0.42	0.50	0.60	1.05
	Friday	5	0.26	0.39	0.65	1.00	1.00
	Saturday	2	0.11	0.21	0.50	0.50	0.50
	Sunday	2	0.11	0.21	0.50	0.50	0.50
Hour of day	00:00 - 06:00	1	0.05	0.16	0.00	0.10	0.50
	06:01 - 09:00	3	0.16	0.29	0.50	0.50	0.55
	09:01 - 11:00	4	0.18	0.34	0.50	0.60	1.00
	11:01 - 13:00	2	0.08	0.34	0.00	0.00	0.15
	13:01 - 15:00	4	0.18	0.34	0.50	0.60	1.00
	15:01 - 18:00	9	0.47	0.86	1.00	1.10	1.70
	18:01 - 24:00	7	0.37	0.50	1.00	1.00	1.05

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 34

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

4 Lane x T2 Lane Intersection, Signalized, AADT/lane for Major Road ≤ 7,000

Total Number of Intersections Included - 42

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		86	2.05	2.19	4.00	4.50	6.48
Collision Type	Rear End	38	0.89	1.13	2.00	2.00	2.48
	Head On	2	0.04	0.13	0.00	0.00	0.47
	Angle	19	0.45	0.73	1.00	1.00	2.00
	Left Turn	17	0.40	0.63	1.00	1.00	1.50
	Right Turn	3	0.06	0.25	0.00	0.00	0.47
	Sideswipe	3	0.06	0.16	0.00	0.45	0.50
	Pedestrian/Bicycle	2	0.04	0.13	0.00	0.00	0.47
	Other	5	0.11	0.24	0.50	0.50	0.50
Severity	PDO Crashes	40	0.94	1.45	1.50	2.00	2.98
	Possible Injury	23	0.54	0.65	1.00	1.50	1.98
	Non-Incapacitating Injury	19	0.44	0.53	1.00	1.00	1.50
	Incapacitating Injury	6	0.13	0.27	0.50	0.50	0.50
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	58	1.38	1.65	3.35	3.50	4.45
	Dusk	2	0.05	0.15	0.00	0.00	0.50
	Dawn	1	0.02	0.11	0.00	0.00	0.00
	Dark (w/street lights)	18	0.43	0.64	1.00	1.00	1.00
	Dark (wo/street lights)	7	0.17	0.34	0.50	0.50	0.97
Surface Condition	Dry	73	1.74	1.87	3.50	3.50	5.45
	Wet	13	0.30	0.51	0.93	1.00	1.48
	Slippery	1	0.01	0.08	0.00	0.00	0.00
	Others	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	11	0.25	0.45	0.50	1.00	1.00
	February	8	0.19	0.33	0.50	0.50	1.00
	March	8	0.19	0.37	0.50	0.50	1.00
	April	6	0.13	0.27	0.50	0.50	0.50
	May	5	0.12	0.27	0.50	0.50	0.50
	June	11	0.25	0.47	0.50	0.50	1.48
	July	4	0.08	0.22	0.00	0.50	0.50
	August	6	0.14	0.28	0.50	0.50	0.50
	September	9	0.20	0.33	0.50	0.50	1.00
	October	5	0.12	0.27	0.50	0.50	0.50
	November	11	0.25	0.50	0.50	0.50	1.00
	December	5	0.12	0.24	0.50	0.50	0.50
Day of week	Monday	16	0.38	0.56	1.00	1.45	1.50
	Tuesday	13	0.30	0.44	0.93	1.00	1.00
	Wednesday	13	0.31	0.65	0.50	1.00	1.48
	Thursday	13	0.31	0.49	0.50	1.00	1.48
	Friday	13	0.30	0.43	0.50	1.00	1.00
	Saturday	9	0.21	0.40	0.50	0.50	1.00
	Sunday	10	0.24	0.51	0.50	0.50	0.50
Hour of day	00:00 - 06:00	5	0.11	0.30	0.00	0.50	0.50
	06:01 - 09:00	11	0.25	0.42	0.50	0.95	1.00
	09:01 - 11:00	6	0.14	0.28	0.50	0.50	0.50
	11:01 - 13:00	8	0.18	0.33	0.50	0.50	1.00
	13:01 - 15:00	12	0.27	0.54	0.93	1.00	1.48
	15:01 - 18:00	22	0.52	0.68	1.00	1.50	1.98
	18:01 - 24:00	24	0.57	0.84	1.00	1.90	2.00

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 35

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

4 Lane x T2 Lane Intersection, Signalized, AADT/lane for Major Road > 7,000

Total Number of Intersections Included - 61

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		223	3.65	3.52	6.50	9.00	10.00
Collision Type	Rear End	103	1.69	1.92	3.00	3.50	4.50
	Head On	1	0.02	0.09	0.00	0.00	0.00
	Angle	33	0.54	0.84	1.00	1.50	2.50
	Left Turn	38	0.62	0.78	1.50	1.50	2.00
	Right Turn	3	0.04	0.14	0.00	0.00	0.50
	Sideswipe	20	0.33	0.61	1.00	1.00	1.50
	Pedestrian/Bicycle	4	0.06	0.16	0.00	0.50	0.50
	Other	22	0.35	0.60	1.00	1.00	1.50
Severity	PDO Crashes	126	2.07	2.48	4.00	5.00	8.00
	Possible Injury	50	0.82	0.97	2.00	2.00	3.00
	Non-Incapacitating Injury	37	0.60	0.83	1.50	2.00	2.50
	Incapacitating Injury	9	0.15	0.29	0.50	0.50	0.50
	Fatal Crashes	1	0.02	0.09	0.00	0.00	0.00
Light Conditions	Daylight	148	2.42	2.33	5.00	5.00	6.00
	Dusk	8	0.12	0.27	0.50	0.50	0.50
	Dawn	3	0.04	0.14	0.00	0.00	0.50
	Dark (w/street lights)	52	0.84	1.40	1.50	2.50	3.50
	Dark (wo/street lights)	14	0.22	0.44	0.50	1.00	1.00
Surface Condition	Dry	183	3.00	2.75	6.00	7.00	8.50
	Wet	36	0.59	1.05	1.50	1.50	2.00
	Slippery	3	0.04	0.17	0.00	0.00	0.50
	Others	1	0.02	0.09	0.00	0.00	0.00
Month of year	January	19	0.30	0.46	0.50	1.00	1.00
	February	16	0.25	0.43	0.50	1.00	1.00
	March	16	0.25	0.38	0.50	1.00	1.00
	April	17	0.27	0.44	0.50	1.00	1.50
	May	21	0.34	0.49	1.00	1.00	1.00
	June	15	0.25	0.41	0.50	0.50	1.00
	July	19	0.31	0.50	0.50	1.00	1.50
	August	22	0.36	0.60	1.00	1.00	1.50
	September	22	0.35	0.51	1.00	1.00	1.50
	October	21	0.34	0.44	1.00	1.00	1.00
	November	21	0.34	0.51	1.00	1.00	1.00
	December	17	0.27	0.43	1.00	1.00	1.00
Day of week	Monday	26	0.43	0.64	1.00	1.00	2.00
	Tuesday	33	0.53	0.64	1.00	1.50	2.00
	Wednesday	30	0.49	0.67	1.00	1.50	1.50
	Thursday	38	0.61	0.88	1.50	2.00	2.50
	Friday	36	0.59	0.69	1.50	1.50	2.00
	Saturday	32	0.52	0.67	1.50	1.50	1.50
	Sunday	29	0.48	0.78	1.00	1.00	1.50
Hour of day	00:00 - 06:00	21	0.34	0.77	0.50	1.00	1.50
	06:01 - 09:00	21	0.34	0.54	0.50	1.00	1.50
	09:01 - 11:00	17	0.27	0.43	0.50	1.00	1.00
	11:01 - 13:00	17	0.27	0.42	0.50	1.00	1.00
	13:01 - 15:00	29	0.47	0.66	1.00	1.50	2.00
	15:01 - 18:00	55	0.90	0.94	2.00	2.00	2.50
	18:01 - 24:00	64	1.05	1.24	2.00	3.00	3.50

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 36

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

4 Lane x T4 Lane Intersection, Signalized

Total Number of Intersections Included - 26

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		154	5.90	7.53	13.13	15.50	20.13
Collision Type	Rear End	74	2.85	3.37	7.25	8.00	9.88
	Head On	1	0.04	0.14	0.00	0.00	0.38
	Angle	36	1.37	2.91	1.63	2.00	4.63
	Left Turn	15	0.58	0.92	1.00	1.75	2.88
	Right Turn	2	0.06	0.22	0.00	0.00	0.38
	Sideswipe	14	0.54	1.13	0.75	1.75	3.50
	Pedestrian/Bicycle	2	0.08	0.18	0.13	0.50	0.50
	Other	11	0.40	0.63	1.00	1.25	1.50
Severity	PDO Crashes	95	3.63	5.78	6.75	10.00	15.88
	Possible Injury	40	1.52	1.58	3.00	3.25	5.00
	Non-Incapacitating Injury	16	0.60	1.03	1.13	1.50	2.25
	Incapacitating Injury	4	0.15	0.27	0.50	0.50	0.50
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	98	3.77	5.48	7.75	10.50	13.63
	Dusk	7	0.27	0.47	0.50	0.75	1.00
	Dawn	2	0.06	0.22	0.00	0.00	0.38
	Dark (w/street lights)	41	1.56	1.84	3.25	4.50	5.00
	Dark (wo/street lights)	7	0.25	0.59	0.50	0.75	1.38
Surface Condition	Dry	132	5.06	6.47	11.50	14.00	17.25
	Wet	18	0.69	1.05	1.13	1.50	1.88
	Slippery	1	0.02	0.10	0.00	0.00	0.00
	Others	4	0.13	0.39	0.00	0.50	1.00
Month of year	January	14	0.52	0.73	1.50	1.50	1.88
	February	14	0.52	0.87	1.13	1.75	2.00
	March	13	0.48	0.67	1.00	1.25	1.88
	April	11	0.42	0.73	1.00	1.25	2.25
	May	13	0.50	0.73	1.00	1.25	1.88
	June	14	0.52	0.83	0.63	1.25	2.25
	July	10	0.38	0.50	1.00	1.00	1.38
	August	18	0.67	1.05	1.63	2.00	2.75
	September	11	0.42	0.70	1.00	1.00	1.38
	October	14	0.54	0.93	1.25	2.00	2.38
	November	9	0.35	0.58	0.63	1.00	1.75
	December	15	0.58	0.86	1.50	1.75	2.38
Day of week	Monday	19	0.71	1.06	1.13	1.75	2.00
	Tuesday	19	0.73	1.46	1.50	1.75	2.38
	Wednesday	31	1.19	1.68	1.88	3.50	4.38
	Thursday	23	0.87	0.98	1.63	2.25	2.50
	Friday	20	0.75	1.01	1.63	2.50	3.00
	Saturday	21	0.81	1.23	2.13	2.75	3.38
	Sunday	22	0.85	1.03	2.00	2.25	2.88
Hour of day	00:00 - 06:00	16	0.60	0.75	1.00	1.25	1.50
	06:01 - 09:00	12	0.46	0.90	0.75	1.75	2.38
	09:01 - 11:00	15	0.58	1.03	1.00	1.50	2.38
	11:01 - 13:00	15	0.56	0.88	1.13	1.50	2.25
	13:01 - 15:00	17	0.65	0.90	1.13	1.50	2.63
	15:01 - 18:00	34	1.29	1.48	3.13	3.50	3.50
	18:01 - 24:00	46	1.77	2.41	3.75	4.75	7.25

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 37

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

6 Lane x T2 Lane Intersection, Signalized

Total Number of Intersections Included - 40

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		224	5.59	5.74	10.50	11.45	16.65
Collision Type	Rear End	112	2.80	3.59	4.50	5.00	9.12
	Head On	3	0.06	0.20	0.00	0.05	0.50
	Angle	29	0.73	0.82	1.50	2.00	2.50
	Left Turn	32	0.80	1.13	1.58	2.05	2.53
	Right Turn	6	0.15	0.32	0.50	0.50	0.52
	Sideswipe	17	0.41	0.58	1.00	1.05	1.53
	Pedestrian/Bicycle	9	0.23	0.55	0.50	0.50	1.03
	Other	17	0.41	0.65	1.08	1.50	2.00
Severity	PDO Crashes	138	3.44	4.81	6.58	8.55	12.58
	Possible Injury	45	1.13	1.07	2.08	3.00	3.03
	Non-Incapacitating Injury	31	0.76	0.74	1.08	1.50	2.03
	Incapacitating Injury	9	0.23	0.39	0.50	1.00	1.00
	Fatal Crashes	2	0.04	0.13	0.00	0.00	0.50
Light Conditions	Daylight	163	4.08	4.16	7.50	9.75	13.13
	Dusk	6	0.15	0.28	0.50	0.50	0.52
	Dawn	1	0.01	0.08	0.00	0.00	0.00
	Dark (w/street lights)	49	1.23	1.73	2.58	3.05	4.00
	Dark (wo/street lights)	5	0.13	0.29	0.50	0.50	0.50
Surface Condition	Dry	182	4.55	4.46	9.50	10.30	14.05
	Wet	38	0.95	1.54	1.50	2.00	2.60
	Slippery	1	0.01	0.08	0.00	0.00	0.00
	Others	3	0.08	0.24	0.00	0.05	0.52
Month of year	January	21	0.53	0.70	1.08	1.50	1.55
	February	12	0.29	0.41	0.50	0.55	1.03
	March	22	0.55	0.75	1.08	1.50	2.00
	April	17	0.41	0.53	1.00	1.05	1.50
	May	23	0.56	0.86	1.08	1.50	2.00
	June	20	0.50	0.72	1.00	1.05	1.53
	July	16	0.40	0.73	1.00	1.00	1.55
	August	17	0.43	0.50	1.00	1.00	1.03
	September	18	0.45	0.70	1.00	1.05	1.53
	October	22	0.54	0.62	1.50	1.50	1.53
	November	20	0.49	0.85	1.00	1.05	1.55
	December	18	0.45	0.72	1.00	1.50	2.03
Day of week	Monday	32	0.79	1.01	1.50	2.05	3.03
	Tuesday	38	0.95	1.03	2.00	2.05	3.03
	Wednesday	34	0.84	1.15	1.50	2.55	3.50
	Thursday	24	0.60	0.71	1.50	1.50	2.03
	Friday	38	0.94	1.00	1.58	2.05	3.03
	Saturday	34	0.84	1.23	1.58	2.05	3.00
	Sunday	26	0.64	0.95	1.08	1.50	1.60
Hour of day	00:00 - 06:00	18	0.45	0.98	1.00	1.00	1.55
	06:01 - 09:00	27	0.68	0.96	1.00	1.55	3.00
	09:01 - 11:00	18	0.44	0.57	1.00	1.00	1.05
	11:01 - 13:00	16	0.40	0.56	1.00	1.00	1.53
	13:01 - 15:00	33	0.83	0.98	2.00	2.50	2.53
	15:01 - 18:00	57	1.41	1.53	2.58	3.15	5.03
	18:01 - 24:00	56	1.39	1.48	2.58	3.05	4.08

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 38

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

6 Lane x T4 Lane Intersection, Signalized

Total Number of Intersections Included - 9

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		50	5.56	5.82	6.90	9.50	14.50
Collision Type	Rear End	26	2.89	3.76	4.60	6.40	9.20
	Head On	0	0.00	0.00	0.00	0.00	0.00
	Angle	8	0.83	0.87	1.50	1.70	2.10
	Left Turn	6	0.67	0.61	1.40	1.50	1.50
	Right Turn	0	0.00	0.00	0.00	0.00	0.00
	Sideswipe	6	0.61	0.42	1.00	1.00	1.00
	Pedestrian/Bicycle	0	0.00	0.00	0.00	0.00	0.00
	Other	5	0.56	0.77	0.50	0.90	1.70
Severity	PDO Crashes	32	3.56	4.30	4.20	6.50	10.50
	Possible Injury	11	1.22	1.15	2.50	2.50	2.50
	Non-Incapacitating Injury	6	0.67	0.87	1.40	1.70	2.10
	Incapacitating Injury	1	0.11	0.33	0.00	0.20	0.60
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	31	3.44	2.96	5.70	6.70	8.10
	Dusk	2	0.17	0.35	0.40	0.60	0.80
	Dawn	1	0.06	0.17	0.00	0.10	0.30
	Dark (w/street lights)	17	1.89	2.80	2.40	3.80	6.40
	Dark (wo/street lights)	0	0.00	0.00	0.00	0.00	0.00
Surface Condition	Dry	41	4.56	4.52	6.70	8.60	11.80
	Wet	9	1.00	1.54	2.20	2.90	3.70
	Slippery	0	0.00	0.00	0.00	0.00	0.00
	Others	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	5	0.56	0.81	0.90	1.30	1.90
	February	3	0.33	0.56	0.90	1.10	1.30
	March	3	0.28	0.36	0.50	0.60	0.80
	April	6	0.67	0.97	1.00	1.40	2.20
	May	7	0.78	0.83	1.50	1.60	1.80
	June	5	0.50	0.61	0.50	0.80	1.40
	July	3	0.33	0.56	0.90	1.10	1.30
	August	4	0.39	0.60	1.00	1.10	1.30
	September	4	0.44	0.68	0.90	1.20	1.60
	October	2	0.17	0.25	0.50	0.50	0.50
	November	6	0.61	0.65	1.00	1.20	1.60
	December	5	0.50	0.79	0.50	0.90	1.70
Day of week	Monday	7	0.78	0.75	1.50	1.60	1.80
	Tuesday	5	0.56	0.58	1.00	1.10	1.30
	Wednesday	10	1.11	1.65	2.20	3.00	4.00
	Thursday	5	0.50	0.50	0.90	1.10	1.30
	Friday	9	0.94	1.13	1.50	1.90	2.70
	Saturday	7	0.72	1.46	0.90	1.70	3.10
	Sunday	9	0.94	1.10	1.90	2.20	2.60
Hour of day	00:00 - 06:00	10	1.06	1.70	1.00	1.90	3.70
	06:01 - 09:00	6	0.67	0.83	1.00	1.30	1.90
	09:01 - 11:00	4	0.44	0.58	1.00	1.10	1.30
	11:01 - 13:00	3	0.33	0.71	0.80	1.20	1.60
	13:01 - 15:00	7	0.78	0.51	1.40	1.50	1.50
	15:01 - 18:00	7	0.72	0.62	1.30	1.60	1.80
	18:01 - 24:00	14	1.56	2.57	2.30	3.60	5.80

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 39

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

Major Road One-Way Intersection, Signalized, AADT/lane for Major Road ≤ 7,000

Total Number of Intersections Included - 45

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		195	4.33	3.67	8.90	9.80	10.50
Collision Type	Rear End	38	0.84	1.07	1.50	1.80	2.50
	Head On	4	0.08	0.32	0.00	0.00	0.50
	Angle	64	1.42	1.68	2.50	3.00	3.90
	Left Turn	18	0.39	0.69	1.00	1.30	1.50
	Right Turn	3	0.07	0.23	0.00	0.00	0.50
	Sideswipe	33	0.73	0.74	1.50	2.00	2.00
	Pedestrian/Bicycle	12	0.26	0.47	0.50	0.50	0.90
	Other	25	0.54	0.66	1.00	1.50	1.90
Severity	PDO Crashes	142	3.16	2.95	6.30	8.00	8.90
	Possible Injury	28	0.61	0.69	1.50	1.50	1.50
	Non-Incapacitating Injury	20	0.43	0.58	1.00	1.30	1.50
	Incapacitating Injury	6	0.12	0.24	0.50	0.50	0.50
	Fatal Crashes	1	0.01	0.07	0.00	0.00	0.00
Light Conditions	Daylight	136	3.02	2.92	7.00	8.30	8.50
	Dusk	7	0.14	0.29	0.50	0.50	0.90
	Dawn	2	0.03	0.13	0.00	0.00	0.40
	Dark (w/street lights)	50	1.11	1.15	2.20	2.50	3.00
	Dark (wo/street lights)	1	0.02	0.10	0.00	0.00	0.00
Surface Condition	Dry	0	0.00	0.00	0.00	0.00	0.00
	Wet	171	3.80	3.14	8.00	8.60	9.00
	Slippery	22	0.49	0.64	1.00	1.30	1.90
	Others	2	0.04	0.14	0.00	0.00	0.50
Month of year	January	16	0.34	0.47	1.00	1.00	1.00
	February	16	0.34	0.54	1.00	1.00	1.40
	March	22	0.48	0.60	1.00	1.50	1.50
	April	18	0.40	0.55	1.00	1.00	1.50
	May	14	0.31	0.51	0.50	1.00	1.40
	June	20	0.44	0.59	1.00	1.30	1.90
	July	17	0.37	0.49	1.00	1.00	1.40
	August	22	0.48	0.63	1.00	1.00	1.90
	September	18	0.39	0.55	0.70	1.00	1.00
	October	10	0.21	0.49	0.50	0.50	0.50
	November	16	0.36	0.52	0.70	1.00	1.40
	December	10	0.21	0.41	0.50	0.50	1.00
Day of week	Monday	25	0.56	0.76	1.50	1.50	2.00
	Tuesday	32	0.70	0.94	1.50	1.80	2.90
	Wednesday	24	0.53	0.59	1.00	1.50	1.50
	Thursday	25	0.56	0.61	1.20	1.50	1.90
	Friday	35	0.78	0.77	1.50	1.50	2.40
	Saturday	27	0.60	0.64	1.00	1.30	1.90
	Sunday	28	0.61	0.75	1.00	1.50	2.00
Hour of day	00:00 - 06:00	29	0.63	0.76	1.50	1.50	2.00
	06:01 - 09:00	24	0.52	0.67	1.00	1.00	1.80
	09:01 - 11:00	18	0.40	0.52	1.00	1.00	1.40
	11:01 - 13:00	24	0.53	0.67	1.00	1.50	1.90
	13:01 - 15:00	27	0.59	0.76	1.50	2.00	2.00
	15:01 - 18:00	35	0.77	0.79	1.50	1.80	2.40
	18:01 - 24:00	40	0.89	1.09	1.50	2.30	3.00

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 40

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

Major Road One-Way Intersection, Signalized, AADT/lane for Major Road > 7,000

Total Number of Intersections Included - 40

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		386	9.65	11.11	13.23	20.20	27.55
Collision Type	Rear End	89	2.23	3.12	3.30	5.00	5.27
	Head On	5	0.11	0.31	0.07	0.50	0.52
	Angle	121	3.03	3.87	4.58	10.05	11.58
	Left Turn	41	1.03	2.02	1.58	2.00	3.72
	Right Turn	2	0.05	0.15	0.00	0.05	0.50
	Sideswipe	60	1.50	1.44	3.00	4.00	4.00
	Pedestrian/Bicycle	14	0.35	0.60	0.57	1.05	1.53
	Other	55	1.36	1.44	2.08	2.50	3.15
Severity	PDO Crashes	310	7.74	9.55	11.88	16.70	20.20
	Possible Injury	49	1.21	1.29	2.08	3.00	3.10
	Non-Incapacitating Injury	20	0.49	0.67	1.00	2.00	2.00
	Incapacitating Injury	9	0.21	0.42	0.50	0.55	1.00
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	243	6.06	6.74	9.58	10.65	17.53
	Dusk	8	0.20	0.34	0.50	0.55	1.00
	Dawn	4	0.10	0.34	0.00	0.05	0.55
	Dark (w/street lights)	129	3.23	4.27	5.08	5.75	8.82
	Dark (wo/street lights)	3	0.06	0.17	0.00	0.50	0.50
Surface Condition	Dry	332	8.30	8.96	11.80	19.10	22.40
	Wet	44	1.09	1.89	2.00	2.10	3.67
	Slippery	0	0.00	0.00	0.00	0.00	0.00
	Others	11	0.26	0.62	0.50	0.50	1.03
Month of year	January	28	0.69	0.99	1.50	1.55	2.55
	February	24	0.60	0.80	1.50	2.00	2.00
	March	43	1.06	1.28	2.00	2.55	4.50
	April	34	0.85	1.04	1.50	2.00	3.05
	May	31	0.78	1.17	1.08	1.50	2.12
	June	29	0.71	0.83	1.08	1.55	2.53
	July	36	0.90	0.91	1.50	2.05	2.53
	August	32	0.80	1.31	1.50	2.00	4.03
	September	35	0.88	1.41	1.50	1.60	3.53
	October	34	0.85	1.14	1.50	2.05	3.08
	November	31	0.78	1.28	1.08	1.55	4.53
	December	31	0.76	0.90	1.50	1.55	2.50
Day of week	Monday	62	1.55	2.10	3.08	3.55	4.58
	Tuesday	45	1.13	1.48	2.00	2.60	3.60
	Wednesday	42	1.05	1.16	2.08	2.50	3.05
	Thursday	47	1.16	1.46	2.00	2.10	3.62
	Friday	67	1.68	2.24	2.58	3.50	3.80
	Saturday	63	1.56	1.99	3.15	4.05	5.58
	Sunday	61	1.53	1.87	2.50	3.10	5.55
Hour of day	00:00 - 06:00	65	1.63	2.29	2.15	3.35	8.03
	06:01 - 09:00	36	0.90	1.14	1.50	2.05	3.55
	09:01 - 11:00	28	0.70	1.04	1.08	1.50	2.10
	11:01 - 13:00	39	0.98	1.18	2.00	2.50	2.60
	13:01 - 15:00	47	1.16	1.38	2.50	3.00	3.53
	15:01 - 18:00	75	1.88	2.25	3.58	4.10	7.08
	18:01 - 24:00	97	2.41	3.42	3.58	4.05	4.87

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 41

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

Minor Road One-Way Intersection, Signalized

Total Number of Intersections Included - 36

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		276	7.65	7.40	13.25	17.50	22.25
Collision Type	Rear End	71	1.97	2.38	4.00	6.00	7.25
	Head On	3	0.07	0.18	0.00	0.50	0.50
	Angle	119	3.31	3.42	7.25	7.50	10.88
	Left Turn	28	0.76	1.41	1.50	2.25	3.13
	Right Turn	3	0.07	0.34	0.00	0.00	0.13
	Sideswipe	26	0.71	1.09	1.50	2.00	2.13
	Pedestrian/Bicycle	4	0.10	0.23	0.38	0.50	0.50
	Other	24	0.67	0.61	1.00	1.50	1.63
Severity	PDO Crashes	180	5.00	5.13	8.50	11.75	15.63
	Possible Injury	57	1.58	1.64	2.50	3.50	4.75
	Non-Incapacitating Injury	31	0.86	1.07	1.88	2.00	3.50
	Incapacitating Injury	8	0.21	0.32	0.50	0.50	1.00
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	189	5.25	5.49	8.00	10.75	15.25
	Dusk	9	0.25	0.41	0.50	1.00	1.00
	Dawn	2	0.04	0.18	0.00	0.00	0.13
	Dark (w/street lights)	75	2.08	2.14	3.50	5.75	6.25
	Dark (wo/street lights)	1	0.03	0.12	0.00	0.00	0.13
Surface Condition	Dry	246	6.83	6.40	11.88	15.50	19.63
	Wet	25	0.68	1.02	1.00	2.00	2.50
	Slippery	1	0.03	0.12	0.00	0.00	0.13
	Others	4	0.11	0.27	0.38	0.50	0.63
Month of year	January	21	0.58	0.69	1.50	1.50	2.00
	February	18	0.49	0.62	1.00	1.00	1.63
	March	26	0.72	0.91	1.75	2.00	2.63
	April	20	0.56	0.88	1.00	1.50	2.38
	May	22	0.60	0.76	1.38	1.50	2.13
	June	24	0.67	0.81	1.38	1.75	2.50
	July	22	0.60	0.84	1.00	1.50	2.25
	August	29	0.81	0.84	1.50	1.50	2.50
	September	20	0.54	0.72	1.38	1.50	1.63
	October	27	0.75	1.08	1.88	2.00	2.75
	November	28	0.76	0.83	1.88	2.00	2.50
	December	21	0.58	0.58	1.38	1.50	1.50
Day of week	Monday	49	1.36	1.82	3.13	4.50	5.63
	Tuesday	34	0.94	1.24	1.88	2.00	3.00
	Wednesday	39	1.07	1.26	1.88	2.25	3.38
	Thursday	34	0.94	0.85	1.50	2.00	2.50
	Friday	46	1.26	1.39	2.38	3.00	3.88
	Saturday	41	1.13	1.34	2.38	3.00	4.13
	Sunday	34	0.94	1.08	2.38	2.75	3.00
Hour of day	00:00 - 06:00	35	0.96	1.12	1.50	2.00	2.88
	06:01 - 09:00	30	0.83	0.93	1.50	2.25	2.63
	09:01 - 11:00	26	0.71	0.78	1.88	2.00	2.00
	11:01 - 13:00	35	0.97	1.18	1.88	2.75	3.63
	13:01 - 15:00	34	0.93	0.99	1.88	2.25	2.63
	15:01 - 18:00	54	1.49	1.80	2.00	2.50	4.75
	18:01 - 24:00	64	1.76	2.16	4.13	4.50	5.38

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 42

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

Both Major and Minor Roads One-Way Intersection

Total Number of Intersections Included - 13

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		71	5.46	7.13	7.00	10.00	17.40
Collision Type	Rear End	12	0.88	0.85	1.50	1.50	2.10
	Head On	1	0.08	0.19	0.10	0.40	0.50
	Angle	30	2.31	3.53	4.00	5.50	8.60
	Left Turn	5	0.38	1.12	0.20	0.80	2.20
	Right Turn	0	0.00	0.00	0.00	0.00	0.00
	Sideswipe	12	0.88	1.19	1.10	1.40	2.70
	Pedestrian/Bicycle	1	0.04	0.14	0.00	0.00	0.20
	Other	12	0.88	1.08	1.80	2.70	3.00
Severity	PDO Crashes	59	4.50	6.40	5.60	7.40	14.60
	Possible Injury	7	0.54	0.59	1.00	1.00	1.40
	Non-Incapacitating Injury	5	0.35	0.52	1.00	1.00	1.20
	Incapacitating Injury	1	0.08	0.19	0.10	0.40	0.50
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	52	3.96	5.64	5.00	8.00	13.80
	Dusk	3	0.19	0.56	0.10	0.40	1.10
	Dawn	0	0.00	0.00	0.00	0.00	0.00
	Dark (w/street lights)	17	1.31	1.09	2.00	2.00	2.80
	Dark (wo/street lights)	0	0.00	0.00	0.00	0.00	0.00
Surface Condition	Dry	61	4.69	5.83	6.40	9.10	14.80
	Wet	9	0.65	0.99	1.10	1.40	2.30
	Slippery	0	0.00	0.00	0.00	0.00	0.00
	Others	2	0.12	0.42	0.00	0.00	0.60
Month of year	January	5	0.35	0.47	0.60	0.90	1.20
	February	4	0.27	0.70	0.50	0.50	1.30
	March	5	0.38	0.74	1.00	1.00	1.60
	April	7	0.54	0.56	1.00	1.00	1.40
	May	6	0.46	0.59	1.00	1.00	1.40
	June	6	0.42	0.61	1.00	1.00	1.40
	July	8	0.58	0.76	1.10	1.40	1.90
	August	9	0.69	0.95	0.90	2.10	2.70
	September	5	0.35	0.72	0.60	0.90	1.60
	October	7	0.50	0.65	1.10	1.40	1.70
	November	6	0.46	1.09	0.50	0.50	1.90
	December	6	0.46	0.66	1.50	1.50	1.50
Day of week	Monday	6	0.46	0.69	1.10	1.40	1.70
	Tuesday	14	1.08	1.62	2.70	3.30	4.10
	Wednesday	12	0.88	1.21	1.50	1.50	2.70
	Thursday	9	0.65	1.25	1.10	1.40	2.70
	Friday	11	0.81	1.75	1.00	1.00	3.20
	Saturday	11	0.81	0.80	1.50	1.50	1.70
	Sunday	10	0.77	0.99	1.70	2.30	2.70
Hour of day	00:00 - 06:00	12	0.88	1.16	1.60	1.90	2.80
	06:01 - 09:00	9	0.65	1.05	1.20	1.80	2.60
	09:01 - 11:00	7	0.54	0.97	1.00	1.00	2.00
	11:01 - 13:00	12	0.88	0.85	2.00	2.00	2.20
	13:01 - 15:00	5	0.35	0.75	1.00	1.00	1.60
	15:01 - 18:00	18	1.35	1.82	1.90	3.10	4.70
	18:01 - 24:00	11	0.81	1.32	1.60	1.90	3.00

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 43

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

T Intersection with Minor Road One-Way, Signalized

Total Number of Intersections Included - 12

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		73	6.04	3.92	10.18	10.45	12.30
Collision Type	Rear End	20	1.63	1.21	2.85	3.40	3.73
	Head On	0	0.00	0.00	0.00	0.00	0.00
	Angle	14	1.13	0.96	2.00	2.00	2.45
	Left Turn	11	0.88	1.42	1.35	1.90	3.35
	Right Turn	1	0.04	0.14	0.00	0.00	0.23
	Sideswipe	15	1.25	0.75	1.68	1.95	2.23
	Pedestrian/Bicycle	4	0.29	0.40	0.68	0.95	1.00
	Other	10	0.83	0.83	1.68	1.95	2.23
Severity	PDO Crashes	60	5.00	4.07	8.70	9.80	11.80
	Possible Injury	6	0.46	0.62	1.18	1.45	1.50
	Non-Incapacitating Injury	6	0.46	0.66	0.85	1.40	1.73
	Incapacitating Injury	1	0.08	0.19	0.18	0.45	0.50
	Fatal Crashes	1	0.04	0.14	0.00	0.00	0.23
Light Conditions	Daylight	51	4.21	3.33	6.85	7.40	9.53
	Dusk	2	0.17	0.25	0.50	0.50	0.50
	Dawn	2	0.17	0.25	0.50	0.50	0.50
	Dark (w/street lights)	18	1.46	0.94	2.35	2.90	3.00
	Dark (wo/street lights)	1	0.04	0.14	0.00	0.00	0.23
Surface Condition	Dry	69	5.71	3.72	9.35	9.90	11.80
	Wet	3	0.25	0.40	0.68	0.95	1.00
	Slippery	0	0.00	0.00	0.00	0.00	0.00
	Others	1	0.08	0.19	0.18	0.45	0.50
Month of year	January	4	0.29	0.33	0.50	0.50	0.73
	February	7	0.54	0.58	1.18	1.45	1.50
	March	9	0.75	0.89	1.68	1.95	2.23
	April	6	0.50	0.48	1.00	1.00	1.23
	May	6	0.50	0.60	1.18	1.45	1.50
	June	4	0.29	0.40	0.68	0.95	1.00
	July	8	0.67	0.72	1.35	1.90	2.00
	August	7	0.54	0.62	1.00	1.00	1.45
	September	8	0.67	0.58	1.50	1.50	1.50
	October	4	0.33	0.44	1.00	1.00	1.00
	November	5	0.38	0.43	1.00	1.00	1.00
	December	7	0.58	0.56	1.18	1.45	1.50
Day of week	Monday	9	0.71	0.84	1.35	1.90	2.23
	Tuesday	10	0.79	0.62	1.50	1.50	1.73
	Wednesday	11	0.88	0.77	1.50	1.50	1.95
	Thursday	11	0.92	1.02	1.35	1.90	2.68
	Friday	11	0.92	1.14	1.68	1.95	2.90
	Saturday	10	0.83	0.58	1.50	1.50	1.50
	Sunday	12	1.00	0.83	2.00	2.00	2.23
Hour of day	00:00 - 06:00	11	0.92	0.85	1.85	2.40	2.50
	06:01 - 09:00	8	0.63	0.68	1.50	1.50	1.73
	09:01 - 11:00	5	0.42	0.76	1.50	1.50	1.73
	11:01 - 13:00	7	0.54	0.54	0.68	0.95	1.45
	13:01 - 15:00	9	0.71	0.94	1.35	1.90	2.45
	15:01 - 18:00	16	1.33	1.09	2.18	2.45	3.18
	18:01 - 24:00	18	1.50	1.09	2.68	2.95	3.00

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 44

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

Ramp Intersection, Signalized, AADT/lane for Major Road ≤ 7,000

Total Number of Intersections Included - 20

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		51	2.55	3.38	6.30	8.15	9.58
Collision Type	Rear End	10	0.50	0.71	1.00	1.10	2.03
	Head On	2	0.10	0.26	0.07	0.50	0.53
	Angle	18	0.90	1.34	2.08	2.65	4.03
	Left Turn	16	0.80	1.32	1.58	2.15	3.58
	Right Turn	0	0.00	0.00	0.00	0.00	0.00
	Sideswipe	2	0.08	0.24	0.00	0.05	0.53
	Pedestrian/Bicycle	0	0.00	0.00	0.00	0.00	0.00
	Other	4	0.18	0.41	0.50	0.55	1.03
Severity	PDO Crashes	25	1.25	2.31	2.08	2.85	6.15
	Possible Injury	12	0.58	0.92	1.50	1.55	2.08
	Non-Incapacitating Injury	12	0.58	1.12	1.50	1.55	2.13
	Incapacitating Injury	3	0.15	0.24	0.50	0.50	0.50
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	33	1.65	2.40	4.58	5.00	5.20
	Dusk	2	0.08	0.24	0.00	0.05	0.53
	Dawn	1	0.05	0.15	0.00	0.05	0.50
	Dark (w/street lights)	13	0.65	0.88	1.58	2.00	2.05
	Dark (wo/street lights)	3	0.13	0.28	0.50	0.50	0.53
Surface Condition	Dry	43	2.13	2.72	5.30	7.05	7.55
	Wet	8	0.38	0.72	1.00	1.00	1.10
	Slippery	1	0.03	0.11	0.00	0.00	0.03
	Others	1	0.03	0.11	0.00	0.00	0.03
Month of year	January	5	0.25	0.47	0.50	0.60	1.50
	February	1	0.05	0.15	0.00	0.05	0.50
	March	6	0.28	0.38	0.57	1.00	1.00
	April	4	0.18	0.34	0.50	0.55	1.00
	May	4	0.20	0.41	0.50	0.55	1.03
	June	2	0.08	0.18	0.07	0.50	0.50
	July	4	0.20	0.50	0.50	0.55	1.05
	August	5	0.23	0.50	0.50	0.55	1.05
	September	8	0.38	0.78	0.65	1.50	1.58
	October	5	0.25	0.38	0.50	0.50	0.55
	November	7	0.35	0.67	0.50	0.50	0.63
	December	3	0.13	0.28	0.50	0.50	0.53
Day of week	Monday	9	0.43	0.63	1.08	1.50	1.53
	Tuesday	10	0.48	0.77	1.00	1.05	1.58
	Wednesday	12	0.58	0.92	1.15	2.05	2.53
	Thursday	6	0.30	0.52	0.57	1.00	1.05
	Friday	5	0.23	0.38	0.57	1.00	1.00
	Saturday	9	0.43	0.71	1.08	1.50	1.55
	Sunday	3	0.13	0.32	0.07	0.55	1.00
Hour of day	00:00 - 06:00	6	0.28	0.62	0.57	1.00	1.08
	06:01 - 09:00	7	0.35	0.65	0.57	1.05	1.55
	09:01 - 11:00	3	0.13	0.36	0.07	0.50	0.55
	11:01 - 13:00	5	0.23	0.34	0.50	0.55	1.00
	13:01 - 15:00	4	0.18	0.29	0.50	0.50	0.53
	15:01 - 18:00	13	0.63	0.94	1.23	2.50	2.53
	18:01 - 24:00	16	0.78	1.14	1.50	1.70	3.53

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 45

EXPECTED ANNUAL CRASH VALUE TABLE - 6 COUNTIES

Ramp Intersection, Signalized, AADT/lane for Major Road > 7,000

Total Number of Intersections included - 28

		Total number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Entire Category		93	3.30	4.60	6.43	7.45	14.03
Collision Type	Rear End	46	1.63	2.34	3.45	4.00	4.33
	Head On	1	0.02	0.09	0.00	0.00	0.00
	Angle	23	0.80	1.70	1.00	2.60	4.00
	Left Turn	10	0.34	0.51	1.00	1.00	1.00
	Right Turn	0	0.00	0.00	0.00	0.00	0.00
	Sideswipe	8	0.29	1.05	0.48	0.50	0.82
	Pedestrian/Bicycle	1	0.04	0.13	0.00	0.00	0.32
	Other	6	0.20	0.50	0.50	0.50	0.50
Severity	PDO Crashes	59	2.09	3.26	4.93	5.95	9.92
	Possible Injury	23	0.82	1.09	1.50	2.50	2.50
	Non-Incapacitating Injury	7	0.25	0.46	0.50	0.65	1.00
	Incapacitating Injury	4	0.14	0.43	0.00	0.50	0.82
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	59	2.09	2.66	3.48	5.80	7.80
	Dusk	2	0.07	0.18	0.00	0.50	0.50
	Dawn	1	0.02	0.09	0.00	0.00	0.00
	Dark (w/street lights)	30	1.05	2.04	1.98	2.60	5.63
	Dark (wo/street lights)	2	0.07	0.18	0.00	0.50	0.50
Surface Condition	Dry	73	2.59	3.95	4.00	5.10	11.38
	Wet	20	0.71	0.92	1.98	2.15	2.50
	Slippery	0	0.00	0.00	0.00	0.00	0.00
	Others	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	7	0.25	0.44	0.50	0.65	1.33
	February	6	0.20	0.31	0.50	0.50	0.82
	March	9	0.30	0.50	1.00	1.00	1.33
	April	8	0.29	0.42	0.50	1.00	1.00
	May	4	0.13	0.29	0.48	0.50	0.82
	June	7	0.23	0.50	0.50	0.65	1.33
	July	6	0.21	0.40	0.50	0.65	1.00
	August	9	0.30	0.55	0.50	1.15	1.50
	September	8	0.29	0.79	0.50	0.65	1.00
	October	9	0.32	0.46	1.00	1.00	1.00
	November	11	0.39	0.79	0.50	1.15	1.83
	December	11	0.39	0.72	0.50	1.50	2.15
Day of week	Monday	15	0.54	0.91	1.00	1.30	2.65
	Tuesday	12	0.43	0.72	0.98	1.15	1.83
	Wednesday	12	0.41	0.64	1.00	1.00	1.65
	Thursday	11	0.39	0.80	0.50	1.30	2.33
	Friday	12	0.43	0.69	0.50	1.00	1.00
	Saturday	16	0.55	0.75	1.00	1.65	2.00
	Sunday	16	0.55	0.84	1.00	1.15	2.15
Hour of day	00:00 - 06:00	13	0.45	0.76	1.00	1.15	1.50
	06:01 - 09:00	11	0.39	0.81	1.00	1.15	1.83
	09:01 - 11:00	9	0.30	0.57	0.98	1.15	1.50
	11:01 - 13:00	11	0.38	0.52	1.00	1.00	1.00
	13:01 - 15:00	10	0.34	0.88	0.50	1.00	1.00
	15:01 - 18:00	17	0.59	0.77	1.50	1.50	1.83
	18:01 - 24:00	24	0.86	1.44	1.48	2.30	4.30

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.

2. Crashes represent only long forms.

3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

9.4 Summary

This chapter has described the classification of the intersections into 45 categories. By categorizing intersections in this manner, the average number of crashes taking place at an intersection can be found more precisely. For estimating the number of crashes occurring at an intersection in a year, the category of the intersection can be determined and then the tables can be checked for that particular category. This process will facilitate estimating the expected crashes based on the collision type, severity, surface and light conditions, and time, day and month of the crash. Also, intersections with above average or high number of crashes could be identified based on these tables.

10 CONCLUSIONS

We have concluded the most extensive data collection effort for signalized intersections in Florida. We have also developed crash profiles for 45 different types of intersections based on configuration and traffic volume, and if the sample size permitted we have further classified in several cases based on the number of left turn lanes or the speed limit.

The 45 crash tables presented in Chapter 9 will be very useful to engineers and would serve as a crash profile manual that could be used as reference values that could assist in identifying intersections with specific problems, e.g., high number of fatal crashes or high number of angle crashes, etc.

We have also developed a simplistic method to identify the expected number of crashes based on the total number of lanes which is a surrogate measure for the size of the intersection and volume. This method presented in Chapter 7 is similar to the method applied in the ITE trip generation manual, and could be simple in identifying the expected number of crashes by type given that the number of lanes is known.

We have started developing a database application that would have the ability to further expand by allowing users to input data from other areas of the state. As other counties begin to enter data, the database will have to be self-adaptive such that the necessary database tables and relationships will be created on-demand. Once the sample of a particular type of intersections in a new county is adequate to conduct the same type

of analysis that we have been doing in this project, the application will be able to automatically switch from input to output mode. In other words, the application will serve as input and output at the same time. The data gathered from the current project will serve as the base and will grow over time until it encompasses all types of intersections for all areas of the state beyond just the 6 counties that were considered in this study.

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APPENDIX A

19 CATEGORY CRASH PROFILE TABLES FOR BREVARD COUNTY

CATEGORY 1

EXPECTED ANNUAL ACCIDENT TABLE - BREVARD COUNTY

2 Lane x 2 Lane Signalized Intersection, AADT/ Lane On Major Road >= 5,000

Total number of intersections Included - 10

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	3	0.30	0.47	1	1	1
	Head On	0	0.00	0.00	0	0	0
	Angle	0	0.03	0.00	0	0	0
	Left Turn	1	0.10	0.00	0	0	1
	Right Turn	0	0.03	0.00	0	0	0
	Sideswipe	0	0.03	0.00	0	0	0
	Pedestrian/Bicycle	1	0.13	0.00	0	0	1
	Other/Unknown	0	0.06	0.24	0	0	0
Severity	No Injury	1	0.10	0.24	0	0	1
	Possible Injury	3	0.27	0.47	1	1	1
	Non-Incapacitating Injury	2	0.17	0.24	0	0	1
	Incapacitating Injury	0	0.00	0.00	0	0	0
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	4	0.73	0.47	1	1	1
	Dusk	0	0.00	0.00	0	0	0
	Dawn	0	0.00	0.00	0	0	0
	Dark (w/street lights)	1	0.13	0.24	0	0	0
	Dark (wo/ street lights)	1	0.20	0.24	0	0	1
Surface Conditions	Dry	5	0.50	0.47	1	1	2
	Wet	0	0.03	0.00	0	0	0
	Others	0	0.00	0.00	0	0	0
Month of Year	January	1	0.10	0.00	0	0	1
	February	1	0.07	0.24	0	0	0
	March	0	0.03	0.00	0	0	0
	April	1	0.10	0.00	0	0	0
	May	1	0.07	0.00	0	0	0
	June	0	0.03	0.24	0	0	0
	July	0	0.03	0.24	0	0	0
	August	1	0.07	0.00	0	0	0
	September	0	0.03	0.00	0	0	0
	October	0	0.03	0.24	0	0	0
	November	0	0.00	0.00	0	0	0
	December	1	0.07	0.00	0	0	0
Day of Week	Monday	0	0.03	0.00	0	0	0
	Tuesday	2	0.17	0.24	0	0	1
	Wednesday	1	0.10	0.00	0	0	1
	Thursday	1	0.13	0.00	0	0	0
	Friday	0	0.03	0.24	0	0	0
	Saturday	1	0.10	0.00	0	0	1
	Sunday	1	0.07	0.00	0	0	0
Hour of Day	00:00 - 06:00	0	0.03	0.00	0	0	0
	06:01 - 09:00	0	0.03	0.00	0	0	0
	09:01 - 11:00	1	0.10	0.00	0	0	1
	11:01 - 13:00	1	0.07	0.24	0	0	0
	13:01 - 15:00	0	0.00	0.00	0	0	0
	15:01 - 18:00	3	0.27	0.24	0	0	1
	18:01 - 24:00	1	0.13	0.00	0	0	1

* Crashes extracted for years 2000, 2001 and 2002 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 2

EXPECTED ANNUAL ACCIDENT TABLE - BREVARD COUNTY

2 Lane x 2 Lane Signalized Intersection, AADT/ Lane On Major Road < 5,000

Total number of intersections Included - 7

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	2	0.40	0.24	0	1	1
	Head On	1	0.13	0.00	0	0	0
	Angle	3	0.60	0.24	1	1	1
	Left Turn	2	0.47	0.24	1	1	1
	Right Turn	0	0.07	0.00	0	0	0
	Sideswipe	0	0.00	0.00	0	0	0
	Pedestrian/Bicycle	0	0.07	0.00	0	0	0
	Other/Unknown	0	0.00	0.00	0	0	0
Severity	No Injury	2	0.29	0.24	1	1	1
	Possible Injury	2	0.29	0.47	1	1	1
	Non-Incapacitating Injury	4	0.52	0.94	1	1	1
	Incapacitating Injury	1	0.10	0.00	0	0	0
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	4	0.62	0.24	1	1	1
	Dusk	0	0.05	0.00	0	0	0
	Dawn	0	0.00	0.00	0	0	0
	Dark (w/street lights)	2	0.29	0.24	1	1	1
	Dark (wo/ street lights)	2	0.24	0.24	0	0	1
Surface Conditions	Dry	6	0.90	0.94	2	2	2
	Wet	2	0.29	0.24	1	1	1
	Others	0	0.00	0.00	0	0	0
Month of Year	January	0	0.05	0.00	0	0	0
	February	1	0.10	0.24	0	0	0
	March	0	0.05	0.00	0	0	0
	April	0	0.05	0.00	0	0	0
	May	1	0.14	0.47	0	0	1
	June	1	0.10	0.00	0	0	0
	July	1	0.14	0.24	0	0	1
	August	1	0.14	0.24	0	0	1
	September	1	0.10	0.00	0	0	0
	October	1	0.14	0.00	0	0	1
	November	1	0.10	0.00	0	0	0
	December	1	0.14	0.00	0	0	0
Day of Week	Monday	1	0.19	0.24	0	0	1
	Tuesday	1	0.14	0.24	0	0	0
	Wednesday	1	0.10	0.00	0	0	0
	Thursday	1	0.10	0.00	0	0	0
	Friday	2	0.33	0.00	1	1	1
	Saturday	2	0.24	0.00	1	1	1
	Sunday	1	0.14	0.00	0	0	1
Hour of Day	00:00 - 06:00	0	0.00	0.00	0	0	0
	06:01 - 09:00	1	0.14	0.00	0	0	1
	09:01 - 11:00	0	0.00	0.00	0	0	0
	11:01 - 13:00	1	0.14	0.00	0	0	0
	13:01 - 15:00	1	0.14	0.24	0	0	1
	15:01 - 18:00	2	0.29	0.00	1	1	1
	18:01 - 24:00	4	0.52	0.47	1	1	1

* Crashes extracted for years 2000, 2001 and 2002 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 3

EXPECTED ANNUAL ACCIDENT TABLE - BREVARD COUNTY

4 Lane x 2 Lane Signalized Intersection, AADT/ Lane On Major Road >= 7,000 (Total LTLs <=2)

Total number of intersections Included - 13

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	13	1.03	0.73	1	2	2
	Head On	0	0.03	0.12	0	0	0
	Angle	6	0.46	0.72	1	2	2
	Left Turn	8	0.59	0.73	2	2	2
	Right Turn	0	0.00	0.00	0	0	0
	Sideswipe	1	0.08	0.12	0	0	0
	Pedestrian/Bicycle	2	0.15	0.39	1	1	1
	Other/Unknown	3	0.23	0.39	1	1	1
Severity	No Injury	2	0.40	1.86	3	3	4
	Possible Injury	1	0.20	0.41	1	1	1
	Non-Incapacitating Injury	0	0.00	0.00	0	0	0
	Incapacitating Injury	0	0.00	0.00	0	0	0
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	19	1.44	1.50	3	3	4
	Dusk	1	0.10	0.25	0	0	1
	Dawn	0	0.00	0.00	0	0	0
	Dark (w/street lights)	5	0.36	0.40	1	1	1
	Dark (wo/ street lights)	6	0.44	0.30	1	1	1
Surface Conditions	Dry	26	1.97	1.91	3	4	5
	Wet	5	0.36	0.40	1	1	1
	Others	0	0.00	0.00	0	0	0
Month of Year	January	4	0.28	0.38	1	1	1
	February	3	0.23	0.40	1	1	1
	March	3	0.23	0.35	0	0	1
	April	3	0.23	0.39	1	1	1
	May	2	0.18	0.18	0	0	0
	June	4	0.31	0.25	0	0	1
	July	3	0.21	0.35	0	1	1
	August	3	0.26	0.35	0	1	1
	September	2	0.13	0.15	0	0	0
	October	2	0.13	0.25	0	0	1
	November	3	0.26	0.31	1	1	1
	December	2	0.13	0.17	0	0	0
Day of Week	Monday	6	0.44	0.79	2	2	2
	Tuesday	4	0.31	0.15	0	0	0
	Wednesday	3	0.26	0.39	1	1	1
	Thursday	4	0.31	0.40	1	1	1
	Friday	7	0.54	0.38	1	1	1
	Saturday	6	0.46	0.50	1	1	1
	Sunday	3	0.26	0.38	1	1	1
Hour of Day	00:00 - 06:00	1	0.10	0.25	0	0	1
	06:01 - 09:00	3	0.26	0.39	1	1	1
	09:01 - 11:00	2	0.13	0.25	0	0	1
	11:01 - 13:00	3	0.26	0.28	1	1	1
	13:01 - 15:00	2	0.18	0.25	0	0	1
	15:01 - 18:00	13	1.00	0.64	1	1	1
	18:01 - 24:00	8	0.64	0.79	1	1	2

* Crashes extracted for years 2000, 2001 and 2002 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 4

EXPECTED ANNUAL ACCIDENT TABLE - BREVARD COUNTY

4 Lane x 2 Lane Signalized Intersection, AADT/ Lane On Major Road >= 7,000 (Total LTLs > 2)

Total number of intersections Included - 27

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	49	1.81	1.51	3	4	4
	Head On	2	0.09	0.15	0	0	0
	Angle	17	0.63	0.52	1	1	2
	Left Turn	17	0.64	0.74	1	2	2
	Right Turn	1	0.04	0.11	0	0	0
	Sideswipe	3	0.10	0.18	0	0	0
	Pedestrian/Bicycle	2	0.07	0.14	0	0	0
	Other/Unknown	7	0.26	0.44	1	1	1
Severity	No Injury	19	0.72	0.79	1	2	2
	Possible Injury	43	1.59	1.29	3	3	4
	Non-Incapacitating Injury	22	0.83	0.79	2	2	2
	Incapacitating Injury	7	0.27	0.38	1	1	1
	Fatal Injury	0	0.01	0.06	0	0	0
Light Conditions	Daylight	63	2.33	1.63	4	4	5
	Dusk	2	0.06	0.13	0	0	0
	Dawn	1	0.04	0.11	0	0	0
	Dark (w/street lights)	17	0.63	0.63	1	2	2
	Dark (wo/ street lights)	10	0.36	0.36	1	1	1
Surface Conditions	Dry	78	2.88	1.91	5	5	5
	Wet	13	0.48	0.66	1	1	2
	Others	2	0.06	0.19	0	0	1
Month of Year	January	10	0.36	0.43	1	1	1
	February	7	0.26	0.30	1	1	1
	March	9	0.33	0.36	1	1	1
	April	9	0.32	0.39	1	1	1
	May	11	0.40	0.43	1	1	1
	June	8	0.28	0.33	1	1	1
	July	6	0.21	0.29	1	1	1
	August	4	0.16	0.27	0	0	1
	September	6	0.21	0.26	0	0	1
	October	11	0.41	0.45	1	1	1
	November	9	0.35	0.39	1	1	1
	December	10	0.36	0.49	1	1	1
Day of Week	Monday	12	0.46	0.45	1	1	1
	Tuesday	13	0.47	0.45	1	1	1
	Wednesday	11	0.41	0.41	1	1	1
	Thursday	16	0.58	0.57	1	1	2
	Friday	10	0.36	0.44	1	1	1
	Saturday	21	0.78	0.65	1	2	2
	Sunday	16	0.59	0.54	1	1	1
Hour of Day	00:00 - 06:00	4	0.14	0.27	0	0	1
	06:01 - 09:00	11	0.40	0.47	1	1	1
	09:01 - 11:00	8	0.30	0.36	1	1	1
	11:01 - 13:00	11	0.42	0.45	1	1	1
	13:01 - 15:00	14	0.53	0.56	1	1	2
	15:01 - 18:00	26	0.95	0.95	2	2	3
	18:01 - 24:00	25	0.91	0.81	2	2	2

* Crashes extracted for years 2000, 2001 and 2002 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 5

EXPECTED ANNUAL ACCIDENT TABLE - BREVARD COUNTY

4 Lane x 2 Lane Signalized Intersection, AADT/ Lane On Major Road < 7,000 (Total LTLs <=2)

Total number of intersections Included - 17

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	16	0.96	1.27	2	2	3
	Head On	0	0.00	0.00	0	0	0
	Angle	8	0.47	0.60	1	1	2
	Left Turn	6	0.35	0.42	1	1	1
	Right Turn	0	0.00	0.00	0	0	0
	Sideswipe	2	0.10	0.20	0	0	0
	Pedestrian/Bicycle	0	0.00	0.00	0	0	0
	Other/Unknown	2	0.14	0.17	0	0	0
Severity	No Injury	7	0.41	0.60	1	1	1
	Possible Injury	12	0.65	0.71	1	1	2
	Non-Incapacitating Injury	10	0.56	0.64	1	1	2
	Incapacitating Injury	3	0.15	0.21	0	0	0
	Fatal Injury	0	0.02	0.08	0	0	0
Light Conditions	Daylight	21	1.22	1.23	2	2	3
	Dusk	0	0.02	0.08	0	0	0
	Dawn	0	0.02	0.08	0	0	0
	Dark (w/street lights)	8	0.45	0.46	1	1	1
	Dark (wo/ street lights)	3	0.18	0.29	1	1	1
Surface Conditions	Dry	23	1.37	1.31	3	3	3
	Wet	9	0.51	0.64	1	1	2
	Others	0	0.00	0.00	0	0	0
Month of Year	January	3	0.19	0.29	1	1	1
	February	3	0.19	0.29	0	0	1
	March	4	0.20	0.35	1	1	1
	April	3	0.19	0.24	0	0	1
	May	3	0.17	0.29	1	1	1
	June	4	0.22	0.33	1	1	1
	July	2	0.11	0.33	0	0	1
	August	3	0.19	0.27	1	1	1
	September	2	0.09	0.20	0	0	0
	October	3	0.17	0.31	1	1	1
	November	2	0.09	0.20	0	0	0
	December	2	0.15	0.20	0	0	0
Day of Week	Monday	3	0.18	0.31	1	1	1
	Tuesday	6	0.33	0.37	1	1	1
	Wednesday	3	0.20	0.24	0	0	1
	Thursday	4	0.25	0.34	1	1	1
	Friday	6	0.33	0.50	1	1	1
	Saturday	8	0.45	0.51	1	1	1
	Sunday	5	0.27	0.34	1	1	1
Hour of Day	00:00 - 06:00	1	0.06	0.13	0	0	0
	06:01 - 09:00	6	0.37	0.48	1	1	1
	09:01 - 11:00	2	0.12	0.23	0	0	1
	11:01 - 13:00	4	0.22	0.31	1	1	1
	13:01 - 15:00	3	0.16	0.29	0	0	1
	15:01 - 18:00	11	0.65	0.75	1	1	2
	18:01 - 24:00	8	0.45	0.67	1	1	1

* Crashes extracted for years 2000, 2001 and 2002 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 6

EXPECTED ANNUAL ACCIDENT TABLE - BREVARD COUNTY

4 Lane x 2 Lane Signalized Intersection, AADT/ Lane On Major Road < 7,000 (Total LTLs > 2)

Total number of intersections Included - 21

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	21	1.02	1.29	2	3	3
	Head On	1	0.06	0.13	0	0	0
	Angle	15	0.70	0.69	1	2	2
	Left Turn	14	0.67	0.65	1	2	2
	Right Turn	0	0.02	0.07	0	0	0
	Sideswipe	1	0.06	0.13	0	0	0
	Pedestrian/Bicycle	2	0.08	0.18	0	0	0
	Other/Unknown	3	0.16	0.25	0	1	1
Severity	No Injury	12	0.56	0.67	1	1	2
	Possible Injury	20	0.95	1.00	2	2	2
	Non-Incapacitating Injury	13	0.62	0.78	1	1	2
	Incapacitating Injury	8	0.40	0.49	1	1	1
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	35	1.67	1.57	3	4	5
	Dusk	1	0.05	0.12	0	0	0
	Dawn	0	0.02	0.07	0	0	0
	Dark (w/street lights)	9	0.43	0.53	1	1	1
	Dark (wo/ street lights)	8	0.37	0.53	1	1	1
Surface Conditions	Dry	47	2.24	2.18	4	6	6
	Wet	6	0.27	0.31	1	1	1
	Others	0	0.02	0.07	0	0	0
Month of Year	January	5	0.25	0.38	1	1	1
	February	5	0.22	0.38	0	0	1
	March	9	0.43	0.55	1	1	1
	April	4	0.17	0.29	0	1	1
	May	3	0.14	0.31	0	0	1
	June	4	0.21	0.22	0	0	1
	July	4	0.17	0.31	1	1	1
	August	5	0.22	0.27	1	1	1
	September	4	0.19	0.27	1	1	1
	October	5	0.25	0.30	1	1	1
	November	4	0.17	0.23	0	0	1
	December	7	0.32	0.72	0	0	1
Day of Week	Monday	6	0.30	0.39	1	1	1
	Tuesday	9	0.41	0.42	1	1	1
	Wednesday	8	0.37	0.55	0	1	1
	Thursday	7	0.35	0.40	1	1	1
	Friday	9	0.43	0.47	1	1	1
	Saturday	10	0.48	0.47	1	1	1
	Sunday	9	0.43	0.67	1	2	2
Hour of Day	00:00 - 06:00	2	0.11	0.27	0	0	1
	06:01 - 09:00	6	0.29	0.34	1	1	1
	09:01 - 11:00	5	0.24	0.41	0	0	1
	11:01 - 13:00	6	0.30	0.39	1	1	1
	13:01 - 15:00	6	0.30	0.31	1	1	1
	15:01 - 18:00	15	0.71	0.66	2	2	2
	18:01 - 24:00	17	0.81	0.98	2	2	3

* Crashes extracted for years 2000, 2001 and 2002 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 7

EXPECTED ANNUAL ACCIDENT TABLE - BREVARD COUNTY

4 Lane x 4 Lane Signalized Intersection, AADT/ Lane On Major Road >= 7,500

Total number of intersections Included - 3

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	9	3.00	2.60	5	5	5
	Head On	0	0.00	0.00	0	0	0
	Angle	3	0.89	0.77	1	1	1
	Left Turn	2	0.67	0.88	1	1	2
	Right Turn	0	0.00	0.00	0	0	0
	Sideswipe	1	0.33	0.33	1	1	1
	Pedestrian/Bicycle	0	0.00	0.00	0	0	0
	Other/Unknown	0	0.11	0.19	0	0	0
Severity	No Injury	3	1.11	1.02	2	2	2
	Possible Injury	6	2.11	2.17	4	4	4
	Non-Incapacitating Injury	3	1.00	0.88	2	2	2
	Incapacitating Injury	1	0.44	0.77	1	1	1
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	8	2.78	0.24	4	4	4
	Dusk	1	0.22	0.47	1	1	1
	Dawn	0	0.11	0.24	0	0	0
	Dark (w/street lights)	2	0.67	0.47	1	1	1
	Dark (wo/ street lights)	3	0.89	0.47	2	2	2
Surface Conditions	Dry	12	4.00	0.00	6	6	6
	Wet	2	0.67	0.47	1	1	1
	Others	0	0.00	0.00	0	0	0
Month of Year	January	1	0.44	0.47	1	1	1
	February	1	0.33	0.24	1	1	1
	March	3	1.00	0.71	2	2	2
	April	0	0.11	0.24	0	0	0
	May	1	0.33	0.24	1	1	1
	June	1	0.33	0.24	1	1	1
	July	1	0.22	0.47	1	1	1
	August	1	0.33	0.24	1	1	1
	September	1	0.33	0.24	1	1	1
	October	2	0.56	0.71	1	1	1
	November	2	0.56	0.24	1	1	1
	December	1	0.44	0.00	1	1	1
Day of Week	Monday	1	0.44	0.51	1	1	1
	Tuesday	1	0.33	0.33	1	1	1
	Wednesday	2	0.67	0.67	1	1	1
	Thursday	2	0.56	0.69	1	1	1
	Friday	2	0.78	0.84	1	1	2
	Saturday	3	1.00	1.00	2	2	2
	Sunday	4	1.22	1.07	2	2	2
Hour of Day	00:00 - 06:00	1	0.44	0.47	1	1	1
	06:01 - 09:00	1	0.44	0.47	1	1	1
	09:01 - 11:00	2	0.56	0.24	1	1	1
	11:01 - 13:00	3	0.89	0.47	2	2	2
	13:01 - 15:00	3	0.89	0.94	2	2	2
	15:01 - 18:00	2	0.56	0.71	1	1	1
	18:01 - 24:00	4	1.22	0.24	2	2	2

* Crashes extracted for years 2000, 2001 and 2002 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 8

EXPECTED ANNUAL ACCIDENT TABLE - BREVARD COUNTY

4 Lane x 4 Lane Signalized Intersection, AADT/ Lane On Major Road < 7,500

Total number of intersections Included - 8

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	15	1.88	0.94	2	3	3
	Head On	1	0.08	0.47	0	0	0
	Angle	5	0.63	0.94	1	1	2
	Left Turn	7	0.88	2.36	1	2	3
	Right Turn	0	0.04	0.00	0	0	0
	Sideswipe	1	0.17	0.24	0	0	1
	Pedestrian/Bicycle	2	0.25	0.24	0	1	1
	Other/Unknown	3	0.38	0.47	1	1	1
Severity	No Injury	5	0.58	1.41	2	2	2
	Possible Injury	14	1.79	3.54	3	3	4
	Non-Incapacitating Injury	4	0.50	0.47	1	1	1
	Incapacitating Injury	4	0.54	1.18	1	1	1
	Fatal Injury	0	0.04	0.00	0	0	0
Light Conditions	Daylight	17	2.13	0.71	3	4	4
	Dusk	1	0.08	0.24	0	0	0
	Dawn	0	0.04	0.00	0	0	0
	Dark (w/street lights)	6	0.79	1.65	1	2	2
	Dark (wo/ street lights)	3	0.42	1.18	0	1	1
Surface Conditions	Dry	24	3.00	3.30	4	5	7
	Wet	3	0.42	0.00	1	1	1
	Others	0	0.04	0.00	0	0	0
Month of Year	January	5	0.63	0.71	1	1	2
	February	1	0.17	0.47	0	0	1
	March	2	0.21	0.24	0	0	1
	April	4	0.54	0.47	1	1	1
	May	3	0.42	0.47	1	1	1
	June	2	0.21	0.00	0	0	0
	July	2	0.25	0.47	1	1	1
	August	3	0.38	0.94	0	1	1
	September	4	0.46	0.24	1	1	1
	October	2	0.25	0.47	1	1	1
	November	2	0.29	0.24	1	1	1
	December	4	0.50	0.94	1	1	1
Day of Week	Monday	3	0.38	0.24	1	1	1
	Tuesday	6	0.71	0.94	1	1	2
	Wednesday	5	0.58	0.24	2	2	2
	Thursday	6	0.79	0.24	1	1	2
	Friday	5	0.67	0.47	1	1	1
	Saturday	5	0.67	1.18	2	2	2
	Sunday	4	0.50	0.94	1	1	2
Hour of Day	00:00 - 06:00	2	0.25	0.71	0	1	1
	06:01 - 09:00	4	0.50	0.24	1	1	1
	09:01 - 11:00	3	0.38	0.47	1	1	1
	11:01 - 13:00	3	0.42	1.18	0	1	1
	13:01 - 15:00	5	0.63	1.18	1	2	2
	15:01 - 18:00	7	0.92	0.47	1	2	2
	18:01 - 24:00	10	1.21	0.00	2	2	2

* Crashes extracted for years 2000, 2001 and 2002 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 10

EXPECTED ANNUAL ACCIDENT TABLE - BREVARD COUNTY

6 Lane x 2 Lane Signalized Intersection, AADT/ Lane On Major Road <7,500

Total number of intersections Included - 7

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	14	1.95	2.36	4	5	5
	Head On	0	0.05	0.24	0	0	0
	Angle	5	0.71	1.41	1	2	2
	Left Turn	2	0.29	0.24	1	1	1
	Right Turn	0	0.05	0.00	0	0	0
	Sideswipe	1	0.19	0.24	0	1	1
	Pedestrian/Bicycle	1	0.10	0.00	0	0	0
	Other/Unknown	0	0.00	0.00	0	0	0
Severity	No Injury	5	0.71	0.00	1	2	2
	Possible Injury	8	1.14	0.71	2	2	3
	Non-Incapacitating Injury	7	1.00	0.24	2	2	3
	Incapacitating Injury	1	0.19	0.00	0	0	1
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	15	2.14	3.06	5	5	5
	Dusk	0	0.00	0.00	0	0	0
	Dawn	0	0.05	0.00	0	0	0
	Dark (w/street lights)	5	0.67	0.94	1	2	2
	Dark (wo/ street lights)	1	0.19	0.24	0	0	1
Surface Conditions	Dry	19	2.67	4.24	6	6	6
	Wet	3	0.38	0.00	1	1	1
	Others	0	0.00	0.00	0	0	0
Month of Year	January	1	0.10	0.00	0	0	0
	February	4	0.57	0.24	1	1	2
	March	4	0.62	0.94	1	2	2
	April	3	0.48	0.47	1	1	1
	May	1	0.19	0.24	0	0	1
	June	1	0.14	0.47	0	0	1
	July	2	0.29	0.71	1	1	1
	August	1	0.19	0.47	0	0	1
	September	2	0.33	0.24	0	1	1
	October	1	0.14	0.24	0	0	1
	November	1	0.10	0.47	0	0	0
	December	1	0.19	0.00	0	0	0
Day of Week	Monday	2	0.33	0.94	1	1	1
	Tuesday	3	0.43	0.47	1	1	1
	Wednesday	3	0.43	0.94	1	1	1
	Thursday	3	0.48	0.71	1	1	1
	Friday	3	0.38	0.24	1	1	1
	Saturday	5	0.76	0.71	2	2	2
	Sunday	4	0.52	0.47	1	1	2
Hour of Day	00:00 - 06:00	1	0.14	0.47	0	0	1
	06:01 - 09:00	2	0.33	0.47	1	1	1
	09:01 - 11:00	2	0.24	0.71	1	1	1
	11:01 - 13:00	3	0.43	0.47	1	1	2
	13:01 - 15:00	3	0.38	0.00	0	1	2
	15:01 - 18:00	7	1.05	1.65	2	2	3
	18:01 - 24:00	5	0.76	0.71	2	2	2

* Crashes extracted for years 2000, 2001 and 2002 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 11

EXPECTED ANNUAL ACCIDENT TABLE - BREVARD COUNTY

6 Lane x 4 Lane and 6 Lane x 6 Lane Signalized Intersection

Total number of intersections Included - 2

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	11	5.67	1.41	6	6	7
	Head On	0	0.17	0.24	0	0	0
	Angle	2	1.00	0.00	1	1	1
	Left Turn	2	0.83	0.71	1	1	1
	Right Turn	0	0.00	0.00	0	0	0
	Sideswipe	1	0.33	0.47	1	1	1
	Pedestrian/Bicycle	0	0.17	0.24	0	0	0
	Other/Unknown	1	0.50	0.71	1	1	1
Severity	No Injury	3	1.50	0.71	2	2	2
	Possible Injury	8	4.00	1.89	5	5	5
	Non-Incapacitating Injury	3	1.67	1.41	2	2	3
	Incapacitating Injury	1	1.00	0.00	1	1	1
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	8	4.00	0.47	4	4	4
	Dusk	2	0.83	0.24	1	1	1
	Dawn	1	0.33	0.00	0	0	0
	Dark (w/street lights)	4	2.17	0.24	2	2	2
	Dark (wo/ street lights)	1	0.33	0.00	0	0	0
Surface Conditions	Dry	13	6.67	0.47	7	7	7
	Wet	2	0.83	0.24	1	1	1
	Others	0	0.17	0.24	0	0	0
Month of Year	January	1	0.67	0.47	1	1	1
	February	1	0.67	0.00	1	1	1
	March	3	1.50	0.24	2	2	2
	April	1	0.67	0.94	1	1	1
	May	1	0.67	0.94	1	1	1
	June	1	0.67	0.47	1	1	1
	July	0	0.17	0.24	0	0	0
	August	1	0.67	0.47	1	1	1
	September	1	0.50	0.24	1	1	1
	October	1	0.33	0.00	0	0	0
	November	2	1.00	0.94	1	2	2
	December	2	1.17	1.18	2	2	2
Day of Week	Monday	4	1.83	0.24	2	2	2
	Tuesday	2	1.17	1.18	2	2	2
	Wednesday	3	1.33	0.47	2	2	2
	Thursday	2	1.00	0.47	1	1	1
	Friday	2	1.17	0.24	1	1	1
	Saturday	2	0.83	0.24	1	1	1
	Sunday	3	1.33	0.00	1	1	1
Hour of Day	00:00 - 06:00	1	0.33	0.47	1	1	1
	06:01 - 09:00	1	0.33	0.00	0	0	0
	09:01 - 11:00	2	0.83	0.24	1	1	1
	11:01 - 13:00	1	0.33	0.00	0	0	0
	13:01 - 15:00	2	1.17	0.71	2	2	2
	15:01 - 18:00	5	2.50	0.24	3	3	3
	18:01 - 24:00	6	3.17	0.71	4	4	4

* Crashes extracted for years 2000, 2001 and 2002 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 12

EXPECTED ANNUAL ACCIDENT TABLE - BREVARD COUNTY

T- Intersection, Signalized, AADT/ Lane On Major Road >=7500

Total number of intersections Included - 9

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	12	1.37	1.89	3	3	4
	Head On	0	0.00	0.00	0	0	0
	Angle	4	0.41	1.65	1	1	2
	Left Turn	1	0.15	0.24	0	0	1
	Right Turn	0	0.04	0.00	0	0	0
	Sideswipe	1	0.11	0.24	0	0	0
	Pedestrian/Bicycle	0	0.04	0.24	0	0	0
	Other/Unknown	3	0.30	0.71	1	1	1
Severity	No Injury	5	0.59	1.65	1	2	2
	Possible Injury	9	1.00	0.24	3	3	3
	Non-Incapacitating Injury	4	0.41	1.41	1	1	1
	Incapacitating Injury	2	0.22	0.47	1	1	1
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	12	1.37	1.18	3	3	3
	Dusk	1	0.15	0.00	0	0	0
	Dawn	0	0.04	0.24	0	0	0
	Dark (w/street lights)	4	0.44	0.00	1	1	1
	Dark (wo/ street lights)	2	0.22	0.71	1	1	1
Surface Conditions	Dry	17	1.93	2.12	4	4	5
	Wet	2	0.33	0.00	1	1	1
	Others	1	0.11	0.00	0	0	0
Month of Year	January	2	0.19	0.47	1	1	1
	February	3	0.33	0.24	1	1	1
	March	3	0.30	0.24	1	1	1
	April	2	0.19	0.71	1	1	1
	May	2	0.19	0.71	0	0	1
	June	1	0.11	0.00	0	0	0
	July	3	0.30	0.24	1	1	1
	August	1	0.15	0.00	0	0	1
	September	1	0.15	0.00	0	0	1
	October	1	0.15	0.00	0	0	0
	November	1	0.07	0.47	0	0	0
	December	3	0.30	0.00	1	1	1
Day of Week	Monday	2	0.19	0.24	0	0	1
	Tuesday	3	0.33	0.00	1	1	1
	Wednesday	3	0.33	0.00	1	1	1
	Thursday	5	0.59	0.71	1	1	1
	Friday	3	0.30	0.94	1	1	1
	Saturday	4	0.41	0.94	1	1	1
	Sunday	2	0.26	0.24	1	1	1
Hour of Day	00:00 - 06:00	2	0.19	0.47	0	0	1
	06:01 - 09:00	2	0.22	0.47	1	1	1
	09:01 - 11:00	1	0.15	0.24	0	0	1
	11:01 - 13:00	2	0.19	0.00	1	1	1
	13:01 - 15:00	3	0.37	0.47	1	1	1
	15:01 - 18:00	7	0.74	1.65	2	2	3
	18:01 - 24:00	5	0.56	0.24	1	1	2

* Crashes extracted for years 2000, 2001 and 2002 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 13

EXPECTED ANNUAL ACCIDENT TABLE - BREVARD COUNTY

T - Intersection, Signalized, AADT/ Lane On Major Road <7,500

Total number of intersections Included - 15

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	14	0.91	1.29	3	3	3
	Head On	0	0.02	0.09	0	0	0
	Angle	3	0.22	0.35	1	1	1
	Left Turn	3	0.18	0.28	1	0	1
	Right Turn	0	0.02	0.09	0	0	0
	Sideswipe	1	0.07	0.19	0	0	0
	Pedestrian/Bicycle	0	0.02	0.09	0	0	0
	Other/Unknown	2	0.11	0.21	1	0	0
Severity	No Injury	6	0.38	0.59	1	1	2
	Possible Injury	7	0.47	0.55	2	1	1
	Non-Incapacitating Injury	5	0.36	0.53	2	1	1
	Incapacitating Injury	2	0.11	0.21	1	0	0
	Fatal Injury	0	0.02	0.09	0	0	0
Light Conditions	Daylight	13	0.84	1.15	3	3	3
	Dusk	2	0.11	0.27	0	0	1
	Dawn	0	0.00	0.00	0	0	0
	Dark (w/street lights)	3	0.22	0.33	1	1	1
	Dark (wo/ street lights)	2	0.16	0.21	1	0	0
Surface Conditions	Dry	17	1.11	1.26	4	3	3
	Wet	3	0.22	0.39	1	1	1
	Others	0	0.00	0.00	0	0	0
Month of Year	January	4	0.29	0.53	1	1	1
	February	1	0.09	0.20	0	0	0
	March	3	0.18	0.28	1	1	1
	April	2	0.16	0.35	0	1	1
	May	1	0.09	0.15	1	0	0
	June	2	0.16	0.38	0	1	1
	July	1	0.09	0.20	0	0	0
	August	2	0.13	0.17	1	0	0
	September	2	0.11	0.24	0	1	1
	October	1	0.04	0.12	0	0	0
	November	1	0.09	0.20	0	0	0
	December	2	0.11	0.16	1	0	0
Day of Week	Monday	2	0.11	0.27	0	0	1
	Tuesday	5	0.33	0.49	1	1	1
	Wednesday	4	0.27	0.36	1	1	1
	Thursday	4	0.24	0.32	1	1	1
	Friday	3	0.22	0.35	0	0	1
	Saturday	3	0.18	0.25	0	1	1
	Sunday	3	0.18	0.25	0	1	1
Hour of Day	00:00 - 06:00	1	0.07	0.14	0	0	0
	06:01 - 09:00	2	0.11	0.21	1	0	0
	09:01 - 11:00	2	0.13	0.25	1	1	1
	11:01 - 13:00	1	0.04	0.12	0	0	0
	13:01 - 15:00	3	0.18	0.33	1	1	1
	15:01 - 18:00	9	0.58	0.82	2	2	2
	18:01 - 24:00	6	0.42	0.60	1	1	2

* Crashes extracted for years 2000, 2001 and 2002 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 17

EXPECTED ANNUAL ACCIDENT TABLE - BREVARD COUNTY

Ramp Intersection, Signalized, AADT/ Lane On Major Road >= 7,500

Total number of intersections Included - 6

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	6	1.00	0.00	2	2	3
	Head On	0	0.00	0.00	0	0	0
	Angle	2	0.39	0.47	1	1	1
	Left Turn	2	0.33	0.00	1	1	1
	Right Turn	0	0.00	0.00	0	0	0
	Sideswipe	0	0.00	0.00	0	0	0
	Pedestrian/Bicycle	0	0.00	0.00	0	0	0
	Other/Unknown	0	0.06	0.24	0	0	0
Severity	No Injury	1	0.22	0.00	0	1	1
	Possible Injury	5	0.89	0.94	2	2	2
	Non-Incapacitating Injury	2	0.33	0.00	0	1	1
	Incapacitating Injury	1	0.17	0.00	0	1	1
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	7	1.11	0.71	2	2	2
	Dusk	0	0.06	0.00	0	0	0
	Dawn	0	0.00	0.00	0	0	0
	Dark (w/street lights)	2	0.33	0.24	1	1	1
	Dark (wo/ street lights)	1	0.11	0.00	0	0	0
Surface Conditions	Dry	6	1.06	0.71	2	3	3
	Wet	3	0.44	0.24	1	1	1
	Others	1	0.11	0.00	0	0	0
Month of Year	January	1	0.22	0.00	0	1	1
	February	1	0.11	0.24	0	0	0
	March	1	0.17	0.00	0	1	1
	April	1	0.17	0.47	0	1	1
	May	0	0.06	0.00	0	0	0
	June	1	0.11	0.24	0	0	0
	July	1	0.11	0.47	0	0	1
	August	0	0.06	0.00	0	0	0
	September	1	0.17	0.00	0	0	0
	October	1	0.17	0.47	0	1	1
	November	2	0.28	0.24	0	1	1
	December	1	0.17	0.47	0	1	1
Day of Week	Monday	2	0.33	0.24	1	1	1
	Tuesday	2	0.28	0.47	1	1	1
	Wednesday	2	0.39	0.47	1	1	1
	Thursday	1	0.22	0.47	1	1	1
	Friday	1	0.17	0.24	0	0	0
	Saturday	1	0.22	0.00	0	0	0
	Sunday	1	0.17	0.24	0	1	1
Hour of Day	00:00 - 06:00	1	0.17	0.24	0	0	0
	06:01 - 09:00	0	0.00	0.00	0	0	0
	09:01 - 11:00	2	0.28	0.47	0	1	1
	11:01 - 13:00	2	0.33	0.24	1	1	1
	13:01 - 15:00	1	0.11	0.24	0	0	0
	15:01 - 18:00	3	0.44	0.00	1	1	1
	18:01 - 24:00	3	0.44	0.00	1	1	1

* Crashes extracted for years 2000, 2001 and 2002 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 18

EXPECTED ANNUAL ACCIDENT TABLE - BREVARD COUNTY

Ramp Intersection, Signalized, AADT/ Lane On Major Road <7,500

Total number of intersections Included - 6

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	3	0.50	0.35	1	1	1
	Head On	0	0.00	0.00	0	0	0
	Angle	2	0.39	0.49	1	1	1
	Left Turn	4	0.67	0.99	1	2	2
	Right Turn	0	0.00	0.00	0	0	0
	Sideswipe	0	0.00	0.00	0	0	0
	Pedestrian/Bicycle	0	0.06	0.14	0	0	0
	Other/Unknown	0	0.00	0.00	0	0	0
Severity	No Injury	1	0.17	0.18	0	0	0
	Possible Injury	3	0.50	0.91	1	1	2
	Non-Incapacitating Injury	4	0.61	0.71	1	2	2
	Incapacitating Injury	1	0.00	0.00	0	0	0
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	5	0.89	0.62	2	2	2
	Dusk	0	0.00	0.00	0	0	0
	Dawn	0	0.00	0.00	0	0	0
	Dark (w/street lights)	2	0.39	0.49	1	1	1
	Dark (wo/ street lights)	1	0.17	0.41	0	1	1
Surface Conditions	Dry	8	1.33	1.28	2	3	3
	Wet	1	0.11	0.17	0	0	0
	Others	0	0.00	0.00	0	0	0
Month of Year	January	1	0.22	0.40	1	1	1
	February	1	0.11	0.17	0	0	0
	March	1	0.11	0.27	0	0	1
	April	0	0.06	0.14	0	0	0
	May	0	0.06	0.14	0	0	0
	June	1	0.11	0.17	0	0	0
	July	0	0.06	0.14	0	0	0
	August	2	0.33	0.52	1	1	1
	September	0	0.06	0.14	0	0	0
	October	1	0.22	0.17	0	0	0
	November	2	0.28	0.25	0	1	1
	December	0	0.00	0.00	0	0	0
Day of Week	Monday	0	0.06	0.14	0	0	0
	Tuesday	2	0.33	0.56	1	1	1
	Wednesday	1	0.11	0.17	0	0	0
	Thursday	2	0.39	0.33	1	1	1
	Friday	1	0.17	0.28	0	1	1
	Saturday	2	0.28	0.25	0	1	1
	Sunday	2	0.28	0.39	1	1	1
Hour of Day	00:00 - 06:00	0	0.06	0.14	0	0	0
	06:01 - 09:00	1	0.22	0.40	1	1	1
	09:01 - 11:00	0	0.06	0.14	0	0	0
	11:01 - 13:00	1	0.22	0.27	0	1	1
	13:01 - 15:00	1	0.11	0.17	0	0	0
	15:01 - 18:00	2	0.33	0.30	1	1	1
	18:01 - 24:00	3	0.56	0.54	1	1	1

* Crashes extracted for years 2000, 2001 and 2002 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

APPENDIX B

19 CATEGORY CRASH PROFILE TABLES FOR CITY OF ORLANDO

CATEGORY 1

EXPECTED ANNUAL CRASH VALUE TABLE - CITY OF ORLANDO

2 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road ≥ 5000

Total number Intersections - 12

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	19	1.58	1.71	3.3	3.3	4.2
	Head On	0	0.03	0.10	0.0	0.0	0.2
	Angle	9	0.75	1.03	1.1	1.3	2.4
	Left Turn	10	0.83	1.03	2.1	2.3	2.5
	Right Turn	0	0.00	0.00	0.0	0.0	0.0
	Sideswipe	4	0.36	0.50	0.7	0.7	1.1
	Pedestrian/Bicycle	2	0.14	0.22	0.3	0.3	0.5
	Other	2	0.19	0.22	0.3	0.3	0.5
	Unknown	2	0.17	0.30	0.3	0.3	0.6
Severity	PDO Crashes	11	0.89	0.95	2.3	2.3	2.3
	Injury	12	1.03	0.85	1.9	2.3	2.5
	Non-Incapacitating Injury	9	0.72	1.00	1.35	1.90	2.6
	Incapacitating Injury	3	0.22	0.41	0.45	0.63	0.97
	Fatal Crashes	0	0.03	0.10	0.0	0.0	0.2
Light Conditions	Daylight	32	2.67	2.59	4.6	6.1	7.4
	Dusk	1	0.08	0.15	0.3	0.3	0.3
	Dawn	1	0.06	0.13	0.1	0.3	0.3
	Dark (w/street lights)	15	1.22	1.42	2.7	3.2	3.6
	Dark (wo/street lights)	0	0.03	0.10	0.0	0.0	0.2
Surface Condition	Dry	41	3.44	3.36	6.1	6.3	8.7
	Wet	7	0.56	0.89	1.1	1.3	2.1
	Others	1	0.06	0.13	0.1	0.3	0.3
Month of year	January	3	0.25	0.38	0.3	0.3	0.8
	February	4	0.31	0.48	0.5	0.6	1.1
	March	4	0.31	0.33	0.7	0.7	0.8
	April	5	0.39	0.47	1.0	1.0	1.2
	May	2	0.19	0.26	0.5	0.6	0.7
	June	4	0.36	0.59	0.7	0.7	1.3
	July	5	0.42	0.62	1.0	1.6	1.7
	August	5	0.39	0.47	0.8	1.0	1.2
	September	5	0.44	0.57	0.9	1.3	1.5
	October	3	0.28	0.31	0.5	0.6	0.8
	November	3	0.28	0.47	0.8	1.0	1.2
	December	5	0.44	0.43	1.0	1.0	1.0
Day of week	Monday	5	0.42	0.47	0.7	0.7	1.1
	Tuesday	10	0.81	1.08	1.7	2.2	2.8
	Wednesday	8	0.67	0.78	1.8	2.0	2.0
	Thursday	7	0.58	0.57	1.1	1.3	1.5
	Friday	5	0.44	0.62	1.0	1.0	1.5
	Saturday	5	0.44	0.64	0.9	1.3	1.6
	Sunday	8	0.69	1.00	1.6	2.5	2.7
Hour of day	00:00 - 06:00	5	0.42	0.59	0.8	1.0	1.5
	06:01 - 09:00	6	0.47	0.50	1.1	1.3	1.3
	09:01 - 11:00	3	0.25	0.35	0.7	0.7	0.8
	11:01 - 13:00	7	0.56	0.77	1.6	1.9	2.0
	13:01 - 15:00	6	0.53	0.48	1.1	1.3	1.3
	15:01 - 18:00	10	0.81	0.94	1.7	1.7	2.3
	18:01 - 24:00	12	1.03	1.21	2.6	2.9	3.2

* Crashes extracted for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 2

EXPECTED ANNUAL CRASH VALUE TABLE - CITY OF ORLANDO

2 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road < 5000

Total number Intersections - 26

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	14	0.55	0.97	1.2	1.7	2.4
	Head On	0	0.00	0.00	0.0	0.0	0.0
	Angle	7	0.26	0.37	0.4	0.7	0.7
	Left Turn	5	0.19	0.41	0.7	0.7	0.9
	Right Turn	0	0.00	0.00	0.0	0.0	0.0
	Sideswipe	2	0.08	0.22	0.1	0.3	0.3
	Pedestrian/Bicycle	1	0.05	0.15	0.0	0.2	0.3
	Other	3	0.13	0.30	0.3	0.3	0.6
	Unknown	2	0.06	0.13	0.3	0.3	0.3
Severity	PDO Crashes	7	0.27	0.57	0.4	1.0	1.3
	Injury	7	0.28	0.47	0.8	1.0	1.3
	Non-Incapacitating Injury	8	0.31	0.39	0.67	0.83	1
	Incapacitating Injury	1	0.05	0.12	0.08	0.33	0.33
	Fatal Crashes	0	0.00	0.00	0.0	0.0	0.0
Light Conditions	Daylight	23	0.88	1.17	2.1	2.3	2.3
	Dusk	1	0.03	0.09	0.0	0.0	0.3
	Dawn	0	0.01	0.07	0.0	0.0	0.0
	Dark (w/street lights)	10	0.40	0.73	1.1	1.5	1.9
	Dark (wo/street lights)	0	0.00	0.00	0.0	0.0	0.0
Surface Condition	Dry	30	1.17	1.60	2.8	3.5	3.9
	Wet	4	0.15	0.25	0.4	0.7	0.7
	Others	0	0.01	0.07	0.0	0.0	0.0
Month of year	January	6	0.23	0.35	0.4	0.7	0.9
	February	2	0.08	0.22	0.1	0.3	0.3
	March	4	0.17	0.36	0.4	0.7	0.9
	April	3	0.10	0.26	0.1	0.5	0.7
	May	3	0.13	0.25	0.3	0.3	0.6
	June	2	0.09	0.20	0.3	0.3	0.6
	July	2	0.09	0.18	0.3	0.3	0.3
	August	3	0.13	0.25	0.3	0.3	0.6
	September	1	0.04	0.11	0.0	0.2	0.3
	October	3	0.10	0.21	0.3	0.3	0.6
	November	2	0.09	0.18	0.3	0.3	0.3
	December	2	0.08	0.22	0.1	0.3	0.3
Day of week	Monday	1	0.05	0.12	0.1	0.3	0.3
	Tuesday	7	0.26	0.37	0.8	1.0	1.0
	Wednesday	4	0.14	0.25	0.3	0.3	0.6
	Thursday	5	0.21	0.30	0.7	0.7	0.7
	Friday	6	0.24	0.43	0.7	0.8	1.0
	Saturday	6	0.23	0.43	0.4	0.7	0.7
	Sunday	5	0.19	0.35	0.4	0.7	0.9
Hour of day	00:00 - 06:00	4	0.17	0.40	0.3	0.3	0.3
	06:01 - 09:00	3	0.12	0.28	0.3	0.3	0.3
	09:01 - 11:00	2	0.09	0.22	0.3	0.3	0.3
	11:01 - 13:00	3	0.13	0.23	0.3	0.3	0.3
	13:01 - 15:00	6	0.23	0.40	0.4	0.7	0.9
	15:01 - 18:00	8	0.31	0.42	0.8	1.0	1.3
	18:01 - 24:00	7	0.28	0.56	0.7	0.8	1.3

* Crashes extracted for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 3

EXPECTED ANNUAL CRASH VALUE TABLE - CITY OF ORLANDO

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road ≥ 7000 (LT lanes ≤ 2)

Total number Intersections - 1

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	6	5.67	0.00	5.7	5.7	5.7
	Head On	0	0.00	0.00	0.0	5.7	5.7
	Angle	2	1.67	0.00	1.7	5.7	5.7
	Left Turn	2	1.67	0.00	1.7	5.7	5.7
	Right Turn	0	0.00	0.00	0.0	5.7	5.7
	Sideswipe	2	2.00	0.00	2.0	5.7	5.7
	Pedestrian/Bicycle	0	0.00	0.00	0.0	0.0	0.0
	Other	1	0.67	0.00	0.7	5.7	5.7
	Unknown	2	2.00	0.00	2.0	5.7	5.7
Severity	PDO Crashes	5	5.00	0.00	5.0	5.0	5.0
	Injury	3	2.67	0.00	2.7	2.7	2.7
	Non-Incapacitating Injury	2	1.67	0.00	1.67	1.67	1.67
	Incapacitating Injury	0	0.33	0.00	0.33	0.33	0.33
	Fatal Crashes	0	0.33	0.00	0.3	0.3	0.3
Light Conditions	Daylight	8	8.00	0.00	8.0	8.0	8.0
	Dusk	1	0.67	0.00	0.7	0.7	0.7
	Dawn	0	0.33	0.00	0.3	0.3	0.3
	Dark (w/street lights)	5	4.67	0.00	4.7	4.7	4.7
	Dark (wo/street lights)	0	0.00	0.00	0.0	0.0	0.0
Surface Condition	Dry	12	12.00	0.00	12.0	12.0	12.0
	Wet	2	1.67	0.00	1.7	1.7	1.7
	Others	0	0.00	0.00	0.0	0.0	0.0
Month of year	January	1	1.00	0.00	1.0	1.0	1.0
	February	0	0.33	0.00	0.3	0.3	0.3
	March	2	1.67	0.00	1.7	1.7	1.7
	April	2	2.33	0.00	2.3	2.3	2.3
	May	0	0.33	0.00	0.3	0.3	0.3
	June	2	1.67	0.00	1.7	1.7	1.7
	July	1	0.67	0.00	0.7	0.7	0.7
	August	2	1.67	0.00	1.7	1.7	1.7
	September	2	1.67	0.00	1.7	1.7	1.7
	October	0	0.33	0.00	0.3	0.3	0.3
	November	1	1.00	0.00	1.0	1.0	1.0
	December	1	1.00	0.00	1.0	1.0	1.0
Day of week	Monday	0	0.33	0.00	0.3	0.3	0.3
	Tuesday	3	2.67	0.00	2.7	2.7	2.7
	Wednesday	2	1.67	0.00	1.7	1.7	1.7
	Thursday	1	1.00	0.00	1.0	1.0	1.0
	Friday	2	1.67	0.00	1.7	1.7	1.7
	Saturday	3	3.33	0.00	3.3	3.3	3.3
	Sunday	3	3.00	0.00	3.0	3.0	3.0
Hour of day	00:00 - 06:00	3	2.67	0.00	2.7	2.7	2.7
	06:01 - 09:00	1	0.67	0.00	0.7	0.7	0.7
	09:01 - 11:00	2	2.33	0.00	2.3	2.3	2.3
	11:01 - 13:00	1	1.00	0.00	1.0	1.0	1.0
	13:01 - 15:00	1	1.00	0.00	1.0	1.0	1.0
	15:01 - 18:00	3	2.67	0.00	2.7	2.7	2.7
	18:01 - 24:00	3	3.33	0.00	3.3	3.3	3.3

* Crashes extracted for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 4

EXPECTED ANNUAL CRASH VALUE TABLE - CITY OF ORLANDO

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road ≥ 7000 (LT lanes > 2)

Total number Intersections - 75

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	191	2.54	3.42	5.6	6.9	11.0
	Head On	1	0.01	0.07	0.0	0.0	0.0
	Angle	70	0.93	0.96	1.7	2.4	2.7
	Left Turn	45	0.60	0.71	1.3	1.7	2.0
	Right Turn	0	0.00	0.00	0.0	0.0	0.0
	Sideswipe	29	0.39	0.56	0.7	1.0	1.7
	Pedestrian/Bicycle	9	0.12	0.27	0.3	0.3	0.7
	Other	11	0.14	0.26	0.3	0.5	0.7
	Unkown	11	0.15	0.29	0.3	0.3	0.7
Severity	PDO Crashes	71	0.95	1.23	2.0	2.3	3.4
	Injury	87	1.16	1.42	2.6	3.0	3.3
	Non-Incapacitating Injury	86	1.14	1.16	2.00	2.67	3.77
	Incapacitating Injury	19	0.26	0.39	0.67	0.67	1.00
	Fatal Crashes	1	0.01	0.05	0.0	0.0	0.0
Light Conditions	Daylight	253	3.38	3.17	7.3	7.7	9.8
	Dusk	10	0.13	0.24	0.3	0.3	0.7
	Dawn	6	0.08	0.20	0.3	0.3	0.3
	Dark (w/street lights)	90	1.20	1.71	2.0	3.2	4.9
	Dark (wo/street lights)	8	0.10	0.39	0.0	0.2	0.5
Surface Condition	Dry	317	4.23	4.28	8.6	10.0	12.6
	Wet	45	0.60	0.87	1.3	1.9	2.4
	Others	1	0.01	0.07	0.0	0.0	0.0
Month of year	January	24	0.32	0.43	0.7	1.0	1.3
	February	29	0.38	0.52	1.0	1.3	1.4
	March	25	0.33	0.55	0.7	0.7	1.3
	April	36	0.48	0.61	1.0	1.0	1.4
	May	30	0.40	0.51	1.0	1.0	1.3
	June	27	0.36	0.50	0.7	0.9	1.4
	July	31	0.41	0.63	1.0	1.3	1.7
	August	32	0.42	0.56	1.0	1.0	1.3
	September	34	0.45	0.62	1.0	1.2	1.8
	October	36	0.48	0.57	1.0	1.2	1.3
	November	31	0.41	0.56	1.0	1.0	1.3
	December	33	0.44	0.55	1.0	1.2	1.4
Day of week	Monday	42	0.56	0.84	1.3	1.7	2.3
	Tuesday	58	0.77	0.76	1.6	1.9	2.0
	Wednesday	56	0.75	0.91	1.6	2.0	2.7
	Thursday	56	0.75	0.89	1.3	1.9	2.5
	Friday	52	0.70	0.78	1.3	1.9	2.4
	Saturday	54	0.72	0.83	2.0	2.0	2.3
	Sunday	48	0.64	0.83	1.7	1.7	2.0
Hour of day	00:00 - 06:00	31	0.41	0.69	1.0	1.0	1.7
	06:01 - 09:00	43	0.57	0.63	1.0	1.3	2.0
	09:01 - 11:00	27	0.36	0.47	1.0	1.0	1.3
	11:01 - 13:00	47	0.62	0.76	1.3	1.3	2.1
	13:01 - 15:00	49	0.65	0.66	1.3	1.7	1.8
	15:01 - 18:00	85	1.13	1.24	2.3	2.5	4.0
	18:01 - 24:00	84	1.12	1.61	2.0	2.9	4.6

* Crashes extracted for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 6

EXPECTED ANNUAL CRASH VALUE TABLE - CITY OF ORLANDO

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road < 7000 (LT lanes > 2)

Total number Intersections - 23

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	18	0.80	0.81	1.6	1.9	2.6
	Head On	0	0.00	0.00	0.0	0.0	0.0
	Angle	22	0.94	1.00	2.3	2.6	2.7
	Left Turn	14	0.61	1.04	0.9	1.3	2.8
	Right Turn	0	0.00	0.00	0.0	0.0	0.0
	Sideswipe	6	0.25	0.34	0.7	0.7	1.0
	Pedestrian/Bicycle	3	0.13	0.26	0.6	0.7	0.7
	Other	5	0.22	0.41	0.3	0.6	1.0
	Unknown	3	0.13	0.26	0.3	0.3	0.6
Severity	PDO Crashes	13	0.58	0.71	1.0	1.5	2.3
	Injury	18	0.77	0.87	1.6	2.2	2.6
	Non-Incapacitating Injury	16	0.70	0.51	1.23	1.33	1.63
	Incapacitating Injury	6	0.25	0.32	0.57	0.67	0.97
	Fatal Crashes	0	0.00	0.00	0.0	0.0	0.0
Light Conditions	Daylight	51	2.20	1.63	4.2	4.3	4.6
	Dusk	2	0.09	0.18	0.3	0.3	0.3
	Dawn	1	0.03	0.10	0.0	0.0	0.3
	Dark (w/street lights)	17	0.74	0.86	1.6	1.7	2.0
	Dark (wo/street lights)	0	0.01	0.07	0.0	0.0	0.0
Surface Condition	Dry	61	2.67	1.91	4.7	5.2	5.6
	Wet	9	0.39	0.38	0.9	1.0	1.0
	Others	0	0.01	0.07	0.0	0.0	0.0
Month of year	January	6	0.28	0.33	0.7	0.7	1.0
	February	8	0.35	0.40	0.7	0.9	1.0
	March	6	0.25	0.34	0.3	0.9	1.0
	April	4	0.19	0.28	0.3	0.6	0.7
	May	4	0.16	0.20	0.3	0.3	0.3
	June	7	0.32	0.34	0.7	0.7	1.0
	July	6	0.28	0.38	0.6	0.9	1.0
	August	6	0.25	0.39	0.6	0.7	0.7
	September	6	0.26	0.36	0.6	0.7	1.0
	October	8	0.33	0.36	0.7	0.7	1.0
	November	5	0.20	0.26	0.6	0.7	0.7
	December	5	0.22	0.29	0.6	0.7	0.7
Day of week	Monday	6	0.25	0.35	0.7	0.7	1.0
	Tuesday	9	0.41	0.43	0.7	0.9	1.0
	Wednesday	14	0.61	0.61	1.2	1.3	1.3
	Thursday	12	0.54	0.55	1.0	1.3	1.3
	Friday	10	0.45	0.50	0.9	1.3	1.3
	Saturday	9	0.39	0.34	0.9	1.0	1.0
	Sunday	10	0.43	0.47	0.9	1.0	1.3
Hour of day	00:00 - 06:00	8	0.36	0.72	0.9	1.3	1.9
	06:01 - 09:00	10	0.42	0.42	1.0	1.0	1.0
	09:01 - 11:00	3	0.13	0.22	0.3	0.3	0.6
	11:01 - 13:00	11	0.46	0.51	1.0	1.0	1.6
	13:01 - 15:00	9	0.41	0.44	0.7	0.9	1.0
	15:01 - 18:00	16	0.71	0.71	1.6	1.7	1.7
	18:01 - 24:00	13	0.58	0.57	1.0	1.3	1.3

* Crashes extracted for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 7

EXPECTED ANNUAL CRASH VALUE TABLE - CITY OF ORLANDO

4 Lane x 4 Lane Intersection, Signalized, AADT/lane for Major Road ≥ 7500

Total number Intersections - 19

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	110	5.77	6.95	9.8	12.3	21.8
	Head On	0	0.02	0.08	0.0	0.0	0.0
	Angle	54	2.86	3.34	4.5	5.9	10.0
	Left Turn	25	1.33	1.45	2.6	3.5	4.1
	Right Turn	0	0.00	0.00	0.0	0.0	0.0
	Sideswipe	35	1.86	1.72	4.1	4.5	5.1
	Pedestrian/Bicycle	6	0.32	0.45	0.7	0.7	1.1
	Other	6	0.32	0.36	0.7	0.7	1.0
	Unknown	5	0.25	0.35	0.7	0.7	1.0
Severity	PDO Crashes	62	3.28	3.49	6.0	6.9	10.5
	Injury	61	3.21	2.99	6.3	7.2	8.2
	Non-Incapacitating Injury	43	2.25	2.46	4.17	5.40	6.07
	Incapacitating Injury	11	0.58	0.74	1.20	1.80	2.33
	Fatal Crashes	0	0.02	0.08	0.0	0.0	0.0
Light Conditions	Daylight	147	7.72	7.56	15.3	17.5	21.4
	Dusk	9	0.46	0.46	1.0	1.0	1.0
	Dawn	2	0.12	0.25	0.3	0.3	0.4
	Dark (w/street lights)	83	4.39	4.64	8.7	10.5	13.9
	Dark (wo/street lights)	1	0.04	0.11	0.0	0.1	0.3
Surface Condition	Dry	210	11.07	10.88	19.5	25.1	33.8
	Wet	30	1.56	1.66	2.8	3.1	3.7
	Others	2	0.09	0.19	0.3	0.3	0.4
Month of year	January	19	1.02	1.05	1.9	2.3	2.5
	February	21	1.11	1.39	2.4	2.9	4.1
	March	18	0.96	1.16	2.1	2.3	2.5
	April	21	1.09	1.24	1.8	2.2	3.2
	May	20	1.05	1.12	1.9	2.5	3.4
	June	22	1.16	1.22	3.0	3.1	3.3
	July	22	1.18	1.18	1.9	2.3	2.6
	August	22	1.18	1.24	2.5	3.0	3.1
	September	19	1.02	0.89	1.7	1.9	2.7
	October	21	1.11	1.19	1.8	2.3	3.7
	November	20	1.04	1.02	2.4	2.7	3.0
	December	16	0.82	1.11	1.8	2.2	3.1
Day of week	Monday	33	1.74	2.18	4.4	4.7	5.0
	Tuesday	35	1.86	1.67	3.5	4.2	5.1
	Wednesday	35	1.84	1.95	3.3	4.3	5.5
	Thursday	36	1.91	1.87	3.7	4.0	5.4
	Friday	39	2.04	1.86	4.3	4.4	4.9
	Saturday	35	1.82	2.20	3.4	4.9	7.0
	Sunday	29	1.51	1.62	2.9	3.5	4.5
Hour of day	00:00 - 06:00	33	1.75	1.95	3.9	4.7	6.0
	06:01 - 09:00	25	1.30	1.32	2.0	2.9	3.8
	09:01 - 11:00	17	0.91	1.02	2.3	2.4	2.7
	11:01 - 13:00	26	1.37	1.47	2.3	3.3	4.7
	13:01 - 15:00	28	1.49	1.50	2.7	2.7	3.3
	15:01 - 18:00	45	2.37	2.37	4.3	5.3	6.6
	18:01 - 24:00	67	3.53	4.03	5.9	7.7	13.4

* Crashes extracted for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 8

EXPECTED ANNUAL CRASH VALUE TABLE - CITY OF ORLANDO

4 Lane x 4 Lane Intersection, Signalized, AADT/lane for Major Road < 7500

Total number Intersections - 5

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	4	0.80	0.56	1.3	1.3	1.3
	Head On	0	0.00	0.00	0.0	0.0	0.0
	Angle	7	1.40	1.09	2.2	2.5	2.7
	Left Turn	5	0.93	1.19	1.6	2.1	2.5
	Right Turn	0	0.00	0.00	0.0	0.0	0.0
	Sideswipe	2	0.33	0.47	0.8	0.9	0.9
	Pedestrian/Bicycle	0	0.00	0.00	0.0	0.0	0.0
	Other	1	0.13	0.18	0.3	0.3	0.3
	Unknown	1	0.13	0.30	0.3	0.4	0.5
Severity	PDO Crashes	5	1.00	1.37	1.9	2.4	2.9
	Injury	4	0.87	0.51	1.1	1.2	1.3
	Non-Incapacitating Injury	3	0.67	0.67	1.27	1.40	1.53
	Incapacitating Injury	1	0.13	0.18	0.33	0.33	0.33
	Fatal Crashes	0	0.00	0.00	0.0	0.0	0.0
Light Conditions	Daylight	13	2.60	1.82	3.8	4.2	4.6
	Dusk	0	0.00	0.00	0.0	0.0	0.0
	Dawn	0	0.07	0.15	0.1	0.2	0.3
	Dark (w/street lights)	5	1.00	0.71	1.7	1.7	1.7
	Dark (wo/street lights)	0	0.07	0.15	0.1	0.2	0.3
Surface Condition	Dry	17	3.40	2.70	5.6	6.1	6.5
	Wet	2	0.33	0.41	0.6	0.7	0.9
	Others	0	0.00	0.00	0.0	0.0	0.0
Month of year	January	2	0.47	0.51	1.0	1.0	1.0
	February	2	0.33	0.24	0.5	0.5	0.6
	March	1	0.20	0.45	0.4	0.6	0.8
	April	1	0.27	0.43	0.6	0.7	0.9
	May	2	0.33	0.58	0.7	0.9	1.1
	June	1	0.20	0.30	0.5	0.5	0.6
	July	2	0.47	0.45	0.8	0.9	0.9
	August	2	0.40	0.43	0.8	0.9	0.9
	September	1	0.27	0.28	0.5	0.5	0.6
	October	0	0.07	0.15	0.1	0.2	0.3
	November	2	0.40	0.28	0.7	0.7	0.7
	December	2	0.33	0.33	0.7	0.7	0.7
Day of week	Monday	3	0.67	0.62	1.1	1.3	1.5
	Tuesday	1	0.13	0.18	0.3	0.3	0.3
	Wednesday	2	0.40	0.72	0.9	1.1	1.4
	Thursday	2	0.40	0.72	0.9	1.1	1.4
	Friday	3	0.67	0.47	1.0	1.0	1.0
	Saturday	4	0.87	0.69	1.5	1.5	1.6
	Sunday	3	0.60	0.55	1.1	1.2	1.3
Hour of day	00:00 - 06:00	1	0.13	0.18	0.3	0.3	0.3
	06:01 - 09:00	1	0.20	0.30	0.5	0.5	0.6
	09:01 - 11:00	2	0.40	0.72	0.9	1.1	1.4
	11:01 - 13:00	3	0.67	0.41	1.0	1.0	1.0
	13:01 - 15:00	2	0.33	0.41	0.6	0.7	0.9
	15:01 - 18:00	4	0.73	0.64	1.3	1.4	1.5
	18:01 - 24:00	6	1.27	0.89	2.0	2.0	2.0

* Crashes extracted for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 9

EXPECTED ANNUAL CRASH VALUE TABLE - CITY OF ORLANDO

6 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road ≥ 7500

Total number Intersections - 15

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	75	5.00	3.72	9.0	10.9	12.1
	Head On	1	0.04	0.12	0.0	0.2	0.3
	Angle	32	2.16	2.62	3.3	3.5	5.7
	Left Turn	15	1.00	0.72	1.6	1.9	2.1
	Right Turn	0	0.00	0.00	0.0	0.0	0.0
	Sideswipe	15	1.02	0.79	1.7	2.1	2.3
	Pedestrian/Bicycle	3	0.18	0.31	0.3	0.5	0.8
	Other	4	0.27	0.40	0.3	0.7	1.1
	Unknown	2	0.11	0.21	0.3	0.3	0.4
Severity	PDO Crashes	30	1.98	2.23	2.3	2.7	4.9
	Injury	35	2.33	1.72	4.0	4.2	4.8
	Non-Incapacitating Injury	34	2.29	1.36	3.60	4.27	4.67
	Incapacitating Injury	8	0.51	0.60	0.67	1.27	1.77
	Fatal Crashes	2	0.11	0.21	0.3	0.3	0.4
Light Conditions	Daylight	99	6.62	4.20	10.5	12.7	14.2
	Dusk	3	0.22	0.43	0.3	0.3	0.7
	Dawn	1	0.09	0.20	0.3	0.3	0.4
	Dark (w/street lights)	42	2.78	2.64	4.9	5.2	6.8
	Dark (wo/street lights)	1	0.07	0.19	0.0	0.2	0.4
Surface Condition	Dry	135	8.98	6.08	14.1	14.7	17.9
	Wet	12	0.80	0.78	1.6	1.9	2.2
	Others	0	0.00	0.00	0.0	0.0	0.0
Month of year	January	9	0.58	0.43	1.0	1.0	1.1
	February	9	0.58	0.58	1.0	1.2	1.5
	March	13	0.89	0.66	1.6	1.7	1.9
	April	15	1.02	0.91	2.0	2.4	2.8
	May	13	0.89	0.64	1.6	1.9	2.0
	June	12	0.80	0.72	1.3	1.7	2.2
	July	14	0.93	0.98	2.0	2.4	2.7
	August	13	0.89	0.50	1.3	1.5	1.7
	September	11	0.73	0.85	1.3	1.3	1.9
	October	16	1.07	0.96	1.7	2.3	2.9
	November	9	0.62	0.69	1.3	1.5	1.8
	December	12	0.78	0.73	1.3	1.3	1.7
Day of week	Monday	21	1.38	1.52	2.3	2.5	3.7
	Tuesday	18	1.22	0.80	2.3	2.3	2.3
	Wednesday	21	1.40	1.20	2.6	2.7	3.2
	Thursday	18	1.20	1.02	2.3	2.7	3.0
	Friday	23	1.51	1.36	2.0	2.6	3.7
	Saturday	23	1.56	0.99	2.3	2.3	2.8
	Sunday	23	1.51	1.15	2.0	3.0	3.8
Hour of day	00:00 - 06:00	16	1.07	1.11	2.3	2.5	3.0
	06:01 - 09:00	15	1.00	0.84	1.3	2.1	2.7
	09:01 - 11:00	10	0.67	0.63	1.6	1.7	1.7
	11:01 - 13:00	19	1.24	1.00	2.3	2.5	2.7
	13:01 - 15:00	21	1.40	1.64	2.3	3.3	4.5
	15:01 - 18:00	34	2.29	1.54	3.6	4.3	4.9
	18:01 - 24:00	32	2.11	1.74	2.7	3.1	4.5

* Crashes extracted for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 10

EXPECTED ANNUAL CRASH VALUE TABLE - CITY OF ORLANDO

6 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road < 7500

Total number Intersections - 2

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	13	6.67	4.71	9.0	9.3	9.7
	Head On	0	0.17	0.24	0.3	0.3	0.3
	Angle	11	5.67	2.83	7.1	7.3	7.5
	Left Turn	8	4.00	3.77	5.9	6.1	6.4
	Right Turn	0	0.00	0.00	0.0	0.0	0.0
	Sideswipe	3	1.33	1.41	2.0	2.1	2.2
	Pedestrian/Bicycle	0	0.00	0.00	0.0	0.0	0.0
	Other	0	0.00	0.00	0.0	0.0	0.0
	Unknown	1	0.67	0.00	0.7	0.7	0.7
Severity	PDO Crashes	9	4.33	1.41	5.0	5.1	5.2
	Injury	8	4.17	0.24	4.3	4.3	4.3
	Non-Incapacitating Injury	8	4.00	1.89	4.93	5.07	5.2
	Incapacitating Injury	3	1.33	0.00	1.33	1.33	1.33
	Fatal Crashes	0	0.17	0.24	0.3	0.3	0.3
Light Conditions	Daylight	24	12.17	3.06	13.7	13.9	14.1
	Dusk	1	0.33	0.47	0.6	0.6	0.6
	Dawn	0	0.00	0.00	0.0	0.0	0.0
	Dark (w/street lights)	11	5.67	2.36	6.8	7.0	7.2
	Dark (wo/street lights)	1	0.33	0.47	0.6	0.6	0.6
Surface Condition	Dry	31	15.67	5.19	18.2	18.6	19.0
	Wet	5	2.50	0.71	2.9	2.9	3.0
	Others	1	0.33	0.47	0.6	0.6	0.6
Month of year	January	5	2.50	1.18	3.1	3.2	3.3
	February	2	1.17	0.24	1.3	1.3	1.3
	March	3	1.50	0.24	1.6	1.6	1.7
	April	2	1.17	1.18	1.8	1.8	1.9
	May	5	2.67	0.47	2.9	2.9	3.0
	June	4	2.00	0.94	2.5	2.5	2.6
	July	4	1.83	0.71	2.2	2.2	2.3
	August	2	0.83	0.24	1.0	1.0	1.0
	September	3	1.50	1.18	2.1	2.2	2.3
	October	2	1.17	0.71	1.5	1.6	1.6
	November	1	0.67	0.47	0.9	0.9	1.0
	December	3	1.50	0.24	1.6	1.6	1.7
Day of week	Monday	5	2.50	2.12	3.6	3.7	3.9
	Tuesday	4	2.17	0.71	2.5	2.6	2.6
	Wednesday	6	3.00	1.41	3.7	3.8	3.9
	Thursday	4	2.00	0.47	2.2	2.3	2.3
	Friday	7	3.67	0.00	3.7	3.7	3.7
	Saturday	7	3.67	2.36	4.8	5.0	5.2
	Sunday	3	1.50	1.65	2.3	2.4	2.6
Hour of day	00:00 - 06:00	3	1.50	0.24	1.6	1.6	1.7
	06:01 - 09:00	4	2.00	0.47	2.2	2.3	2.3
	09:01 - 11:00	5	2.67	0.94	3.1	3.2	3.3
	11:01 - 13:00	4	2.00	0.94	2.5	2.5	2.6
	13:01 - 15:00	2	1.17	1.18	1.8	1.8	1.9
	15:01 - 18:00	8	4.17	1.18	4.8	4.8	4.9
	18:01 - 24:00	10	5.00	0.94	5.5	5.5	5.6

* Crashes extracted for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 11

EXPECTED ANNUAL CRASH VALUE TABLE - CITY OF ORLANDO

6 Lane x 4 Lane and 6 Lane x 6 Lane Intersection, Signalized

Total number Intersections - 7

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	75	10.71	6.57	17.4	17.6	17.8
	Head On	0	0.05	0.13	0.0	0.1	0.2
	Angle	20	2.86	2.25	5.1	5.5	5.9
	Left Turn	14	2.00	1.37	3.4	3.5	3.6
	Right Turn	0	0.00	0.00	0.0	0.0	0.0
	Sideswipe	15	2.10	1.54	3.8	4.1	4.4
	Pedestrian/Bicycle	3	0.48	0.63	1.1	1.3	1.5
	Other	5	0.76	0.50	1.3	1.3	1.3
	Unknown	4	0.57	0.63	1.1	1.3	1.5
Severity	PDO Crashes	28	3.95	2.68	5.7	6.7	7.7
	Injury	33	4.71	3.14	7.9	8.6	9.3
	Non-Incapacitating Injury	33	4.76	3.72	7.17	8.67	10.12
	Incapacitating Injury	5	0.71	0.83	1.70	1.80	1.90
	Fatal Crashes	1	0.10	0.16	0.3	0.3	0.3
Light Conditions	Daylight	82	11.76	7.37	19.6	20.3	21.0
	Dusk	3	0.43	0.42	0.7	0.8	0.9
	Dawn	2	0.33	0.38	0.7	0.8	0.9
	Dark (w/street lights)	47	6.76	5.05	12.8	13.3	13.8
	Dark (wo/street lights)	2	0.24	0.37	0.4	0.6	0.8
Surface Condition	Dry	119	17.00	10.47	26.7	28.8	30.9
	Wet	17	2.48	1.60	4.4	4.5	4.6
	Others	0	0.05	0.13	0.0	0.1	0.2
Month of year	January	10	1.48	0.81	2.3	2.3	2.3
	February	11	1.52	1.15	2.4	2.7	3.0
	March	15	2.19	1.35	3.2	3.7	4.2
	April	15	2.10	1.80	4.1	4.5	4.9
	May	11	1.57	1.47	3.4	3.5	3.6
	June	13	1.86	1.60	3.1	3.5	3.9
	July	10	1.48	1.07	2.4	2.6	2.8
	August	13	1.81	1.71	2.6	3.4	4.2
	September	10	1.43	1.67	2.9	3.5	4.1
	October	10	1.43	0.98	2.1	2.4	2.7
	November	12	1.76	1.24	2.5	3.0	3.5
	December	6	0.86	0.47	1.3	1.3	1.3
Day of week	Monday	15	2.14	1.55	3.5	3.9	4.3
	Tuesday	21	3.05	1.62	4.7	4.7	4.7
	Wednesday	20	2.86	1.54	4.7	4.8	4.9
	Thursday	17	2.43	2.25	4.3	5.1	5.9
	Friday	20	2.86	1.68	4.7	4.9	5.1
	Saturday	21	3.05	1.85	4.8	5.2	5.6
	Sunday	22	3.10	2.39	6.1	6.3	6.5
Hour of day	00:00 - 06:00	17	2.48	2.11	4.8	5.2	5.6
	06:01 - 09:00	12	1.67	1.78	3.2	3.8	4.4
	09:01 - 11:00	14	1.95	1.38	3.4	3.7	4.0
	11:01 - 13:00	13	1.86	1.25	3.4	3.5	3.6
	13:01 - 15:00	19	2.71	1.89	5.0	5.0	5.0
	15:01 - 18:00	24	3.43	1.98	5.2	5.7	6.2
	18:01 - 24:00	38	5.43	4.60	10.9	11.6	12.3

* Crashes extracted for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 12

EXPECTED ANNUAL CRASH VALUE TABLE - CITY OF ORLANDO

T Intersection, Signalized, AADT/lane for Major Road ≥ 7500

Total number Intersections - 13

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	35	2.72	2.98	4.3	5.3	7.8
	Head On	0	0.00	0.00	0.0	0.0	0.0
	Angle	9	0.72	0.61	1.1	1.5	1.8
	Left Turn	9	0.67	0.62	1.4	1.6	1.7
	Right Turn	0	0.00	0.00	0.0	0.0	0.0
	Sideswipe	8	0.62	0.65	1.1	1.3	1.7
	Pedestrian/Bicycle	2	0.18	0.65	0.0	0.0	0.9
	Other	4	0.28	0.27	0.3	0.3	0.6
	Unknown	0	0.03	0.09	0.0	0.0	0.1
Severity	PDO Crashes	14	1.08	0.87	2.0	2.0	2.4
	Injury	18	1.41	1.04	2.0	2.0	2.8
	Non-Incapacitating Injury	16	1.26	1.28	2.13	2.53	3.47
	Incapacitating Injury	3	0.21	0.42	0.67	0.67	0.93
	Fatal Crashes	0	0.00	0.00	0.0	0.0	0.0
Light Conditions	Daylight	48	3.72	2.88	6.4	6.6	7.9
	Dusk	3	0.26	0.28	0.7	0.7	0.7
	Dawn	1	0.08	0.20	0.1	0.3	0.5
	Dark (w/street lights)	13	1.00	0.94	1.7	1.9	2.5
	Dark (wo/street lights)	2	0.15	0.22	0.3	0.3	0.5
Surface Condition	Dry	59	4.54	3.75	6.9	7.5	10.3
	Wet	8	0.59	0.39	1.0	1.0	1.1
	Others	1	0.08	0.15	0.3	0.3	0.3
Month of year	January	5	0.41	0.43	1.0	1.0	1.0
	February	3	0.23	0.46	0.3	0.3	0.9
	March	7	0.51	0.68	1.1	1.5	1.8
	April	7	0.51	0.70	1.1	1.3	1.7
	May	8	0.62	0.54	1.1	1.3	1.5
	June	3	0.26	0.28	0.7	0.7	0.7
	July	7	0.51	0.57	1.0	1.0	1.4
	August	8	0.62	0.51	1.1	1.3	1.3
	September	5	0.38	0.36	0.7	0.9	1.0
	October	6	0.44	0.48	0.8	1.2	1.3
	November	4	0.28	0.36	0.7	0.7	0.8
	December	6	0.44	0.39	0.7	0.9	1.1
Day of week	Monday	8	0.62	0.62	1.3	1.3	1.6
	Tuesday	12	0.90	0.66	1.7	1.7	1.8
	Wednesday	12	0.90	1.10	2.0	2.0	2.7
	Thursday	10	0.74	0.56	1.4	1.6	1.7
	Friday	8	0.64	0.58	1.1	1.3	1.6
	Saturday	11	0.82	0.65	1.4	1.6	1.9
	Sunday	8	0.59	0.82	1.0	1.0	1.8
Hour of day	00:00 - 06:00	5	0.38	0.47	0.7	0.7	1.1
	06:01 - 09:00	10	0.74	0.98	1.3	2.3	2.8
	09:01 - 11:00	4	0.33	0.36	0.7	0.9	1.0
	11:01 - 13:00	6	0.44	0.44	0.7	0.9	1.1
	13:01 - 15:00	10	0.77	0.61	1.4	1.6	1.8
	15:01 - 18:00	18	1.41	1.12	2.5	3.1	3.3
	18:01 - 24:00	15	1.13	1.02	2.1	2.3	2.9

* Crashes extracted for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 13

EXPECTED ANNUAL CRASH VALUE TABLE - CITY OF ORLANDO

T Intersection, Signalized, AADT/lane for Major Road < 7500

Total number Intersections - 28

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	31	1.12	1.58	2.3	3.0	3.7
	Head On	0	0.01	0.06	0.0	0.0	0.0
	Angle	7	0.26	0.41	0.7	1.0	1.0
	Left Turn	10	0.35	0.57	1.0	1.0	1.2
	Right Turn	0	0.00	0.00	0.0	0.0	0.0
	Sideswipe	7	0.24	0.36	0.3	0.8	1.0
	Pedestrian/Bicycle	1	0.04	0.14	0.0	0.0	0.2
	Other	8	0.29	0.57	0.3	0.7	1.5
	Unknown	2	0.07	0.17	0.3	0.3	0.3
Severity	PDO Crashes	15	0.54	0.86	1.0	1.3	1.3
	Injury	12	0.44	0.56	1.0	1.3	1.6
	Non-Incapacitating Injury	17	0.60	0.70	1.32	1.67	1.88
	Incapacitating Injury	4	0.15	0.21	0.33	0.33	0.55
	Fatal Crashes	0	0.01	0.06	0.0	0.0	0.0
Light Conditions	Daylight	42	1.50	1.59	3.3	4.2	4.9
	Dusk	4	0.13	0.25	0.3	0.3	0.6
	Dawn	0	0.01	0.06	0.0	0.0	0.0
	Dark (w/street lights)	19	0.69	1.14	1.0	1.8	2.0
	Dark (wo/street lights)	1	0.04	0.10	0.0	0.1	0.3
Surface Condition	Dry	51	1.81	1.91	3.0	4.1	6.2
	Wet	15	0.52	1.07	0.7	1.0	1.9
	Others	1	0.04	0.14	0.0	0.0	0.2
Month of year	January	6	0.23	0.24	0.3	0.7	0.7
	February	6	0.21	0.39	0.7	0.7	1.1
	March	5	0.19	0.28	0.3	0.7	0.7
	April	6	0.21	0.28	0.3	0.7	0.7
	May	7	0.24	0.39	0.7	0.7	0.9
	June	3	0.12	0.24	0.3	0.3	0.6
	July	6	0.20	0.31	0.3	0.7	0.9
	August	5	0.18	0.39	0.7	0.7	1.1
	September	4	0.14	0.34	0.3	0.3	0.6
	October	5	0.19	0.36	0.7	0.7	0.9
	November	8	0.30	0.44	0.7	1.0	1.2
	December	4	0.14	0.21	0.3	0.3	0.6
Day of week	Monday	9	0.33	0.50	0.7	0.8	1.0
	Tuesday	10	0.35	0.44	0.7	0.7	1.1
	Wednesday	10	0.35	0.49	0.7	0.7	1.3
	Thursday	9	0.32	0.44	0.7	0.8	1.2
	Friday	11	0.40	0.52	1.0	1.0	1.4
	Saturday	9	0.33	0.45	0.7	1.1	1.3
	Sunday	8	0.27	0.60	0.7	0.7	0.9
Hour of day	00:00 - 06:00	7	0.26	0.69	0.3	0.8	1.2
	06:01 - 09:00	9	0.33	0.44	0.7	1.0	1.0
	09:01 - 11:00	5	0.19	0.29	0.3	0.4	0.9
	11:01 - 13:00	6	0.23	0.29	0.3	0.4	0.9
	13:01 - 15:00	10	0.36	0.49	0.7	1.1	1.3
	15:01 - 18:00	10	0.37	0.55	0.7	1.0	1.2
	18:01 - 24:00	18	0.63	0.78	1.3	1.5	2.0

* Crashes extracted for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 14

EXPECTED ANNUAL CRASH VALUE TABLE - CITY OF ORLANDO

Signalized Intersection, One-way Major Road

Total number Intersections - 33

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	22	0.66	0.55	1.3	1.3	1.5
	Head On	0	0.00	0.00	0.0	0.0	0.0
	Angle	33	0.99	1.02	1.8	2.6	3.1
	Left Turn	4	0.13	0.26	0.3	0.6	0.7
	Right Turn	0	0.00	0.00	0.0	0.0	0.0
	Sideswipe	25	0.76	0.67	1.7	1.7	2.0
	Pedestrian/Bicycle	4	0.11	0.20	0.3	0.3	0.5
	Other	7	0.22	0.36	0.7	0.7	1.0
	Unknown	12	0.37	0.45	0.7	1.2	1.3
Severity	PDO Crashes	36	1.08	0.78	1.7	2.3	2.5
	Injury	20	0.61	0.52	1.0	1.0	1.7
	Non-Incapacitating Injury	15	0.45	0.51	0.73	1.27	1.67
	Incapacitating Injury	4	0.11	0.22	0.33	0.33	0.33
	Fatal Crashes	0	0.00	0.00	0.0	0.0	0.0
Light Conditions	Daylight	67	2.02	1.24	3.3	3.6	4.1
	Dusk	4	0.11	0.22	0.3	0.3	0.7
	Dawn	0	0.01	0.06	0.0	0.0	0.0
	Dark (w/street lights)	36	1.08	1.00	2.3	2.6	3.0
	Dark (wo/street lights)	1	0.02	0.08	0.0	0.0	0.1
Surface Condition	Dry	97	2.94	1.79	4.6	5.7	6.1
	Wet	10	0.30	0.32	0.7	0.7	0.8
	Others	0	0.01	0.06	0.0	0.0	0.0
Month of year	January	9	0.26	0.27	0.7	0.7	0.7
	February	6	0.19	0.25	0.3	0.3	0.7
	March	12	0.35	0.34	0.7	0.7	1.0
	April	8	0.25	0.30	0.7	0.7	0.8
	May	8	0.24	0.34	0.7	0.7	0.7
	June	9	0.26	0.29	0.7	0.7	0.7
	July	13	0.38	0.39	0.7	0.7	1.1
	August	12	0.35	0.33	0.7	0.7	0.8
	September	7	0.21	0.27	0.4	0.7	0.7
	October	8	0.24	0.29	0.4	0.7	0.8
	November	8	0.24	0.30	0.7	0.7	0.7
	December	8	0.23	0.34	0.7	0.7	0.8
Day of week	Monday	10	0.29	0.51	0.7	0.7	1.2
	Tuesday	12	0.37	0.32	0.7	0.7	1.0
	Wednesday	14	0.41	0.46	0.7	1.0	1.3
	Thursday	14	0.42	0.48	0.7	1.0	1.3
	Friday	21	0.63	0.46	1.0	1.0	1.3
	Saturday	21	0.64	0.63	1.3	1.3	1.9
	Sunday	15	0.46	0.42	0.7	0.9	1.3
Hour of day	00:00 - 06:00	21	0.65	0.63	1.3	1.6	1.7
	06:01 - 09:00	11	0.34	0.36	0.7	0.7	1.0
	09:01 - 11:00	8	0.23	0.28	0.7	0.7	0.7
	11:01 - 13:00	11	0.33	0.28	0.7	0.7	0.8
	13:01 - 15:00	16	0.49	0.53	1.0	1.0	1.5
	15:01 - 18:00	19	0.57	0.43	1.0	1.0	1.1
	18:01 - 24:00	21	0.63	0.71	1.3	1.6	1.9

* Crashes extracted for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 15

EXPECTED ANNUAL CRASH VALUE TABLE - CITY OF ORLANDO

Signalized Intersection, One-way Minor Road

Total number Intersections - 21

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	34	1.60	1.96	3.3	3.7	6.3
	Head On	0	0.00	0.00	0.0	0.0	0.0
	Angle	60	2.87	2.11	5.7	6.3	7.0
	Left Turn	7	0.35	0.52	1.0	1.0	1.0
	Right Turn	0	0.00	0.00	0.0	0.0	0.0
	Sideswipe	12	0.56	0.58	1.3	1.3	1.3
	Pedestrian/Bicycle	2	0.10	0.19	0.3	0.3	0.3
	Other	5	0.24	0.24	0.3	0.7	0.7
	Unknown	5	0.22	0.29	0.3	0.7	0.7
Severity	PDO Crashes	24	1.16	1.01	2.0	2.0	3.3
	Injury	32	1.51	1.22	2.3	2.7	3.0
	Non-Incapacitating Injury	27	1.27	1.09	2.33	3.00	3
	Incapacitating Injury	6	0.27	0.33	0.67	0.67	1.00
	Fatal Crashes	0	0.00	0.00	0.0	0.0	0.0
Light Conditions	Daylight	76	3.63	2.69	7.3	7.7	8.3
	Dusk	3	0.16	0.25	0.3	0.7	0.7
	Dawn	1	0.05	0.16	0.0	0.0	0.3
	Dark (w/street lights)	44	2.08	1.88	3.7	4.0	4.3
	Dark (wo/street lights)	0	0.02	0.07	0.0	0.0	0.0
Surface Condition	Dry	110	5.24	3.90	9.7	10.3	12.0
	Wet	14	0.67	0.73	1.0	1.7	2.0
	Others	1	0.03	0.10	0.0	0.0	0.3
Month of year	January	10	0.49	0.73	1.0	1.0	1.7
	February	9	0.43	0.48	1.0	1.3	1.3
	March	11	0.52	0.55	1.0	1.0	1.7
	April	12	0.56	0.59	1.3	1.3	1.7
	May	9	0.43	0.50	1.0	1.0	1.3
	June	10	0.48	0.49	1.0	1.3	1.3
	July	12	0.56	0.69	1.0	1.0	1.3
	August	13	0.62	0.57	1.0	1.3	1.3
	September	10	0.49	0.58	1.3	1.3	1.7
	October	9	0.44	0.69	1.0	1.3	1.7
	November	10	0.46	0.47	1.0	1.0	1.3
	December	10	0.46	0.44	0.7	1.0	1.3
Day of week	Monday	18	0.86	1.05	1.3	1.3	3.0
	Tuesday	16	0.76	0.79	1.7	1.7	2.0
	Wednesday	18	0.87	0.67	1.3	2.0	2.0
	Thursday	18	0.84	0.62	1.3	1.7	2.0
	Friday	21	1.00	0.80	2.0	2.0	2.3
	Saturday	18	0.87	0.76	1.3	2.0	2.0
	Sunday	15	0.73	0.83	1.7	2.0	2.0
Hour of day	00:00 - 06:00	20	0.95	0.97	1.7	1.7	2.0
	06:01 - 09:00	14	0.65	0.73	1.3	1.7	2.0
	09:01 - 11:00	12	0.57	0.63	1.0	1.3	1.7
	11:01 - 13:00	14	0.68	0.68	1.3	1.7	1.7
	13:01 - 15:00	15	0.70	0.62	1.3	1.7	1.7
	15:01 - 18:00	22	1.03	0.87	2.0	2.0	2.3
	18:01 - 24:00	28	1.35	1.15	2.3	2.7	3.3

* Crashes extracted for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 16

EXPECTED ANNUAL CRASH VALUE TABLE - CITY OF ORLANDO

Signalized Intersection, Both Major and Minor Roads are One-way

Total number Intersections - 9

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	7	0.81	0.71	1.3	1.5	1.7
	Head On	0	0.04	0.11	0.0	0.1	0.2
	Angle	12	1.30	1.58	2.5	3.1	3.9
	Left Turn	0	0.00	0.00	0.0	0.0	0.0
	Right Turn	0	0.00	0.00	0.0	0.0	0.0
	Sideswipe	5	0.56	0.37	0.7	0.8	1.1
	Pedestrian/Bicycle	0	0.04	0.11	0.0	0.1	0.2
	Other	3	0.33	0.24	0.6	0.7	0.7
	Unknown	4	0.41	0.52	0.6	0.9	1.3
Severity	PDO Crashes	8	0.93	0.78	1.9	2.0	2.0
	Injury	5	0.52	0.44	0.9	1.1	1.2
	Non-Incapacitating Injury	2	0.26	0.36	0.60	0.73	0.87
	Incapacitating Injury	2	0.19	0.24	0.33	0.40	0.53
	Fatal Crashes	0	0.00	0.00	0.0	0.0	0.0
Light Conditions	Daylight	21	2.30	2.11	3.0	3.9	5.6
	Dusk	1	0.07	0.22	0.0	0.1	0.4
	Dawn	0	0.00	0.00	0.0	0.0	0.0
	Dark (w/street lights)	10	1.11	0.80	2.1	2.3	2.3
	Dark (wo/street lights)	0	0.00	0.00	0.0	0.0	0.0
Surface Condition	Dry	28	3.11	2.43	3.7	4.7	6.7
	Wet	3	0.37	0.48	0.9	1.1	1.2
	Others	0	0.00	0.00	0.0	0.0	0.0
Month of year	January	2	0.26	0.22	0.3	0.4	0.5
	February	1	0.07	0.15	0.3	0.3	0.3
	March	2	0.26	0.28	0.6	0.7	0.7
	April	4	0.44	0.47	0.9	1.1	1.2
	May	3	0.37	0.35	0.7	0.7	0.9
	June	2	0.22	0.29	0.6	0.7	0.7
	July	2	0.26	0.32	0.3	0.5	0.7
	August	5	0.52	0.69	0.3	0.7	1.5
	September	1	0.15	0.24	0.3	0.4	0.5
	October	3	0.30	0.35	0.6	0.7	0.9
	November	2	0.19	0.34	0.3	0.5	0.7
	December	4	0.44	0.41	0.9	1.0	1.0
Day of week	Monday	2	0.26	0.46	0.6	0.8	1.1
	Tuesday	8	0.89	0.88	1.6	1.9	2.3
	Wednesday	4	0.48	0.38	0.9	1.0	1.0
	Thursday	3	0.37	0.48	0.9	1.1	1.2
	Friday	3	0.37	0.35	0.7	0.7	0.9
	Saturday	5	0.52	0.56	1.0	1.1	1.2
	Sunday	5	0.59	0.55	1.0	1.1	1.4
Hour of day	00:00 - 06:00	7	0.78	0.69	1.5	1.7	1.9
	06:01 - 09:00	3	0.37	0.54	0.6	0.9	1.3
	09:01 - 11:00	2	0.26	0.36	0.6	0.7	0.9
	11:01 - 13:00	6	0.67	0.58	1.3	1.4	1.5
	13:01 - 15:00	2	0.19	0.29	0.6	0.7	0.7
	15:01 - 18:00	8	0.85	0.84	1.3	1.6	2.1
	18:01 - 24:00	3	0.37	0.51	0.3	0.6	1.1

* Crashes extracted for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

APPENDIX C

19 CATEGORY CRASH PROFILE TABLES FOR DADE COUNTY

CATEGORY 1

EXPECTED ANNUAL ACCIDENT TABLE - DADE COUNTY

2 Lane x 2 Lane Signalized Intersection, AADT/ Lane On Major Road >=5,000

Total number of intersections Included -12

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	29	2.40	1.33	4	4	4
	Head On	2	0.19	0.22	1	1	1
	Angle	20	1.67	0.85	3	3	3
	Left Turn	20	1.65	1.14	3	3	4
	Right Turn	4	0.31	0.32	1	1	1
	Sideswipe	15	1.27	1.05	2	2	3
	Pedestrian/Bicycle	3	0.23	0.33	1	1	1
	Other/Unknown	33	2.75	2.01	5	5	5
Severity	No Injury	48	4.02	1.84	6	6	6
	Possible Injury	18	1.46	0.60	2	2	2
	Non-Incapacitating Injury	11	0.88	0.63	1	1	2
	Incapacitating Injury	2	0.19	0.26	1	1	1
	Fatal Injury	0	0.02	0.07	0	0	0
Light Conditions	Daylight	71	5.88	2.49	8	8	9
	Dusk	4	0.29	0.26	1	1	1
	Dawn	2	0.13	0.20	0	0	1
	Dark (w/street lights)	49	4.08	2.24	7	7	7
	Dark (wo/ street lights)	1	0.08	0.16	0	0	0
Surface Conditions	Dry	107	8.88	4.19	13	13	14
	Wet	17	1.40	1.04	3	3	3
	Others	2	0.19	0.19	0	0	1
Month of Year	January	11	0.88	0.82	2	2	2
	February	12	0.98	0.86	2	2	2
	March	14	1.13	1.00	2	2	3
	April	10	0.81	0.51	1	1	1
	May	8	0.65	0.69	1	1	2
	June	11	0.94	0.61	2	2	2
	July	11	0.90	0.55	2	2	2
	August	12	0.96	0.61	2	2	2
	September	10	0.83	0.55	1	1	1
	October	8	0.63	0.54	1	1	1
	November	11	0.90	0.63	2	2	2
	December	11	0.88	0.51	1	1	2
Day of Week	Monday	17	1.38	0.83	2	2	3
	Tuesday	15	1.25	0.85	2	2	3
	Wednesday	15	1.27	0.62	2	2	2
	Thursday	15	1.25	0.66	2	2	2
	Friday	21	1.73	0.99	3	3	3
	Saturday	23	1.90	1.11	3	3	3
	Sunday	20	1.69	1.36	3	4	4
Hour of Day* **	00:00 - 06:00	18	1.52	1.11	2	2	3
	06:01 - 09:00	5	0.38	0.31	1	1	1
	09:01 - 11:00	5	0.44	0.37	1	1	1
	11:01 - 13:00	5	0.42	0.37	1	1	1
	13:01 - 15:00	8	0.63	0.27	1	1	1
	15:01 - 18:00	16	1.31	0.72	2	2	2
	18:01 - 24:00	23	1.88	1.08	3	3	3

* Crashes extracted for years 1999, 2000, 2001and 2002 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

*** Hour of Day statistics are based upon a portion of the crashes with time information available.

CATEGORY 3

EXPECTED ANNUAL ACCIDENT TABLE - DADE COUNTY

4 Lane x 2 Lane Signalized Intersection, AADT/ Lane On Major Road >=7,000 (Total LTLs <=2)

Total number of intersections Included - 45

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	180	3.99	3.36	7	7	8
	Head On	8	0.18	0.26	0	1	1
	Angle	132	2.93	2.04	5	6	7
	Left Turn	62	1.37	1.21	3	3	4
	Right Turn	17	0.37	0.44	1	1	1
	Sideswipe	53	1.18	1.06	2	3	3
	Pedestrian/Bicycle	17	0.38	0.46	1	1	1
	Other/Unknown	109	2.41	2.08	4	5	6
Severity	No Injury	201	4.46	3.06	7	8	9
	Possible Injury	95	2.12	1.35	4	4	5
	Non-Incapacitating Injury	48	1.07	0.85	2	2	3
	Incapacitating Injury	15	0.33	0.31	1	1	1
	Fatal Injury	1	0.02	0.07	0	0	0
Light Conditions	Daylight	402	8.92	5.58	15	16	18
	Dusk	18	0.39	0.36	1	1	1
	Dawn	4	0.09	0.13	0	0	0
	Dark (w/street lights)	149	3.32	3.45	6	6	6
	Dark (wo/ street lights)	4	0.09	0.16	0	0	0
Surface Conditions	Dry	488	10.84	7.79	18	20	23
	Wet	79	1.76	1.15	3	3	4
	Others	10	0.22	0.29	1	1	1
Month of Year	January	43	0.96	0.82	2	2	2
	February	50	1.11	1.01	2	3	3
	March	46	1.02	0.87	2	2	2
	April	49	1.09	0.90	2	2	2
	May	53	1.17	0.96	2	3	3
	June	41	0.91	0.84	2	2	2
	July	57	1.26	0.97	2	2	3
	August	54	1.20	0.87	2	2	3
	September	45	1.00	0.93	2	2	3
	October	51	1.13	0.95	2	2	2
	November	43	0.95	0.95	2	2	2
	December	46	1.01	0.86	2	2	3
Day of Week	Monday	81	1.79	1.24	3	4	4
	Tuesday	75	1.67	1.14	3	4	4
	Wednesday	90	2.00	1.56	3	5	5
	Thursday	78	1.73	1.23	3	3	3
	Friday	92	2.04	1.60	3	4	5
	Saturday	85	1.89	1.65	3	4	4
	Sunday	76	1.68	1.78	3	3	4
Hour of Day* **	00:00 - 06:00	53	1.17	1.36	2	3	3
	06:01 - 09:00	36	0.80	0.71	1	2	2
	09:01 - 11:00	29	0.63	0.39	1	1	1
	11:01 - 13:00	34	0.74	0.48	1	2	2
	13:01 - 15:00	41	0.91	0.61	2	2	2
	15:01 - 18:00	79	1.74	1.12	3	3	4
	18:01 - 24:00	90	2.00	1.64	3	4	4

* Crashes extracted for years 1999, 2000, 2001and 2002 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

*** Hour of Day statistics are based upon a portion of the crashes with time information available.

CATEGORY 4

EXPECTED ANNUAL ACCIDENT TABLE - DADE COUNTY

4 Lane x 2 Lane Signalized Intersection, AADT/ Lane On Major Road >=7,000 (Total LTLs > 2)

Total number of intersections Included - 46

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	221	4.79	4.20	10	10	13
	Head On	8	0.17	0.25	1	1	1
	Angle	141	3.06	2.36	6	6	7
	Left Turn	85	1.84	1.91	4	4	5
	Right Turn	11	0.23	0.31	1	1	1
	Sideswipe	46	0.99	0.99	2	2	3
	Pedestrian/Bicycle	11	0.24	0.33	1	1	1
	Other/Unknown	62	1.34	1.22	2	3	4
Severity	No Injury	432	9.19	31.05	9	10	12
	Possible Injury	252	5.35	18.06	5	6	7
	Non-Incapacitating Injury	131	2.78	9.39	3	3	4
	Incapacitating Injury	40	0.84	2.87	1	1	2
	Fatal Injury	2	0.04	0.17	0	0	0
Light Conditions	Daylight	392	8.52	6.50	17	19	19
	Dusk	11	0.23	0.30	1	1	1
	Dawn	5	0.11	0.19	0	0	0
	Dark (w/street lights)	172	3.74	3.24	7	7	11
	Dark (wo/ street lights)	3	0.07	0.15	0	0	0
Surface Conditions	Dry	479	10.41	7.79	20	22	24
	Wet	93	2.02	1.87	4	4	5
	Others	11	0.24	0.34	1	1	1
Month of Year	January	46	0.99	0.77	2	2	2
	February	44	0.96	0.88	2	2	3
	March	52	1.13	0.86	2	2	3
	April	50	1.08	1.06	2	3	3
	May	43	0.94	0.87	2	2	3
	June	51	1.10	0.99	2	3	3
	July	49	1.07	0.93	2	3	3
	August	54	1.16	1.00	2	2	3
	September	49	1.05	1.00	2	3	3
	October	50	1.09	1.05	2	3	3
	November	45	0.97	0.82	2	2	2
	December	52	1.13	0.94	2	2	3
Day of Week	Monday	81	1.77	1.41	3	4	4
	Tuesday	82	1.79	1.46	3	4	4
	Wednesday	79	1.71	1.47	3	4	5
	Thursday	84	1.82	1.52	4	4	5
	Friday	90	1.95	1.56	4	4	5
	Saturday	89	1.93	1.70	3	4	4
	Sunday	79	1.71	1.52	3	4	4
Hour of Day* **	00:00 - 06:00	46	0.99	0.96	2	3	3
	06:01 - 09:00	46	1.00	0.82	2	2	2
	09:01 - 11:00	33	0.71	0.73	1	2	2
	11:01 - 13:00	32	0.69	0.61	1	2	2
	13:01 - 15:00	53	1.16	1.04	2	3	3
	15:01 - 18:00	87	1.90	1.60	4	4	4
	18:01 - 24:00	131	2.85	2.56	5	6	9

* Crashes extracted for years 1999, 2000, 2001and 2002 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

*** Hour of Day statistics are based upon a portion of the crashes with time information available.

CATEGORY 5

EXPECTED ANNUAL ACCIDENT TABLE - DADE COUNTY

4 Lane x 2 Lane Signalized Intersection, AADT/ Lane On Major Road < 7,000 (Total LTLs <=2)

Total number of intersections Included - 18

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	26	1.44	1.11	3	3	3
	Head On	3	0.15	0.24	0	0	0
	Angle	35	1.92	2.15	3	4	5
	Left Turn	15	0.82	0.93	2	2	2
	Right Turn	4	0.19	0.28	1	1	1
	Sideswipe	13	0.71	0.92	1	2	3
	Pedestrian/Bicycle	2	0.10	0.15	0	0	0
	Other/Unknown	24	1.31	1.20	2	3	3
Severity	No Injury	44	2.42	1.78	4	5	5
	Possible Injury	27	1.47	1.36	3	3	4
	Non-Incapacitating Injury	10	0.57	0.87	2	2	2
	Incapacitating Injury	4	0.19	0.22	1	1	1
	Fatal Injury	0	0.01	0.06	0	0	0
Light Conditions	Daylight	79	4.40	3.20	8	9	10
	Dusk	4	0.21	0.25	1	1	1
	Dawn	2	0.10	0.19	0	0	0
	Dark (w/street lights)	33	1.83	2.04	3	4	6
	Dark (wo/ street lights)	2	0.10	0.24	0	0	1
Surface Conditions	Dry	99	5.47	4.46	9	12	14
	Wet	18	1.00	0.89	2	2	2
	Others	3	0.17	0.23	0	1	1
Month of Year	January	10	0.54	0.58	1	1	2
	February	10	0.53	0.44	1	1	1
	March	11	0.61	0.61	1	1	2
	April	9	0.51	0.49	1	1	1
	May	14	0.76	0.90	1	2	3
	June	10	0.53	0.49	1	1	1
	July	10	0.53	0.57	1	1	2
	August	10	0.57	0.51	1	1	1
	September	11	0.58	0.47	1	1	1
	October	9	0.49	0.59	1	1	1
	November	8	0.44	0.48	1	1	1
	December	10	0.54	0.54	1	1	2
Day of Week	Monday	17	0.94	0.86	2	2	2
	Tuesday	17	0.96	0.70	2	2	2
	Wednesday	12	0.67	0.69	1	1	2
	Thursday	20	1.08	0.92	2	2	3
	Friday	20	1.08	0.97	2	2	3
	Saturday	17	0.93	1.04	1	2	3
	Sunday	18	0.97	1.07	2	2	3
Hour of Day***	00:00 - 06:00	12	0.64	0.70	1	1	1
	06:01 - 09:00	9	0.49	0.67	1	1	2
	09:01 - 11:00	6	0.35	0.33	1	1	1
	11:01 - 13:00	6	0.35	0.40	1	1	1
	13:01 - 15:00	10	0.57	0.65	1	1	2
	15:01 - 18:00	17	0.93	0.83	2	2	2
	18:01 - 24:00	24	1.35	1.41	3	3	4

* Crashes extracted for years 1999, 2000, 2001and 2002 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

*** Hour of Day statistics are based upon a portion of the crashes with time information available.

CATEGORY 6

EXPECTED ANNUAL ACCIDENT TABLE - DADE COUNTY

4 Lane x 2 Lane Signalized Intersection, AADT/ Lane On Major Road < 7,000 (Total LTLs > 2)

Total number of intersections Included - 18

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	47	2.63	3.38	5	6	8
	Head On	5	0.29	0.36	1	1	1
	Angle	49	2.72	3.13	5	5	6
	Left Turn	16	0.88	1.01	2	2	3
	Right Turn	2	0.13	0.20	0	0	0
	Sideswipe	13	0.69	0.61	1	1	2
	Pedestrian/Bicycle	6	0.31	0.43	1	1	1
	Other/Unknown	28	1.56	1.14	3	3	3
Severity	No Injury	61	3.39	3.10	5	6	8
	Possible Injury	33	1.81	2.42	3	5	6
	Non-Incapacitating Injury	20	1.08	1.09	2	2	3
	Incapacitating Injury	6	0.35	0.34	1	1	1
	Fatal Injury	0	0.01	0.06	0	0	0
Light Conditions	Daylight	115	6.39	6.14	11	12	14
	Dusk	5	0.26	0.35	1	1	1
	Dawn	2	0.10	0.19	0	0	0
	Dark (w/street lights)	43	2.39	3.04	4	5	7
	Dark (wo/ street lights)	1	0.06	0.11	0	0	0
Surface Conditions	Dry	129	7.17	7.43	12	13	16
	Wet	31	1.69	2.08	3	4	5
	Others	6	0.33	0.41	1	1	1
Month of Year	January	15	0.83	1.09	2	2	2
	February	12	0.64	0.65	1	1	2
	March	16	0.88	1.05	2	2	3
	April	14	0.76	0.91	1	2	2
	May	15	0.83	0.90	2	2	2
	June	12	0.65	0.52	1	2	2
	July	17	0.93	1.13	2	2	2
	August	15	0.85	1.25	1	2	2
	September	14	0.79	0.67	1	2	2
	October	11	0.61	0.71	1	1	2
	November	11	0.63	0.61	1	1	1
	December	14	0.79	0.96	1	2	2
Day of Week	Monday	21	1.17	1.29	2	2	3
	Tuesday	20	1.11	1.26	2	3	4
	Wednesday	21	1.18	1.52	3	3	3
	Thursday	24	1.31	1.24	2	3	3
	Friday	27	1.49	1.88	3	3	4
	Saturday	29	1.58	1.70	3	4	5
	Sunday	25	1.36	1.44	2	3	4
Hour of Day* **	00:00 - 06:00	14	0.75	0.94	1	2	3
	06:01 - 09:00	13	0.69	0.64	1	1	2
	09:01 - 11:00	7	0.40	0.51	1	1	1
	11:01 - 13:00	13	0.74	0.81	1	1	2
	13:01 - 15:00	14	0.76	0.69	1	2	2
	15:01 - 18:00	29	1.58	1.66	3	4	4
	18:01 - 24:00	31	1.71	2.10	3	3	4

* Crashes extracted for years 1999, 2000, 2001and 2002 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

*** Hour of Day statistics are based upon a portion of the crashes with time information available.

CATEGORY 7

EXPECTED ANNUAL ACCIDENT TABLE - DADE COUNTY

4 Lane x 4 Lane Signalized Intersection, AADT/ Lane On Major Road >=7,500

Total number of intersections Included - 26

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	171	6.58	3.79	10	11	13
	Head On	10	0.37	0.35	1	1	1
	Angle	130	4.98	2.59	7	9	9
	Left Turn	84	3.23	2.40	6	6	8
	Right Turn	10	0.38	0.36	1	1	1
	Sideswipe	50	1.90	1.31	3	4	4
	Pedestrian/Bicycle	10	0.38	0.30	1	1	1
	Other/Unknown	74	2.83	1.78	5	5	6
Severity	No Injury	209	8.03	3.97	13	13	14
	Possible Injury	110	4.22	1.88	6	7	7
	Non-Incapacitating Injury	52	2.01	1.40	3	3	5
	Incapacitating Injury	18	0.70	0.51	1	1	2
	Fatal Injury	2	0.07	0.11	0	0	0
Light Conditions	Daylight	338	13.00	6.31	21	21	23
	Dusk	11	0.41	0.33	1	1	1
	Dawn	9	0.33	0.31	1	1	1
	Dark (w/street lights)	177	6.80	3.48	10	11	11
	Dark (wo/ street lights)	3	0.10	0.14	0	0	0
Surface Conditions	Dry	446	17.16	8.12	27	28	30
	Wet	76	2.90	1.39	4	4	5
	Others	15	0.57	0.49	1	1	1
Month of Year	January	41	1.57	1.19	3	3	4
	February	46	1.75	0.85	3	3	3
	March	47	1.80	1.07	3	3	4
	April	38	1.46	0.82	2	3	3
	May	49	1.88	1.09	3	3	4
	June	45	1.73	1.07	3	3	3
	July	44	1.67	0.96	3	3	3
	August	54	2.07	1.10	3	4	4
	September	41	1.57	1.09	3	3	3
	October	52	1.99	0.93	3	3	4
	November	38	1.46	0.75	2	3	3
	December	44	1.69	0.89	2	3	3
Day of Week	Monday	83	3.17	1.57	5	5	6
	Tuesday	73	2.82	1.40	4	5	5
	Wednesday	72	2.76	1.57	5	5	5
	Thursday	72	2.76	1.49	5	5	5
	Friday	86	3.31	1.72	5	6	6
	Saturday	78	2.99	1.41	4	4	5
	Sunday	74	2.83	1.83	5	5	6
Hour of Day* **	00:00 - 06:00	60	2.31	1.35	3	3	5
	06:01 - 09:00	49	1.88	1.14	3	4	4
	09:01 - 11:00	32	1.22	0.64	2	2	2
	11:01 - 13:00	31	1.19	0.68	2	2	2
	13:01 - 15:00	31	1.20	0.75	2	2	2
	15:01 - 18:00	72	2.77	1.42	5	5	5
	18:01 - 24:00	116	4.46	2.27	6	7	7

* Crashes extracted for years 1999, 2000, 2001and 2002 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

*** Hour of Day statistics are based upon a portion of the crashes with time information available.

CATEGORY 8

EXPECTED ANNUAL ACCIDENT TABLE - DADE COUNTY

4 Lane x 4 Lane Signalized Intersection, AADT/ Lane On Major Road < 7,500

Total number of intersections Included - 23

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	112	4.88	4.40	8	11	13
	Head On	7	0.30	0.42	1	1	1
	Angle	105	4.54	4.35	7	9	9
	Left Turn	35	1.52	1.45	2	4	4
	Right Turn	10	0.43	0.66	1	1	2
	Sideswipe	47	2.03	3.14	3	4	5
	Pedestrian/Bicycle	10	0.43	0.51	1	1	1
	Other/Unknown	66	2.88	2.29	5	6	7
Severity	No Injury	132	5.74	4.29	11	12	12
	Possible Injury	68	2.96	2.81	4	5	10
	Non-Incapacitating Injury	27	1.17	0.85	2	2	2
	Incapacitating Injury	12	0.52	0.55	1	1	2
	Fatal Injury	1	0.05	0.11	0	0	0
Light Conditions	Daylight	281	12.20	10.77	18	27	31
	Dusk	9	0.40	0.48	1	1	1
	Dawn	4	0.18	0.27	0	1	1
	Dark (w/street lights)	96	4.17	3.76	8	9	13
	Dark (wo/ street lights)	2	0.08	0.19	0	0	0
Surface Conditions	Dry	325	14.12	13.12	22	30	38
	Wet	53	2.30	2.28	3	5	5
	Others	14	0.61	0.44	1	1	1
Month of Year	January	33	1.45	1.30	2	3	4
	February	29	1.25	1.22	2	3	3
	March	33	1.41	1.36	3	3	4
	April	31	1.35	1.30	2	2	3
	May	31	1.35	1.29	2	3	3
	June	33	1.43	1.29	2	3	4
	July	36	1.54	1.61	3	4	5
	August	38	1.63	1.43	3	4	4
	September	35	1.51	1.43	3	4	4
	October	32	1.40	1.18	3	3	4
	November	28	1.21	1.35	2	3	3
	December	35	1.50	1.40	3	3	4
Day of Week	Monday	61	2.65	2.58	4	7	8
	Tuesday	52	2.24	2.09	4	4	6
	Wednesday	58	2.50	1.94	5	5	6
	Thursday	56	2.45	2.18	4	5	7
	Friday	63	2.73	2.78	4	5	9
	Saturday	58	2.51	2.60	5	6	7
	Sunday	45	1.96	1.81	4	5	6
Hour of Day* **	00:00 - 06:00	23	0.99	0.76	2	2	2
	06:01 - 09:00	29	1.25	1.17	2	2	4
	09:01 - 11:00	22	0.96	0.78	2	2	2
	11:01 - 13:00	23	1.00	0.72	2	2	2
	13:01 - 15:00	32	1.37	1.12	2	3	3
	15:01 - 18:00	47	2.03	1.69	3	4	4
	18:01 - 24:00	66	2.85	2.45	5	5	6

* Crashes extracted for years 1999, 2000, 2001and 2002 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

*** Hour of Day statistics are based upon a portion of the crashes with time information available.

CATEGORY 9

EXPECTED ANNUAL ACCIDENT TABLE - DADE COUNTY

6 Lane x 2 Lane Signalized Intersection, AADT/Lane On Major Road >=7,500

Total Number Of Intersections - 40

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	234	5.84	4.76	10	11	12
	Head On	6	0.16	0.28	0	1	1
	Angle	99	2.47	1.64	5	5	5
	Left Turn	85	2.13	1.65	4	4	5
	Right Turn	8	0.21	0.25	1	1	1
	Sideswipe	46	1.15	1.02	2	3	4
	Pedestrian/Bicycle	12	0.31	0.53	1	1	1
	Other/Unknown	57	1.41	1.57	2	2	4
Severity	No Injury	186	4.64	3.27	7	10	12
	Possible Injury	139	3.48	2.32	5	6	9
	Non-Incapacitating Injury	73	1.82	1.27	3	4	4
	Incapacitating Injury	29	0.73	0.64	1	2	2
	Fatal Injury	2	0.04	0.11	0	0	0
Light Conditions	Daylight	386	9.64	6.68	13	18	25
	Dusk	10	0.25	0.24	1	1	1
	Dawn	6	0.14	0.20	0	0	1
	Dark (w/street lights)	144	3.59	2.38	6	6	7
	Dark (wo/ street lights)	2	0.05	0.13	0	0	0
Surface Conditions	Dry	448	11.21	7.21	15	22	27
	Wet	89	2.23	1.72	4	4	5
	Others	10	0.24	0.45	1	1	1
Month of Year	January	39	0.97	0.78	2	2	3
	February	46	1.14	0.87	2	2	3
	March	49	1.23	0.92	2	3	3
	April	45	1.11	1.03	2	2	3
	May	44	1.11	0.66	2	2	3
	June	42	1.06	0.69	2	2	2
	July	48	1.20	1.13	2	3	3
	August	47	1.18	1.07	2	2	3
	September	44	1.09	0.94	2	2	3
	October	51	1.28	0.98	3	3	3
	November	49	1.22	1.01	2	3	4
	December	44	1.09	0.74	2	2	2
Day of Week	Monday	76	1.90	1.46	3	4	5
	Tuesday	82	2.06	1.34	3	4	4
	Wednesday	82	2.05	1.51	3	4	5
	Thursday	80	1.99	1.53	3	4	6
	Friday	81	2.03	1.50	3	3	6
	Saturday	85	2.12	1.46	3	4	5
	Sunday	61	1.53	1.07	3	3	3
Hour of Day* **	00:00 - 06:00	42	1.04	0.92	2	2	3
	06:01 - 09:00	45	1.11	1.04	2	3	3
	09:01 - 11:00	41	1.03	0.92	2	2	2
	11:01 - 13:00	46	1.15	1.04	2	2	3
	13:01 - 15:00	55	1.38	0.86	2	3	3
	15:01 - 18:00	84	2.11	1.45	4	4	5
	18:01 - 24:00	116	2.89	1.95	5	5	6

* Crashes extracted for years 1999, 2000, 2001and 2002 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

*** Hour of Day statistics are based upon a portion of the crashes with time information available.

CATEGORY 10

EXPECTED ANNUAL ACCIDENT TABLE - DADE COUNTY

6 Lane x 2 Lane Signalized Intersection, AADT/ Lane On Major Road <7,500

Total number of intersections Included - 16

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	59	3.69	2.87	7	7	7
	Head On	2	0.11	0.20	0	0	0
	Angle	45	2.81	2.47	6	6	6
	Left Turn	30	1.84	1.79	4	5	5
	Right Turn	4	0.22	0.29	1	1	1
	Sideswipe	16	0.97	0.75	2	2	2
	Pedestrian/Bicycle	4	0.22	0.26	0	1	1
	Other/Unknown	17	1.05	1.06	2	2	2
Severity	No Injury	66	4.09	2.56	7	8	8
	Possible Injury	35	2.16	1.85	4	4	4
	Non-Incapacitating Injury	18	1.11	1.22	2	3	3
	Incapacitating Injury	6	0.39	0.57	1	1	1
	Fatal Injury	1	0.06	0.11	0	0	0
Light Conditions	Daylight	124	7.73	5.38	14	15	15
	Dusk	5	0.30	0.31	1	1	1
	Dawn	3	0.17	0.31	0	1	1
	Dark (w/street lights)	43	2.67	1.97	5	5	5
	Dark (wo/ street lights)	1	0.03	0.09	0	0	0
Surface Conditions	Dry	146	9.14	6.44	17	18	18
	Wet	26	1.63	1.21	3	3	3
	Others	2	0.14	0.22	0	0	0
Month of Year	January	18	1.14	0.82	2	2	2
	February	14	0.84	0.65	2	2	2
	March	17	1.06	0.70	2	2	2
	April	14	0.89	0.72	2	2	2
	May	17	1.06	0.85	2	2	2
	June	14	0.86	0.61	2	2	2
	July	16	0.98	1.11	2	3	3
	August	18	1.11	0.96	2	3	3
	September	13	0.78	0.55	1	1	1
	October	13	0.78	0.68	2	2	2
	November	11	0.69	0.57	1	2	2
	December	11	0.70	0.61	1	2	2
Day of Week	Monday	20	1.22	1.02	2	3	3
	Tuesday	24	1.48	0.95	2	3	3
	Wednesday	27	1.69	1.34	2	3	3
	Thursday	27	1.70	1.19	3	3	3
	Friday	29	1.80	1.46	3	4	4
	Saturday	27	1.69	1.35	3	4	4
	Sunday	21	1.33	0.83	2	2	2
Hour of Day* **	00:00 - 06:00	14	0.86	0.79	2	2	2
	06:01 - 09:00	14	0.86	0.81	2	2	2
	09:01 - 11:00	11	0.66	0.51	1	1	1
	11:01 - 13:00	11	0.66	0.76	1	2	2
	13:01 - 15:00	12	0.77	0.78	1	2	2
	15:01 - 18:00	31	1.92	1.32	3	4	4
	18:01 - 24:00	34	2.09	1.34	4	4	4

* Crashes extracted for years 1999, 2000, 2001and 2002 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

*** Hour of Day statistics are based upon a portion of the crashes with time information available.

CATEGORY 11

EXPECTED ANNUAL ACCIDENT TABLE - DADE COUNTY

6 Lane x 4 Lane and 6 Lane x 6 Lane Signalized Intersection

Total number of intersections Included - 33

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	349	10.58	5.09	17	18	19
	Head On	12	0.35	0.40	1	1	1
	Angle	159	4.83	2.66	8	9	9
	Left Turn	113	3.42	2.41	6	6	7
	Right Turn	20	0.61	0.52	1	1	2
	Sideswipe	81	2.44	1.67	4	5	5
	Pedestrian/Bicycle	10	0.29	0.44	1	1	1
	Other/Unknown	92	2.80	1.85	4	4	6
Severity	No Injury	321	9.73	4.31	13	14	18
	Possible Injury	177	5.36	2.60	8	9	9
	Non-Incapacitating Injury	80	2.42	1.15	4	4	4
	Incapacitating Injury	29	0.89	0.62	2	2	2
	Fatal Injury	3	0.08	0.13	0	0	0
Light Conditions	Daylight	546	16.55	6.43	23	24	26
	Dusk	21	0.63	0.52	1	1	1
	Dawn	8	0.24	0.26	1	1	1
	Dark (w/street lights)	258	7.80	4.02	11	12	14
	Dark (wo/ street lights)	3	0.08	0.14	0	0	0
Surface Conditions	Dry	691	20.92	8.33	27	32	34
	Wet	126	3.81	1.74	5	5	7
	Others	19	0.58	0.68	1	1	2
Month of Year	January	63	1.90	1.20	3	4	4
	February	78	2.35	1.11	4	4	4
	March	69	2.10	0.99	3	3	4
	April	65	1.95	1.01	3	3	3
	May	72	2.17	1.24	3	4	4
	June	67	2.02	0.94	3	3	3
	July	71	2.15	1.16	3	4	4
	August	73	2.22	1.11	3	4	4
	September	71	2.16	1.22	4	4	4
	October	75	2.26	1.02	3	4	4
	November	65	1.97	1.21	3	3	4
	December	68	2.05	0.95	3	3	3
Day of Week	Monday	111	3.36	1.46	5	5	6
	Tuesday	127	3.85	1.81	5	6	7
	Wednesday	119	3.61	1.60	5	5	6
	Thursday	113	3.43	1.44	5	5	5
	Friday	137	4.14	2.07	6	6	7
	Saturday	128	3.87	1.95	5	5	6
	Sunday	101	3.05	1.66	5	5	6
Hour of Day***	00:00 - 06:00	80	2.42	1.62	4	4	5
	06:01 - 09:00	69	2.09	1.06	3	4	4
	09:01 - 11:00	48	1.44	0.77	2	3	3
	11:01 - 13:00	61	1.83	1.07	3	3	4
	13:01 - 15:00	65	1.95	0.91	3	3	4
	15:01 - 18:00	113	3.42	1.64	5	5	6
	18:01 - 24:00	175	5.30	2.31	8	8	8

* Crashes extracted for years 1999, 2000, 2001and 2002 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

*** Hour of Day statistics are based upon a portion of the crashes with time information available.

CATEGORY 12

EXPECTED ANNUAL ACCIDENT TABLE - DADE COUNTY

T- Intersection, Signalized, AADT/ Lane On Major Road ?7500

Total number of intersections Included - 35

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	163	4.65	5.15	8	10	14
	Head On	4	0.11	0.20	0	0	0
	Angle	59	1.69	2.08	3	4	4
	Left Turn	36	1.02	0.97	2	2	3
	Right Turn	5	0.14	0.17	0	0	0
	Sideswipe	33	0.95	1.17	2	2	3
	Pedestrian/Bicycle	9	0.26	0.29	1	1	1
	Other/Unknown	48	1.36	1.22	2	3	4
Severity	No Injury	123	3.50	2.96	6	7	9
	Possible Injury	74	2.12	1.78	4	5	5
	Non-Incapacitating Injury	37	1.05	0.88	2	3	3
	Incapacitating Injury	17	0.49	0.48	1	1	2
	Fatal Injury	1	0.04	0.09	0	0	0
Light Conditions	Daylight	243	6.95	5.90	11	14	18
	Dusk	9	0.25	0.30	1	1	1
	Dawn	4	0.11	0.17	0	0	1
	Dark (w/street lights)	99	2.83	2.82	5	6	8
	Dark (wo/ street lights)	2	0.05	0.10	0	0	0
Surface Conditions	Dry	284	8.10	6.75	13	18	21
	Wet	66	1.89	2.15	4	4	5
	Others	7	0.20	0.23	1	1	1
Month of Year	January	26	0.74	0.84	1	2	2
	February	23	0.66	0.69	1	2	2
	March	29	0.83	0.70	1	2	2
	April	29	0.81	0.88	2	2	2
	May	36	1.01	1.08	2	2	3
	June	32	0.90	0.93	2	2	3
	July	29	0.81	0.83	2	2	2
	August	34	0.96	0.85	2	2	3
	September	31	0.87	0.74	1	2	2
	October	33	0.95	1.01	2	2	3
	November	28	0.80	0.89	1	2	3
	December	29	0.83	0.80	2	2	2
Day of Week	Monday	49	1.40	1.31	2	3	4
	Tuesday	50	1.42	1.40	2	3	4
	Wednesday	52	1.49	1.61	4	4	4
	Thursday	47	1.34	1.18	3	3	3
	Friday	51	1.45	1.09	3	3	4
	Saturday	60	1.70	1.68	3	4	5
	Sunday	49	1.39	1.45	3	4	4
Hour of Day* **	00:00 - 06:00	29	0.81	1.07	2	2	3
	06:01 - 09:00	26	0.75	0.67	1	2	2
	09:01 - 11:00	19	0.54	0.47	1	1	1
	11:01 - 13:00	21	0.59	0.66	2	2	2
	13:01 - 15:00	34	0.96	0.91	2	2	3
	15:01 - 18:00	52	1.49	1.15	3	3	4
	18:01 - 24:00	72	2.06	1.64	4	4	5

* Crashes extracted for years 1999, 2000, 2001and 2002 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

*** Hour of Day statistics are based upon a portion of the crashes with time information available.

CATEGORY 13

EXPECTED ANNUAL ACCIDENT TABLE - DADE COUNTY

T - Intersection, Signalized, AADT/ Lane On Major Road <7,500

Total number of intersections Included - 12

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	27	2.25	1.71	4	4	5
	Head On	1	0.04	0.10	0	0	0
	Angle	14	1.13	1.45	2	3	4
	Left Turn	11	0.90	1.26	2	3	3
	Right Turn	2	0.17	0.29	0	1	1
	Sideswipe	6	0.48	0.39	1	1	1
	Pedestrian/Bicycle	1	0.10	0.13	0	0	0
	Other/Unknown	9	0.75	0.65	2	2	2
Severity	No Injury	21	1.77	1.46	3	3	4
	Possible Injury	15	1.27	1.29	3	3	3
	Non-Incapacitating Injury	10	0.81	0.79	2	2	2
	Incapacitating Injury	3	0.27	0.33	1	1	1
	Fatal Injury	1	0.04	0.10	0	0	0
Light Conditions	Daylight	48	4.02	3.68	7	9	11
	Dusk	2	0.15	0.17	0	0	0
	Dawn	1	0.06	0.11	0	0	0
	Dark (w/street lights)	19	1.58	1.20	3	3	3
	Dark (wo/ street lights)	1	0.04	0.10	0	0	0
Surface Conditions	Dry	60	5.02	4.10	8	9	11
	Wet	10	0.79	0.74	1	1	2
	Others	0	0.00	0.00	0	0	0
Month of Year	January	7	0.58	0.64	1	1	2
	February	7	0.60	0.63	1	1	2
	March	5	0.40	0.39	1	1	1
	April	5	0.42	0.47	1	1	1
	May	7	0.58	0.53	1	1	1
	June	8	0.63	0.60	1	1	2
	July	6	0.52	0.46	1	1	1
	August	5	0.42	0.55	1	1	1
	September	3	0.25	0.30	1	1	1
	October	5	0.42	0.50	1	1	1
	November	6	0.48	0.41	1	1	1
	December	6	0.52	0.55	1	1	1
Day of Week	Monday	10	0.83	0.93	1	2	2
	Tuesday	11	0.88	0.86	2	2	2
	Wednesday	10	0.81	0.87	2	2	2
	Thursday	12	1.02	0.84	2	2	2
	Friday	11	0.94	0.86	2	2	2
	Saturday	9	0.71	0.50	1	1	1
	Sunday	8	0.63	0.69	1	1	2
Hour of Day* **	00:00 - 06:00	6	0.48	0.41	1	1	1
	06:01 - 09:00	8	0.67	1.02	1	1	2
	09:01 - 11:00	4	0.31	0.39	1	1	1
	11:01 - 13:00	5	0.40	0.29	1	1	1
	13:01 - 15:00	7	0.56	0.61	1	1	2
	15:01 - 18:00	11	0.90	0.83	1	2	2
	18:01 - 24:00	10	0.85	0.91	1	1	2

* Crashes extracted for years 1999, 2000, 2001and 2002 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

*** Hour of Day statistics are based upon a portion of the crashes with time information available.

CATEGORY 14

EXPECTED ANNUAL ACCIDENT TABLE - DADE COUNTY

Major Road One -Way Intersection, Signalized

Total Numbe of Intersections Included - 45

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	96	2.14	2.47	3	4	5
	Head On	9	0.20	0.39	1	1	1
	Angle	145	3.22	3.56	6	9	11
	Left Turn	44	0.97	1.57	1	2	3
	Right Turn	5	0.12	0.21	0	0	1
	Sideswipe	64	1.41	1.11	2	3	3
	Pedestrian/Bicycle	16	0.36	0.46	1	1	1
	Other/Unknown	95	2.10	1.74	3	4	5
Severity	No Injury	334	7.26	24.40	6	9	12
	Possible Injury	150	3.33	11.03	3	4	5
	Non-Incapacitating Injury	67	1.46	4.90	2	2	3
	Incapacitating Injury	29	0.62	2.11	1	1	1
	Fatal Injury	1	0.01	0.05	0	0	0
Light Conditions	Daylight	321	7.13	6.21	10	13	16
	Dusk	12	0.26	0.32	1	1	1
	Dawn	6	0.12	0.22	0	0	1
	Dark (w/street lights)	133	2.96	3.67	5	5	10
	Dark (wo/ street lights)	2	0.05	0.10	0	0	0
Surface Conditions	Dry	402	8.94	8.21	13	17	21
	Wet	59	1.32	1.63	3	3	4
	Others	12	0.27	0.45	1	1	1
Month of Year	January	36	0.79	0.86	1	2	2
	February	34	0.76	0.90	2	2	2
	March	50	1.10	1.01	2	3	3
	April	43	0.95	0.91	2	2	3
	May	37	0.83	0.96	1	2	3
	June	41	0.91	0.78	2	2	3
	July	45	0.99	1.05	2	2	4
	August	38	0.84	1.06	2	2	3
	September	46	1.02	1.35	2	2	3
	October	37	0.83	0.99	2	2	3
	November	36	0.81	0.99	1	2	3
	December	31	0.69	0.67	1	2	2
Day of Week	Monday	72	1.61	1.62	3	3	3
	Tuesday	59	1.31	1.30	2	2	4
	Wednesday	57	1.26	1.36	2	3	4
	Thursday	64	1.43	1.28	2	3	3
	Friday	78	1.72	1.73	3	3	4
	Saturday	71	1.58	1.80	3	4	6
	Sunday	73	1.62	1.80	3	4	5
Hour of Day* **	00:00 - 06:00	57	1.26	1.66	2	3	4
	06:01 - 09:00	29	0.63	0.55	1	1	2
	09:01 - 11:00	25	0.55	0.67	1	1	2
	11:01 - 13:00	29	0.63	0.62	1	2	2
	13:01 - 15:00	34	0.74	0.75	2	2	2
	15:01 - 18:00	51	1.12	1.17	2	2	3
	18:01 - 24:00	68	1.51	2.12	3	3	4

* Crashes extracted for years 1999, 2000, 2001and 2002 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

*** Hour of Day statistics are based upon a portion of the crashes with time information available.

CATEGORY 15

EXPECTED ANNUAL ACCIDENT TABLE - DADE COUNTY

Minor Road One - Way Intersection, Signalized

Total Number of Intesections - 15

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	35	2.30	2.43	4	5	7
	Head On	4	0.23	0.24	1	1	1
	Angle	53	3.53	3.88	7	9	11
	Left Turn	20	1.33	1.85	3	4	5
	Right Turn	2	0.13	0.33	0	0	1
	Sideswipe	16	1.08	1.17	2	2	3
	Pedestrian/Bicycle	3	0.20	0.30	1	1	1
	Other/Unknown	27	1.82	1.73	4	5	5
Severity	No Injury	54	3.58	3.35	7	7	9
	Possible Injury	34	2.27	2.41	4	5	6
	Non-Incapacitating Injury	15	0.97	0.98	2	2	3
	Incapacitating Injury	5	0.35	0.40	1	1	1
	Fatal Injury	1	0.03	0.09	0	0	0
Light Conditions	Daylight	118	7.83	7.48	13	19	24
	Dusk	4	0.27	0.33	1	1	1
	Dawn	2	0.12	0.19	0	0	1
	Dark (w/street lights)	36	2.38	2.66	6	6	7
	Dark (wo/ street lights)	1	0.03	0.13	0	0	0
Surface Conditions	Dry	135	9.02	8.60	16	22	26
	Wet	20	1.35	1.69	2	4	5
	Others	4	0.27	0.27	1	1	1
Month of Year	January	12	0.78	0.88	2	2	3
	February	11	0.75	0.91	1	2	3
	March	13	0.88	0.98	2	2	3
	April	13	0.85	1.13	1	2	3
	May	14	0.92	1.03	2	2	3
	June	14	0.93	0.98	2	2	3
	July	14	0.92	1.02	2	2	3
	August	16	1.08	1.05	2	2	3
	September	12	0.82	0.67	2	2	2
	October	17	1.15	1.32	2	3	3
	November	14	0.93	1.05	2	2	3
	December	9	0.62	0.65	1	1	2
Day of Week	Monday	28	1.88	1.93	4	5	5
	Tuesday	22	1.48	1.52	3	4	4
	Wednesday	22	1.45	1.56	3	4	5
	Thursday	21	1.37	1.28	3	3	4
	Friday	24	1.60	1.51	2	4	5
	Saturday	22	1.48	1.83	2	4	5
	Sunday	21	1.37	1.30	3	3	3
Hour of Day* **	00:00 - 06:00	9	0.60	0.65	1	1	1
	06:01 - 09:00	13	0.87	0.90	2	2	2
	09:01 - 11:00	14	0.93	0.88	2	2	2
	11:01 - 13:00	12	0.78	0.79	1	2	2
	13:01 - 15:00	14	0.92	0.86	2	2	3
	15:01 - 18:00	19	1.25	1.30	2	2	3
	18:01 - 24:00	28	1.85	2.14	4	5	6

* Crashes extracted for years 1999, 2000, 2001and 2002 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

*** Hour of Day statistics are based upon a portion of the crashes with time information available.

CATEGORY 16

EXPECTED ANNUAL ACCIDENT TABLE - DADE COUNTY

One - Way Major and One - Way Minor Road Intersection, Signalized

Total Number of Intersections Included - 4

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	5	1.13	0.85	2	2	2
	Head On	1	0.31	0.13	0	0	0
	Angle	15	3.81	4.68	7	8	9
	Left Turn	4	0.94	1.56	2	2	3
	Right Turn	1	0.13	0.25	0	0	0
	Sideswipe	8	1.88	1.98	3	4	4
	Pedestrian/Bicycle	0	0.06	0.13	0	0	0
	Other/Unknown	7	1.75	2.19	3	4	4
Severity	No Injury	12	3.00	2.52	5	5	6
	Possible Injury	4	1.00	0.89	2	2	2
	Non-Incapacitating Injury	3	0.81	1.14	2	2	2
	Incapacitating Injury	1	0.13	0.25	0	0	0
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	30	7.44	8.74	13	16	18
	Dusk	2	0.56	0.66	1	1	1
	Dawn	1	0.13	0.14	0	0	0
	Dark (w/street lights)	8	1.88	1.96	3	4	4
	Dark (wo/ street lights)	0	0.00	0.00	0	0	0
Surface Conditions	Dry	33	8.25	9.25	14	17	19
	Wet	5	1.31	1.80	2	3	3
	Others	2	0.44	0.43	1	1	1
Month of Year	January	2	0.56	0.63	1	1	1
	February	5	1.13	1.09	2	2	2
	March	4	1.06	1.31	2	2	3
	April	4	1.06	1.31	2	2	3
	May	3	0.69	0.88	1	1	2
	June	4	0.94	0.59	1	2	2
	July	4	1.00	1.21	2	2	2
	August	4	0.88	1.09	2	2	2
	September	3	0.69	0.63	1	1	1
	October	3	0.63	0.60	1	1	1
	November	4	0.94	1.39	2	2	3
	December	2	0.44	0.88	1	1	1
Day of Week	Monday	5	1.19	0.85	2	2	2
	Tuesday	7	1.81	2.96	4	5	5
	Wednesday	6	1.38	1.76	3	3	4
	Thursday	6	1.44	1.42	2	3	3
	Friday	7	1.81	2.80	4	4	5
	Saturday	5	1.31	0.72	2	2	2
	Sunday	4	1.06	1.33	2	2	3
Hour of Day* **	00:00 - 06:00	2	0.44	0.43	1	1	1
	06:01 - 09:00	3	0.81	0.52	1	1	1
	09:01 - 11:00	2	0.50	0.68	1	1	1
	11:01 - 13:00	3	0.75	0.54	1	1	1
	13:01 - 15:00	2	0.50	0.54	1	1	1
	15:01 - 18:00	4	1.00	1.17	2	2	2
	18:01 - 24:00	4	0.94	0.77	2	2	2

* Crashes extracted for years 1999, 2000, 2001and 2002 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

*** Hour of Day statistics are based upon a portion of the crashes with time information available.

CATEGORY 17

EXPECTED ANNUAL ACCIDENT TABLE - DADE COUNTY

Ramp Intersection, Signalized, AADT/ Lane On Major Road >=7,500

Total number of intersections Included - 8

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	13	1.59	1.31	3	3	3
	Head On	0	0.03	0.09	0	0	0
	Angle	14	1.69	2.04	2	4	5
	Left Turn	9	1.09	1.25	1	2	3
	Right Turn	0	0.00	0.00	0	0	0
	Sideswipe	5	0.59	1.29	0	1	3
	Pedestrian/Bicycle	1	0.09	0.13	0	0	0
	Other/Unknown	4	0.50	0.30	1	1	1
Severity	No Injury	21	2.59	2.18	4	5	6
	Possible Injury	10	1.28	1.47	1	2	4
	Non-Incapacitating Injury	6	0.72	1.05	1	2	2
	Incapacitating Injury	2	0.19	0.35	0	0	1
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	31	3.84	3.38	5	7	9
	Dusk	1	0.09	0.13	0	0	0
	Dawn	0	0.03	0.09	0	0	0
	Dark (w/street lights)	13	1.63	2.36	2	4	5
	Dark (wo/ street lights)	0	0.03	0.09	0	0	0
Surface Conditions	Dry	36	4.53	5.02	5	8	12
	Wet	8	0.97	0.84	2	2	2
	Others	1	0.09	0.13	0	0	0
Month of Year	January	3	0.41	0.40	1	1	1
	February	2	0.28	0.25	0	1	1
	March	3	0.38	0.35	1	1	1
	April	3	0.38	0.42	1	1	1
	May	2	0.25	0.19	0	1	1
	June	3	0.38	0.50	1	1	1
	July	4	0.44	0.66	1	1	1
	August	5	0.56	0.48	1	1	1
	September	5	0.66	0.69	1	1	2
	October	4	0.50	0.40	1	1	1
	November	6	0.72	1.17	1	2	3
	December	5	0.66	0.95	1	2	2
Day of Week	Monday	8	0.94	1.06	2	2	3
	Tuesday	7	0.81	0.90	1	1	2
	Wednesday	5	0.56	0.50	1	1	1
	Thursday	4	0.53	0.78	1	2	2
	Friday	8	1.00	1.64	1	2	4
	Saturday	8	1.00	0.79	2	2	2
	Sunday	6	0.75	0.60	1	1	1
Hour of Day* **	00:00 - 06:00	4	0.53	0.83	1	1	2
	06:01 - 09:00	5	0.66	0.55	1	1	1
	09:01 - 11:00	3	0.38	0.35	1	1	1
	11:01 - 13:00	4	0.47	0.47	1	1	1
	13:01 - 15:00	6	0.72	1.35	1	2	3
	15:01 - 18:00	8	1.03	0.87	1	2	2
	18:01 - 24:00	8	1.00	1.34	1	2	3

* Crashes extracted for years 1999, 2000, 2001and 2002 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

*** Hour of Day statistics are based upon a portion of the crashes with time information available.

CATEGORY 18

EXPECTED ANNUAL ACCIDENT TABLE - DADE COUNTY

Ramp Intersection, Signalized, AADT/ Lane On Major Road <7,500

Total number of intersections Included - 2

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	2	0.88	1.24	1	2	2
	Head On	0	0.13	0.18	0	0	0
	Angle	4	2.00	1.77	3	3	3
	Left Turn	3	1.38	1.59	2	2	2
	Right Angle	0	0.00	0.00	0	0	0
	Sideswipe	1	0.63	0.88	1	1	1
	Pedestrian/Bicycle	0	0.00	0.00	0	0	0
	Other/Unknown	2	1.13	0.88	2	2	2
Severity	No Injury	4	1.75	2.12	3	3	3
	Possible Injury	3	1.25	1.41	2	2	2
	Non-Incapacitating Injury	2	1.00	0.35	1	1	1
	Incapacitating Injury	0	0.13	0.18	0	0	0
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	11	5.38	5.48	8	8	9
	Dusk	0	0.00	0.00	0	0	0
	Dawn	0	0.13	0.18	0	0	0
	Dark (w/street lights)	1	0.63	0.88	1	1	1
	Dark (wo/ street lights)	0	0.13	0.18	0	0	0
Surface Conditions	Dry	9	4.63	4.42	7	7	7
	Wet	2	1.13	1.59	2	2	2
	Others	1	0.38	0.53	1	1	1
Month of Year	January	1	0.50	0.71	1	1	1
	February	1	0.25	0.35	0	0	0
	March	1	0.50	0.00	1	1	1
	April	2	0.75	1.06	1	1	1
	May	1	0.25	0.35	0	0	0
	June	1	0.63	0.18	1	1	1
	July	2	1.00	1.41	2	2	2
	August	1	0.63	0.18	1	1	1
	September	2	1.00	1.41	2	2	2
	October	1	0.25	0.35	0	0	0
	November	0	0.13	0.18	0	0	0
	December	1	0.25	0.35	0	0	0
Day of Week	Monday	1	0.50	0.71	1	1	1
	Tuesday	3	1.25	1.77	2	2	2
	Wednesday	2	1.13	0.53	1	1	1
	Thursday	2	1.00	1.41	2	2	2
	Friday	2	0.75	1.06	1	1	1
	Saturday	2	0.88	0.88	1	1	1
	Sunday	1	0.63	0.18	1	1	1
Hour of Day* **	00:00 - 06:00	1	0.50	0.71	1	1	1
	06:01 - 09:00	3	1.50	1.06	2	2	2
	09:01 - 11:00	0	0.13	0.18	0	0	0
	11:01 - 13:00	0	0.13	0.18	0	0	0
	13:01 - 15:00	1	0.38	0.18	0	0	0
	15:01 - 18:00	2	0.88	1.24	1	2	2
	18:01 - 24:00	1	0.63	0.88	1	1	1

* Crashes extracted for years 1999, 2000, 2001and 2002 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

*** Hour of Day statistics are based upon a portion of the crashes with time information available.

CATEGORY 19

EXPECTED ANNUAL ACCIDENT TABLE - DADE COUNTY

T Intersection With at Least One - Way Street, Signalized

Total number of intersections Included - 14

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	23	1.61	1.21	3	3	3
	Head On	0	0.02	0.07	0	0	0
	Angle	15	1.05	0.92	2	2	2
	Left Turn	10	0.71	1.19	1	2	3
	Right Turn	0	0.02	0.07	0	0	0
	Sideswipe	14	0.96	0.84	2	2	2
	Pedestrian/Bicycle	3	0.20	0.26	1	1	1
	Other/Unknown	19	1.32	1.26	2	3	4
Severity	No Injury	26	1.88	1.30	3	3	4
	Possible Injury	10	0.73	0.53	2	2	2
	Non-Incapacitating Injury	5	0.38	0.42	1	1	1
	Incapacitating Injury	2	0.13	0.16	0	0	0
	Fatal Injury	0	0.02	0.07	0	0	0
Light Conditions	Daylight	58	4.16	3.17	7	8	9
	Dusk	1	0.09	0.16	0	0	0
	Dawn	2	0.16	0.21	0	0	0
	Dark (w/street lights)	21	1.46	1.08	2	2	3
	Dark (wo/ street lights)	0	0.02	0.07	0	0	0
Surface Conditions	Dry	73	5.21	3.88	9	9	11
	Wet	8	0.55	0.54	1	1	1
	Others	2	0.13	0.19	0	0	1
Month of Year	January	7	0.50	0.37	1	1	1
	February	7	0.52	0.39	1	1	1
	March	8	0.59	0.65	1	2	2
	April	8	0.55	0.31	1	1	1
	May	5	0.36	0.45	1	1	1
	June	6	0.41	0.43	1	1	1
	July	7	0.48	0.71	1	2	2
	August	9	0.63	0.61	1	1	2
	September	8	0.59	0.54	1	1	2
	October	5	0.36	0.32	1	1	1
	November	5	0.38	0.34	1	1	1
	December	8	0.54	0.37	1	1	1
Day of Week	Monday	12	0.82	0.70	1	2	2
	Tuesday	11	0.80	0.50	1	1	2
	Wednesday	10	0.71	0.69	1	2	2
	Thursday	11	0.80	0.84	2	2	2
	Friday	16	1.13	1.21	2	2	3
	Saturday	10	0.71	0.55	1	2	2
	Sunday	13	0.91	0.62	2	2	2
Hour of Day* **	00:00 - 06:00	8	0.54	0.62	1	1	1
	06:01 - 09:00	5	0.36	0.31	1	1	1
	09:01 - 11:00	3	0.21	0.32	1	1	1
	11:01 - 13:00	4	0.30	0.30	1	1	1
	13:01 - 15:00	5	0.34	0.40	1	1	1
	15:01 - 18:00	11	0.77	0.86	1	2	2
	18:01 - 24:00	9	0.61	0.31	1	1	1

* Crashes extracted for years 1999, 2000, 2001and 2002 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

*** Hour of Day statistics are based upon a portion of the crashes with time information available.

APPENDIX D

19 CATEGORY CRASH PROFILE TABLES FOR HILLSBOROUGH COUNTY

CATEGORY 1

EXPECTED ANNUAL ACCIDENT TABLE - HILLSBOROUGH

2 Lane x 2 Lane Signalized Intersection, AADT/ Lane On Major Road >=5,000

Total number of intersections Included - 26

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	42	1.62	1.39	3	4	4
	Head On	2	0.06	0.16	0	0	0
	Angle	27	1.03	0.85	2	2	3
	Left Turn	28	1.09	1.08	2	2	3
	Right Turn	2	0.09	0.15	0	0	0
	Sideswipe	2	0.09	0.15	0	0	0
	Pedestrian/Bicycle	1	0.05	0.20	0	0	0
	Other/Unknown	5	0.18	0.25	0	1	1
Severity	No Injury	53	2.05	1.35	3	4	5
	Possible Injury	21	0.82	0.83	1	2	3
	Non-Incapacitating Injury	13	0.50	0.65	1	2	2
	Incapacitating Injury	7	0.26	0.32	1	1	1
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	76	2.94	2.34	5	6	7
	Dusk	3	0.12	0.23	0	1	1
	Dawn	2	0.08	0.14	0	0	0
	Dark (w/street lights)	17	0.67	0.71	2	2	2
	Dark (wo/ street lights)	10	0.37	0.56	1	1	1
Surface Conditions	Dry	90	3.45	2.47	6	7	8
	Wet	18	0.71	0.75	2	2	2
	Slippery	1	0.03	0.09	0	0	0
	Others	0	0.01	0.07	0	0	0
Month of Year	January	8	0.32	0.44	1	1	1
	February	7	0.28	0.36	1	1	1
	March	10	0.37	0.51	1	1	1
	April	8	0.31	0.43	1	1	1
	May	10	0.40	0.41	1	1	1
	June	9	0.36	0.33	1	1	1
	July	8	0.29	0.39	1	1	1
	August	14	0.55	0.54	1	1	2
	September	7	0.27	0.27	1	1	1
	October	10	0.38	0.45	1	1	1
	November	9	0.33	0.31	1	1	1
	December	9	0.33	0.41	1	1	1
Day of Week	Monday	15	0.59	0.56	1	1	2
	Tuesday	16	0.63	0.65	1	1	2
	Wednesday	16	0.62	0.52	1	1	2
	Thursday	17	0.65	0.71	1	2	2
	Friday	16	0.60	0.63	1	2	2
	Saturday	13	0.51	0.56	1	1	2
	Sunday	16	0.60	0.56	1	1	2
Hour of Day	00:00 - 06:00	7	0.27	0.31	1	1	1
	06:01 - 09:00	13	0.50	0.49	1	1	1
	09:01 - 11:00	8	0.29	0.27	1	1	1
	11:01 - 13:00	11	0.42	0.54	1	1	1
	13:01 - 15:00	10	0.37	0.54	1	1	1
	15:01 - 18:00	23	0.90	0.86	2	2	3
	18:01 - 24:00	28	1.09	1.10	2	3	3

* Crashes extracted for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 2

EXPECTED ANNUAL ACCIDENT TABLE - HILLSBOROUGH

2 Lane x 2 Lane Signalized Intersection, AADT/ Lane On Major Road < 5,000

Total number of intersections Included - 14

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	19	1.24	1.16	2	3	3
	Head On	1	0.07	0.19	0	0	0
	Angle	19	1.29	0.92	3	3	3
	Left Turn	19	1.24	1.41	3	3	4
	Right Turn	1	0.04	0.12	0	0	0
	Sideswipe	2	0.11	0.21	0	0	0
	Pedestrian/Bicycle	1	0.04	0.12	0	0	0
	Other/Unknown	1	0.04	0.12	0	0	0
Severity	No Injury	31	2.04	1.70	3	4	5
	Possible Injury	12	0.80	0.68	1	2	2
	Non-Incapacitating Injury	10	0.69	0.75	2	2	2
	Incapacitating Injury	4	0.24	0.41	0	1	1
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	42	2.82	2.33	5	5	6
	Dusk	2	0.13	0.21	0	0	0
	Dawn	1	0.04	0.12	0	0	0
	Dark (w/street lights)	11	0.73	0.70	1	1	2
	Dark (wo/ street lights)	5	0.33	0.40	1	1	1
Surface Conditions	Dry	52	3.49	2.83	5	6	8
	Wet	8	0.56	0.54	1	1	1
	Slippery	1	0.04	0.12	0	0	0
	Others	1	0.05	0.12	0	0	0
Month of Year	January	3	0.22	0.24	0	1	1
	February	7	0.44	0.60	1	1	1
	March	4	0.24	0.43	0	0	1
	April	4	0.29	0.31	1	1	1
	May	6	0.40	0.57	1	1	2
	June	6	0.38	0.40	1	1	1
	July	4	0.29	0.35	1	1	1
	August	7	0.49	0.52	1	1	1
	September	6	0.38	0.43	1	1	1
	October	3	0.22	0.37	0	1	1
	November	5	0.33	0.45	1	1	1
	December	6	0.40	0.52	1	1	1
Day of Week	Monday	12	0.78	0.69	1	1	2
	Tuesday	6	0.40	0.40	1	1	1
	Wednesday	9	0.62	0.55	1	1	1
	Thursday	10	0.69	0.64	1	1	2
	Friday	7	0.47	0.47	1	1	1
	Saturday	6	0.42	0.58	1	1	2
	Sunday	11	0.71	0.81	1	2	2
Hour of Day	00:00 - 06:00	2	0.11	0.27	0	0	1
	06:01 - 09:00	6	0.40	0.49	1	1	1
	09:01 - 11:00	4	0.27	0.42	1	1	1
	11:01 - 13:00	6	0.38	0.49	1	1	1
	13:01 - 15:00	8	0.53	0.56	1	1	1
	15:01 - 18:00	15	1.00	0.85	2	2	2
	18:01 - 24:00	20	1.33	1.08	2	2	3

* Crashes extracted for years 1999, 2000 and 2001 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 3

EXPECTED ANNUAL ACCIDENT TABLE - HILLSBOROUGH

4 Lane x 2 Lane Signalized Intersection, AADT/ Lane On Major Road >=7,000 (Total LTLs <= 2)

Total number of intersections Included - 3

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	3	0.89	0.84	1	2	2
	Head On	0	0.11	0.19	0	0	0
	Angle	2	0.67	0.88	1	1	2
	Left Turn	2	0.56	0.51	1	1	1
	Right Turn	0	0.11	0.19	0	0	0
	Sideswipe	0	0.11	0.19	0	0	0
	Pedestrian/Bicycle	0	0.11	0.19	0	0	0
	Other/Unknown	0	0.11	0.19	0	0	0
Severity	No Injury	3	1.00	1.00	2	2	2
	Possible Injury	2	0.78	1.07	2	2	2
	Non-Incapacitating Injury	2	0.67	0.88	1	1	2
	Incapacitating Injury	1	0.22	0.38	0	1	1
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	4	1.44	1.35	2	2	3
	Dusk	1	0.22	0.19	0	0	0
	Dawn	1	0.22	0.38	0	1	1
	Dark (w/street lights)	0	0.11	0.19	0	0	0
	Dark (wo/ street lights)	2	0.67	0.67	1	1	1
Surface Conditions	Dry	6	2.11	2.17	4	4	4
	Wet	2	0.56	0.51	1	1	1
	Slippery	0	0.00	0.00	0	0	0
	Others	0	0.00	0.00	0	0	0
Month of Year	January	0	0.11	0.19	0	0	0
	February	1	0.33	0.33	1	1	1
	March	1	0.22	0.38	0	1	1
	April	1	0.33	0.33	1	1	1
	May	1	0.33	0.33	1	1	1
	June	0	0.11	0.19	0	0	0
	July	0	0.11	0.19	0	0	0
	August	1	0.22	0.38	0	1	1
	September	1	0.33	0.33	1	1	1
	October	1	0.22	0.38	0	1	1
	November	1	0.33	0.58	1	1	1
	December	1	0.44	0.77	1	1	1
Day of Week	Monday	1	0.33	0.33	1	1	1
	Tuesday	3	0.89	0.84	1	2	2
	Wednesday	1	0.22	0.38	0	1	1
	Thursday	2	0.67	0.67	1	1	1
	Friday	0	0.11	0.19	0	0	0
	Saturday	1	0.22	0.38	0	1	1
	Sunday	1	0.22	0.19	0	0	0
Hour of Day	00:00 - 06:00	1	0.22	0.38	0	1	1
	06:01 - 09:00	1	0.33	0.58	1	1	1
	09:01 - 11:00	0	0.00	0.00	0	0	0
	11:01 - 13:00	1	0.22	0.38	0	1	1
	13:01 - 15:00	1	0.22	0.38	0	1	1
	15:01 - 18:00	1	0.44	0.51	1	1	1
	18:01 - 24:00	4	1.22	1.07	2	2	2

* Crashes extracted for years 1999, 2000 and 2001 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 4

EXPECTED ANNUAL ACCIDENT TABLE - HILLSBOROUGH

4 Lane x 2 Lane Signalized Intersection, AADT/ Lane On Major Road >=7,000 (Total LTLs > 2)

Total number of intersections Included - 25

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	78	3.12	2.92	6	7	9
	Head On	2	0.08	0.15	0	0	0
	Angle	41	1.63	1.68	2	2	6
	Left Turn	49	1.97	1.84	4	4	5
	Right Turn	4	0.16	0.29	0	1	1
	Sideswipe	5	0.21	0.32	0	1	1
	Pedestrian/Bicycle	3	0.11	0.16	0	0	0
	Other/Unknown	10	0.40	0.43	1	1	1
Severity	No Injury	85	3.40	2.58	6	8	8
	Possible Injury	35	1.41	1.17	3	3	3
	Non-Incapacitating Injury	26	1.03	1.05	2	3	3
	Incapacitating Injury	17	0.68	0.63	1	2	2
	Fatal Injury	0	0.01	0.07	0	0	0
Light Conditions	Daylight	122	4.87	3.94	9	10	12
	Dusk	4	0.15	0.26	0	0	1
	Dawn	4	0.17	0.24	0	1	1
	Dark (w/street lights)	48	1.91	1.77	4	4	4
	Dark (wo/ street lights)	14	0.55	0.99	2	2	2
Surface Conditions	Dry	166	6.64	5.13	13	14	15
	Wet	23	0.91	0.83	2	2	2
	Slippery	1	0.03	0.09	0	0	0
	Others	2	0.09	0.23	0	1	1
Month of Year	January	16	0.65	0.64	1	1	1
	February	14	0.55	0.59	1	2	2
	March	18	0.71	0.66	1	1	2
	April	17	0.69	0.65	1	1	2
	May	15	0.61	0.74	1	2	2
	June	15	0.60	0.65	1	1	2
	July	16	0.63	0.78	2	2	2
	August	12	0.49	0.52	1	1	1
	September	15	0.59	0.58	1	2	2
	October	19	0.77	0.90	2	2	3
	November	19	0.77	0.69	1	2	2
	December	15	0.61	0.71	1	2	2
Day of Week	Monday	27	1.07	0.99	2	2	2
	Tuesday	31	1.24	1.07	2	3	3
	Wednesday	32	1.29	1.08	2	3	4
	Thursday	25	1.01	0.97	2	2	3
	Friday	28	1.11	1.14	2	2	3
	Saturday	23	0.92	0.99	1	2	3
	Sunday	26	1.04	1.00	2	2	3
Hour of Day	00:00 - 06:00	13	0.52	0.67	1	2	2
	06:01 - 09:00	20	0.79	0.78	2	2	2
	09:01 - 11:00	11	0.44	0.50	1	1	2
	11:01 - 13:00	14	0.55	0.52	1	1	1
	13:01 - 15:00	20	0.81	0.79	2	2	2
	15:01 - 18:00	36	1.45	1.11	3	3	3
	18:01 - 24:00	57	2.27	1.92	4	5	5

* Crashes extracted for years 1999, 2000 and 2001 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 5

EXPECTED ANNUAL ACCIDENT TABLE - HILLSBOROUGH

4 Lane x 2 Lane Signalized Intersection, AADT/ Lane On Major Road < 7,000 (Total LTLs <= 2)

Total number of intersections Included - 3

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	1	0.33	0.33	1	1	1
	Head On	0	0.00	0.00	0	0	0
	Angle	3	1.00	1.45	2	2	2
	Left Turn	5	1.56	1.84	3	3	3
	Right Turn	0	0.00	0.00	0	0	0
	Sideswipe	1	0.22	0.38	0	1	1
	Pedestrian/Bicycle	0	0.00	0.00	0	0	0
	Other/Unknown	1	0.33	0.33	1	1	1
Severity	No Injury	6	1.89	1.68	3	3	3
	Possible Injury	1	0.44	0.77	1	1	1
	Non-Incapacitating Injury	2	0.67	1.15	1	2	2
	Incapacitating Injury	1	0.33	0.58	1	1	1
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	8	2.67	3.21	5	5	6
	Dusk	0	0.00	0.00	0	0	0
	Dawn	0	0.00	0.00	0	0	0
	Dark (w/street lights)	0	0.11	0.19	0	0	0
	Dark (wo/ street lights)	2	0.56	0.69	1	1	1
Surface Conditions	Dry	10	3.33	4.10	6	7	7
	Wet	0	0.00	0.00	0	0	0
	Slippery	0	0.00	0.00	0	0	0
	Others	0	0.00	0.00	0	0	0
Month of Year	January	1	0.22	0.19	0	0	0
	February	2	0.67	1.15	1	2	2
	March	1	0.33	0.58	1	1	1
	April	2	0.56	0.96	1	1	2
	May	1	0.22	0.38	0	1	1
	June	1	0.33	0.58	1	1	1
	July	1	0.44	0.51	1	1	1
	August	0	0.11	0.19	0	0	0
	September	1	0.33	0.33	1	1	1
	October	1	0.22	0.19	0	0	0
	November	1	0.44	0.51	1	1	1
	December	1	0.33	0.33	1	1	1
Day of Week	Monday	2	0.78	1.07	2	2	2
	Tuesday	1	0.44	0.77	1	1	1
	Wednesday	2	0.56	0.69	1	1	1
	Thursday	2	0.56	0.51	1	1	1
	Friday	3	0.89	1.26	2	2	2
	Saturday	0	0.11	0.19	0	0	0
	Sunday	0	0.11	0.19	0	0	0
Hour of Day	00:00 - 06:00	0	0.11	0.19	0	0	0
	06:01 - 09:00	2	0.56	0.96	1	1	2
	09:01 - 11:00	0	0.11	0.19	0	0	0
	11:01 - 13:00	0	0.11	0.19	0	0	0
	13:01 - 15:00	2	0.56	0.96	1	1	2
	15:01 - 18:00	3	1.11	0.84	2	2	2
	18:01 - 24:00	3	0.89	1.26	2	2	2

* Crashes extracted for years 1999, 2000 and 2001 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 6

EXPECTED ANNUAL ACCIDENT TABLE - HILLSBOROUGH

4 Lane x 2 Lane Signalized Intersection, AADT/ Lane On Major Road < 7,000 (Total LTLs > 2)

Total number of intersections Included - 20

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	35	1.86	1.38	3	3	4
	Head On	2	0.11	0.16	0	0	0
	Angle	26	1.35	1.38	3	3	4
	Left Turn	24	1.26	1.68	2	3	4
	Right Angle	3	0.14	0.23	0	0	1
	Sideswipe	2	0.11	0.16	0	0	0
	Pedestrian/Bicycle	1	0.04	0.11	0	0	0
	Other/Unknown	4	0.21	0.34	0	1	1
Severity	No Injury	40	2.12	1.73	4	4	5
	Possible Injury	20	1.04	1.13	1	1	2
	Non-Incapacitating Injury	13	0.68	0.72	2	2	2
	Incapacitating Injury	10	0.51	0.64	1	1	1
	Fatal Injury	0	0.02	0.08	0	0	0
Light Conditions	Daylight	67	3.54	3.09	6	7	7
	Dusk	3	0.18	0.20	0	0	0
	Dawn	3	0.14	0.23	0	0	1
	Dark (w/street lights)	14	0.74	0.74	2	2	2
	Dark (wo/ street lights)	9	0.46	1.03	0	1	3
Surface Conditions	Dry	80	4.23	3.75	8	8	10
	Wet	14	0.72	0.80	1	2	2
	Slippery	2	0.11	0.19	0	0	0
	Others	0	0.02	0.08	0	0	0
Month of Year	January	11	0.58	0.60	1	1	2
	February	7	0.35	0.48	1	1	1
	March	7	0.39	0.49	1	1	1
	April	6	0.32	0.38	1	1	1
	May	8	0.40	0.49	1	1	1
	June	9	0.49	0.50	1	1	1
	July	9	0.47	0.45	1	1	1
	August	9	0.47	0.61	1	1	2
	September	5	0.28	0.43	0	1	1
	October	8	0.40	0.45	1	1	1
	November	12	0.61	0.92	1	2	2
	December	6	0.32	0.48	1	1	1
Day of Week	Monday	13	0.70	0.81	1	2	2
	Tuesday	15	0.77	0.64	1	1	2
	Wednesday	15	0.77	0.79	1	2	2
	Thursday	12	0.65	0.77	1	1	2
	Friday	13	0.70	0.82	2	2	2
	Saturday	12	0.61	0.80	2	2	2
	Sunday	17	0.88	0.85	2	2	3
Hour of Day	00:00 - 06:00	4	0.23	0.30	0	1	1
	06:01 - 09:00	10	0.53	0.66	1	1	2
	09:01 - 11:00	7	0.39	0.39	1	1	1
	11:01 - 13:00	10	0.51	0.67	1	1	2
	13:01 - 15:00	13	0.67	0.68	1	1	2
	15:01 - 18:00	18	0.95	0.71	2	2	2
	18:01 - 24:00	24	1.28	1.39	2	3	4

* Crashes extracted for years 1999, 2000 and 2001 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 7

EXPECTED ANNUAL ACCIDENT TABLE - HILLSBOROUGH

4 Lane x 4 Lane Signalized Intersection, AADT/ Lane On Major Road >=7,500

Total number of intersections Included - 12

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	75	6.25	4.80	11	11	14
	Head On	1	0.06	0.13	0	0	0
	Angle	30	2.53	1.43	4	5	5
	Left Turn	28	2.36	1.97	5	6	6
	Right Turn	3	0.28	0.28	1	1	1
	Sideswipe	7	0.56	0.56	1	1	1
	Pedestrian/Bicycle	3	0.28	0.45	1	1	1
	Other/Unknown	4	0.31	0.39	1	1	1
Severity	No Injury	65	5.44	3.12	9	10	11
	Possible Injury	26	2.17	1.43	3	4	4
	Non-Incapacitating Injury	19	1.61	1.20	3	4	4
	Incapacitating Injury	13	1.11	0.86	2	2	2
	Fatal Injury	1	0.06	0.19	0	0	0
Light Conditions	Daylight	96	8.00	6.25	11	12	18
	Dusk	2	0.19	0.22	0	0	0
	Dawn	3	0.28	0.28	1	1	1
	Dark (w/street lights)	39	3.25	2.29	5	5	7
	Dark (wo/ street lights)	10	0.83	0.66	1	2	2
Surface Conditions	Dry	127	10.61	6.81	17	19	22
	Wet	22	1.86	1.34	3	3	4
	Slippery	1	0.06	0.13	0	0	0
	Others	0	0.03	0.10	0	0	0
Month of Year	January	9	0.72	0.89	1	2	2
	February	13	1.08	0.99	1	1	3
	March	16	1.36	1.42	2	3	4
	April	10	0.81	0.56	1	2	2
	May	11	0.92	0.57	1	2	2
	June	13	1.11	0.95	2	2	2
	July	13	1.11	0.78	2	2	2
	August	16	1.33	1.02	3	3	3
	September	15	1.28	0.51	2	2	2
	October	13	1.08	1.06	2	3	3
	November	9	0.72	0.57	1	1	1
	December	14	1.14	0.86	2	2	2
Day of Week	Monday	28	2.31	1.34	4	4	5
	Tuesday	25	2.06	1.84	4	5	5
	Wednesday	24	1.97	1.20	3	4	4
	Thursday	25	2.06	1.35	3	3	4
	Friday	15	1.28	1.21	2	2	3
	Saturday	15	1.25	1.42	2	2	4
	Sunday	21	1.75	0.99	3	3	3
Hour of Day	00:00 - 06:00	18	1.47	1.42	2	3	4
	06:01 - 09:00	19	1.58	1.47	2	3	4
	09:01 - 11:00	11	0.94	0.99	2	2	3
	11:01 - 13:00	11	0.92	0.75	2	2	2
	13:01 - 15:00	13	1.11	0.73	2	2	2
	15:01 - 18:00	23	1.94	1.32	3	3	4
	18:01 - 24:00	39	3.28	1.64	5	5	6

* Crashes extracted for years 1999, 2000 and 2001 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 8

EXPECTED ANNUAL ACCIDENT TABLE - HILLSBOROUGH

4 Lane x 4 Lane Signalized Intersection, AADT/ Lane On Major Road < 7,500

Total number of intersections Included - 4

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	6	1.50	1.14	2	3	3
	Head On	0	0.00	0.00	0	0	0
	Angle	4	1.00	0.72	2	2	2
	Left Turn	7	1.75	2.62	3	4	5
	Right Turn	0	0.00	0.00	0	0	0
	Sideswipe	1	0.25	0.17	0	0	0
	Pedestrian/Bicycle	0	0.00	0.00	0	0	0
	Other/Unknown	3	0.67	0.61	1	1	1
Severity	No Injury	9	2.25	1.97	4	4	5
	Possible Injury	4	0.92	0.74	1	2	2
	Non-Incapacitating Injury	4	1.08	0.74	2	2	2
	Incapacitating Injury	2	0.42	0.83	1	1	1
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	15	3.75	3.18	6	7	8
	Dusk	0	0.00	0.00	0	0	0
	Dawn	0	0.08	0.17	0	0	0
	Dark (w/street lights)	4	0.92	0.92	2	2	2
	Dark (wo/ street lights)	2	0.42	0.32	1	1	1
Surface Conditions	Dry	18	4.58	3.90	7	8	9
	Wet	2	0.58	0.42	1	1	1
	Slippery	0	0.00	0.00	0	0	0
	Others	0	0.00	0.00	0	0	0
Month of Year	January	2	0.42	0.50	1	1	1
	February	2	0.50	0.19	1	1	1
	March	1	0.17	0.19	0	0	0
	April	3	0.67	0.72	1	1	2
	May	2	0.42	0.32	1	1	1
	June	2	0.58	0.57	1	1	1
	July	2	0.58	0.57	1	1	1
	August	1	0.33	0.27	1	1	1
	September	0	0.08	0.17	0	0	0
	October	3	0.75	1.10	2	2	2
	November	1	0.25	0.17	0	0	0
	December	2	0.42	0.50	1	1	1
Day of Week	Monday	3	0.75	0.63	1	1	2
	Tuesday	4	0.92	1.13	2	2	2
	Wednesday	3	0.75	0.96	2	2	2
	Thursday	3	0.67	0.61	1	1	1
	Friday	4	1.08	0.69	2	2	2
	Saturday	2	0.50	0.58	1	1	1
	Sunday	2	0.50	0.33	1	1	1
Hour of Day	00:00 - 06:00	1	0.33	0.27	1	1	1
	06:01 - 09:00	3	0.83	1.04	2	2	2
	09:01 - 11:00	1	0.33	0.27	1	1	1
	11:01 - 13:00	1	0.33	0.47	1	1	1
	13:01 - 15:00	3	0.67	0.90	1	2	2
	15:01 - 18:00	5	1.17	0.79	2	2	2
	18:01 - 24:00	5	1.25	0.74	2	2	2

CATEGORY 9

EXPECTED ANNUAL ACCIDENT TABLE - HILLSBOROUGH

6 Lane x 2 Lane Signalized Intersection, AADT/Lane On Major Road >=7,500

Total Number Of Intersections - 6

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	31	5.11	3.63	8	9	9
	Head On	0	0.06	0.14	0	0	0
	Angle	10	1.72	1.54	3	4	4
	Left Turn	9	1.50	1.49	3	3	4
	Right Turn	2	0.33	0.21	0	1	1
	Sideswipe	3	0.44	0.66	1	1	1
	Pedestrian/Bicycle	2	0.33	0.30	1	1	1
	Other/Unknown	3	0.44	0.50	1	1	1
Severity	No Injury	23	3.89	2.26	6	6	7
	Possible Injury	14	2.28	1.29	3	4	4
	Non-Incapacitating Injury	8	1.28	1.50	3	3	4
	Incapacitating Injury	6	1.00	0.70	2	2	2
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	40	6.72	3.84	10	11	11
	Dusk	1	0.17	0.28	0	1	1
	Dawn	0	0.00	0.00	0	0	0
	Dark (w/street lights)	11	1.83	1.50	3	4	4
	Dark (wo/ street lights)	7	1.17	1.56	3	3	4
Surface Conditions	Dry	50	8.28	4.73	12	13	14
	Wet	9	1.50	1.47	3	3	3
	Slippery	1	0.17	0.41	0	1	1
	Others	0	0.00	0.00	0	0	0
Month of Year	January	4	0.67	0.67	1	2	2
	February	6	0.94	0.65	2	2	2
	March	6	1.00	1.14	2	2	3
	April	6	1.00	0.92	2	2	2
	May	3	0.50	0.59	1	1	1
	June	6	1.00	0.89	1	2	2
	July	7	1.22	0.86	2	2	2
	August	4	0.61	0.49	1	1	1
	September	5	0.89	0.93	1	2	2
	October	4	0.72	0.88	1	2	2
	November	5	0.78	0.50	1	1	2
	December	4	0.72	0.88	1	2	2
Day of Week	Monday	11	1.83	0.96	3	3	3
	Tuesday	8	1.39	0.93	2	2	3
	Wednesday	9	1.56	1.33	3	3	3
	Thursday	9	1.56	1.54	2	3	4
	Friday	8	1.28	0.71	2	2	2
	Saturday	8	1.33	1.49	3	3	3
	Sunday	7	1.11	0.91	2	2	2
Hour of Day	00:00 - 06:00	5	0.89	0.75	2	2	2
	06:01 - 09:00	6	1.06	0.53	2	2	2
	09:01 - 11:00	6	1.00	0.79	2	2	2
	11:01 - 13:00	7	1.17	0.46	2	2	2
	13:01 - 15:00	6	1.06	0.77	2	2	2
	15:01 - 18:00	8	1.39	0.98	2	2	3
	18:01 - 24:00	14	2.33	2.04	4	5	5

CATEGORY 10

EXPECTED ANNUAL ACCIDENT TABLE - HILLSBOROUGH

6 Lane x 2 Lane Signalized Intersection, AADT/ Lane On Major Road <7,500

Total number of intersections Included - 10

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	40	4.00	3.32	8	8	9
	Head On	1	0.10	0.22	0	0	1
	Angle	15	1.50	1.25	2	2	3
	Left Turn	12	1.17	1.43	2	2	3
	Right Turn	1	0.10	0.22	0	0	1
	Sideswipe	2	0.23	0.35	1	1	1
	Pedestrian/Bicycle	1	0.13	0.23	0	0	1
	Other/Unknown	5	0.47	0.55	1	1	1
Severity	No Injury	29	2.93	2.60	6	6	7
	Possible Injury	15	1.50	1.14	3	3	3
	Non-Incapacitating Injury	10	1.00	0.70	2	2	2
	Incapacitating Injury	7	0.67	0.52	1	1	1
	Fatal Injury	0	0.03	0.11	0	0	0
Light Conditions	Daylight	46	4.63	3.53	8	9	10
	Dusk	2	0.17	0.32	0	0	1
	Dawn	0	0.03	0.11	0	0	0
	Dark (w/street lights)	20	2.00	2.09	4	5	6
	Dark (wo/ street lights)	8	0.80	0.91	2	2	2
Surface Conditions	Dry	64	6.40	5.13	13	14	14
	Wet	12	1.17	1.35	3	3	3
	Slippery	1	0.07	0.21	0	0	0
	Others	0	0.03	0.11	0	0	0
Month of Year	January	8	0.77	0.77	1	1	2
	February	5	0.53	0.57	1	1	2
	March	6	0.57	0.63	1	1	2
	April	5	0.53	0.59	1	1	2
	May	9	0.93	1.03	2	2	3
	June	8	0.80	0.77	2	2	2
	July	5	0.50	0.42	1	1	1
	August	8	0.77	0.61	1	1	2
	September	6	0.60	0.60	1	1	2
	October	6	0.60	0.72	1	1	2
	November	4	0.43	0.45	1	1	1
	December	7	0.67	0.93	2	2	2
Day of Week	Monday	10	0.97	0.53	1	1	2
	Tuesday	12	1.20	1.20	2	2	3
	Wednesday	9	0.93	0.73	2	2	2
	Thursday	15	1.50	1.87	4	4	5
	Friday	11	1.07	0.89	2	2	2
	Saturday	9	0.93	0.89	2	2	2
	Sunday	11	1.10	1.01	2	3	3
Hour of Day	00:00 - 06:00	6	0.63	0.55	1	1	2
	06:01 - 09:00	5	0.47	0.45	1	1	1
	09:01 - 11:00	4	0.40	0.41	1	1	1
	11:01 - 13:00	5	0.53	0.50	1	1	1
	13:01 - 15:00	8	0.77	0.69	2	2	2
	15:01 - 18:00	16	1.57	1.46	3	3	4
	18:01 - 24:00	23	2.30	1.89	4	5	6

* Crashes extracted for years 1999, 2000 and 2001 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 11

EXPECTED ANNUAL ACCIDENT TABLE - HILLSBOROUGH

6 Lane x 4 Lane and 6 Lane x 6 Lane Signalized Intersection

Total number of intersections Included - 21

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	153	7.29	5.19	10	12	13
	Head On	4	0.17	0.27	0	0	1
	Angle	47	2.25	1.35	4	4	4
	Left Turn	48	2.27	2.13	4	5	7
	Right Turn	10	0.48	0.42	1	1	1
	Sideswipe	15	0.71	0.66	1	2	2
	Pedestrian/Bicycle	4	0.21	0.40	0	0	1
	Other/Unknown	14	0.67	0.61	1	1	2
Severity	No Injury	127	6.05	4.01	10	11	12
	Possible Injury	54	2.59	1.82	4	5	5
	Non-Incapacitating Injury	32	1.54	1.17	3	3	3
	Incapacitating Injury	14	0.67	0.66	1	2	2
	Fatal Injury	1	0.05	0.12	0	0	0
Light Conditions	Daylight	193	9.19	5.80	15	15	15
	Dusk	7	0.35	0.47	1	1	1
	Dawn	4	0.19	0.27	1	1	1
	Dark (w/street lights)	70	3.32	2.53	5	6	7
	Dark (wo/ street lights)	18	0.84	1.19	2	2	3
Surface Conditions	Dry	249	11.87	6.86	18	19	19
	Wet	40	1.92	1.83	3	3	4
	Slippery	3	0.16	0.34	0	1	1
	Others	1	0.06	0.23	0	0	0
Month of Year	January	25	1.19	0.90	2	2	3
	February	23	1.10	0.70	2	2	2
	March	21	1.00	0.84	2	2	3
	April	27	1.30	1.09	2	3	3
	May	23	1.11	0.76	2	2	2
	June	25	1.19	1.20	2	2	2
	July	23	1.08	0.88	2	2	3
	August	25	1.17	0.93	2	2	3
	September	26	1.24	0.85	2	2	3
	October	30	1.44	1.36	3	3	4
	November	24	1.16	1.11	2	3	3
	December	22	1.06	0.92	2	2	3
Day of Week	Monday	50	2.37	1.49	4	4	5
	Tuesday	48	2.27	1.68	4	5	5
	Wednesday	43	2.05	1.28	3	3	3
	Thursday	45	2.14	1.57	4	4	4
	Friday	37	1.76	1.54	2	3	4
	Saturday	34	1.62	1.46	3	3	3
	Sunday	39	1.84	1.29	3	4	4
Hour of Day	00:00 - 06:00	19	0.90	0.83	2	2	2
	06:01 - 09:00	25	1.19	0.87	2	2	2
	09:01 - 11:00	22	1.05	0.76	2	2	2
	11:01 - 13:00	20	0.97	0.80	1	2	2
	13:01 - 15:00	31	1.46	1.08	3	3	3
	15:01 - 18:00	53	2.51	1.96	4	5	6
	18:01 - 24:00	71	3.40	2.59	6	6	7

* Crashes extracted for years 1999, 2000 and 2001 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 12

EXPECTED ANNUAL ACCIDENT TABLE - HILLSBOROUGH

T- Intersection, Signalized, AADT/ Lane On Major Road >=7500

Total number of intersections Included - 9

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	26	2.89	2.88	6	7	8
	Head On	0	0.00	0.00	0	0	0
	Angle	5	0.59	0.66	1	1	2
	Left Turn	9	1.04	0.73	2	2	2
	Right Turn	1	0.07	0.15	0	0	0
	Sideswipe	2	0.19	0.56	0	0	1
	Pedestrian/Bicycle	0	0.04	0.11	0	0	0
	Other/Unknown	2	0.26	0.28	1	1	1
Severity	No Injury	23	2.56	2.31	5	6	6
	Possible Injury	8	0.89	0.60	1	1	2
	Non-Incapacitating Injury	6	0.67	0.44	1	1	1
	Incapacitating Injury	2	0.19	0.24	0	0	1
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	31	3.41	2.89	5	6	8
	Dusk	2	0.22	0.24	0	0	1
	Dawn	1	0.07	0.15	0	0	0
	Dark (w/street lights)	7	0.81	1.02	1	1	2
	Dark (wo/ street lights)	4	0.48	0.73	1	1	2
Surface Conditions	Dry	42	4.67	4.25	7	9	12
	Wet	3	0.37	0.39	1	1	1
	Slippery	0	0.00	0.00	0	0	0
	Others	0	0.00	0.00	0	0	0
Month of Year	January	4	0.41	0.32	1	1	1
	February	5	0.52	0.50	1	1	1
	March	4	0.41	0.43	1	1	1
	April	3	0.33	0.44	1	1	1
	May	6	0.63	1.03	1	1	2
	June	5	0.59	0.57	1	1	1
	July	3	0.33	0.44	1	1	1
	August	4	0.48	0.60	1	1	1
	September	3	0.33	0.37	1	1	1
	October	4	0.41	0.40	1	1	1
	November	2	0.26	0.36	1	1	1
	December	3	0.37	0.61	1	1	1
Day of Week	Monday	7	0.81	0.78	2	2	2
	Tuesday	7	0.81	0.60	1	1	2
	Wednesday	5	0.59	0.62	1	1	2
	Thursday	7	0.74	0.78	2	2	2
	Friday	10	1.07	1.15	1	2	3
	Saturday	4	0.48	0.63	1	1	1
	Sunday	5	0.56	0.62	1	1	2
Hour of Day	00:00 - 06:00	3	0.30	0.35	1	1	1
	06:01 - 09:00	4	0.41	0.40	1	1	1
	09:01 - 11:00	2	0.22	0.29	1	1	1
	11:01 - 13:00	4	0.41	0.49	1	1	1
	13:01 - 15:00	5	0.56	0.75	1	2	2
	15:01 - 18:00	13	1.44	0.93	2	2	3
	18:01 - 24:00	11	1.26	1.00	2	3	3

* Crashes extracted for years 1999, 2000 and 2001 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 13

EXPECTED ANNUAL ACCIDENT TABLE - HILLSBOROUGH

T - Intersection, Signalized, AADT/ Lane On Major Road <7,500

Total number of intersections Included - 23

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	20	0.88	0.93	1	1	2
	Head On	1	0.04	0.11	0	0	0
	Angle	9	0.38	0.59	1	1	2
	Left Turn	18	0.80	0.97	2	2	2
	Right Turn	2	0.07	0.22	0	0	0
	Sideswipe	1	0.04	0.15	0	0	0
	Pedestrian/Bicycle	2	0.09	0.35	0	0	0
	Other/Unknown	4	0.17	0.22	0	0	1
Severity	No Injury	24	1.04	0.97	2	2	2
	Possible Injury	12	0.51	0.70	1	1	2
	Non-Incapacitating Injury	9	0.39	0.45	1	1	1
	Incapacitating Injury	6	0.25	0.37	1	1	1
	Fatal Injury	0	0.01	0.07	0	0	0
Light Conditions	Daylight	37	1.59	1.67	2	3	6
	Dusk	2	0.07	0.14	0	0	0
	Dawn	0	0.01	0.07	0	0	0
	Dark (w/street lights)	11	0.46	0.66	1	1	2
	Dark (wo/ street lights)	7	0.32	0.41	1	1	1
Surface Conditions	Dry	48	2.07	1.99	4	4	5
	Wet	8	0.36	0.40	1	1	1
	Slippery	0	0.01	0.07	0	0	0
	Others	0	0.00	0.00	0	0	0
Month of Year	January	6	0.28	0.34	0	1	1
	February	5	0.22	0.28	1	1	1
	March	5	0.23	0.38	1	1	1
	April	5	0.22	0.28	1	1	1
	May	4	0.19	0.30	1	1	1
	June	4	0.19	0.24	0	1	1
	July	3	0.14	0.20	0	0	0
	August	4	0.19	0.35	0	1	1
	September	4	0.17	0.32	0	0	1
	October	6	0.25	0.42	1	1	1
	November	6	0.26	0.39	1	1	1
	December	3	0.14	0.20	0	0	0
Day of Week	Monday	8	0.36	0.46	1	1	1
	Tuesday	11	0.46	0.58	1	1	2
	Wednesday	10	0.45	0.61	1	1	1
	Thursday	8	0.35	0.45	1	1	1
	Friday	6	0.25	0.35	1	1	1
	Saturday	4	0.19	0.26	1	1	1
	Sunday	10	0.42	0.44	1	1	1
Hour of Day	00:00 - 06:00	2	0.10	0.19	0	0	0
	06:01 - 09:00	4	0.16	0.26	0	0	1
	09:01 - 11:00	5	0.20	0.22	0	0	1
	11:01 - 13:00	4	0.19	0.32	0	0	1
	13:01 - 15:00	5	0.23	0.35	0	1	1
	15:01 - 18:00	16	0.71	0.77	1	1	2
	18:01 - 24:00	19	0.81	0.87	2	2	2

* Crashes extracted for years 1999, 2000 and 2001 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 14

EXPECTED ANNUAL ACCIDENT TABLE - HILLSBOROUGH

Major Road One -Way Intersection, Signalized

Total Numbe of Intersections Included - 7

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	4	0.57	0.69	1	1	2
	Head On	1	0.10	0.16	0	0	0
	Angle	3	0.38	0.40	1	1	1
	Left Turn	4	0.62	1.11	1	2	2
	Right Turn	0	0.05	0.13	0	0	0
	Sideswipe	1	0.19	0.26	0	0	1
	Pedestrian/Bicycle	3	0.38	0.36	1	1	1
	Other/Unknown	1	0.14	0.26	0	0	1
Severity	No Injury	7	1.00	1.22	2	2	3
	Possible Injury	3	0.48	0.57	1	1	1
	Non-Incapacitating Injury	4	0.52	0.69	1	1	2
	Incapacitating Injury	1	0.14	0.18	0	0	0
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	11	1.57	1.97	3	4	5
	Dusk	1	0.10	0.16	0	0	0
	Dawn	0	0.05	0.13	0	0	0
	Dark (w/street lights)	4	0.52	0.54	1	1	1
	Dark (wo/ street lights)	0	0.05	0.13	0	0	0
Surface Conditions	Dry	14	2.05	2.06	4	4	5
	Wet	2	0.24	0.50	0	1	1
	Slippery	0	0.00	0.00	0	0	0
	Others	0	0.00	0.00	0	0	0
Month of Year	January	2	0.33	0.47	0	1	1
	February	2	0.29	0.36	1	1	1
	March	0	0.05	0.13	0	0	0
	April	1	0.14	0.18	0	0	0
	May	1	0.10	0.16	0	0	0
	June	2	0.29	0.40	1	1	1
	July	1	0.14	0.18	0	0	0
	August	2	0.24	0.32	1	1	1
	September	1	0.14	0.18	0	0	0
	October	2	0.24	0.42	1	1	1
	November	2	0.24	0.16	0	0	0
	December	1	0.10	0.16	0	0	0
Day of Week	Monday	2	0.29	0.30	1	1	1
	Tuesday	2	0.24	0.32	1	1	1
	Wednesday	3	0.48	0.47	1	1	1
	Thursday	1	0.19	0.33	1	1	1
	Friday	3	0.43	0.66	1	1	1
	Saturday	2	0.24	0.42	1	1	1
	Sunday	3	0.43	0.74	1	1	2
Hour of Day	00:00 - 06:00	1	0.10	0.16	0	0	0
	06:01 - 09:00	2	0.33	0.43	1	1	1
	09:01 - 11:00	1	0.19	0.33	1	1	1
	11:01 - 13:00	3	0.38	0.52	1	1	1
	13:01 - 15:00	1	0.19	0.38	0	1	1
	15:01 - 18:00	4	0.52	0.94	1	2	2
	18:01 - 24:00	4	0.57	0.57	1	1	1

CATEGORY 17

EXPECTED ANNUAL ACCIDENT TABLE - HILLSBOROUGH

Ramp Intersection, Signalized, AADT/ Lane On Major Road >=7,500

Total number of intersections Included - 3

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	14	4.56	4.35	8	8	8
	Head On	0	0.00	0.00	0	0	0
	Angle	4	1.22	1.58	2	3	3
	Left Turn	3	0.89	0.77	1	1	1
	Right Turn	0	0.11	0.19	0	0	0
	Sideswipe	1	0.22	0.19	0	0	0
	Pedestrian/Bicycle	0	0.00	0.00	0	0	0
	Other/Unknown	2	0.56	0.96	1	1	2
Severity	No Injury	11	3.67	3.21	6	6	6
	Possible Injury	4	1.33	1.15	2	2	2
	Non-Incapacitating Injury	1	0.44	0.38	1	1	1
	Incapacitating Injury	2	0.78	0.84	1	1	2
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	13	4.33	4.04	7	7	8
	Dusk	0	0.00	0.00	0	0	0
	Dawn	0	0.11	0.19	0	0	0
	Dark (w/street lights)	9	3.00	2.73	5	5	5
	Dark (wo/ street lights)	0	0.11	0.19	0	0	0
Surface Conditions	Dry	17	5.78	5.83	10	10	11
	Wet	5	1.78	1.68	3	3	3
	Slippery	0	0.00	0.00	0	0	0
	Others	0	0.00	0.00	0	0	0
Month of Year	January	2	0.78	0.69	1	1	1
	February	1	0.44	0.51	1	1	1
	March	1	0.44	0.51	1	1	1
	April	2	0.67	0.58	1	1	1
	May	1	0.33	0.33	1	1	1
	June	1	0.22	0.19	0	0	0
	July	3	0.89	0.77	1	1	1
	August	2	0.78	0.84	1	1	2
	September	3	1.00	1.45	2	2	2
	October	1	0.44	0.51	1	1	1
	November	2	0.56	0.51	1	1	1
	December	3	1.00	1.00	2	2	2
Day of Week	Monday	3	1.00	1.20	2	2	2
	Tuesday	3	0.89	0.84	1	2	2
	Wednesday	3	0.89	0.84	1	2	2
	Thursday	5	1.56	1.39	2	3	3
	Friday	3	1.11	0.96	2	2	2
	Saturday	3	1.00	0.88	2	2	2
	Sunday	3	1.11	1.17	2	2	2
Hour of Day	00:00 - 06:00	2	0.56	0.51	1	1	1
	06:01 - 09:00	3	1.00	1.00	2	2	2
	09:01 - 11:00	2	0.56	0.69	1	1	1
	11:01 - 13:00	3	0.89	0.84	1	2	2
	13:01 - 15:00	2	0.56	0.51	1	1	1
	15:01 - 18:00	3	1.00	1.00	2	2	2
	18:01 - 24:00	7	2.33	2.03	4	4	4

* Crashes extracted for years 1999, 2000 and 2001 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 18

EXPECTED ANNUAL ACCIDENT TABLE - HILLSBOROUGH

Ramp Intersection, Signalized, AADT/ Lane On Major Road <7,500

Total number of intersections Included - 5

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	4	0.73	0.98	2	2	2
	Head On	0	0.00	0.00	0	0	0
	Angle	2	0.47	0.56	1	1	1
	Left Turn	4	0.87	1.41	2	2	3
	Right Turn	0	0.00	0.00	0	0	0
	Sideswipe	0	0.07	0.15	0	0	0
	Pedestrian/Bicycle	0	0.00	0.00	0	0	0
	Other/Unknown	1	0.13	0.18	0	0	0
Severity	No Injury	6	1.13	1.50	2	3	3
	Possible Injury	2	0.33	0.47	1	1	1
	Non-Incapacitating Injury	2	0.40	0.72	1	1	1
	Incapacitating Injury	1	0.20	0.30	0	1	1
	Fatal Injury	0	0.00	0.00	0	0	0
Light Conditions	Daylight	6	1.27	1.64	2	3	3
	Dusk	1	0.13	0.30	0	0	1
	Dawn	0	0.00	0.00	0	0	0
	Dark (w/street lights)	4	0.73	0.95	1	2	2
	Dark (wo/ street lights)	1	0.13	0.18	0	0	0
Surface Conditions	Dry	11	2.13	2.73	4	5	6
	Wet	1	0.13	0.30	0	0	1
	Slippery	0	0.00	0.00	0	0	0
	Others	0	0.00	0.00	0	0	0
Month of Year	January	0	0.07	0.15	0	0	0
	February	1	0.20	0.30	0	1	1
	March	0	0.07	0.15	0	0	0
	April	2	0.33	0.58	1	1	1
	May	1	0.20	0.30	0	1	1
	June	1	0.13	0.30	0	0	1
	July	0	0.07	0.15	0	0	0
	August	1	0.27	0.43	1	1	1
	September	1	0.27	0.28	0	1	1
	October	3	0.53	1.02	1	2	2
	November	1	0.13	0.18	0	0	0
	December	3	0.67	0.78	1	2	2
Day of Week	Monday	2	0.33	0.47	1	1	1
	Tuesday	2	0.33	0.47	1	1	1
	Wednesday	3	0.60	0.89	1	2	2
	Thursday	2	0.47	0.56	1	1	1
	Friday	0	0.07	0.15	0	0	0
	Saturday	1	0.13	0.18	0	0	0
	Sunday	2	0.33	0.58	1	1	1
Hour of Day	00:00 - 06:00	1	0.20	0.18	0	0	0
	06:01 - 09:00	1	0.20	0.45	0	1	1
	09:01 - 11:00	1	0.13	0.18	0	0	0
	11:01 - 13:00	2	0.33	0.33	1	1	1
	13:01 - 15:00	0	0.07	0.15	0	0	0
	15:01 - 18:00	2	0.47	0.87	1	1	2
	18:01 - 24:00	4	0.87	1.10	2	2	2

* Crashes extracted for years 1999, 2000 and 2001 for long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

APPENDIX E

19 CATEGORY CRASH PROFILE TABLES FOR ORANGE COUNTY

CATEGORY 1

EXPECTED ANNUAL ACCIDENT VALUE TABLE - ORANGE COUNTY

2 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road >= 5,000

Total number Intersections Included - 28

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	25	0.89	1.23	1.98	2.00	10.23
	Head On	3	0.11	0.25	0.48	0.50	1.33
	Angle	16	0.55	0.50	1.00	1.50	5.56
	Left Turn	16	0.55	0.70	1.00	2.00	5.91
	Right Turn	4	0.13	0.22	0.50	0.50	1.31
	Sideswipe	2	0.05	0.21	0.00	0.00	0.91
	Pedestrian/Bicycle	2	0.05	0.16	0.00	0.50	0.66
	Fixed Object	4	0.13	0.29	0.48	0.65	1.49
	Other	2	0.05	0.16	0.00	0.15	0.66
Severity	PDO Crashes	19	0.68	0.71	1.50	1.65	7.05
	Possible Injury	26	0.91	0.65	1.98	2.00	8.99
	Non-Incapacitating Injury	21	0.73	0.84	1.48	2.50	7.71
	Incapacitating Injury	4	0.13	0.22	0.50	0.50	1.31
	Fatal Crashes	1	0.02	0.09	0.00	0.00	0.41
Light Conditions	Daylight	47	1.68	1.39	3.48	3.65	17.03
	Dusk	1	0.04	0.13	0.00	0.15	0.50
	Dawn	2	0.05	0.21	0.00	0.15	0.91
	Dark (w/street lights)	9	0.32	0.39	0.98	1.00	3.28
	Dark (wo/street lights)	11	0.38	0.59	1.00	1.15	4.11
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Weather	Dry	55	1.95	1.41	3.48	4.50	19.46
	Cloudy	10	0.36	0.69	0.98	1.45	4.13
	Rain	5	0.16	0.31	0.50	0.65	1.81
	Fog	0	0.00	0.00	0.00	0.00	0.00
	Others	0	0.00	0.00	0.00	0.00	0.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Surface Condition	Dry	62	2.21	1.66	4.00	4.65	22.43
	Wet	7	0.25	0.37	0.50	1.00	2.63
	Others	0	0.00	0.00	0.00	0.00	0.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	7	0.25	0.52	0.50	0.65	3.15
	February	5	0.18	0.31	0.50	0.65	1.98
	March	9	0.30	0.37	0.50	0.65	3.29
	April	10	0.34	0.47	0.50	1.00	3.79
	May	6	0.20	0.28	0.50	0.50	2.14
	June	4	0.13	0.22	0.50	0.50	1.31
	July	5	0.18	0.46	0.48	1.00	2.33
	August	8	0.27	0.35	0.50	1.00	2.79
	September	7	0.23	0.29	0.50	0.50	2.46
	October	6	0.20	0.25	0.50	0.50	1.96
	November	5	0.18	0.43	0.50	0.65	2.33
	December	5	0.18	0.28	0.50	0.50	1.80
Day of week	Monday	10	0.36	0.69	0.98	1.00	1.98
	Tuesday	5	0.16	0.31	0.50	0.50	0.82
	Wednesday	0	0.00	0.00	0.00	0.00	0.00
	Thursday	0	0.00	0.00	0.00	0.00	0.00
	Friday	0	0.00	0.00	0.00	0.00	0.00
	Saturday	5	0.16	0.59	0.00	0.00	1.30
	Sunday	55	1.95	1.41	3.48	3.80	4.50
Hour of day	00:00 - 06:00	4	0.13	0.26	0.50	0.50	1.49
	06:01 - 09:00	10	0.34	0.49	0.98	1.00	3.79
	09:01 - 11:00	3	0.09	0.24	0.00	0.50	1.16
	11:01 - 13:00	7	0.25	0.42	0.50	1.00	2.80
	13:01 - 15:00	9	0.30	0.34	0.50	1.00	3.11
	15:01 - 18:00	19	0.66	0.53	1.00	1.50	6.54
	18:01 - 24:00	25	0.89	1.00	1.50	3.00	9.52

* Crashes averaged for years 1999 and 2000 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 2

EXPECTED ANNUAL ACCIDENT VALUE TABLE - ORANGE COUNTY

2 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road < 5,000

Total number Intersections Included - 8

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	2	0.25	0.38	0.50	0.65	0.83
	Head On	0	0.00	0.00	0.00	0.00	0.00
	Angle	5	0.63	0.79	1.48	1.65	1.83
	Left Turn	2	0.19	0.26	0.50	0.50	0.50
	Right Turn	0	0.00	0.00	0.00	0.00	0.00
	Sideswipe	0	0.00	0.00	0.00	0.00	0.00
	Pedestrian/Bicycle	0	0.00	0.00	0.00	0.00	0.00
	Fixed Object	1	0.06	0.18	0.00	0.15	0.33
	Other	1	0.13	0.35	0.00	0.30	0.65
Severity	PDO Crashes	4	0.44	0.56	0.98	1.15	1.33
	Possible Injury	3	0.31	0.37	0.50	0.65	0.83
	Non-Incapacitating Injury	4	0.50	0.46	1.00	1.00	1.00
	Incapacitating Injury	1	0.06	0.18	0.00	0.15	0.33
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	6	0.75	0.80	1.00	1.45	1.98
	Dusk	1	0.06	0.18	0.00	0.15	0.33
	Dawn	1	0.13	0.23	0.48	0.50	0.50
	Dark (w/street lights)	1	0.06	0.18	0.00	0.15	0.33
	Dark (wo/street lights)	3	0.31	0.46	0.98	1.00	1.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Weather	Dry	8	0.94	1.08	1.95	2.30	2.65
	Cloudy	3	0.31	0.37	0.50	0.65	0.83
	Rain	1	0.06	0.18	0.00	0.15	0.33
	Fog	0	0.00	0.00	0.00	0.00	0.00
	Others	0	0.00	0.00	0.00	0.00	0.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Surface Condition	Dry	9	1.06	1.05	1.98	2.30	2.65
	Wet	2	0.19	0.37	0.48	0.65	0.83
	Others	1	0.06	0.18	0.00	0.15	0.33
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	1	0.13	0.23	0.48	0.50	0.50
	February	1	0.06	0.18	0.00	0.15	0.33
	March	0	0.00	0.00	0.00	0.00	0.00
	April	1	0.06	0.18	0.00	0.15	0.33
	May	3	0.31	0.46	0.98	1.00	1.00
	June	1	0.06	0.18	0.00	0.15	0.33
	July	1	0.06	0.18	0.00	0.15	0.33
	August	3	0.31	0.59	0.95	1.15	1.33
	September	2	0.19	0.26	0.50	0.50	0.50
	October	1	0.13	0.23	0.48	0.50	0.50
	November	0	0.00	0.00	0.00	0.00	0.00
	December	0	0.00	0.00	0.00	0.00	0.00
Day of week	Monday	3	0.31	0.37	0.50	0.65	0.83
	Tuesday	1	0.06	0.18	0.00	0.15	0.33
	Wednesday	0	0.00	0.00	0.00	0.00	0.00
	Thursday	0	0.00	0.00	0.00	0.00	0.00
	Friday	0	0.00	0.00	0.00	0.00	0.00
	Saturday	0	0.00	0.00	0.00	0.00	0.00
	Sunday	8	0.94	1.08	1.95	2.30	2.65
Hour of day	00:00 - 06:00	2	0.19	0.26	0.50	0.50	0.50
	06:01 - 09:00	3	0.31	0.26	0.50	0.50	0.50
	09:01 - 11:00	2	0.19	0.37	0.48	0.65	0.83
	11:01 - 13:00	0	0.00	0.00	0.00	0.00	0.00
	13:01 - 15:00	1	0.13	0.23	0.48	0.50	0.50
	15:01 - 18:00	2	0.19	0.26	0.50	0.50	0.50
	18:01 - 24:00	4	0.44	0.32	0.50	0.65	0.83

* Crashes averaged for years 1999 and 2000 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 3

EXPECTED ANNUAL ACCIDENT VALUE TABLE - ORANGE COUNTY

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road >= 7,000 (LT lanes <=2)

Total number Intersections Included - 27

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	55	2.02	2.45	5.05	5.90	7.55
	Head On	0	0.00	0.00	0.00	0.00	0.00
	Angle	36	1.31	1.46	2.50	2.70	3.70
	Left Turn	25	0.93	1.21	2.10	3.00	3.00
	Right Turn	4	0.15	0.33	0.50	0.50	0.50
	Sideswipe	5	0.19	0.40	0.50	0.70	1.00
	Pedestrian/Bicycle	3	0.09	0.20	0.50	0.50	0.50
	Fixed Object	2	0.07	0.23	0.00	0.20	0.50
	Other	3	0.09	0.20	0.50	0.50	0.50
Severity	PDO Crashes	25	0.91	0.93	2.00	2.20	2.85
	Possible Injury	46	1.70	1.92	3.10	4.00	6.10
	Non-Incapacitating Injury	41	1.50	1.43	3.00	3.40	4.00
	Incapacitating Injury	5	0.19	0.34	0.50	0.70	1.00
	Fatal Crashes	1	0.04	0.13	0.00	0.00	0.35
Light Conditions	Daylight	87	3.22	3.18	5.50	6.90	10.75
	Dusk	4	0.15	0.23	0.50	0.50	0.50
	Dawn	1	0.02	0.10	0.00	0.00	0.00
	Dark (w/street lights)	21	0.76	0.92	1.50	1.70	2.35
	Dark (wo/street lights)	20	0.74	1.06	2.00	2.20	2.50
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Weather	Dry	85	3.13	2.69	5.20	7.20	7.50
	Cloudy	24	0.87	1.09	1.60	2.70	3.00
	Rain	9	0.31	0.56	0.55	1.20	1.50
	Fog	1	0.02	0.10	0.00	0.00	0.00
	Others	0	0.00	0.00	0.00	0.00	0.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Surface Condition	Dry	100	3.69	3.41	6.15	7.90	9.55
	Wet	17	0.61	0.74	1.50	1.50	1.85
	Others	1	0.04	0.13	0.00	0.00	0.35
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	11	0.39	0.54	1.00	1.00	1.35
	February	9	0.33	0.50	1.00	1.00	1.35
	March	15	0.56	0.75	1.50	1.70	2.00
	April	13	0.48	0.58	1.00	1.00	1.70
	May	9	0.31	0.57	0.55	1.00	1.70
	June	10	0.35	0.52	1.00	1.20	1.50
	July	11	0.41	0.61	1.00	1.20	1.85
	August	10	0.35	0.41	1.00	1.00	1.00
	September	11	0.39	0.58	1.00	1.00	1.70
	October	12	0.44	0.47	1.00	1.00	1.35
	November	14	0.52	0.69	1.05	1.70	2.00
	December	10	0.35	0.43	1.00	1.00	1.00
Day of week	Monday	24	0.00	1.09	1.60	2.70	3.00
	Tuesday	9	0.00	0.56	0.55	1.20	1.50
	Wednesday	0.5	0.00	0.10	0.00	0.00	0.00
	Thursday	0	0.00	0.00	0.00	0.00	0.00
	Friday	0	0.00	0.00	0.00	0.00	0.00
	Saturday	15	0.00	1.76	0.00	1.40	3.50
	Sunday	85	0.00	2.69	5.20	7.20	7.50
Hour of day	00:00 - 06:00	12	0.43	0.58	1.00	1.20	1.50
	06:01 - 09:00	12	0.43	0.49	1.00	1.00	1.35
	09:01 - 11:00	6	0.22	0.42	0.50	0.50	0.50
	11:01 - 13:00	12	0.44	0.56	1.00	1.00	1.35
	13:01 - 15:00	17	0.61	0.64	1.50	1.50	1.85
	15:01 - 18:00	24	0.89	1.38	1.50	1.90	2.85
	18:01 - 24:00	53	1.94	2.72	4.00	4.20	8.35

* Crashes averaged for years 1999 and 2000 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 4

EXPECTED ANNUAL ACCIDENT VALUE TABLE - ORANGE COUNTY

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road >= 7,000 (LT lanes > 2)

Total number Intersections Included - 57

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	176	3.09	3.29	5.80	7.60	9.90
	Head On	6	0.11	0.25	0.50	0.50	0.50
	Angle	83	1.45	1.63	3.00	3.50	4.20
	Left Turn	57	1.00	1.27	2.00	2.50	3.30
	Right Turn	5	0.09	0.21	0.30	0.50	0.50
	Sideswipe	17	0.29	0.45	0.50	1.00	1.50
	Pedestrian/Bicycle	8	0.13	0.32	0.50	0.50	1.00
	Fixed Object	6	0.11	0.26	0.30	0.50	0.60
	Other	4	0.06	0.17	0.00	0.50	0.50
Severity	PDO Crashes	69	1.20	1.41	2.00	2.50	4.00
	Possible Injury	98	1.71	2.09	3.30	4.70	5.80
	Non-Incapacitating Injury	87	1.53	1.81	3.50	4.20	4.60
	Incapacitating Injury	15	0.26	0.41	0.50	0.50	0.70
	Fatal Crashes	2	0.03	0.11	0.00	0.00	0.10
Light Conditions	Daylight	242	4.24	4.10	8.10	9.50	12.20
	Dusk	5	0.09	0.25	0.00	0.50	0.60
	Dawn	2	0.04	0.13	0.00	0.00	0.50
	Dark (w/street lights)	64	1.12	1.37	2.00	3.70	4.10
	Dark (wo/street lights)	52	0.90	1.24	2.30	2.70	3.10
	Unknown	3	0.05	0.15	0.00	0.20	0.50
Weather	Dry	183	3.21	3.30	6.80	8.20	9.50
	Cloudy	62	1.09	1.60	1.50	2.20	4.10
	Rain	24	0.41	0.60	1.00	1.50	1.50
	Fog	1	0.02	0.09	0.00	0.00	0.00
	Others	0	0.00	0.00	0.00	0.00	0.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Surface Condition	Dry	235	4.12	4.52	7.80	9.50	11.40
	Wet	33	0.58	0.80	1.50	1.70	2.10
	Others	0	0.00	0.00	0.00	0.00	0.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	22	0.38	0.54	1.00	1.00	1.50
	February	33	0.58	0.74	1.50	1.50	2.00
	March	31	0.54	0.58	1.00	1.50	1.50
	April	31	0.54	0.66	1.00	1.50	2.00
	May	30	0.53	0.59	1.00	1.20	1.50
	June	26	0.46	0.60	1.00	1.00	1.50
	July	35	0.61	0.81	1.50	1.50	1.50
	August	38	0.67	0.86	1.00	1.50	2.50
	September	28	0.49	0.70	1.50	1.50	2.00
	October	31	0.54	0.82	1.00	1.50	2.00
	November	32	0.55	0.73	1.50	1.50	1.60
	December	32	0.56	0.87	1.00	1.20	2.00
Day of week	Monday	62	1.09	1.60	1.50	2.20	4.10
	Tuesday	24	0.41	0.60	1.00	1.50	1.50
	Wednesday	1	0.02	0.09	0.00	0.00	0.00
	Thursday	0	0.00	0.00	0.00	0.00	0.00
	Friday	0	0.00	0.00	0.00	0.00	0.00
	Saturday	98	1.71	2.91	4.10	5.00	8.40
	Sunday	183	3.21	3.30	6.80	8.20	9.50
Hour of day	00:00 - 06:00	28	0.48	0.73	1.00	1.50	1.60
	06:01 - 09:00	26	0.46	0.62	1.00	1.50	1.50
	09:01 - 11:00	18	0.31	0.52	0.80	1.00	1.50
	11:01 - 13:00	29	0.50	0.71	1.00	1.50	2.00
	13:01 - 15:00	35	0.61	0.77	1.30	1.50	2.10
	15:01 - 18:00	57	1.00	1.22	2.00	2.70	4.00
	18:01 - 24:00	177	3.10	3.51	5.60	7.40	10.30

* Crashes averaged for years 1999 and 2000 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 5

EXPECTED ANNUAL ACCIDENT VALUE TABLE - ORANGE COUNTY

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road < 7,000 (LT lanes <=2)

Total number Intersections Included - 11

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	6	0.55	0.47	1.00	1.00	1.25
	Head On	1	0.02	0.20	0.25	0.50	0.50
	Angle	14	0.24	1.60	2.00	2.50	4.00
	Left Turn	7	0.11	0.74	1.50	1.50	1.75
	Right Turn	1	0.02	0.20	0.25	0.50	0.50
	Sideswipe	2	0.04	0.34	0.50	0.50	0.75
	Pedestrian/Bicycle	1	0.02	0.20	0.25	0.50	0.50
	Fixed Object	2	0.14	0.45	0.00	0.00	0.75
	Other	1	0.01	0.15	0.00	0.00	0.25
Severity	PDO Crashes	9	0.77	0.72	1.00	1.00	1.75
	Possible Injury	10	0.18	1.00	2.25	2.50	2.50
	Non-Incapacitating Injury	12	0.21	1.30	2.25	3.00	3.50
	Incapacitating Injury	3	0.04	0.26	0.50	0.50	0.50
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	20	1.82	1.81	4.00	5.00	5.00
	Dusk	2	0.04	0.25	0.50	0.50	0.50
	Dawn	1	0.02	0.20	0.25	0.50	0.50
	Dark (w/street lights)	8	0.13	0.87	1.00	1.50	2.25
	Dark (wo/street lights)	3	0.04	0.47	0.50	0.50	1.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Weather	Dry	23	2.05	2.41	4.25	5.50	6.50
	Cloudy	7	0.12	0.50	1.00	1.00	1.25
	Rain	3	0.05	0.34	0.50	0.50	0.75
	Fog	1	0.01	0.15	0.00	0.00	0.25
	Others	0	0.00	0.00	0.00	0.00	0.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Surface Condition	Dry	30	2.68	2.60	5.75	7.00	7.25
	Wet	4	0.06	0.46	0.50	0.50	1.00
	Others	0	0.00	0.00	0.00	0.00	0.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	3	0.27	0.26	0.50	0.50	0.50
	February	2	0.03	0.32	0.25	0.50	0.75
	March	3	0.04	0.41	0.75	1.00	1.00
	April	4	0.06	0.51	0.75	1.00	1.25
	May	4	0.06	0.34	0.50	0.50	0.75
	June	3	0.05	0.61	0.50	0.50	1.25
	July	3	0.04	0.47	0.50	0.50	1.00
	August	2	0.04	0.25	0.50	0.50	0.50
	September	4	0.07	0.45	1.00	1.00	1.00
	October	3	0.05	0.34	0.50	0.50	0.75
	November	3	0.04	0.41	0.75	1.00	1.00
	December	2	0.04	0.25	0.50	0.50	0.50
Day of week	Monday	7	0.64	0.50	1.00	1.00	1.25
	Tuesday	3	0.27	0.34	0.50	0.50	0.75
	Wednesday	0.5	0.05	0.15	0.00	0.00	0.25
	Thursday	0	0.00	0.00	0.00	0.00	0.00
	Friday	0	0.00	0.00	0.00	0.00	0.00
	Saturday	0	0.00	0.00	0.00	0.00	0.00
	Sunday	23	2.05	2.41	4.25	5.50	6.50
Hour of day	00:00 - 06:00	2	0.14	0.23	0.50	0.50	0.50
	06:01 - 09:00	4	0.07	0.45	0.50	0.50	1.00
	09:01 - 11:00	4	0.06	0.51	0.75	1.00	1.25
	11:01 - 13:00	2	0.03	0.32	0.25	0.50	0.75
	13:01 - 15:00	5	0.08	0.54	1.00	1.00	1.25
	15:01 - 18:00	5	0.08	0.54	1.00	1.00	1.25
	18:01 - 24:00	15	0.25	1.08	2.00	2.50	3.25

* Crashes averaged for years 1999 and 2000 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 6

EXPECTED ANNUAL ACCIDENT VALUE TABLE - ORANGE COUNTY

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road < 7,000 (LT lanes > 2)

Total number Intersections Included - 29

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	26	0.88	1.02	1.50	1.70	3.10
	Head On	2	0.05	0.20	0.00	0.00	0.30
	Angle	23	0.79	0.70	1.40	1.50	2.10
	Left Turn	19	0.66	1.13	1.00	1.60	2.30
	Right Turn	1	0.02	0.09	0.00	0.00	0.00
	Sideswipe	2	0.05	0.15	0.00	0.10	0.50
	Pedestrian/Bicycle	4	0.12	0.22	0.50	0.50	0.50
	Fixed Object	4	0.14	0.26	0.50	0.50	0.50
	Other	3	0.10	0.21	0.50	0.50	0.50
Severity	PDO Crashes	16	0.55	0.57	1.00	1.10	1.50
	Possible Injury	26	0.88	0.85	1.50	2.10	2.50
	Non-Incapacitating Injury	30	1.03	1.02	1.90	2.00	2.30
	Incapacitating Injury	3	0.09	0.27	0.00	0.10	0.80
	Fatal Crashes	1	0.03	0.13	0.00	0.00	0.30
Light Conditions	Daylight	50	1.71	1.42	2.90	3.40	5.00
	Dusk	2	0.05	0.15	0.00	0.10	0.50
	Dawn	3	0.09	0.23	0.00	0.50	0.50
	Dark (w/street lights)	15	0.50	0.69	1.00	1.10	1.80
	Dark (wo/street lights)	15	0.52	0.70	0.90	1.20	2.30
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Weather	Dry	49	1.69	1.42	2.50	3.20	4.30
	Cloudy	20	0.67	0.68	1.50	1.50	1.80
	Rain	5	0.17	0.28	0.50	0.50	0.50
	Fog	1	0.03	0.13	0.00	0.00	0.30
	Others	1	0.02	0.09	0.00	0.00	0.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Surface Condition	Dry	65	2.22	1.78	3.00	3.50	5.80
	Wet	9	0.31	0.34	0.50	0.60	1.00
	Others	1	0.03	0.13	0.00	0.00	0.30
	Unknown	1	0.02	0.09	0.00	0.00	0.00
Month of year	January	9	0.29	0.45	0.50	0.60	1.00
	February	6	0.21	0.28	0.50	0.50	0.50
	March	10	0.33	0.45	1.00	1.00	1.00
	April	5	0.17	0.41	0.50	0.50	1.10
	May	8	0.26	0.39	0.50	0.60	1.00
	June	7	0.24	0.39	0.50	0.60	1.00
	July	6	0.21	0.39	0.50	0.60	1.00
	August	8	0.26	0.37	0.50	0.50	0.80
	September	8	0.28	0.37	0.50	1.00	1.00
	October	8	0.28	0.41	0.50	1.00	1.00
	November	6	0.21	0.39	0.90	1.00	1.00
	December	4	0.14	0.26	0.50	0.50	0.50
Day of week	Monday	20	0.67	0.68	1.50	1.50	1.80
	Tuesday	5	0.17	0.28	0.50	0.50	0.50
	Wednesday	1	0.03	0.13	0.00	0.00	0.30
	Thursday	0	0.00	0.00	0.00	0.00	0.00
	Friday	0	0.00	0.00	0.00	0.00	0.00
	Saturday	9	0.29	1.07	0.00	0.10	2.00
	Sunday	49	1.69	1.42	2.50	3.20	4.30
Hour of day	00:00 - 06:00	7	0.22	0.37	0.50	0.50	0.80
	06:01 - 09:00	10	0.33	0.56	0.90	1.00	1.00
	09:01 - 11:00	8	0.28	0.39	0.50	0.60	1.00
	11:01 - 13:00	4	0.14	0.26	0.50	0.50	0.50
	13:01 - 15:00	10	0.33	0.43	0.50	0.60	1.30
	15:01 - 18:00	14	0.47	0.60	1.00	1.50	1.50
	18:01 - 24:00	32	1.10	1.29	1.50	2.70	3.80

* Crashes averaged for years 1999 and 2000 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 7

EXPECTED ANNUAL ACCIDENT VALUE TABLE - ORANGE COUNTY

4 Lane x 4 Lane Intersection, Signalized, AADT/lane for Major Road >= 7,500

Total number Intersections Included - 23

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	147	6.37	4.78	8.50	10.10	13.20
	Head On	3	0.11	0.26	0.35	0.50	0.50
	Angle	54	2.35	2.20	4.90	5.50	5.95
	Left Turn	37	1.59	1.36	3.35	3.50	3.50
	Right Turn	3	0.11	0.21	0.50	0.50	0.50
	Sideswipe	9	0.37	0.53	1.00	1.00	1.00
	Pedestrian/Bicycle	4	0.17	0.32	0.50	0.50	0.95
	Fixed Object	2	0.09	0.25	0.00	0.40	0.50
	Other	5	0.22	0.36	0.50	0.90	1.00
Severity	PDO Crashes	58	2.50	1.96	4.85	5.00	5.45
	Possible Injury	86	3.72	3.44	7.00	7.00	7.00
	Non-Incapacitating Injury	60	2.59	2.28	5.55	6.00	6.90
	Incapacitating Injury	11	0.48	0.61	1.35	1.50	1.50
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	166	7.20	4.65	9.50	12.70	13.95
	Dusk	5	0.22	0.33	0.50	0.50	0.95
	Dawn	6	0.26	0.37	0.50	0.90	1.00
	Dark (w/street lights)	57	2.48	2.40	4.90	6.30	7.40
	Dark (wo/street lights)	32	1.39	1.31	2.35	2.90	3.90
	Unknown	1	0.04	0.14	0.00	0.00	0.45
Weather	Dry	143	6.20	5.18	10.00	11.60	13.35
	Cloudy	54	2.35	1.99	4.50	4.50	5.40
	Rain	16	0.70	0.75	1.00	1.40	1.95
	Fog	1	0.04	0.14	0.00	0.00	0.45
	Others	0	0.00	0.00	0.00	0.00	0.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Surface Condition	Dry	182	7.89	6.31	14.85	15.40	17.75
	Wet	31	1.33	1.23	2.70	3.40	3.50
	Others	2	0.07	0.23	0.00	0.00	0.45
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	19	0.83	0.76	1.35	1.50	2.40
	February	22	0.96	1.02	1.85	2.00	2.00
	March	14	0.61	0.66	1.00	1.40	1.95
	April	24	1.04	0.69	1.85	2.00	2.00
	May	24	1.04	0.80	2.00	2.00	2.45
	June	22	0.96	0.93	1.50	1.50	2.85
	July	23	1.00	1.00	2.20	2.90	3.00
	August	33	1.43	1.30	2.00	2.40	3.40
	September	22	0.93	0.70	2.00	2.00	2.00
	October	18	0.78	0.67	1.50	1.50	1.95
	November	22	0.93	0.99	2.00	2.00	2.90
	December	25	1.07	1.10	2.35	2.50	2.50
Day of week	Monday	54	2.35	1.99	4.50	4.50	5.40
	Tuesday	16	0.70	0.75	1.00	1.40	1.95
	Wednesday	1	0.04	0.14	0.00	0.00	0.45
	Thursday	0	0.00	0.00	0.00	0.00	0.00
	Friday	0	0.00	0.00	0.00	0.00	0.00
	Saturday	53	2.30	3.77	5.85	7.20	7.95
	Sunday	143	6.20	5.18	10.00	11.60	13.35
Hour of day	00:00 - 06:00	25	1.09	1.03	2.35	2.50	2.50
	06:01 - 09:00	22	0.96	0.98	2.00	2.00	2.45
	09:01 - 11:00	21	0.91	1.10	1.50	1.90	2.00
	11:01 - 13:00	22	0.93	0.83	1.50	1.90	2.00
	13:01 - 15:00	20	0.85	0.87	1.85	2.00	2.45
	15:01 - 18:00	47	2.04	1.63	3.00	3.80	4.90
	18:01 - 24:00	111	4.80	3.87	7.85	8.40	13.45

* Crashes averaged for years 1999 and 2000 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 8

EXPECTED ANNUAL ACCIDENT VALUE TABLE - ORANGE COUNTY

4 Lane x 4 Lane Intersection, Signalized, AADT/lane for Major Road < 7,500

Total number Intersections Included - 18

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	44	2.42	2.72	3.50	4.40	7.17
	Head On	3	0.17	0.30	0.50	0.50	0.57
	Angle	39	2.17	1.81	4.73	5.15	5.50
	Left Turn	30	1.64	2.76	2.95	3.65	5.12
	Right Turn	2	0.11	0.21	0.50	0.50	0.50
	Sideswipe	4	0.19	0.30	0.50	0.50	0.57
	Pedestrian/Bicycle	4	0.19	0.30	0.50	0.50	0.57
	Fixed Object	0	0.00	0.00	0.00	0.00	0.00
	Other	2	0.08	0.26	0.00	0.15	0.57
Severity	PDO Crashes	31	1.72	2.12	3.00	3.30	4.67
	Possible Injury	36	1.97	1.74	4.00	4.30	5.15
	Non-Incapacitating Injury	43	2.36	2.66	4.23	4.50	5.55
	Incapacitating Injury	8	0.44	0.64	1.00	1.00	1.23
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	78	4.31	3.62	6.00	7.20	10.83
	Dusk	2	0.11	0.37	0.00	0.15	0.65
	Dawn	1	0.06	0.24	0.00	0.00	0.15
	Dark (w/street lights)	23	1.25	1.26	2.73	3.15	3.50
	Dark (wo/street lights)	25	1.36	2.74	1.50	1.80	3.92
	Unknown	1	0.03	0.12	0.00	0.00	0.07
Weather	Dry	83	4.61	4.43	7.98	12.05	14.58
	Cloudy	27	1.50	1.46	3.23	3.65	4.08
	Rain	6	0.33	0.42	1.00	1.00	1.00
	Fog	1	0.03	0.12	0.00	0.00	0.07
	Others	1	0.03	0.12	0.00	0.00	0.07
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Surface Condition	Dry	102	5.64	5.24	10.53	14.20	17.08
	Wet	15	0.83	0.77	1.50	1.65	2.08
	Others	0	0.00	0.00	0.00	0.00	0.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	10	0.53	0.63	1.50	1.50	1.50
	February	10	0.56	0.87	1.00	1.45	2.58
	March	12	0.64	0.70	1.00	1.30	2.08
	April	15	0.81	0.81	1.73	2.00	2.08
	May	7	0.39	0.53	0.73	1.00	1.15
	June	13	0.72	0.69	1.00	1.15	1.73
	July	7	0.36	0.38	0.73	1.00	1.00
	August	11	0.61	0.74	1.73	2.00	2.00
	September	15	0.81	0.86	1.73	2.15	2.50
	October	13	0.69	0.69	1.50	1.65	2.00
	November	7	0.39	0.61	0.50	0.65	1.23
	December	11	0.61	1.02	1.00	1.60	3.08
Day of week	Monday	27	1.50	1.46	3.23	3.65	4.08
	Tuesday	6	0.33	0.42	1.00	1.00	1.00
	Wednesday	0.5	0.03	0.12	0.00	0.00	0.07
	Thursday	0	0.00	0.00	0.00	0.00	0.00
	Friday	0	0.00	0.00	0.00	0.00	0.00
	Saturday	12	0.64	2.17	0.00	0.75	3.47
	Sunday	83	4.61	4.43	7.98	12.05	14.58
Hour of day	00:00 - 06:00	10	0.53	0.67	1.23	1.65	2.00
	06:01 - 09:00	15	0.83	1.04	1.73	2.00	2.30
	09:01 - 11:00	5	0.25	0.39	0.73	1.00	1.00
	11:01 - 13:00	12	0.67	0.87	1.23	1.50	1.80
	13:01 - 15:00	13	0.72	1.27	1.00	1.15	2.10
	15:01 - 18:00	25	1.36	1.10	2.50	2.65	3.08
	18:01 - 24:00	50	2.75	3.63	4.18	6.20	9.82

* Crashes averaged for years 1999 and 2000 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 9

EXPECTED ANNUAL ACCIDENT VALUE TABLE - ORANGE COUNTY

6 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road >= 7,500

Total number Intersections Included - 21

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	64	3.02	2.28	3.50	4.50	7.50
	Head On	1	0.05	0.15	0.00	0.00	0.50
	Angle	36	1.71	1.08	2.50	3.00	3.00
	Left Turn	16	0.76	0.83	1.50	1.50	2.00
	Right Turn	1	0.05	0.15	0.00	0.00	0.50
	Sideswipe	6	0.26	0.41	0.50	0.50	1.00
	Pedestrian/Bicycle	6	0.26	0.46	1.00	1.00	1.00
	Fixed Object	4	0.19	0.37	0.50	0.50	0.50
	Other	2	0.10	0.26	0.00	0.50	0.50
Severity	PDO Crashes	23	1.07	0.95	2.50	2.50	2.50
	Possible Injury	39	1.86	1.23	3.00	3.50	4.00
	Non-Incapacitating Injury	42	1.98	1.12	3.00	3.50	3.50
	Incapacitating Injury	6	0.26	0.49	0.50	0.50	1.00
	Fatal Crashes	1	0.05	0.15	0.00	0.00	0.50
Light Conditions	Daylight	91	4.33	2.25	6.50	7.00	8.00
	Dusk	2	0.10	0.20	0.50	0.50	0.50
	Dawn	1	0.05	0.15	0.00	0.00	0.50
	Dark (w/street lights)	27	1.26	1.27	3.00	3.00	3.50
	Dark (wo/street lights)	16	0.76	1.06	1.50	1.50	2.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Weather	Dry	73	3.45	2.01	5.00	6.50	6.50
	Cloudy	25	1.17	0.93	2.00	2.50	2.50
	Rain	12	0.55	0.74	1.00	1.00	2.50
	Fog	1	0.02	0.11	0.00	0.00	0.00
	Others	1	0.02	0.11	0.00	0.00	0.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Surface Condition	Dry	91	4.31	2.28	7.00	7.00	7.50
	Wet	17	0.79	0.96	1.00	1.50	2.50
	Others	2	0.10	0.26	0.00	0.50	0.50
	Unknown	1	0.02	0.11	0.00	0.00	0.00
Month of year	January	14	0.64	0.62	1.00	1.50	2.00
	February	10	0.45	0.47	1.00	1.00	1.00
	March	8	0.38	0.44	1.00	1.00	1.00
	April	16	0.74	0.72	1.50	1.50	2.00
	May	10	0.45	0.47	1.00	1.00	1.00
	June	12	0.57	0.36	1.00	1.00	1.00
	July	12	0.55	0.57	1.00	1.00	1.00
	August	11	0.50	0.61	1.00	1.00	1.00
	September	15	0.69	0.68	1.50	2.00	2.00
	October	13	0.60	0.70	1.50	1.50	2.00
	November	10	0.48	0.40	1.00	1.00	1.00
	December	10	0.48	0.49	1.00	1.00	1.50
Day of week	Monday	25	1.17	0.93	2.00	2.50	2.50
	Tuesday	12	0.55	0.74	1.00	1.00	2.50
	Wednesday	1	0.05	0.15	0.00	0.00	0.50
	Thursday	0	0.00	0.00	0.00	0.00	0.00
	Friday	0	0.00	0.00	0.00	0.00	0.00
	Saturday	28	1.31	2.20	4.50	5.00	5.00
	Sunday	73	3.45	2.01	5.00	6.50	6.50
Hour of day	00:00 - 06:00	10	0.48	0.62	1.00	1.00	2.00
	06:01 - 09:00	14	0.64	0.59	1.00	1.50	1.50
	09:01 - 11:00	12	0.57	0.58	1.00	1.00	2.00
	11:01 - 13:00	16	0.74	0.60	1.50	1.50	1.50
	13:01 - 15:00	9	0.43	0.53	1.00	1.50	1.50
	15:01 - 18:00	23	1.07	0.90	2.00	2.50	3.00
	18:01 - 24:00	55	2.62	2.58	6.00	6.00	7.00

* Crashes averaged for years 1999 and 2000 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 10

EXPECTED ANNUAL ACCIDENT VALUE TABLE - ORANGE COUNTY

6 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road < 7,500

Total number Intersections Included - 11

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	13	1.18	1.17	2.00	2.00	3.00
	Head On	1	0.05	0.15	0.00	0.00	0.25
	Angle	14	1.23	1.51	2.75	3.50	4.00
	Left Turn	10	0.86	1.07	2.00	2.00	2.50
	Right Turn	1	0.05	0.15	0.00	0.00	0.25
	Sideswipe	1	0.09	0.20	0.25	0.50	0.50
	Pedestrian/Bicycle	2	0.18	0.25	0.50	0.50	0.50
	Fixed Object	3	0.23	0.34	0.50	0.50	0.75
	Other	1	0.09	0.30	0.00	0.00	0.50
Severity	PDO Crashes	7	0.59	0.63	1.00	1.00	1.50
	Possible Injury	13	1.18	1.08	2.00	2.00	2.75
	Non-Incapacitating Injury	11	0.95	1.11	2.25	2.50	2.75
	Incapacitating Injury	2	0.18	0.25	0.50	0.50	0.50
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	32	2.86	2.60	5.75	6.50	7.25
	Dusk	2	0.18	0.34	0.50	0.50	0.75
	Dawn	0	0.00	0.00	0.00	0.00	0.00
	Dark (w/street lights)	5	0.45	0.61	0.75	1.00	1.50
	Dark (wo/street lights)	7	0.64	0.78	1.25	1.50	2.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Weather	Dry	25	2.23	2.03	4.25	5.50	5.75
	Cloudy	3	0.23	0.26	0.50	0.50	0.50
	Rain	5	0.45	0.52	1.00	1.00	1.25
	Fog	0	0.00	0.00	0.00	0.00	0.00
	Others	0	0.00	0.00	0.00	0.00	0.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Surface Condition	Dry	27	2.41	2.11	4.50	5.50	6.00
	Wet	6	0.50	0.63	1.00	1.00	1.50
	Others	0	0.00	0.00	0.00	0.00	0.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	4	0.32	0.46	0.50	0.50	1.00
	February	2	0.18	0.46	0.25	0.50	1.00
	March	5	0.41	0.58	1.00	1.50	1.50
	April	4	0.36	0.50	0.75	1.00	1.25
	May	2	0.14	0.23	0.50	0.50	0.50
	June	3	0.23	0.34	0.50	0.50	0.75
	July	2	0.18	0.25	0.50	0.50	0.50
	August	10	0.86	0.74	1.75	2.00	2.00
	September	6	0.50	0.59	1.25	1.50	1.50
	October	2	0.18	0.34	0.50	0.50	0.75
	November	4	0.32	0.34	0.50	0.50	0.75
	December	5	0.45	0.76	0.75	1.00	1.75
Day of week	Monday	3	0.23	0.26	0.50	0.50	0.50
	Tuesday	5	0.45	0.52	1.00	1.00	1.25
	Wednesday	0	0.00	0.00	0.00	0.00	0.00
	Thursday	0	0.00	0.00	0.00	0.00	0.00
	Friday	0	0.00	0.00	0.00	0.00	0.00
	Saturday	14	1.23	1.90	3.00	4.00	4.75
	Sunday	25	2.23	2.03	4.25	5.50	5.75
Hour of day	00:00 - 06:00	2	0.14	0.23	0.50	0.50	0.50
	06:01 - 09:00	3	0.23	0.34	0.50	0.50	0.75
	09:01 - 11:00	2	0.18	0.25	0.50	0.50	0.50
	11:01 - 13:00	4	0.36	0.60	1.00	1.50	1.50
	13:01 - 15:00	5	0.45	0.65	1.00	1.00	1.50
	15:01 - 18:00	9	0.77	0.85	1.00	1.00	2.00
	18:01 - 24:00	23	2.05	2.15	4.00	5.50	6.00

* Crashes averaged for years 1999 and 2000 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 11

EXPECTED ANNUAL ACCIDENT VALUE TABLE - ORANGE COUNTY

6 Lane x 4 Lane and 6 Lane x 6 Lane Intersection, Signalized

Total number Intersections Included - 28

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	231	8.23	7.22	16.00	19.45	20.50
	Head On	6	0.20	0.31	0.50	0.50	0.82
	Angle	77	2.73	2.40	6.00	6.30	7.00
	Left Turn	46	1.64	1.70	3.00	3.15	4.15
	Right Turn	5	0.18	0.34	0.50	0.50	0.50
	Sideswipe	19	0.66	0.77	1.50	1.65	2.00
	Pedestrian/Bicycle	7	0.25	0.42	0.50	1.00	1.00
	Fixed Object	5	0.18	0.39	0.50	0.65	1.00
	Other	10	0.36	0.47	0.98	1.00	1.33
Severity	PDO Crashes	94	3.36	3.08	6.43	6.95	8.33
	Possible Injury	120	4.27	3.24	7.98	8.80	10.15
	Non-Incapacitating Injury	91	3.23	2.73	5.48	6.65	8.63
	Incapacitating Injury	13	0.45	0.42	1.00	1.00	1.00
	Fatal Crashes	1	0.04	0.13	0.00	0.00	0.32
Light Conditions	Daylight	255	9.11	7.18	18.48	20.00	21.63
	Dusk	7	0.23	0.42	0.50	1.00	1.00
	Dawn	6	0.21	0.53	0.50	0.65	1.00
	Dark (w/street lights)	76	2.70	2.52	5.50	6.15	6.50
	Dark (wo/street lights)	65	2.30	2.60	5.40	7.00	7.33
	Unknown	2	0.07	0.22	0.00	0.15	0.50
Weather	Dry	229	8.18	5.80	15.88	16.60	18.33
	Cloudy	70	2.50	2.62	4.50	5.75	8.48
	Rain	18	0.63	0.55	1.00	1.50	1.50
	Fog	1	0.04	0.13	0.00	0.00	0.32
	Others	0	0.00	0.00	0.00	0.00	0.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Surface Condition	Dry	284	10.13	7.63	17.43	22.90	25.00
	Wet	32	1.14	1.09	2.50	2.65	3.33
	Others	2	0.05	0.16	0.00	0.15	0.50
	Unknown	1	0.02	0.09	0.00	0.00	0.00
Month of year	January	36	1.27	1.08	2.50	2.65	3.33
	February	35	1.25	1.27	2.00	3.50	3.83
	March	34	1.21	1.08	2.48	3.00	3.33
	April	32	1.13	1.18	2.50	2.50	2.83
	May	29	1.04	1.15	2.48	2.50	2.50
	June	33	1.16	1.37	3.00	3.50	3.83
	July	36	1.29	1.38	2.50	2.80	3.83
	August	42	1.48	1.29	2.50	3.15	3.83
	September	35	1.25	1.21	2.00	2.65	3.33
	October	38	1.34	1.52	2.98	3.15	3.50
	November	33	1.18	1.18	2.00	2.65	3.33
	December	30	1.07	1.14	2.50	3.00	3.33
Day of week	Monday	70	2.50	2.62	4.50	5.75	8.48
	Tuesday	18	0.63	0.55	1.00	1.50	1.50
	Wednesday	1	0.04	0.13	0.00	0.00	0.32
	Thursday	0	0.00	0.00	0.00	0.00	0.00
	Friday	0	0.00	0.00	0.00	0.00	0.00
	Saturday	93	3.32	4.70	8.95	10.95	12.00
	Sunday	229	8.18	5.80	15.88	16.60	18.33
Hour of day	00:00 - 06:00	34	1.20	1.18	2.50	2.80	3.50
	06:01 - 09:00	39	1.38	1.10	2.50	3.00	3.33
	09:01 - 11:00	22	0.77	0.88	1.50	1.65	2.00
	11:01 - 13:00	35	1.23	1.00	2.50	2.50	2.83
	13:01 - 15:00	33	1.16	1.09	2.48	2.65	3.00
	15:01 - 18:00	65	2.32	2.15	4.50	4.80	5.83
	18:01 - 24:00	186	6.63	6.71	14.90	16.85	20.00

* Crashes averaged for years 1999 and 2000 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 12

EXPECTED ANNUAL ACCIDENT VALUE TABLE - ORANGE COUNTY

T Intersection, Signalized, AADT/lane for Major Road >= 7,500

Total number Intersections Included - 22

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	30	1.36	1.23	2.50	2.95	3.48
	Head On	1	0.02	0.11	0.00	0.00	0.00
	Angle	12	0.52	0.73	1.00	1.45	1.50
	Left Turn	13	0.57	0.70	1.50	1.50	1.98
	Right Turn	1	0.05	0.15	0.00	0.00	0.48
	Sideswipe	1	0.05	0.15	0.00	0.00	0.48
	Pedestrian/Bicycle	1	0.02	0.11	0.00	0.00	0.00
	Fixed Object	1	0.05	0.21	0.00	0.00	0.00
	Other	1	0.05	0.15	0.00	0.00	0.48
Severity	PDO Crashes	16	0.70	0.68	1.50	1.50	1.98
	Possible Injury	23	1.02	0.96	2.00	2.00	2.95
	Non-Incapacitating Injury	21	0.93	0.93	2.00	2.45	2.50
	Incapacitating Injury	1	0.05	0.15	0.00	0.00	0.48
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	40	1.80	1.51	3.00	3.90	4.48
	Dusk	2	0.09	0.20	0.42	0.50	0.50
	Dawn	1	0.05	0.15	0.00	0.00	0.48
	Dark (w/street lights)	7	0.32	0.61	0.92	1.45	1.50
	Dark (wo/street lights)	10	0.45	0.53	0.92	1.00	1.48
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Weather	Dry	42	1.91	1.73	3.43	4.85	5.00
	Cloudy	11	0.48	0.52	1.00	1.00	1.48
	Rain	7	0.32	0.45	0.50	0.50	1.45
	Fog	0	0.00	0.00	0.00	0.00	0.00
	Others	0	0.00	0.00	0.00	0.00	0.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Surface Condition	Dry	52	2.36	1.90	4.43	5.40	5.98
	Wet	7	0.30	0.45	0.50	0.50	1.45
	Others	1	0.05	0.15	0.00	0.00	0.48
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	4	0.18	0.29	0.50	0.50	0.50
	February	3	0.11	0.21	0.50	0.50	0.50
	March	7	0.32	0.36	0.50	0.95	1.00
	April	6	0.25	0.48	0.50	0.95	1.48
	May	5	0.20	0.33	0.50	0.50	0.98
	June	6	0.25	0.37	0.50	0.95	1.00
	July	7	0.30	0.45	0.92	1.00	1.00
	August	4	0.18	0.29	0.50	0.50	0.50
	September	7	0.30	0.33	0.50	0.50	0.98
	October	3	0.14	0.28	0.50	0.50	0.50
	November	5	0.23	0.43	0.50	0.95	1.00
	December	6	0.25	0.40	0.92	1.00	1.00
Day of week	Monday	11	0.48	0.52	1.00	1.00	1.48
	Tuesday	7	0.32	0.45	0.50	0.50	1.45
	Wednesday	0	0.00	0.00	0.00	0.00	0.00
	Thursday	0	0.00	0.00	0.00	0.00	0.00
	Friday	0	0.00	0.00	0.00	0.00	0.00
	Saturday	0	0.00	0.00	0.00	0.00	0.00
	Sunday	42	1.91	1.73	3.43	4.85	5.00
Hour of day	00:00 - 06:00	7	0.32	0.42	0.50	0.95	1.00
	06:01 - 09:00	5	0.23	0.40	0.50	0.50	0.98
	09:01 - 11:00	6	0.25	0.37	0.50	0.95	1.00
	11:01 - 13:00	4	0.18	0.33	0.50	0.50	0.98
	13:01 - 15:00	8	0.36	0.41	0.50	0.95	1.00
	15:01 - 18:00	15	0.66	0.70	1.50	1.50	1.98
	18:01 - 24:00	17	0.77	0.75	1.00	1.90	2.00

* Crashes averaged for years 1999 and 2000 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 13

EXPECTED ANNUAL ACCIDENT VALUE TABLE - ORANGE COUNTY

T Intersection, Signalized, AADT/lane for Major Road < 7,500

Total number Intersections Included - 14

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	11	0.79	1.07	2.03	2.35	2.68
	Head On	1	0.04	0.13	0.00	0.00	0.18
	Angle	5	0.32	0.37	0.52	0.85	1.00
	Left Turn	4	0.25	0.38	0.52	0.85	1.00
	Right Turn	1	0.04	0.13	0.00	0.00	0.18
	Sideswipe	1	0.04	0.13	0.00	0.00	0.18
	Pedestrian/Bicycle	0	0.00	0.00	0.00	0.00	0.00
	Fixed Object	1	0.04	0.13	0.00	0.00	0.18
	Other	1	0.04	0.13	0.00	0.00	0.18
Severity	PDO Crashes	5	0.32	0.46	0.52	0.85	1.18
	Possible Injury	9	0.64	0.79	1.53	1.85	2.00
	Non-Incapacitating Injury	7	0.50	0.78	1.53	1.85	2.00
	Incapacitating Injury	1	0.07	0.18	0.02	0.35	0.50
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	14	1.00	1.26	2.08	3.05	3.50
	Dusk	1	0.04	0.13	0.00	0.00	0.18
	Dawn	0	0.00	0.00	0.00	0.00	0.00
	Dark (w/street lights)	4	0.29	0.43	0.50	0.50	0.85
	Dark (wo/street lights)	3	0.21	0.38	0.52	0.85	1.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Weather	Dry	16	1.11	1.40	2.53	2.85	3.35
	Cloudy	3	0.21	0.32	0.50	0.50	0.68
	Rain	3	0.21	0.43	0.50	0.50	0.85
	Fog	0	0.00	0.00	0.00	0.00	0.00
	Others	0	0.00	0.00	0.00	0.00	0.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Surface Condition	Dry	17	1.21	1.41	2.53	2.85	3.35
	Wet	5	0.32	0.61	1.00	1.00	1.35
	Others	0	0.00	0.00	0.00	0.00	0.00
	Unknown	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	1	0.07	0.18	0.02	0.35	0.50
	February	2	0.14	0.36	0.05	0.70	1.00
	March	3	0.21	0.43	0.50	0.50	0.85
	April	1	0.04	0.13	0.00	0.00	0.18
	May	4	0.25	0.38	0.52	0.85	1.00
	June	3	0.18	0.42	0.50	0.50	0.85
	July	1	0.04	0.13	0.00	0.00	0.18
	August	4	0.25	0.47	0.52	0.85	1.18
	September	2	0.14	0.31	0.50	0.50	0.68
	October	1	0.04	0.13	0.00	0.00	0.18
	November	1	0.07	0.18	0.02	0.35	0.50
	December	2	0.11	0.21	0.50	0.50	0.50
Day of week	Monday	3	0.21	0.32	0.50	0.50	0.68
	Tuesday	3	0.21	0.43	0.50	0.50	0.85
	Wednesday	0	0.00	0.00	0.00	0.00	0.00
	Thursday	0	0.00	0.00	0.00	0.00	0.00
	Friday	0	0.00	0.00	0.00	0.00	0.00
	Saturday	0	0.00	0.00	0.00	0.00	0.00
	Sunday	16	1.11	1.40	2.53	2.85	3.35
Hour of day	00:00 - 06:00	1	0.07	0.18	0.02	0.35	0.50
	06:01 - 09:00	4	0.25	0.67	0.50	0.50	1.20
	09:01 - 11:00	1	0.04	0.13	0.00	0.00	0.18
	11:01 - 13:00	1	0.04	0.13	0.00	0.00	0.18
	13:01 - 15:00	3	0.21	0.67	0.02	0.35	1.20
	15:01 - 18:00	6	0.39	0.49	1.00	1.00	1.18
	18:01 - 24:00	11	0.75	0.67	1.50	1.50	1.85

* Crashes averaged for years 1999 and 2000 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

APPENDIX F

19 CATEGORY CRASH PROFILE TABLES FOR SEMINOLE COUNTY

CATEGORY 1

EXPECTED ANNUAL ACCIDENT TABLE - SEMINOLE COUNTY

2 Lane x 2 Lane Signalized Intersection, AADT/ Lane On Major Road ≥ 5,000

Total number of intersections Included - 26

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	34	1.29	2.83	2.3	2.8	4.1
	Head On	1	0.03	0.09	0.0	0.0	0.3
	Angle	16	0.62	1.01	1.6	2.5	2.9
	Left Turn	14	0.54	1.05	1.0	1.5	2.8
	Right Turn	1	0.05	0.15	0.0	0.2	0.3
	Sideswipe	3	0.12	0.30	0.3	0.3	0.6
	Pedestrian/Bicycle	1	0.05	0.12	0.1	0.3	0.3
	Other	5	0.17	0.23	0.3	0.5	0.7
Severity	PDO Crashes	36	1.40	2.68	2.3	3.8	4.8
	Injury	23	0.88	1.25	2.3	2.3	3.1
	Non-Incapacitating Injury	10	0.38	0.67	0.8	1.3	1.7
	Incapacitating Injury	6	0.22	0.35	0.4	0.7	0.9
	Fatal Crashes	0	0.00	0.00	0.0	0.0	0.0
Light Conditions	Daylight	54	2.08	3.32	4.0	5.2	6.8
	Dusk	3	0.10	0.25	0.3	0.3	0.6
	Dawn	0	0.01	0.07	0.0	0.0	0.0
	Dark (w/street lights)	16	0.62	1.18	1.1	1.8	2.8
	Dark (wo/street lights)	2	0.06	0.16	0.1	0.3	0.3
Surface Condition	Dry	64	2.45	3.89	4.6	6.7	9.8
	Wet	10	0.40	0.92	0.7	0.8	1.8
	Others	1	0.04	0.14	0.0	0.0	0.3
Month of year	January	6	0.23	0.35	0.7	0.8	1.0
	February	5	0.19	0.34	0.7	0.7	0.7
	March	5	0.19	0.53	0.3	0.3	0.6
	April	6	0.22	0.49	0.3	0.7	1.3
	May	8	0.31	0.44	0.7	0.8	1.0
	June	4	0.17	0.27	0.3	0.5	0.7
	July	6	0.22	0.47	0.3	0.5	1.2
	August	5	0.21	0.66	0.3	0.3	0.6
	September	8	0.29	0.58	0.5	1.2	1.3
	October	6	0.23	0.50	0.4	0.8	1.3
	November	10	0.37	0.61	0.8	1.5	1.7
	December	7	0.26	0.46	0.4	0.8	1.0
Day of week	Monday	7	0.28	0.56	0.7	0.7	0.9
	Tuesday	10	0.40	0.63	1.0	1.2	1.8
	Wednesday	14	0.55	0.93	1.2	1.7	1.9
	Thursday	11	0.41	0.78	0.4	1.3	2.3
	Friday	13	0.51	0.99	1.1	1.5	2.2
	Saturday	12	0.47	0.76	1.0	1.0	1.8
	Sunday	7	0.26	0.52	0.4	1.0	1.3
Hour of day	00:00 - 06:00	4	0.15	0.30	0.3	0.5	0.9
	06:01 - 09:00	7	0.28	0.52	0.7	1.0	1.3
	09:01 - 11:00	6	0.24	0.49	0.3	0.5	0.9
	11:01 - 13:00	11	0.42	0.62	1.0	1.2	1.6
	13:01 - 15:00	8	0.29	0.51	0.7	0.7	0.9
	15:01 - 18:00	19	0.72	1.20	1.5	2.2	2.3
	18:01 - 24:00	18	0.68	1.35	1.3	2.0	2.9

* Crashes averaged for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 2

EXPECTED ANNUAL ACCIDENT TABLE - SEMINOLE COUNTY

2 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road < 5000

Total number Intersections Included - 5

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	1	0.20	0.30	0.5	0.5	0.6
	Head On	0	0.07	0.15	0.1	0.2	0.3
	Angle	1	0.20	0.30	0.5	0.5	0.6
	Left Turn	1	0.13	0.18	0.3	0.3	0.3
	Right Turn	0	0.07	0.15	0.1	0.2	0.3
	Sideswipe	0	0.00	0.00	0.0	0.0	0.0
	Pedestrian/Bicycle	0	0.00	0.00	0.0	0.0	0.0
	Other	1	0.13	0.18	0.3	0.3	0.3
Severity	PDO Crashes	2	0.33	0.24	0.5	0.5	0.6
	Injury	1	0.20	0.30	0.5	0.5	0.6
	Non-Incapacitating Injury	1	0.27	0.28	0.5	0.5	0.6
	Incapacitating Injury	0	0.00	0.00	0.0	0.0	0.0
	Fatal Crashes	0	0.00	0.00	0.0	0.0	0.0
Light Conditions	Daylight	2	0.33	0.33	0.7	0.7	0.7
	Dusk	0	0.07	0.15	0.1	0.2	0.3
	Dawn	0	0.07	0.15	0.1	0.2	0.3
	Dark (w/street lights)	1	0.27	0.28	0.5	0.5	0.6
	Dark (wo/street lights)	0	0.07	0.15	0.1	0.2	0.3
Surface Condition	Dry	3	0.60	0.49	0.9	1.1	1.2
	Wet	1	0.20	0.18	0.3	0.3	0.3
	Others	0	0.00	0.00	0.0	0.0	0.0
Month of year	January	0	0.07	0.15	0.1	0.2	0.3
	February	0	0.07	0.15	0.1	0.2	0.3
	March	0	0.07	0.15	0.1	0.2	0.3
	April	0	0.00	0.00	0.0	0.0	0.0
	May	0	0.07	0.15	0.1	0.2	0.3
	June	1	0.13	0.18	0.3	0.3	0.3
	July	0	0.07	0.15	0.1	0.2	0.3
	August	1	0.20	0.30	0.5	0.5	0.6
	September	0	0.07	0.15	0.1	0.2	0.3
	October	0	0.07	0.15	0.1	0.2	0.3
	November	0	0.06	0.14	0.1	0.2	0.3
	December	0	0.06	0.14	0.1	0.2	0.3
Day of week	Monday	0	0.07	0.15	0.1	0.2	0.3
	Tuesday	1	0.13	0.18	0.3	0.3	0.3
	Wednesday	0	0.07	0.15	0.1	0.2	0.3
	Thursday	1	0.20	0.30	0.5	0.5	0.6
	Friday	0	0.00	0.00	0.0	0.0	0.0
	Saturday	0	0.07	0.15	0.1	0.2	0.3
	Sunday	1	0.27	0.28	0.5	0.5	0.6
Hour of day	00:00 - 06:00	0	0.07	0.15	0.1	0.2	0.3
	06:01 - 09:00	0	0.00	0.00	0.0	0.0	0.0
	09:01 - 11:00	0	0.07	0.15	0.1	0.2	0.3
	11:01 - 13:00	0	0.00	0.00	0.0	0.0	0.0
	13:01 - 15:00	0	0.00	0.00	0.0	0.0	0.0
	15:01 - 18:00	1	0.13	0.18	0.3	0.3	0.3
	18:01 - 24:00	3	0.53	0.51	0.9	1.1	1.2

* Crashes averaged for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 4

EXPECTED ANNUAL ACCIDENT TABLE - SEMINOLE COUNTY

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road ≥ 7000 (LT lanes > 2)

Total number Intersections Included - 33

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	89	2.71	3.05	4.6	5.7	8.0
	Head On	3	0.08	0.17	0.3	0.3	0.3
	Angle	32	0.96	1.16	2.1	3.2	3.5
	Left Turn	28	0.86	0.88	1.7	2.0	2.3
	Right Turn	2	0.06	0.13	0.3	0.3	0.3
	Sideswipe	13	0.40	0.66	1.0	1.3	1.5
	Pedestrian/Bicycle	7	0.20	0.32	0.4	0.7	1.0
	Other	10	0.30	0.29	0.7	0.7	0.7
Severity	PDO Crashes	93	2.81	3.39	4.7	6.1	10.1
	Injury	60	1.81	1.63	3.4	3.9	4.9
	Non-Incapacitating Injury	25	0.77	0.62	1.7	1.7	1.7
	Incapacitating Injury	6	0.18	0.26	0.3	0.6	0.7
	Fatal Crashes	0	0.01	0.06	0.0	0.0	0.0
Light Conditions	Daylight	127	3.85	3.79	6.7	6.9	11.7
	Dusk	6	0.19	0.22	0.3	0.3	0.7
	Dawn	2	0.05	0.12	0.1	0.3	0.3
	Dark (w/street lights)	41	1.25	1.38	2.3	2.6	4.1
	Dark (wo/street lights)	4	0.13	0.26	0.3	0.6	0.7
Surface Condition	Dry	153	4.63	4.10	7.4	7.9	13.1
	Wet	24	0.73	1.04	1.4	1.7	2.9
	Others	7	0.21	0.38	0.7	0.7	0.8
Month of year	January	15	0.45	0.52	0.7	1.3	1.5
	February	15	0.45	0.48	1.0	1.0	1.3
	March	13	0.39	0.44	1.0	1.0	1.3
	April	17	0.51	0.62	1.1	1.6	1.8
	May	16	0.48	0.57	1.3	1.3	1.5
	June	18	0.54	0.65	1.0	1.0	1.9
	July	13	0.40	0.53	0.7	1.0	1.3
	August	15	0.44	0.57	1.0	1.3	1.7
	September	15	0.44	0.51	1.0	1.3	1.5
	October	15	0.44	0.50	0.7	1.0	1.3
	November	16	0.47	0.44	0.7	0.9	1.1
	December	18	0.54	0.66	1.3	1.6	2.0
Day of week	Monday	22	0.67	0.71	1.7	1.7	1.8
	Tuesday	29	0.89	0.92	1.3	1.6	2.6
	Wednesday	27	0.81	0.77	1.1	1.6	2.5
	Thursday	25	0.77	0.86	1.3	1.6	2.3
	Friday	32	0.98	1.02	1.7	2.5	2.7
	Saturday	29	0.88	1.07	1.7	2.0	3.3
	Sunday	19	0.59	0.66	1.3	1.3	1.3
Hour of day	00:00 - 06:00	8	0.25	0.38	0.7	0.9	1.0
	06:01 - 09:00	20	0.62	0.73	1.3	1.6	1.8
	09:01 - 11:00	13	0.38	0.44	1.0	1.0	1.1
	11:01 - 13:00	22	0.68	0.90	1.4	1.9	2.0
	13:01 - 15:00	25	0.76	0.91	1.4	1.7	2.1
	15:01 - 18:00	39	1.17	1.31	2.0	2.5	3.3
	18:01 - 24:00	50	1.53	1.27	2.7	2.9	3.7

* Crashes averaged for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 5

EXPECTED ANNUAL ACCIDENT TABLE - SEMINOLE COUNTY

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road < 7000 (LT lanes ≤ 2)

Total number Intersections Included - 2

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	0	0.00	0.00	0.0	0.0	0.0
	Head On	0	0.00	0.00	0.0	0.0	0.0
	Angle	0	0.00	0.00	0.0	0.0	0.0
	Left Turn	0	0.00	0.00	0.0	0.0	0.0
	Right Turn	0	0.00	0.00	0.0	0.0	0.0
	Sideswipe	0	0.00	0.00	0.0	0.0	0.0
	Pedestrian/Bicycle	0	0.00	0.00	0.0	0.0	0.0
	Other	0	0.00	0.00	0.0	0.0	0.0
Severity	PDO Crashes	0	0.00	0.00	0.0	0.0	0.0
	Injury	0	0.00	0.00	0.0	0.0	0.0
	Non-Incapacitating Injury	0	0.00	0.00	0.0	0.0	0.0
	Incapacitating Injury	0	0.00	0.00	0.0	0.0	0.0
	Fatal Crashes	0	0.00	0.00	0.0	0.0	0.0
Light Conditions	Daylight	0	0.00	0.00	0.0	0.0	0.0
	Dusk	0	0.00	0.00	0.0	0.0	0.0
	Dawn	0	0.00	0.00	0.0	0.0	0.0
	Dark (w/street lights)	0	0.00	0.00	0.0	0.0	0.0
	Dark (wo/street lights)	0	0.00	0.00	0.0	0.0	0.0
Surface Condition	Dry	0	0.00	0.00	0.0	0.0	0.0
	Wet	0	0.00	0.00	0.0	0.0	0.0
	Others	0	0.00	0.00	0.0	0.0	0.0
Month of year	January	0	0.00	0.00	0.0	0.0	0.0
	February	0	0.00	0.00	0.0	0.0	0.0
	March	0	0.00	0.00	0.0	0.0	0.0
	April	0	0.00	0.00	0.0	0.0	0.0
	May	0	0.00	0.00	0.0	0.0	0.0
	June	0	0.00	0.00	0.0	0.0	0.0
	July	0	0.00	0.00	0.0	0.0	0.0
	August	0	0.00	0.00	0.0	0.0	0.0
	September	0	0.00	0.00	0.0	0.0	0.0
	October	0	0.00	0.00	0.0	0.0	0.0
	November	0	0.00	0.00	0.0	0.0	0.0
	December	0	0.00	0.00	0.0	0.0	0.0
Day of week	Monday	0	0.00	0.00	0.0	0.0	0.0
	Tuesday	0	0.00	0.00	0.0	0.0	0.0
	Wednesday	0	0.00	0.00	0.0	0.0	0.0
	Thursday	0	0.00	0.00	0.0	0.0	0.0
	Friday	0	0.00	0.00	0.0	0.0	0.0
	Saturday	0	0.00	0.00	0.0	0.0	0.0
	Sunday	0	0.00	0.00	0.0	0.0	0.0
Hour of day	00:00 - 06:00	0	0.00	0.00	0.0	0.0	0.0
	06:01 - 09:00	0	0.00	0.00	0.0	0.0	0.0
	09:01 - 11:00	0	0.00	0.00	0.0	0.0	0.0
	11:01 - 13:00	0	0.00	0.00	0.0	0.0	0.0
	13:01 - 15:00	0	0.00	0.00	0.0	0.0	0.0
	15:01 - 18:00	0	0.00	0.00	0.0	0.0	0.0
	18:01 - 24:00	0	0.00	0.00	0.0	0.0	0.0

* Crashes averaged for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 6

EXPECTED ANNUAL ACCIDENT TABLE - SEMINOLE COUNTY

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road < 7000 (LT lanes > 2)

Total number Intersections Included - 27

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	16	0.59	0.72	1.0	1.6	2.2
	Head On	1	0.04	0.14	0.0	0.0	0.2
	Angle	10	0.37	0.53	0.7	0.8	1.2
	Left Turn	10	0.38	0.54	1.0	1.0	1.5
	Right Turn	1	0.04	0.11	0.0	0.1	0.3
	Sideswipe	1	0.02	0.09	0.0	0.0	0.2
	Pedestrian/Bicycle	1	0.04	0.11	0.0	0.1	0.3
	Other	3	0.10	0.20	0.3	0.3	0.6
Severity	PDO Crashes	15	0.57	0.80	1.0	1.1	1.3
	Injury	18	0.67	0.75	1.7	1.8	2.0
	Non-Incapacitating Injury	10	0.36	0.45	1.0	1.0	1.2
	Incapacitating Injury	2	0.07	0.17	0.3	0.3	0.3
	Fatal Crashes	0	0.00	0.00	0.0	0.0	0.0
Light Conditions	Daylight	30	1.12	1.27	2.0	2.5	2.9
	Dusk	2	0.09	0.18	0.3	0.3	0.3
	Dawn	1	0.02	0.09	0.0	0.0	0.2
	Dark (w/street lights)	10	0.37	0.55	1.0	1.0	1.5
	Dark (wo/street lights)	1	0.05	0.15	0.0	0.1	0.3
Surface Condition	Dry	37	1.36	1.32	2.7	2.9	3.8
	Wet	8	0.28	0.57	0.4	0.7	1.1
	Others	1	0.02	0.09	0.0	0.0	0.2
Month of year	January	3	0.12	0.25	0.4	0.7	0.7
	February	2	0.09	0.20	0.3	0.3	0.6
	March	3	0.10	0.18	0.3	0.3	0.3
	April	3	0.11	0.18	0.3	0.3	0.3
	May	4	0.16	0.28	0.3	0.3	0.3
	June	4	0.14	0.25	0.3	0.3	0.6
	July	3	0.11	0.23	0.3	0.5	0.7
	August	4	0.15	0.23	0.3	0.5	0.7
	September	5	0.20	0.30	0.7	0.7	0.7
	October	5	0.17	0.21	0.3	0.3	0.6
	November	5	0.19	0.31	0.3	0.5	0.7
	December	4	0.14	0.27	0.3	0.5	0.7
Day of week	Monday	7	0.27	0.35	0.7	0.8	1.0
	Tuesday	7	0.27	0.41	0.7	0.8	1.0
	Wednesday	4	0.15	0.34	0.3	0.3	0.3
	Thursday	5	0.17	0.27	0.3	0.5	0.7
	Friday	9	0.33	0.40	0.7	0.7	1.1
	Saturday	9	0.33	0.53	1.0	1.3	1.3
	Sunday	4	0.14	0.25	0.3	0.3	0.6
Hour of day	00:00 - 06:00	1	0.05	0.12	0.0	0.3	0.3
	06:01 - 09:00	7	0.25	0.38	0.7	0.7	0.7
	09:01 - 11:00	2	0.09	0.20	0.3	0.3	0.6
	11:01 - 13:00	5	0.20	0.35	0.4	0.7	0.9
	13:01 - 15:00	4	0.16	0.23	0.3	0.5	0.7
	15:01 - 18:00	13	0.47	0.48	1.0	1.0	1.5
	18:01 - 24:00	12	0.46	0.57	1.0	1.1	1.8

* Crashes averaged for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 7

EXPECTED ANNUAL ACCIDENT TABLE - SEMINOLE COUNTY

4 Lane x 4 Lane Intersection, Signalized AADT/lane for Major Road ≥ 7500

Total number Intersections Included - 10

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	38	3.83	5.06	8.6	9.8	12.1
	Head On	1	0.07	0.14	0.2	0.3	0.3
	Angle	12	1.23	2.15	2.5	3.4	5.0
	Left Turn	11	1.07	1.39	2.3	2.8	3.4
	Right Turn	1	0.10	0.22	0.2	0.4	0.5
	Sideswipe	3	0.33	0.47	0.7	0.7	1.0
	Pedestrian/Bicycle	1	0.07	0.21	0.0	0.1	0.4
	Other	2	0.17	0.24	0.3	0.4	0.5
Severity	PDO Crashes	36	3.63	4.73	9.3	10.8	11.6
	Injury	23	2.33	2.77	5.4	6.4	6.9
	Non-Incapacitating Injury	6	0.60	1.10	1.3	1.8	2.6
	Incapacitating Injury	3	0.27	0.34	0.6	0.7	0.9
	Fatal Crashes	0	0.03	0.11	0.0	0.0	0.2
Light Conditions	Daylight	52	5.20	6.74	13.3	15.0	16.3
	Dusk	2	0.17	0.24	0.3	0.4	0.5
	Dawn	0	0.03	0.11	0.0	0.0	0.2
	Dark (w/street lights)	13	1.30	1.49	2.9	3.1	3.4
	Dark (wo/street lights)	1	0.07	0.14	0.2	0.3	0.3
Surface Condition	Dry	59	5.93	7.17	13.7	14.2	16.6
	Wet	8	0.77	0.90	1.8	2.0	2.2
	Others	2	0.17	0.28	0.6	0.7	0.7
Month of year	January	4	0.43	0.61	1.0	1.1	1.4
	February	4	0.40	0.72	1.1	1.4	1.7
	March	5	0.50	0.84	0.9	1.2	1.9
	April	7	0.73	0.83	1.7	1.7	1.9
	May	5	0.53	0.74	0.9	1.1	1.7
	June	5	0.53	0.83	1.7	2.0	2.0
	July	3	0.30	0.46	0.7	0.7	1.0
	August	7	0.70	1.33	0.9	1.3	2.8
	September	7	0.67	0.75	1.7	1.7	1.7
	October	8	0.83	1.08	2.2	2.4	2.5
	November	6	0.60	0.72	1.2	1.4	1.7
	December	6	0.63	0.92	1.8	2.0	2.2
Day of week	Monday	5	0.53	0.71	1.2	1.4	1.7
	Tuesday	13	1.33	1.67	3.1	3.4	3.9
	Wednesday	11	1.07	1.25	2.7	2.7	2.9
	Thursday	10	1.00	1.42	3.0	3.3	3.3
	Friday	12	1.20	1.72	2.8	3.5	4.3
	Saturday	9	0.87	1.08	1.9	2.1	2.6
	Sunday	9	0.87	1.11	2.1	2.4	2.7
Hour of day	00:00 - 06:00	3	0.30	0.46	0.7	0.7	1.0
	06:01 - 09:00	5	0.50	0.74	0.9	1.1	1.7
	09:01 - 11:00	5	0.53	0.77	1.4	1.7	1.9
	11:01 - 13:00	12	1.23	1.75	3.5	4.0	4.2
	13:01 - 15:00	12	1.17	1.72	2.2	2.6	4.0
	15:01 - 18:00	14	1.43	2.10	3.9	4.8	5.2
	18:01 - 24:00	15	1.47	1.63	3.2	3.4	3.7

* Crashes averaged for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 8

EXPECTED ANNUAL ACCIDENT TABLE - SEMINOLE COUNTY

4 Lane x 4 Lane Intersection, Signalized AADT/lane for Major Road < 7500

Total number Intersections Included - 9

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	16	1.78	1.15	2.7	2.7	2.9
	Head On	1	0.07	0.15	0.3	0.3	0.3
	Angle	6	0.63	0.70	1.3	1.4	1.5
	Left Turn	5	0.52	0.78	1.5	1.7	1.9
	Right Turn	0	0.00	0.00	0.0	0.0	0.0
	Sideswipe	1	0.07	0.15	0.3	0.3	0.3
	Pedestrian/Bicycle	1	0.07	0.15	0.3	0.3	0.3
	Other	2	0.22	0.29	0.6	0.7	0.7
Severity	PDO Crashes	11	1.22	0.90	2.0	2.1	2.2
	Injury	12	1.33	0.97	2.3	2.4	2.5
	Non-Incapacitating Injury	5	0.59	0.55	1.3	1.3	1.3
	Incapacitating Injury	2	0.19	0.24	0.3	0.4	0.5
	Fatal Crashes	0	0.04	0.11	0.0	0.1	0.2
Light Conditions	Daylight	21	2.37	1.58	3.9	4.0	4.0
	Dusk	0	0.04	0.11	0.0	0.1	0.2
	Dawn	1	0.07	0.15	0.3	0.3	0.3
	Dark (w/street lights)	5	0.59	0.62	0.9	1.2	1.6
	Dark (wo/street lights)	2	0.26	0.36	0.6	0.7	0.9
Surface Condition	Dry	25	2.81	1.93	4.0	4.4	5.2
	Wet	3	0.37	0.42	0.9	1.0	1.0
	Others	2	0.19	0.34	0.3	0.5	0.7
Month of year	January	3	0.33	0.37	0.7	0.7	0.9
	February	1	0.15	0.18	0.3	0.3	0.3
	March	3	0.37	0.35	0.7	0.7	0.9
	April	4	0.44	0.47	0.9	1.1	1.2
	May	3	0.30	0.45	0.6	0.8	1.1
	June	3	0.33	0.37	0.7	0.7	0.9
	July	2	0.22	0.24	0.3	0.4	0.5
	August	4	0.44	0.47	1.0	1.0	1.0
	September	3	0.30	0.31	0.3	0.5	0.7
	October	1	0.15	0.29	0.5	0.7	0.7
	November	2	0.22	0.47	0.5	0.8	1.1
	December	1	0.11	0.17	0.3	0.3	0.3
Day of week	Monday	2	0.19	0.18	0.3	0.3	0.3
	Tuesday	4	0.48	0.38	0.9	1.0	1.0
	Wednesday	4	0.48	0.44	0.7	0.8	1.1
	Thursday	7	0.74	0.55	1.3	1.3	1.3
	Friday	4	0.48	0.41	0.7	0.8	1.1
	Saturday	5	0.56	0.53	1.3	1.3	1.3
	Sunday	4	0.44	0.44	0.7	0.8	1.1
Hour of day	00:00 - 06:00	1	0.11	0.17	0.3	0.3	0.3
	06:01 - 09:00	3	0.37	0.39	0.7	0.7	0.9
	09:01 - 11:00	2	0.19	0.24	0.3	0.4	0.5
	11:01 - 13:00	3	0.33	0.44	0.9	1.0	1.0
	13:01 - 15:00	6	0.63	0.72	0.9	1.3	1.8
	15:01 - 18:00	7	0.74	0.57	1.3	1.4	1.5
	18:01 - 24:00	9	0.96	0.98	1.8	2.2	2.6

* Crashes averaged for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 9

EXPECTED ANNUAL ACCIDENT TABLE - SEMINOLE COUNTY

6 Lane x 2 Lane Intersection, Signalized AADT/lane for Major Road ≥ 7500

Total number Intersections Included - 17

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	70	4.12	3.48	7.3	8.9	11.4
	Head On	1	0.04	0.16	0.0	0.0	0.1
	Angle	20	1.18	0.87	2.0	2.1	2.4
	Left Turn	12	0.73	1.02	1.3	1.6	2.4
	Right Turn	2	0.10	0.20	0.3	0.3	0.4
	Sideswipe	9	0.53	0.67	0.9	1.1	1.6
	Pedestrian/Bicycle	2	0.12	0.20	0.3	0.3	0.4
	Other	9	0.51	0.50	1.0	1.0	1.1
Severity	PDO Crashes	68	3.98	3.57	7.1	8.5	10.1
	Injury	38	2.25	1.58	3.3	3.6	4.5
	Non-Incapacitating Injury	14	0.80	0.55	1.0	1.1	1.5
	Incapacitating Injury	4	0.25	0.30	0.5	0.7	0.7
	Fatal Crashes	0	0.02	0.08	0.0	0.0	0.1
Light Conditions	Daylight	90	5.29	3.93	9.9	10.8	11.7
	Dusk	3	0.18	0.24	0.3	0.5	0.7
	Dawn	1	0.04	0.11	0.0	0.1	0.3
	Dark (w/street lights)	25	1.49	1.58	2.7	3.5	4.2
	Dark (wo/street lights)	2	0.12	0.23	0.3	0.5	0.7
Surface Condition	Dry	99	5.82	4.30	9.5	10.1	12.1
	Wet	20	1.18	1.18	1.9	2.9	3.7
	Others	5	0.29	0.45	0.7	0.7	0.9
Month of year	January	13	0.75	0.85	1.9	2.0	2.1
	February	7	0.39	0.44	0.9	1.1	1.3
	March	11	0.67	0.53	1.2	1.3	1.5
	April	11	0.63	0.65	1.2	1.6	2.0
	May	13	0.76	1.01	1.5	1.9	2.6
	June	12	0.69	0.73	1.0	1.4	2.1
	July	9	0.51	0.53	0.7	0.9	1.5
	August	13	0.76	0.45	1.2	1.3	1.4
	September	7	0.41	0.43	0.7	0.8	1.1
	October	9	0.53	0.37	0.9	1.0	1.1
	November	10	0.59	0.69	0.9	1.3	1.9
	December	11	0.63	0.63	1.3	1.5	1.7
Day of week	Monday	12	0.71	0.70	1.4	1.7	1.8
	Tuesday	22	1.31	1.11	2.0	2.3	3.1
	Wednesday	20	1.16	1.13	2.2	2.6	3.2
	Thursday	16	0.96	0.83	1.9	2.1	2.4
	Friday	21	1.24	1.02	2.2	2.5	2.8
	Saturday	18	1.06	0.96	1.7	1.9	2.6
	Sunday	15	0.88	0.69	1.2	1.5	1.9
Hour of day	00:00 - 06:00	6	0.33	0.47	0.3	0.7	1.4
	06:01 - 09:00	12	0.73	0.79	1.4	1.9	2.4
	09:01 - 11:00	10	0.59	0.65	0.9	1.4	2.1
	11:01 - 13:00	14	0.82	0.71	1.5	1.7	1.9
	13:01 - 15:00	17	1.00	0.78	1.5	1.9	2.4
	15:01 - 18:00	27	1.57	1.41	3.0	3.4	4.1
	18:01 - 24:00	30	1.76	1.67	2.9	4.1	5.5

* Crashes averaged for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 10

EXPECTED ANNUAL ACCIDENT TABLE - SEMINOLE COUNTY

6 Lane x 2 Lane Intersection, Signalized AADT/lane for Major Road < 7500

Total number Intersections Included - 5

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	5	1.00	0.94	1.8	1.9	1.9
	Head On	0	0.07	0.15	0.1	0.2	0.3
	Angle	3	0.67	0.78	1.5	1.5	1.6
	Left Turn	1	0.27	0.15	0.3	0.3	0.3
	Right Turn	0	0.07	0.15	0.1	0.2	0.3
	Sideswipe	1	0.13	0.18	0.3	0.3	0.3
	Pedestrian/Bicycle	0	0.07	0.15	0.1	0.2	0.3
	Other	1	0.13	0.18	0.3	0.3	0.3
Severity	PDO Crashes	4	0.87	0.69	1.5	1.5	1.6
	Injury	5	0.93	0.92	1.7	1.9	2.1
	Non-Incapacitating Injury	2	0.40	0.60	0.9	1.1	1.2
	Incapacitating Injury	1	0.13	0.18	0.3	0.3	0.3
	Fatal Crashes	0	0.07	0.15	0.1	0.2	0.3
Light Conditions	Daylight	9	1.73	1.66	3.2	3.5	3.7
	Dusk	0	0.07	0.15	0.1	0.2	0.3
	Dawn	2	0.40	0.43	0.8	0.9	0.9
	Dark (w/street lights)	1	0.13	0.30	0.3	0.4	0.5
	Dark (wo/street lights)	1	0.20	0.30	0.5	0.5	0.6
Surface Condition	Dry	11	2.13	1.68	3.5	3.5	3.6
	Wet	1	0.27	0.43	0.6	0.7	0.9
	Others	0	0.00	0.00	0.0	0.0	0.0
Month of year	January	1	0.13	0.18	0.3	0.3	0.3
	February	2	0.33	0.41	0.6	0.7	0.9
	March	1	0.13	0.18	0.3	0.3	0.3
	April	1	0.27	0.43	0.6	0.7	0.9
	May	1	0.20	0.30	0.5	0.5	0.6
	June	1	0.27	0.37	0.7	0.7	0.7
	July	1	0.13	0.18	0.3	0.3	0.3
	August	0	0.07	0.15	0.1	0.2	0.3
	September	1	0.20	0.18	0.3	0.3	0.3
	October	0	0.07	0.15	0.1	0.2	0.3
	November	2	0.47	0.51	1.0	1.0	1.0
	December	1	0.13	0.18	0.3	0.3	0.3
Day of week	Monday	2	0.47	0.69	0.9	1.1	1.4
	Tuesday	1	0.27	0.28	0.5	0.5	0.6
	Wednesday	1	0.13	0.30	0.3	0.4	0.5
	Thursday	1	0.20	0.30	0.5	0.5	0.6
	Friday	2	0.47	0.51	1.0	1.0	1.0
	Saturday	2	0.47	0.30	0.7	0.7	0.7
	Sunday	2	0.40	0.43	0.8	0.9	0.9
Hour of day	00:00 - 06:00	1	0.27	0.28	0.5	0.5	0.6
	06:01 - 09:00	2	0.33	0.47	0.8	0.9	0.9
	09:01 - 11:00	1	0.13	0.18	0.3	0.3	0.3
	11:01 - 13:00	1	0.13	0.18	0.3	0.3	0.3
	13:01 - 15:00	3	0.67	0.71	1.3	1.4	1.5
	15:01 - 18:00	2	0.47	0.38	0.8	0.9	0.9
	18:01 - 24:00	2	0.40	0.55	0.7	0.9	1.1

* Crashes averaged for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 11

EXPECTED ANNUAL ACCIDENT TABLE - SEMINOLE COUNTY

6 Lane x 4 Lane and 6 Lane x 6 Lane Intersection, Signalized

Total number Intersections Included - 8

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	27	3.38	6.20	3.9	8.3	13.3
	Head On	0	0.00	0.00	0.0	0.0	0.0
	Angle	7	0.92	1.27	2.3	2.6	3.0
	Left Turn	2	0.29	0.38	0.7	0.8	0.9
	Right Turn	1	0.08	0.15	0.3	0.3	0.3
	Sideswipe	3	0.42	0.53	1.0	1.1	1.2
	Pedestrian/Bicycle	1	0.13	0.17	0.3	0.3	0.3
	Other	2	0.25	0.58	0.3	0.7	1.2
Severity	PDO Crashes	22	2.71	4.03	3.6	6.2	9.1
	Injury	16	2.00	3.49	2.6	5.0	7.7
	Non-Incapacitating Injury	5	0.63	0.93	1.0	1.5	2.1
	Incapacitating Injury	1	0.13	0.25	0.3	0.4	0.6
	Fatal Crashes	0	0.04	0.12	0.0	0.1	0.2
Light Conditions	Daylight	26	3.21	4.25	4.6	7.1	9.9
	Dusk	0	0.04	0.12	0.0	0.1	0.2
	Dawn	0	0.04	0.12	0.0	0.1	0.2
	Dark (w/street lights)	15	1.92	3.78	2.6	5.2	8.1
	Dark (wo/street lights)	2	0.21	0.47	0.3	0.6	1.0
Surface Condition	Dry	37	4.58	7.60	5.0	10.3	16.5
	Wet	6	0.75	1.09	2.2	2.4	2.6
	Others	1	0.08	0.15	0.3	0.3	0.3
Month of year	January	5	0.63	0.90	1.0	1.5	2.1
	February	4	0.54	0.73	1.0	1.3	1.7
	March	5	0.58	1.27	0.7	1.6	2.6
	April	5	0.58	1.08	1.3	1.8	2.4
	May	4	0.46	0.92	0.7	1.3	2.0
	June	4	0.46	0.67	0.7	1.1	1.5
	July	3	0.38	0.70	0.7	1.1	1.5
	August	3	0.38	0.52	1.0	1.0	1.0
	September	2	0.25	0.39	0.7	0.8	0.9
	October	2	0.25	0.39	0.7	0.8	0.9
	November	3	0.33	0.59	0.7	1.0	1.3
	December	5	0.63	1.06	1.3	1.8	2.4
Day of week	Monday	5	0.63	0.98	1.3	1.7	2.2
	Tuesday	5	0.58	1.14	0.7	1.5	2.4
	Wednesday	6	0.75	1.19	1.6	2.2	2.8
	Thursday	6	0.79	1.59	0.7	1.9	3.3
	Friday	7	0.92	1.37	1.3	2.1	3.1
	Saturday	9	1.08	1.67	1.3	2.4	3.7
	Sunday	6	0.71	0.95	1.3	1.7	2.2
Hour of day	00:00 - 06:00	4	0.54	1.28	0.6	1.6	2.6
	06:01 - 09:00	4	0.54	0.69	1.0	1.3	1.7
	09:01 - 11:00	2	0.29	0.60	0.6	1.0	1.3
	11:01 - 13:00	4	0.54	1.04	0.7	1.4	2.2
	13:01 - 15:00	4	0.54	0.91	0.7	1.3	2.0
	15:01 - 18:00	8	1.04	1.16	2.3	2.5	2.8
	18:01 - 24:00	13	1.67	3.19	2.0	4.2	6.8

* Crashes averaged for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 12

EXPECTED ANNUAL ACCIDENT TABLE - SEMINOLE COUNTY

T Intersection, Signalized, AADT/lane for Major Road ≥ 7500

Total number Intersections Included - 28

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	46	1.64	2.66	2.7	3.5	7.3
	Head On	0	0.00	0.00	0.0	0.0	0.0
	Angle	10	0.37	0.66	0.7	1.0	1.4
	Left Turn	7	0.25	0.49	0.7	0.7	0.7
	Right Turn	1	0.04	0.10	0.0	0.1	0.3
	Sideswipe	6	0.20	0.36	0.7	0.7	0.9
	Pedestrian/Bicycle	1	0.02	0.09	0.0	0.0	0.2
	Other	6	0.21	0.39	0.3	0.7	0.9
Severity	PDO Crashes	41	1.45	2.25	2.7	3.2	6.0
	Injury	26	0.92	1.12	2.0	2.7	2.9
	Non-Incapacitating Injury	8	0.29	0.54	0.7	0.7	1.5
	Incapacitating Injury	2	0.07	0.17	0.3	0.3	0.3
	Fatal Crashes	0	0.01	0.06	0.0	0.0	0.0
Light Conditions	Daylight	56	2.00	2.84	3.7	4.3	8.0
	Dusk	1	0.05	0.15	0.0	0.1	0.3
	Dawn	0	0.01	0.06	0.0	0.0	0.0
	Dark (w/street lights)	14	0.49	0.82	1.3	1.3	1.8
	Dark (wo/street lights)	4	0.13	0.28	0.3	0.3	0.8
Surface Condition	Dry	65	2.31	3.34	4.0	4.7	9.6
	Wet	10	0.35	0.42	0.7	1.0	1.2
	Others	2	0.08	0.28	0.0	0.1	0.6
Month of year	January	9	0.31	0.43	1.0	1.0	1.2
	February	6	0.20	0.49	0.3	0.7	0.9
	March	5	0.17	0.35	0.3	0.7	0.9
	April	7	0.24	0.40	0.7	0.7	1.1
	May	7	0.24	0.38	0.3	0.7	0.9
	June	4	0.15	0.26	0.3	0.4	0.7
	July	7	0.25	0.44	0.7	1.0	1.0
	August	7	0.25	0.47	0.3	0.8	1.4
	September	8	0.30	0.50	1.0	1.1	1.3
	October	4	0.13	0.26	0.3	0.4	0.7
	November	8	0.27	0.45	0.7	0.8	1.0
	December	6	0.23	0.41	0.7	0.8	1.2
Day of week	Monday	7	0.24	0.43	0.7	0.9	1.3
	Tuesday	11	0.40	0.66	1.3	1.7	1.9
	Wednesday	13	0.45	0.69	0.7	1.7	1.7
	Thursday	14	0.50	0.73	1.3	1.5	2.2
	Friday	14	0.50	0.77	1.3	1.4	2.1
	Saturday	9	0.32	0.48	0.7	1.0	1.0
	Sunday	9	0.32	0.56	0.7	0.8	1.7
Hour of day	00:00 - 06:00	4	0.15	0.33	0.3	0.4	0.9
	06:01 - 09:00	8	0.29	0.75	0.3	0.7	1.3
	09:01 - 11:00	7	0.24	0.40	0.7	1.0	1.0
	11:01 - 13:00	8	0.27	0.48	0.7	1.1	1.3
	13:01 - 15:00	11	0.39	0.69	0.7	1.2	1.7
	15:01 - 18:00	16	0.58	0.86	1.3	1.7	1.7
	18:01 - 24:00	18	0.63	1.00	1.3	1.3	2.4

* Crashes averaged for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

CATEGORY 13

EXPECTED ANNUAL ACCIDENT TABLE - SEMINOLE COUNTY

T Intersection, Signalized, AADT/lane for Major Road < 7500

Total number Intersections Included - 28

		Total Number Crashes Per Year*	Mean Crashes Per Intersection Per Year	Standard Deviation**	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	15	0.54	0.61	1.0	1.0	1.4
	Head On	1	0.04	0.10	0.0	0.1	0.3
	Angle	11	0.40	0.67	0.7	0.8	1.7
	Left Turn	6	0.23	0.35	0.7	0.8	1.0
	Right Turn	1	0.04	0.14	0.0	0.0	0.2
	Sideswipe	1	0.05	0.12	0.0	0.3	0.3
	Pedestrian/Bicycle	1	0.04	0.10	0.0	0.1	0.3
	Other	2	0.06	0.13	0.3	0.3	0.3
Severity	PDO Crashes	18	0.64	0.85	1.3	1.8	2.0
	Injury	11	0.40	0.43	1.0	1.0	1.2
	Non-Incapacitating Injury	7	0.24	0.37	0.7	0.7	0.7
	Incapacitating Injury	2	0.08	0.20	0.3	0.3	0.6
	Fatal Crashes	0	0.01	0.06	0.0	0.0	0.0
Light Conditions	Daylight	27	0.95	1.11	1.7	2.0	2.7
	Dusk	1	0.02	0.09	0.0	0.0	0.2
	Dawn	1	0.02	0.09	0.0	0.0	0.2
	Dark (w/street lights)	8	0.27	0.39	0.7	0.7	0.9
	Dark (wo/street lights)	2	0.07	0.21	0.0	0.3	0.3
Surface Condition	Dry	32	1.15	1.37	2.0	2.4	3.3
	Wet	5	0.19	0.28	0.3	0.7	0.7
	Others	1	0.04	0.14	0.0	0.0	0.2
Month of year	January	5	0.19	0.39	0.3	0.7	0.9
	February	3	0.12	0.21	0.3	0.3	0.6
	March	2	0.07	0.21	0.0	0.3	0.3
	April	1	0.02	0.09	0.0	0.0	0.2
	May	3	0.12	0.21	0.3	0.3	0.6
	June	3	0.12	0.21	0.3	0.3	0.6
	July	3	0.10	0.20	0.3	0.3	0.6
	August	5	0.18	0.26	0.3	0.4	0.7
	September	4	0.15	0.26	0.3	0.4	0.7
	October	3	0.10	0.18	0.3	0.3	0.3
	November	3	0.10	0.18	0.3	0.3	0.3
	December	3	0.12	0.24	0.3	0.3	0.6
Day of week	Monday	4	0.13	0.40	0.3	0.3	0.6
	Tuesday	5	0.17	0.21	0.3	0.3	0.6
	Wednesday	5	0.19	0.32	0.3	0.5	1.0
	Thursday	7	0.25	0.38	0.7	0.8	1.0
	Friday	6	0.20	0.28	0.3	0.7	0.7
	Saturday	5	0.19	0.40	0.3	0.3	0.6
	Sunday	7	0.25	0.40	0.7	1.0	1.0
Hour of day	00:00 - 06:00	2	0.08	0.17	0.3	0.3	0.3
	06:01 - 09:00	4	0.15	0.26	0.3	0.4	0.7
	09:01 - 11:00	3	0.11	0.18	0.3	0.3	0.3
	11:01 - 13:00	5	0.19	0.26	0.7	0.7	0.7
	13:01 - 15:00	5	0.17	0.29	0.3	0.4	0.9
	15:01 - 18:00	9	0.31	0.50	0.7	0.9	1.3
	18:01 - 24:00	9	0.33	0.42	0.7	0.8	1.2

* Crashes averaged for years 1999, 2000 and 2001 long forms only.

** Standard Deviation column represents the standard deviation for mean crashes per year per intersection.

APPENDIX G

19 CATEGORY CRASH PROFILE TABLES FOR THE COMBINED DATABASE

CATEGORY 1

EXPECTED ANNUAL ACCIDENT VALUE TABLE FOR SIX COUNTIES

2 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road >= 5000

Total Number of Intersections -114

		Number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	161	1.41	2.16	3.00	3.50	4.00
	Head On	10	0.08	0.22	0.00	0.50	0.50
	Angle	85	0.75	1.01	1.50	2.35	3.00
	Left Turn	93	0.81	1.15	2.00	2.00	2.68
	Right Turn	13	0.11	0.25	0.50	0.50	0.50
	Sideswipe	28	0.25	0.60	0.50	0.50	1.35
	Pedestrian/Bicycle	8	0.07	0.18	0.00	0.50	0.50
	Other	41	0.36	0.74	0.50	1.00	1.50
Severity	No Injury	203	1.78	0.35	3.53	4.50	5.35
	Possible Injury	90	0.79	0.00	1.50	2.00	2.50
	Non-Incapacitating Injury	59	0.52	0.00	1.00	1.50	2.18
	Incapacitating Injury	17	0.14	0.00	0.50	0.50	0.50
	Fatal Crashes	2	0.01	0.00	0.00	0.00	0.00
Light Conditions	Daylight	286	2.50	2.89	5.00	6.35	7.00
	Dusk	12	0.10	0.26	0.50	0.50	0.50
	Dawn	6	0.05	0.17	0.00	0.00	0.50
	Dark (w/street lights)	107	0.94	1.60	2.00	2.35	4.68
	Dark (wo/street lights)	24	0.21	0.43	0.50	1.00	1.00
Surface Condition	Dry	373	3.27	3.69	6.50	7.35	11.50
	Wet	54	0.47	0.81	1.00	1.50	2.00
	Slippery	3	0.02	0.10	0.00	0.00	0.00
	Others	2	0.01	0.08	0.00	0.00	0.00
Month of year	January	36	0.32	0.52	0.50	1.00	1.18
	February	31	0.27	0.49	0.50	1.00	1.00
	March	41	0.36	0.60	1.00	1.00	1.50
	April	37	0.32	0.54	0.50	1.00	1.50
	May	33	0.29	0.47	0.52	1.00	1.00
	June	38	0.33	0.55	0.50	1.00	1.18
	July	36	0.32	0.58	1.00	1.00	1.50
	August	45	0.39	0.63	1.00	1.00	1.50
	September	35	0.30	0.46	0.50	1.00	1.00
	October	31	0.27	0.48	0.50	0.50	1.00
	November	35	0.30	0.57	0.50	1.00	1.50
	December	42	0.36	0.55	1.00	1.00	1.50
Day of week	Monday	54	0.47	0.65	1.00	1.35	1.68
	Tuesday	67	0.59	0.78	1.50	1.50	2.00
	Wednesday	63	0.55	0.74	1.00	1.50	1.68
	Thursday	58	0.50	0.78	1.00	1.50	2.00
	Friday	67	0.59	0.91	1.50	1.50	2.18
	Saturday	65	0.57	0.93	1.00	1.85	2.50
	Sunday	63	0.55	0.84	1.50	1.85	2.50
Hour of day	00:00 - 06:00	40	0.35	0.63	0.50	1.00	1.50
	06:01 - 09:00	42	0.36	0.56	1.00	1.00	1.50
	09:01 - 11:00	24	0.21	0.40	0.50	0.50	1.00
	11:01 - 13:00	41	0.36	0.61	1.00	1.00	1.68
	13:01 - 15:00	41	0.36	0.51	1.00	1.00	1.18
	15:01 - 18:00	89	0.78	1.02	1.50	1.85	2.50
	18:01 - 24:00	106	0.93	1.29	2.00	2.50	3.50

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.
2. Crashes represent only long forms.
3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 2

EXPECTED ANNUAL ACCIDENT VALUE TABLE FOR SIX COUNTIES

2 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road < 5000

Total Number of Intersections -61

		Number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	33	0.54	0.87	1.00	2.00	2.00
	Head On	3	0.05	0.18	0.00	0.00	0.50
	Angle	34	0.56	0.76	1.00	1.50	2.00
	Left Turn	25	0.40	0.79	1.00	1.50	2.00
	Right Turn	2	0.03	0.12	0.00	0.00	0.50
	Sideswipe	3	0.05	0.18	0.00	0.00	0.50
	Pedestrian/Bicycle	3	0.04	0.14	0.00	0.00	0.50
	Other	8	0.13	0.34	0.50	0.50	0.50
Severity	No Injury	56	0.92	1.29	2.50	3.00	3.50
	Possible Injury	19	0.31	0.46	1.00	1.00	1.50
	Non-Incapacitating Injury	23	0.38	0.48	1.00	1.00	1.00
	Incapacitating Injury	4	0.07	0.19	0.00	0.50	0.50
	Fatal Crashes	1	0.01	0.06	0.00	0.00	0.00
Light Conditions	Daylight	74	1.21	1.50	3.00	3.50	4.50
	Dusk	3	0.04	0.14	0.00	0.00	0.50
	Dawn	2	0.03	0.12	0.00	0.00	0.50
	Dark (w/street lights)	23	0.37	0.64	1.00	1.50	1.50
	Dark (wo/street lights)	9	0.15	0.32	0.50	0.50	1.00
Surface Condition	Dry	95	1.56	1.83	3.50	4.00	6.00
	Wet	14	0.22	0.37	0.50	1.00	1.00
	Slippery	2	0.02	0.11	0.00	0.00	0.00
	Others	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	12	0.19	0.36	0.50	0.50	0.50
	February	9	0.14	0.28	0.50	0.50	0.50
	March	8	0.13	0.30	0.50	0.50	0.50
	April	9	0.14	0.32	0.50	0.50	0.50
	May	12	0.19	0.36	0.50	0.50	1.00
	June	9	0.14	0.28	0.50	0.50	0.50
	July	6	0.09	0.21	0.50	0.50	0.50
	August	17	0.27	0.47	1.00	1.00	1.50
	September	10	0.16	0.32	0.50	0.50	1.00
	October	9	0.15	0.32	0.50	0.50	0.50
	November	6	0.09	0.23	0.00	0.50	0.50
	December	8	0.12	0.30	0.50	0.50	0.50
Day of week	Monday	16	0.26	0.50	0.50	1.00	1.50
	Tuesday	16	0.26	0.45	0.50	1.00	1.00
	Wednesday	16	0.25	0.39	0.50	1.00	1.00
	Thursday	18	0.30	0.43	0.50	1.00	1.00
	Friday	14	0.23	0.41	0.50	1.00	1.00
	Saturday	12	0.19	0.37	0.50	0.50	1.00
	Sunday	19	0.31	0.48	0.50	1.00	1.00
Hour of day	00:00 - 06:00	9	0.14	0.38	0.50	0.50	0.50
	06:01 - 09:00	11	0.18	0.33	0.50	0.50	1.00
	09:01 - 11:00	9	0.14	0.34	0.50	0.50	0.50
	11:01 - 13:00	9	0.14	0.34	0.50	0.50	0.50
	13:01 - 15:00	18	0.30	0.50	0.50	1.00	1.50
	15:01 - 18:00	25	0.40	0.62	1.00	1.50	1.50
	18:01 - 24:00	31	0.51	0.72	1.00	1.50	2.00

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.
2. Crashes represent only long forms.
3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 3

EXPECTED ANNUAL ACCIDENT VALUE TABLE FOR SIX COUNTIES

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road >= 7000 , LTL <=2

Total Number of Intersections - 88

		Number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	260	2.95	3.20	5.50	7.50	8.00
	Head On	10	0.11	0.32	0.00	0.50	0.50
	Angle	165	1.87	1.97	3.50	5.15	6.00
	Left Turn	96	1.09	1.23	2.48	3.00	3.33
	Right Turn	25	0.28	0.51	0.50	1.00	1.33
	Sideswipe	67	0.76	1.08	1.50	2.00	2.50
	Pedestrian/Bicycle	21	0.23	0.43	0.50	1.00	1.00
	Other	88	0.99	1.54	1.98	2.50	4.15
Severity	No Injury	270	3.06	3.52	6.50	8.00	9.83
	Possible Injury	135	1.53	1.48	3.00	3.00	4.65
	Non-Incapacitating Injury	84	0.95	1.09	1.98	2.50	3.00
	Incapacitating Injury	15	0.17	0.32	0.50	0.50	1.00
	Fatal Crashes	2	0.02	0.09	0.00	0.00	0.00
Light Conditions	Daylight	495	5.62	5.40	11.43	12.30	15.83
	Dusk	27	0.30	0.47	0.50	1.00	1.00
	Dawn	4	0.05	0.16	0.00	0.00	0.50
	Dark (w/street lights)	168	1.91	2.57	4.00	4.50	5.83
	Dark (wo/street lights)	33	0.37	0.73	1.00	1.00	2.00
Surface Condition	Dry	600	6.82	6.74	12.95	15.50	18.65
	Wet	101	1.14	1.20	2.50	2.50	3.50
	Slippery	1	0.01	0.07	0.00	0.00	0.00
	Others	9	0.10	0.31	0.00	0.50	0.50
Month of year	January	53	0.60	0.71	1.50	1.50	2.00
	February	53	0.60	0.78	1.50	1.50	2.50
	March	60	0.68	0.81	1.50	2.00	2.00
	April	64	0.73	0.89	1.50	2.00	2.83
	May	65	0.74	0.96	1.50	2.00	2.50
	June	59	0.66	0.82	1.50	2.00	2.33
	July	73	0.83	1.06	1.50	2.00	2.50
	August	64	0.73	0.84	1.50	2.00	2.50
	September	59	0.66	0.97	1.48	2.00	2.83
	October	63	0.71	0.90	1.50	1.50	2.50
	November	60	0.68	0.83	1.50	1.50	2.00
	December	58	0.65	0.84	1.00	1.50	2.00
Day of week	Monday	96	1.09	1.20	2.00	2.65	3.50
	Tuesday	99	1.12	1.11	2.48	3.00	3.50
	Wednesday	101	1.14	1.45	2.00	2.65	5.00
	Thursday	108	1.22	1.15	2.00	3.00	3.50
	Friday	116	1.31	1.49	2.00	2.50	3.83
	Saturday	115	1.31	1.45	3.00	3.00	3.50
	Sunday	95	1.08	1.58	2.00	2.50	3.33
Hour of day	00:00 - 06:00	58	0.65	1.02	1.48	1.50	2.33
	06:01 - 09:00	47	0.53	0.70	1.00	1.50	1.50
	09:01 - 11:00	37	0.41	0.60	1.00	1.00	1.65
	11:01 - 13:00	47	0.53	0.60	1.00	1.15	2.00
	13:01 - 15:00	56	0.64	0.67	1.50	1.50	2.00
	15:01 - 18:00	126	1.43	1.37	2.98	3.50	4.00
	18:01 - 24:00	140	1.59	1.62	3.00	3.65	4.33

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.
2. Crashes represent only long forms.
3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 4

EXPECTED ANNUAL ACCIDENT VALUE TABLE FOR SIX COUNTIES

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road >= 7000 , LTL > 2

Total Number of Intersections -265

		Number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	798	3.01	3.49	6.00	7.30	10.50
	Head On	23	0.08	0.21	0.20	0.50	0.50
	Angle	388	1.46	1.91	3.00	3.50	5.50
	Left Turn	300	1.13	1.46	2.50	3.00	4.00
	Right Turn	22	0.08	0.25	0.00	0.50	0.50
	Sideswipe	114	0.43	0.71	1.00	1.50	2.00
	Pedestrian/Bicycle	39	0.15	0.34	0.50	0.50	1.00
	Other	112	0.42	0.65	1.00	1.00	1.50
Severity	No Injury	741	2.79	3.60	6.20	7.00	9.50
	Possible Injury	401	1.51	1.71	3.20	4.00	5.00
	Non-Incapacitating Injury	271	1.02	1.24	2.00	2.50	3.50
	Incapacitating Injury	68	0.25	0.42	0.50	1.00	1.00
	Fatal Crashes	3	0.01	0.07	0.00	0.00	0.00
Light Conditions	Daylight	1191	4.49	4.65	8.70	11.00	14.90
	Dusk	37	0.14	0.30	0.50	0.50	0.90
	Dawn	17	0.06	0.18	0.00	0.50	0.50
	Dark (w/street lights)	454	1.71	2.46	4.00	4.50	6.00
	Dark (wo/street lights)	85	0.32	0.74	0.50	1.00	1.50
Surface Condition	Dry	1441	5.44	5.74	10.50	13.50	17.90
	Wet	223	0.84	1.35	1.50	2.50	3.00
	Slippery	11	0.04	0.17	0.00	0.00	0.50
	Others	16	0.06	0.20	0.00	0.00	0.50
Month of year	January	126	0.47	0.63	1.00	1.50	2.00
	February	143	0.54	0.74	1.50	1.50	2.00
	March	145	0.55	0.75	1.00	1.50	2.00
	April	162	0.61	0.84	1.50	1.50	2.00
	May	144	0.54	0.73	1.00	1.50	2.00
	June	143	0.54	0.75	1.00	1.50	2.00
	July	149	0.56	0.80	1.20	1.50	2.50
	August	158	0.60	0.83	1.00	1.50	2.40
	September	150	0.56	0.79	1.50	1.50	2.00
	October	167	0.63	0.84	1.50	2.00	2.50
	November	152	0.57	0.78	1.50	1.50	2.40
	December	158	0.59	0.83	1.50	1.50	2.00
Day of week	Monday	241	0.91	1.09	2.00	2.50	3.00
	Tuesday	257	0.97	1.11	2.00	2.50	3.00
	Wednesday	249	0.94	1.16	2.00	2.50	3.00
	Thursday	266	1.00	1.22	2.00	2.50	3.50
	Friday	281	1.06	1.25	2.00	2.50	3.50
	Saturday	271	1.02	1.31	2.50	2.50	3.40
	Sunday	231	0.87	1.16	1.70	2.50	3.00
Hour of day	00:00 - 06:00	130	0.49	0.79	1.00	1.50	2.00
	06:01 - 09:00	165	0.62	0.75	1.50	1.50	2.00
	09:01 - 11:00	114	0.43	0.61	1.00	1.00	1.50
	11:01 - 13:00	149	0.56	0.75	1.00	1.50	2.00
	13:01 - 15:00	209	0.79	0.99	1.50	2.00	2.50
	15:01 - 18:00	327	1.23	1.42	2.50	3.00	4.00
	18:01 - 24:00	436	1.64	2.07	3.00	4.50	5.50

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.
2. Crashes represent only long forms.
3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 5

EXPECTED ANNUAL ACCIDENT VALUE TABLE FOR SIX COUNTIES

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road <7000 ,LTL <=2

Total Number of Intersections -51

		Number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	51	1.00	1.24	2.00	2.50	3.75
	Head On	4	0.08	0.25	0.00	0.50	0.50
	Angle	61	1.20	1.84	2.50	3.50	4.75
	Left Turn	30	0.59	0.91	1.25	1.50	2.50
	Right Turn	6	0.11	0.31	0.00	0.50	0.75
	Sideswipe	18	0.35	0.69	0.50	1.00	1.25
	Pedestrian/Bicycle	2	0.03	0.12	0.00	0.00	0.25
	Other	18	0.34	0.60	0.50	1.00	1.25
Severity	No Injury	74	1.45	2.03	3.50	5.00	6.00
	Possible Injury	41	0.79	1.02	2.00	2.50	3.00
	Non-Incapacitating Injury	27	0.53	0.81	1.00	1.50	1.75
	Incapacitating Injury	7	0.13	0.24	0.50	0.50	0.50
	Fatal Crashes	1	0.01	0.07	0.00	0.00	0.00
Light Conditions	Daylight	118	2.31	2.77	4.75	5.00	9.25
	Dusk	6	0.12	0.24	0.50	0.50	0.50
	Dawn	3	0.06	0.16	0.00	0.50	0.50
	Dark (w/street lights)	50	0.97	1.57	1.75	3.00	4.00
	Dark (wo/street lights)	9	0.18	0.41	0.50	0.50	1.25
Surface Condition	Dry	152	2.98	3.65	6.50	7.50	10.00
	Wet	30	0.59	0.85	1.75	2.00	2.00
	Slippery	0	0.00	0.00	0.00	0.00	0.00
	Others	4	0.07	0.22	0.00	0.00	0.50
Month of year	January	16	0.31	0.52	0.75	1.00	1.25
	February	15	0.28	0.43	0.50	1.00	1.00
	March	18	0.34	0.64	1.00	1.00	1.75
	April	16	0.30	0.51	0.75	1.00	1.25
	May	18	0.35	0.63	0.75	1.00	1.50
	June	17	0.32	0.54	1.00	1.00	1.50
	July	14	0.27	0.49	0.50	1.00	1.50
	August	15	0.29	0.41	1.00	1.00	1.00
	September	16	0.30	0.43	0.75	1.00	1.00
	October	17	0.33	0.52	1.00	1.00	1.00
	November	15	0.29	0.41	0.50	1.00	1.00
	December	14	0.27	0.46	0.50	1.00	1.25
Day of week	Monday	31	0.60	0.82	1.00	1.50	2.25
	Tuesday	24	0.46	0.74	1.00	1.50	2.00
	Wednesday	21	0.41	0.54	0.75	1.00	1.75
	Thursday	31	0.60	0.84	1.25	2.00	2.00
	Friday	31	0.60	0.81	1.50	2.00	2.25
	Saturday	23	0.45	0.81	1.00	1.00	1.50
	Sunday	30	0.58	1.01	1.00	1.50	2.75
Hour of day	00:00 - 06:00	14	0.26	0.49	0.50	1.00	1.25
	06:01 - 09:00	24	0.46	0.67	1.00	1.50	2.00
	09:01 - 11:00	11	0.21	0.35	0.50	0.50	1.00
	11:01 - 13:00	11	0.22	0.36	0.50	0.50	1.00
	13:01 - 15:00	18	0.35	0.52	1.00	1.00	1.25
	15:01 - 18:00	30	0.58	0.84	1.50	1.50	2.25
	18:01 - 24:00	46	0.89	1.23	2.00	2.50	3.50

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.
2. Crashes represent only long forms.
3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 6

EXPECTED ANNUAL ACCIDENT VALUE TABLE FOR SIX COUNTIES

4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road <7000 ,LTL > 2

Total Number of Intersections -136

		Number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	174	1.28	1.75	2.50	3.00	4.00
	Head On	12	0.08	0.25	0.00	0.50	0.50
	Angle	157	1.15	1.87	2.38	2.75	4.00
	Left Turn	111	0.82	1.22	1.50	2.50	3.00
	Right Turn	7	0.05	0.18	0.00	0.00	0.50
	Sideswipe	24	0.17	0.44	0.50	0.50	1.00
	Pedestrian/Bicycle	14	0.10	0.30	0.00	0.50	0.50
	Other	43	0.31	0.61	0.50	1.00	1.50
Severity	No Injury	214	1.57	0.11	3.00	3.75	5.63
	Possible Injury	127	0.93	2.39	1.50	2.00	3.00
	Non-Incapacitating Injury	90	0.66	1.34	1.50	1.50	2.00
	Incapacitating Injury	29	0.21	0.80	0.50	0.75	1.00
	Fatal Crashes	1	0.01	0.42	0.00	0.00	0.00
Light Conditions	Daylight	4	0.03	3.40	0.00	0.00	0.13
	Dusk	357	2.63	0.28	5.00	6.25	7.13
	Dawn	20	0.14	0.15	0.50	0.50	0.50
	Dark (w/street lights)	6	0.04	1.74	0.00	0.00	0.50
	Dark (wo/street lights)	119	0.87	0.53	1.50	2.00	2.50
Surface Condition	Dry	439	3.23	4.19	5.88	7.00	9.50
	Wet	77	0.56	1.09	1.00	1.00	2.00
	Slippery	4	0.03	0.13	0.00	0.00	0.00
	Others	6	0.04	0.20	0.00	0.00	0.50
Month of year	January	54	0.39	0.73	1.00	1.00	1.50
	February	40	0.29	0.51	0.50	1.00	1.00
	March	50	0.37	0.63	1.00	1.00	1.50
	April	35	0.25	0.51	0.50	0.75	1.00
	May	40	0.29	0.60	0.50	1.00	1.50
	June	43	0.31	0.46	1.00	1.00	1.00
	July	48	0.35	0.63	1.00	1.00	1.50
	August	47	0.34	0.67	0.50	1.00	1.00
	September	47	0.35	0.54	1.00	1.00	1.13
	October	48	0.35	0.48	1.00	1.00	1.13
	November	45	0.33	0.57	0.50	1.00	1.13
	December	46	0.33	0.75	0.50	1.00	1.13
Day of week	Monday	73	0.53	0.77	1.00	1.50	2.00
	Tuesday	72	0.53	0.81	1.00	1.50	2.00
	Wednesday	76	0.56	0.82	1.00	1.50	2.00
	Thursday	77	0.56	0.83	1.00	1.50	2.00
	Friday	80	0.59	0.94	1.00	1.50	2.13
	Saturday	79	0.58	1.00	1.00	1.50	2.00
	Sunday	85	0.62	1.05	1.50	1.50	2.63
Hour of day	00:00 - 06:00	38	0.28	0.60	0.50	1.00	1.00
	06:01 - 09:00	51	0.38	0.60	1.00	1.00	1.50
	09:01 - 11:00	37	0.27	0.46	0.50	1.00	1.00
	11:01 - 13:00	53	0.39	0.69	1.00	1.00	1.50
	13:01 - 15:00	57	0.42	0.56	1.00	1.50	1.50
	15:01 - 18:00	110	0.81	0.99	1.50	2.00	2.50
	18:01 - 24:00	134	0.98	1.40	1.50	2.25	3.50

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.
2. Crashes represent only long forms.
3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 7

EXPECTED ANNUAL ACCIDENT VALUE TABLE FOR SIX COUNTIES

4 Lane x 4 Lane Intersection, Signalized, AADT/lane for Major Road >= 7,500

Total Number of Intersections- 93

		Number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	538	5.78	4.89	10.60	11.90	14.90
	Head On	14	0.15	0.36	0.50	0.50	0.70
	Angle	285	3.06	3.03	5.50	7.00	8.50
	Left Turn	195	2.09	2.09	4.00	4.00	6.00
	Right Turn	17	0.18	0.33	0.50	0.50	1.00
	Sideswipe	105	1.12	1.27	2.50	3.00	4.00
	Pedestrian/Bicycle	29	0.31	0.48	1.00	1.00	1.00
	Other	78	0.83	0.98	2.00	2.50	3.00
Severity	No Injury	554	5.95	5.29	12.20	14.70	16.20
	Possible Injury	258	2.77	2.55	5.00	6.40	7.00
	Non-Incapacitating Injury	156	1.67	1.85	3.00	4.40	6.00
	Incapacitating Injury	46	0.49	0.59	1.00	1.50	2.00
	Fatal Crashes	2	0.02	0.10	0.00	0.00	0.00
Light Conditions	Daylight	788	8.47	6.40	15.50	18.50	21.20
	Dusk	27	0.28	0.44	1.00	1.00	1.00
	Dawn	19	0.20	0.34	0.50	0.50	1.00
	Dark (w/street lights)	374	4.02	3.83	8.60	9.90	10.50
	Dark (wo/street lights)	47	0.51	0.91	1.50	1.50	2.20
Surface Condition	Dry	1020	10.96	10.09	21.30	23.40	27.90
	Wet	163	1.75	1.71	3.50	3.50	4.00
	Slippery	5	0.05	0.15	0.00	0.00	0.50
	Others	16	0.17	0.42	0.50	0.50	1.00
Month of year	January	82	0.88	0.90	1.50	2.00	3.00
	February	93	1.00	1.05	2.00	2.00	3.20
	March	94	1.01	1.05	2.50	2.50	3.00
	April	101	1.08	1.00	2.00	2.40	2.70
	May	106	1.13	1.10	2.10	2.50	3.00
	June	107	1.15	1.15	2.10	2.90	3.20
	July	105	1.12	1.08	2.00	2.50	3.00
	August	137	1.47	1.41	3.00	3.40	4.50
	September	107	1.15	1.06	2.00	2.50	3.00
	October	116	1.25	1.16	2.50	2.90	3.50
	November	105	1.13	1.07	2.10	3.00	3.00
	December	107	1.15	1.11	2.50	2.50	3.00
Day of week	Monday	188	2.02	1.71	3.60	4.00	5.40
	Tuesday	185	1.98	1.71	4.00	4.40	5.50
	Wednesday	174	1.87	1.57	3.50	4.00	5.50
	Thursday	169	1.82	1.47	3.50	3.90	4.50
	Friday	198	2.12	1.92	4.50	4.90	5.70
	Saturday	171	1.83	1.71	3.50	4.00	5.50
	Sunday	174	1.87	1.67	3.50	4.00	5.00
Hour of day	00:00 - 06:00	143	1.54	1.62	3.10	3.50	4.40
	06:01 - 09:00	122	1.31	1.34	2.50	3.00	3.90
	09:01 - 11:00	87	0.94	0.93	2.00	2.00	2.50
	11:01 - 13:00	102	1.10	1.12	2.00	2.50	3.70
	13:01 - 15:00	107	1.15	1.18	2.10	2.50	3.00
	15:01 - 18:00	198	2.13	1.89	4.10	4.90	5.70
	18:01 - 24:00	296	3.18	2.86	6.00	6.50	7.50

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.
2. Crashes represent only long forms.
3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 8

EXPECTED ANNUAL ACCIDENT VALUE TABLE FOR SIX COUNTIES

4 Lane x 4 Lane Intersection, Signalized, AADT/lane for Major Road < 7,500

Total Number of Intersections -66

		Number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	211	3.19	3.69	5.50	7.50	2.38
	Head On	12	0.18	0.40	0.50	0.50	0.38
	Angle	179	2.70	3.55	4.63	5.50	1.75
	Left Turn	91	1.38	1.95	3.00	3.50	2.38
	Right Turn	15	0.23	0.54	0.50	0.50	0.38
	Sideswipe	59	0.89	2.52	1.63	2.00	0.50
	Pedestrian/Bicycle	18	0.27	0.54	0.50	0.75	1.25
	Other	60	0.90	1.28	1.50	2.25	1.00
Severity	No Injury	233	3.52	4.26	7.13	9.50	0.75
	Possible Injury	134	2.02	2.28	3.50	4.00	4.25
	Non-Incapacitating Injury	77	1.17	1.68	2.00	2.50	0.88
	Incapacitating Injury	25	0.38	0.54	1.00	1.00	1.25
	Fatal Crashes	1	0.01	0.06	0.00	0.00	0.38
Light Conditions	Daylight	444	6.73	8.31	13.13	15.25	3.00
	Dusk	14	0.20	0.52	0.50	0.50	0.38
	Dawn	5	0.08	0.20	0.00	0.50	0.00
	Dark (w/street lights)	143	2.17	2.99	3.63	5.25	2.63
	Dark (wo/street lights)	31	0.47	1.53	1.00	1.00	0.88
Surface Condition	Dry	527	7.98	10.09	14.50	17.25	5.88
	Wet	84	1.27	1.71	2.13	3.00	0.88
	Slippery	2	0.03	0.15	0.00	0.00	0.00
	Others	13	0.20	0.42	0.50	0.75	0.00
Month of year	January	50	0.75	0.99	1.50	1.75	1.00
	February	47	0.70	0.94	1.13	2.00	0.38
	March	52	0.78	1.14	1.63	2.00	0.50
	April	58	0.88	1.07	1.50	2.00	0.88
	May	50	0.76	1.13	1.50	1.75	0.88
	June	53	0.80	1.05	1.50	2.00	0.38
	July	56	0.84	1.39	1.50	2.25	0.88
	August	67	1.01	1.31	2.00	2.25	1.63
	September	60	0.90	1.17	1.50	2.25	1.25
	October	52	0.79	0.98	2.00	2.00	0.88
	November	44	0.66	1.08	1.50	1.50	0.50
	December	58	0.87	1.30	1.63	2.75	1.38
Day of week	Monday	88	1.33	1.90	2.50	2.50	1.38
	Tuesday	88	1.33	2.02	2.50	2.75	0.88
	Wednesday	95	1.43	1.68	3.00	3.25	1.38
	Thursday	100	1.52	1.70	3.00	3.75	1.75
	Friday	96	1.45	1.97	2.50	3.25	1.88
	Saturday	102	1.55	2.10	3.00	4.25	1.63
	Sunday	75	1.13	1.44	2.00	3.00	0.88
Hour of day	00:00 - 06:00	38	0.57	0.68	1.50	1.75	0.75
	06:01 - 09:00	57	0.86	1.09	2.00	2.50	1.88
	09:01 - 11:00	35	0.52	0.65	1.00	1.00	1.00
	11:01 - 13:00	51	0.77	0.90	1.50	2.00	1.63
	13:01 - 15:00	54	0.81	1.04	2.00	2.25	0.88
	15:01 - 18:00	103	1.56	1.51	2.63	3.50	1.38
	18:01 - 24:00	140	2.11	2.61	3.63	4.25	2.38

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.
2. Crashes represent only long forms.
3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 9

EXPECTED ANNUAL ACCIDENT VALUE TABLE FOR SIX COUNTIES

6 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road >= 7,500

Total Number of Intersections -102

		Number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	494	4.84	4.11	9.00	10.00	11.98
	Head On	10	0.10	0.30	0.00	0.50	0.50
	Angle	194	1.90	1.69	3.50	4.00	5.00
	Left Turn	145	1.42	1.48	2.93	3.00	4.45
	Right Turn	16	0.15	0.31	0.50	0.50	0.50
	Sideswipe	90	0.88	1.02	1.93	2.00	2.97
	Pedestrian/Bicycle	27	0.26	0.44	0.50	1.00	1.00
	Other	69	0.67	0.79	1.43	1.50	2.00
Severity	No Injury	438	4.29	4.03	7.50	8.00	11.98
	Possible Injury	230	2.25	1.69	3.50	4.45	5.00
	Non-Incapacitating Injury	146	1.43	1.10	2.50	3.00	3.50
	Incapacitating Injury	43	0.42	0.53	1.00	1.00	1.50
	Fatal Crashes	6	0.06	0.18	0.00	0.45	0.50
Light Conditions	Daylight	725	7.11	5.45	10.93	12.45	16.00
	Dusk	19	0.18	0.38	0.50	0.50	0.97
	Dawn	9	0.08	0.20	0.42	0.50	0.50
	Dark (w/street lights)	260	2.55	2.40	5.43	5.95	7.00
	Dark (wo/street lights)	28	0.27	0.69	0.50	1.00	1.50
Surface Condition	Dry	859	8.42	6.41	13.43	15.45	23.67
	Wet	145	1.42	1.54	2.93	3.50	4.00
	Slippery	6	0.05	0.20	0.00	0.00	0.50
	Others	6	0.06	0.20	0.00	0.00	0.50
Month of year	January	80	0.78	0.75	1.50	2.00	2.00
	February	73	0.71	0.74	1.50	1.50	2.45
	March	85	0.83	0.79	1.50	2.00	2.47
	April	93	0.91	1.01	1.50	2.00	2.97
	May	84	0.82	0.82	1.50	2.00	2.50
	June	85	0.83	0.82	1.50	2.00	2.50
	July	92	0.90	0.92	2.00	2.50	2.50
	August	94	0.92	1.03	1.50	2.00	2.50
	September	87	0.85	0.94	1.50	2.00	2.97
	October	100	0.98	1.00	2.00	2.00	2.97
	November	89	0.87	0.93	1.50	2.00	2.97
	December	85	0.83	0.82	1.50	2.00	2.47
Day of week	Monday	140	1.37	1.33	2.50	2.50	3.47
	Tuesday	157	1.54	1.20	2.50	3.00	3.50
	Wednesday	155	1.52	1.50	3.00	3.45	4.50
	Thursday	147	1.44	1.34	2.50	3.45	4.00
	Friday	163	1.60	1.38	3.00	3.00	4.00
	Saturday	154	1.51	1.31	2.50	3.00	3.50
	Sunday	127	1.25	1.15	2.50	3.00	3.95
Hour of day	00:00 - 06:00	82	0.80	0.96	1.93	2.00	2.97
	06:01 - 09:00	88	0.86	0.87	2.00	2.00	2.50
	09:01 - 11:00	79	0.77	0.85	1.50	2.00	2.00
	11:01 - 13:00	103	1.01	0.99	1.50	2.50	3.00
	13:01 - 15:00	115	1.12	1.24	2.00	2.50	4.00
	15:01 - 18:00	182	1.78	1.58	3.00	4.00	5.00
	18:01 - 24:00	224	2.20	1.91	4.00	4.50	6.45

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.
2. Crashes represent only long forms.
3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 10

EXPECTED ANNUAL ACCIDENT VALUE TABLE FOR SIX COUNTIES

6 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road < 7,500

Total Number of Intersections -53

		Number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	154	2.91	3.13	6.00	6.50	10.00
	Head On	5	0.09	0.24	0.10	0.50	0.50
	Angle	106	1.99	2.48	4.10	5.30	6.80
	Left Turn	68	1.27	1.68	3.50	3.90	4.70
	Right Turn	7	0.13	0.33	0.50	0.50	1.00
	Sideswipe	24	0.44	0.71	1.00	1.40	2.20
	Pedestrian/Bicycle	8	0.15	0.27	0.50	0.50	0.50
	Other	26	0.49	0.58	1.00	1.50	1.70
Severity	No Injury	164	3.08	3.46	7.10	8.50	10.50
	Possible Injury	67	1.25	1.34	2.60	3.00	3.70
	Non-Incapacitating Injury	57	1.08	1.27	2.50	2.90	3.70
	Incapacitating Injury	15	0.28	0.42	0.50	1.00	1.00
	Fatal Crashes	2	0.03	0.12	0.00	0.00	0.20
Light Conditions	Daylight	263	4.96	4.67	9.10	12.50	13.70
	Dusk	13	0.24	0.39	0.50	1.00	1.00
	Dawn	3	0.06	0.19	0.00	0.00	0.50
	Dark (w/street lights)	98	1.84	2.33	4.70	5.90	6.00
	Dark (wo/street lights)	17	0.32	0.58	0.60	1.00	1.70
Surface Condition	Dry	326	6.14	6.16	13.70	14.90	18.70
	Wet	51	0.96	1.11	2.50	2.90	3.00
	Slippery	1	0.01	0.07	0.00	0.00	0.00
	Others	3	0.05	0.18	0.00	0.00	0.50
Month of year	January	42	0.78	0.98	1.60	2.40	2.70
	February	31	0.58	0.73	1.10	1.50	2.20
	March	34	0.64	0.77	1.50	1.50	2.00
	April	37	0.69	0.83	1.50	1.50	2.50
	May	43	0.80	1.08	1.50	2.40	3.00
	June	31	0.58	0.78	1.10	1.50	2.20
	July	30	0.57	0.82	1.50	1.90	2.00
	August	40	0.75	1.01	1.60	2.40	2.70
	September	32	0.59	0.64	1.10	1.50	1.70
	October	23	0.42	0.62	1.00	1.40	1.50
	November	27	0.50	0.58	1.00	1.00	1.20
	December	30	0.57	0.81	1.10	1.50	2.50
Day of week	Monday	52	0.97	1.04	2.00	2.00	3.20
	Tuesday	56	1.06	1.05	2.10	2.50	2.90
	Wednesday	55	1.03	1.35	1.60	2.50	3.20
	Thursday	60	1.13	1.36	2.10	2.90	4.00
	Friday	64	1.21	1.43	2.60	3.40	4.00
	Saturday	55	1.04	1.30	2.10	2.90	4.20
	Sunday	56	1.05	1.08	2.00	2.50	3.00
Hour of day	00:00 - 06:00	29	0.54	0.76	1.50	1.50	2.20
	06:01 - 09:00	35	0.65	0.85	1.50	1.50	2.50
	09:01 - 11:00	28	0.53	0.72	1.00	1.50	2.00
	11:01 - 13:00	30	0.57	0.79	1.50	1.50	2.00
	13:01 - 15:00	33	0.61	0.75	1.50	1.50	2.00
	15:01 - 18:00	74	1.39	1.47	2.50	3.00	3.90
	18:01 - 24:00	93	1.75	1.86	3.70	5.40	5.50

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.
2. Crashes represent only long forms.
3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 11

EXPECTED ANNUAL ACCIDENT VALUE TABLE FOR SIX COUNTIES

6 x 4 and 6 x 6 Intersection, Signalized

Total Number of Intersections -96

		Number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	835	8.70	6.24	16.00	17.75	19.75
	Head On	21	0.22	0.40	0.50	0.50	1.00
	Angle	309	3.21	2.86	6.50	7.75	9.50
	Left Turn	245	2.55	2.75	5.00	6.25	7.50
	Right Turn	37	0.38	0.57	1.00	1.00	2.00
	Sideswipe	132	1.38	1.62	2.88	3.50	4.50
	Pedestrian/Bicycle	25	0.26	0.51	0.50	1.00	1.50
	Other	98	1.02	1.04	2.00	2.00	2.50
Severity	No Injury	709	7.38	5.94	13.00	15.25	16.88
	Possible Injury	341	3.55	2.63	6.00	7.25	9.00
	Non-Incapacitating Injury	211	2.19	2.21	3.88	4.25	6.63
	Incapacitating Injury	48	0.50	0.57	1.00	1.00	1.50
	Fatal Crashes	5	0.05	0.15	0.00	0.00	0.50
Light Conditions	Daylight	1075	11.19	7.59	19.00	22.00	23.63
	Dusk	41	0.43	0.59	1.00	1.50	1.50
	Dawn	21	0.21	0.43	0.50	0.75	1.00
	Dark (w/street lights)	468	4.87	4.28	8.88	10.75	13.38
	Dark (wo/street lights)	90	0.93	1.79	2.00	2.75	5.50
Surface Condition	Dry	1364	14.20	9.67	25.00	26.75	29.50
	Wet	212	2.21	1.92	4.38	5.00	5.50
	Slippery	7	0.07	0.26	0.00	0.00	0.50
	Others	23	0.23	0.64	0.50	0.50	1.00
Month of year	January	139	1.44	1.24	2.50	3.50	3.50
	February	140	1.45	1.29	2.50	3.50	4.00
	March	149	1.55	1.21	3.00	3.00	4.00
	April	129	1.34	1.18	2.50	3.00	3.25
	May	138	1.43	1.31	3.00	3.50	4.00
	June	137	1.42	1.30	2.50	3.50	4.00
	July	134	1.39	1.31	3.00	3.00	4.00
	August	156	1.63	1.35	3.00	3.50	4.00
	September	144	1.49	1.47	3.00	3.25	4.63
	October	158	1.64	1.53	3.38	3.50	4.50
	November	139	1.45	1.27	3.00	3.00	3.50
	December	142	1.47	1.34	3.00	3.00	4.13
Day of week	Monday	240	2.49	1.88	4.50	5.00	6.00
	Tuesday	257	2.68	2.05	5.00	5.50	6.00
	Wednesday	248	2.58	1.90	4.50	5.00	6.00
	Thursday	233	2.43	2.09	5.00	5.00	5.63
	Friday	273	2.84	2.44	6.00	6.75	7.50
	Saturday	246	2.56	2.10	4.88	5.50	6.13
	Sunday	206	2.14	1.81	4.00	4.75	5.63
Hour of day	00:00 - 06:00	156	1.63	1.70	3.50	3.75	4.75
	06:01 - 09:00	141	1.46	1.23	2.50	3.00	3.50
	09:01 - 11:00	104	1.08	0.94	2.00	2.50	3.00
	11:01 - 13:00	136	1.42	1.17	2.50	3.00	3.50
	13:01 - 15:00	145	1.51	1.22	2.50	3.00	3.63
	15:01 - 18:00	271	2.82	2.16	5.50	5.50	6.13
	18:01 - 24:00	391	4.07	3.14	7.50	8.50	10.25

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.
2. Crashes represent only long forms.
3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 12

EXPECTED ANNUAL ACCIDENT VALUE TABLE FOR SIX COUNTIES

T Intersection , Signalized, AADT/lane for Major Road >= 7,500

Total Number of Intersections -118

		Number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	307	2.60	3.63	4.23	7.00	10.68
	Head On	4	0.03	0.14	0.00	0.00	0.50
	Angle	104	0.88	1.68	1.50	2.00	3.50
	Left Turn	89	0.75	1.06	1.50	2.00	2.50
	Right Turn	8	0.07	0.18	0.00	0.50	0.50
	Sideswipe	53	0.44	0.75	1.00	1.15	2.00
	Pedestrian/Bicycle	15	0.12	0.38	0.50	0.50	0.50
	Other	58	0.49	0.78	1.00	1.50	2.18
Severity	No Injury	268	2.27	2.71	4.50	6.00	9.18
	Possible Injury	138	1.17	1.20	2.50	3.00	3.50
	Non-Incapacitating Injury	84	0.71	0.94	1.50	2.00	2.68
	Incapacitating Injury	22	0.19	0.42	0.50	0.50	1.00
	Fatal Crashes	2	0.01	0.08	0.00	0.00	0.00
Light Conditions	Daylight	436	3.69	4.51	7.23	9.50	13.53
	Dusk	22	0.18	0.33	0.50	0.50	1.00
	Dawn	5	0.04	0.15	0.00	0.00	0.50
	Dark (w/street lights)	143	1.21	1.93	2.50	3.50	5.35
	Dark (wo/street lights)	26	0.22	0.43	0.50	0.50	1.00
Surface Condition	Dry	529	4.48	5.24	8.23	11.60	15.53
	Wet	90	0.76	1.27	1.50	2.00	3.85
	Slippery	5	0.04	0.17	0.00	0.00	0.50
	Others	10	0.08	0.25	0.00	0.50	0.67
Month of year	January	51	0.43	0.62	1.00	1.50	1.68
	February	41	0.35	0.61	0.73	1.00	1.68
	March	54	0.45	0.66	1.00	1.15	2.00
	April	49	0.42	0.70	1.00	1.50	2.00
	May	59	0.50	0.77	1.00	1.50	2.00
	June	57	0.48	0.75	1.00	1.15	2.18
	July	52	0.44	0.66	1.00	1.15	1.85
	August	57	0.48	0.75	1.00	1.50	2.18
	September	57	0.48	0.70	1.00	1.50	2.00
	October	49	0.42	0.63	1.00	1.15	2.00
	November	54	0.45	0.75	1.00	1.50	2.00
	December	59	0.50	0.78	1.00	1.50	2.50
Day of week	Monday	82	0.69	1.00	1.50	2.00	2.68
	Tuesday	93	0.78	1.06	1.50	2.00	2.68
	Wednesday	99	0.84	1.27	1.50	2.50	4.00
	Thursday	87	0.74	1.01	1.50	2.00	2.50
	Friday	101	0.86	1.00	1.50	2.00	3.18
	Saturday	97	0.82	1.23	1.73	2.50	3.68
	Sunday	77	0.65	0.96	1.50	1.65	3.00
Hour of day	00:00 - 06:00	50	0.42	0.77	1.00	1.00	1.50
	06:01 - 09:00	54	0.45	0.72	1.00	1.50	2.50
	09:01 - 11:00	38	0.32	0.49	1.00	1.00	1.18
	11:01 - 13:00	39	0.33	0.54	1.00	1.00	1.50
	13:01 - 15:00	73	0.61	0.85	1.00	1.50	2.50
	15:01 - 18:00	120	1.02	1.12	2.50	2.50	3.18
	18:01 - 24:00	145	1.23	1.45	2.73	3.15	5.00

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.
2. Crashes represent only long forms.
3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 13

EXPECTED ANNUAL ACCIDENT VALUE TABLE FOR SIX COUNTIES

T Intersection , Signalized, AADT/lane for Major Road <7,500

Total Number of Intersections -124

		Number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	131	1.06	1.43	2.00	2.85	4.43
	Head On	4	0.03	0.12	0.00	0.00	0.42
	Angle	48	0.39	0.66	1.00	1.00	1.93
	Left Turn	49	0.39	0.77	1.00	1.00	1.50
	Right Turn	7	0.06	0.23	0.00	0.00	0.50
	Sideswipe	15	0.12	0.31	0.50	0.50	0.50
	Pedestrian/Bicycle	5	0.04	0.17	0.00	0.00	0.42
	Other	27	0.22	0.47	0.50	0.50	1.00
Severity	No Injury	122	0.98	1.54	2.00	2.00	3.00
	Possible Injury	65	0.52	0.74	1.00	1.50	2.00
	Non-Incapacitating Injury	47	0.38	0.55	1.00	1.00	1.50
	Incapacitating Injury	16	0.13	0.29	0.50	0.50	0.92
	Fatal Crashes	2	0.01	0.08	0.00	0.00	0.00
Light Conditions	Daylight	174	1.40	1.85	2.50	3.50	5.00
	Dusk	11	0.09	0.23	0.27	0.50	0.50
	Dawn	2	0.01	0.08	0.00	0.00	0.00
	Dark (w/street lights)	76	0.61	1.05	1.00	1.50	3.00
	Dark (wo/street lights)	17	0.14	0.31	0.50	0.50	1.00
Surface Condition	Dry	232	1.87	2.37	3.50	4.00	6.85
	Wet	46	0.37	0.75	1.00	1.00	1.50
	Slippery	3	0.02	0.12	0.00	0.00	0.00
	Others	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	35	0.28	0.49	0.50	1.00	1.00
	February	23	0.19	0.35	0.50	0.50	1.00
	March	26	0.21	0.38	0.50	0.85	1.00
	April	19	0.15	0.33	0.50	0.50	0.92
	May	28	0.23	0.44	0.50	0.50	1.00
	June	23	0.19	0.40	0.50	0.50	1.00
	July	17	0.13	0.30	0.50	0.50	0.50
	August	24	0.19	0.36	0.50	0.50	1.00
	September	22	0.17	0.33	0.50	0.50	1.00
	October	23	0.18	0.40	0.50	0.50	1.00
	November	28	0.23	0.42	0.50	0.50	1.00
	December	19	0.15	0.31	0.50	0.50	0.50
Day of week	Monday	43	0.34	0.63	1.00	1.00	1.50
	Tuesday	40	0.32	0.50	1.00	1.00	1.50
	Wednesday	43	0.34	0.60	0.77	1.00	1.43
	Thursday	42	0.33	0.51	1.00	1.00	1.50
	Friday	46	0.37	0.67	0.77	1.00	1.50
	Saturday	33	0.27	0.47	0.50	1.00	1.50
	Sunday	40	0.32	0.62	0.50	1.00	1.50
Hour of day	00:00 - 06:00	26	0.21	0.54	0.50	0.50	1.00
	06:01 - 09:00	28	0.23	0.46	0.50	0.50	1.00
	09:01 - 11:00	20	0.16	0.29	0.50	0.50	0.50
	11:01 - 13:00	21	0.17	0.34	0.50	0.50	1.00
	13:01 - 15:00	36	0.29	0.52	0.77	1.00	1.50
	15:01 - 18:00	63	0.50	0.72	1.00	1.50	1.93
	18:01 - 24:00	74	0.59	0.77	1.50	1.50	2.43

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.
2. Crashes represent only long forms.
3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 14

EXPECTED ANNUAL ACCIDENT VALUE TABLE FOR SIX COUNTIES

Signalized Intersection with Major Road One-way

Total Number of Intersections -85

		Number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	127	1.49	2.37	2.50	3.00	5.00
	Head On	8	0.09	0.31	0.00	0.50	0.50
	Angle	185	2.18	3.01	4.00	4.50	9.70
	Left Turn	59	0.69	1.50	1.00	1.50	2.00
	Right Turn	5	0.06	0.20	0.00	0.00	0.50
	Sideswipe	93	1.09	1.18	2.20	2.50	3.80
	Pedestrian/Bicycle	26	0.30	0.54	0.50	0.80	1.50
	Other	79	0.93	1.17	1.70	2.00	2.50
Severity	No Injury	262	3.08	3.98	4.70	5.80	9.50
	Possible Injury	75	0.88	1.05	1.50	2.00	2.90
	Non-Incapacitating Injury	38	0.44	0.62	1.00	1.30	2.00
	Incapacitating Injury	14	0.16	0.34	0.50	0.50	0.90
	Fatal Crashes	1	0.01	0.05	0.00	0.00	0.00
Light Conditions	Daylight	379	4.45	5.28	8.50	9.00	10.00
	Dusk	15	0.17	0.31	0.50	0.50	1.00
	Dawn	6	0.06	0.25	0.00	0.00	0.50
	Dark (w/street lights)	179	2.11	3.21	3.50	4.50	5.50
	Dark (wo/street lights)	4	0.04	0.14	0.00	0.00	0.50
Surface Condition	Dry	503	5.92	6.90	9.60	11.50	17.90
	Wet	66	0.77	1.40	1.50	2.00	2.40
	Slippery	13	0.15	0.45	0.50	0.50	0.50
	Others	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	43	0.51	0.77	1.00	1.30	1.90
	February	40	0.46	0.68	1.00	1.50	2.00
	March	64	0.75	1.02	1.50	2.00	2.50
	April	52	0.61	0.84	1.00	1.50	2.00
	May	45	0.53	0.91	1.00	1.30	1.90
	June	49	0.57	0.72	1.00	1.50	2.00
	July	53	0.62	0.77	1.20	1.50	2.00
	August	54	0.63	1.02	1.00	1.50	2.00
	September	53	0.62	1.07	1.00	1.30	2.30
	October	44	0.51	0.91	1.00	1.00	2.40
	November	47	0.55	0.97	1.00	1.30	2.00
	December	40	0.47	0.73	1.00	1.00	1.90
Day of week	Monday	87	1.02	1.61	2.00	2.50	3.50
	Tuesday	77	0.90	1.23	2.00	2.30	3.40
	Wednesday	66	0.78	0.94	1.50	1.80	2.50
	Thursday	72	0.84	1.13	1.50	2.00	2.00
	Friday	102	1.20	1.69	2.00	2.50	3.40
	Saturday	90	1.05	1.52	2.00	2.50	4.00
	Sunday	89	1.04	1.46	2.00	2.30	3.00
Hour of day	00:00 - 06:00	77	0.91	1.35	1.50	2.00	3.00
	06:01 - 09:00	39	0.45	0.58	1.00	1.00	1.40
	09:01 - 11:00	32	0.38	0.59	1.00	1.00	1.40
	11:01 - 13:00	42	0.49	0.63	1.00	1.00	1.90
	13:01 - 15:00	48	0.56	0.74	1.50	1.50	2.00
	15:01 - 18:00	73	0.85	1.02	1.50	2.00	3.00
	18:01 - 24:00	94	1.11	1.92	2.00	2.80	3.40

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.
2. Crashes represent only long forms.
3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 15

EXPECTED ANNUAL ACCIDENT VALUE TABLE FOR SIX COUNTIES

Signalized Intersection with Minor Road One-way

Total Number of Intersections -36

		Number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	71	1.97	2.38	4.00	6.00	7.25
	Head On	3	0.07	0.18	0.00	0.50	0.50
	Angle	119	3.31	3.42	7.25	7.50	10.88
	Left Turn	28	0.76	1.41	1.50	2.25	3.13
	Right Turn	3	0.07	0.34	0.00	0.00	0.13
	Sideswipe	26	0.71	1.09	1.50	2.00	2.13
	Pedestrian/Bicycle	4	0.10	0.23	0.38	0.50	0.50
	Other	24	0.67	0.61	1.00	1.50	1.63
Severity	No Injury	123	3.42	3.17	6.63	7.00	8.25
	Possible Injury	57	1.58	1.64	2.50	3.50	4.75
	Non-Incapacitating Injury	30	0.82	1.06	1.50	1.75	3.50
	Incapacitating Injury	8	0.21	0.32	0.50	0.50	1.00
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	189	5.25	5.49	8.00	10.75	15.25
	Dusk	9	0.25	0.41	0.50	1.00	1.00
	Dawn	2	0.04	0.18	0.00	0.00	0.13
	Dark (w/street lights)	75	2.08	2.14	3.50	5.75	6.25
	Dark (wo/street lights)	1	0.03	0.12	0.00	0.00	0.13
Surface Condition	Dry	246	6.83	6.40	11.88	15.50	19.63
	Wet	25	0.68	1.02	1.00	2.00	2.50
	Slippery	1	0.03	0.12	0.00	0.00	0.13
	Others	4	0.11	0.27	0.38	0.50	0.63
Month of year	January	21	0.58	0.69	1.50	1.50	2.00
	February	18	0.49	0.62	1.00	1.00	1.63
	March	26	0.72	0.91	1.75	2.00	2.63
	April	20	0.56	0.88	1.00	1.50	2.38
	May	22	0.60	0.76	1.38	1.50	2.13
	June	24	0.67	0.81	1.38	1.75	2.50
	July	22	0.60	0.84	1.00	1.50	2.25
	August	29	0.81	0.84	1.50	1.50	2.50
	September	20	0.54	0.72	1.38	1.50	1.63
	October	27	0.75	1.08	1.88	2.00	2.75
	November	28	0.76	0.83	1.88	2.00	2.50
	December	21	0.58	0.58	1.38	1.50	1.50
Day of week	Monday	49	1.36	1.82	3.13	4.50	5.63
	Tuesday	34	0.94	1.24	1.88	2.00	3.00
	Wednesday	39	1.07	1.26	1.88	2.25	3.38
	Thursday	34	0.94	0.85	1.50	2.00	2.50
	Friday	46	1.26	1.39	2.38	3.00	3.88
	Saturday	41	1.13	1.34	2.38	3.00	4.13
	Sunday	34	0.94	1.08	2.38	2.75	3.00
Hour of day	00:00 - 06:00	30	0.83	1.01	1.50	1.75	2.50
	06:01 - 09:00	26	0.71	0.78	1.50	1.50	2.13
	09:01 - 11:00	23	0.64	0.74	1.50	2.00	2.00
	11:01 - 13:00	27	0.74	0.78	1.50	1.50	2.25
	13:01 - 15:00	30	0.83	0.87	1.88	2.25	2.50
	15:01 - 18:00	41	1.13	1.33	2.00	2.00	2.13
	18:01 - 24:00	53	1.46	1.76	2.75	3.75	5.00

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.
2. Crashes represent only long forms.
3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 16

EXPECTED ANNUAL ACCIDENT VALUE TABLE FOR SIX COUNTIES

Signalized Intersection with Both Major and Minor Road One-way

Total Number of Intersections -13

		Number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	12	0.88	0.85	1.50	1.50	5.98
	Head On	1	0.08	0.19	0.10	0.40	0.68
	Angle	30	2.31	3.53	4.00	5.50	18.63
	Left Turn	5	0.38	1.12	0.20	0.80	4.35
	Right Turn	0	0.00	0.00	0.00	0.00	0.00
	Sideswipe	12	0.88	1.19	1.10	1.40	6.95
	Pedestrian/Bicycle	1	0.04	0.14	0.00	0.00	0.50
	Other	12	0.88	1.08	1.80	2.70	5.98
Severity	No Injury	34	2.58	2.56	4.00	5.50	17.58
	Possible Injury	7	0.50	0.50	1.00	1.00	3.25
	Non-Incapacitating Injury	5	0.35	0.52	1.00	1.00	2.55
	Incapacitating Injury	1	0.08	0.19	0.10	0.40	0.68
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	52	3.96	5.64	5.00	8.00	31.68
	Dusk	3	0.19	0.56	0.10	0.40	2.18
	Dawn	17	1.31	0.00	2.00	2.00	8.55
	Dark (w/street lights)	0	0.00	1.09	0.00	0.00	0.00
	Dark (wo/street lights)	71	5.46	0.00	7.00	10.00	42.40
Surface Condition	Dry	61	4.69	5.83	6.40	9.10	35.65
	Wet	9	0.65	0.99	1.10	1.40	5.25
	Slippery	2	0.12	0.42	0.00	0.00	1.50
	Others	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	5	0.35	0.47	0.60	0.90	2.55
	February	4	0.27	0.70	0.50	0.50	2.85
	March	5	0.38	0.74	1.00	1.00	3.38
	April	7	0.54	0.56	1.00	1.00	3.75
	May	6	0.46	0.59	1.00	1.00	3.40
	June	6	0.42	0.61	1.00	1.00	3.23
	July	8	0.58	0.76	1.10	1.40	4.25
	August	9	0.69	0.95	0.90	2.10	5.10
	September	5	0.35	0.72	0.60	0.90	3.20
	October	7	0.50	0.65	1.10	1.40	3.58
	November	6	0.46	1.09	0.50	0.50	4.70
	December	6	0.46	0.66	1.50	1.50	3.08
Day of week	Monday	6	0.46	0.69	1.10	1.40	3.40
	Tuesday	14	1.08	1.62	2.70	3.30	8.15
	Wednesday	12	0.88	1.21	1.50	1.50	6.95
	Thursday	9	0.65	1.25	1.10	1.40	5.90
	Friday	11	0.81	1.75	1.00	1.00	7.90
	Saturday	11	0.81	0.80	1.50	1.50	4.98
	Sunday	10	0.77	0.99	1.70	2.30	5.45
Hour of day	00:00 - 06:00	9	0.69	0.72	1.50	1.50	4.45
	06:01 - 09:00	7	0.50	0.68	1.10	1.40	3.58
	09:01 - 11:00	5	0.35	0.47	0.60	0.90	2.55
	11:01 - 13:00	9	0.69	0.72	1.20	1.80	4.45
	13:01 - 15:00	3	0.23	0.44	1.00	1.00	1.70
	15:01 - 18:00	14	1.04	1.23	1.90	3.10	7.00
	18:01 - 24:00	7	0.54	0.72	1.50	1.50	3.75

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.
2. Crashes represent only long forms.
3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 17

EXPECTED ANNUAL ACCIDENT VALUE TABLE FOR SIX COUNTIES

Ramps, Signalized, AADT/lane for Major Road >= 7,500

Total Number of Intersections -24

		Number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	45	1.85	2.42	3.78	4.00	4.43
	Head On	1	0.02	0.10	0.00	0.00	0.00
	Angle	24	0.98	1.80	1.55	3.40	4.00
	Left Turn	11	0.44	0.54	1.00	1.00	1.00
	Right Turn	0	0.00	0.00	0.00	0.00	0.00
	Sideswipe	8	0.33	1.13	0.50	0.50	0.92
	Pedestrian/Bicycle	2	0.06	0.17	0.00	0.35	0.50
	Other	6	0.23	0.53	0.50	0.50	0.50
Severity	No Injury	45	1.85	2.50	4.28	4.85	6.70
	Possible Injury	23	0.96	1.09	1.78	2.35	2.50
	Non-Incapacitating Injury	8	0.33	0.50	0.78	1.00	1.00
	Incapacitating Injury	5	0.19	0.46	0.50	0.50	0.92
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	58	2.42	2.73	4.60	6.20	8.20
	Dusk	2	0.08	0.19	0.28	0.50	0.50
	Dawn	1	0.02	0.10	0.00	0.00	0.00
	Dark (w/street lights)	30	1.23	2.17	2.00	3.40	6.12
	Dark (wo/street lights)	3	0.10	0.21	0.50	0.50	0.50
Surface Condition	Dry	71	2.96	4.13	4.28	5.90	12.88
	Wet	22	0.90	0.97	2.00	2.35	2.50
	Slippery	0	0.00	0.00	0.00	0.00	0.00
	Others	0	0.00	0.00	0.00	0.00	0.00
Month of year	January	8	0.31	0.48	0.78	1.00	1.43
	February	5	0.21	0.33	0.50	0.50	0.92
	March	9	0.38	0.54	1.00	1.00	1.43
	April	8	0.33	0.43	0.78	1.00	1.00
	May	4	0.17	0.32	0.50	0.50	0.92
	June	7	0.27	0.53	0.50	0.85	1.43
	July	6	0.25	0.42	0.50	0.85	1.00
	August	9	0.35	0.58	0.78	1.35	1.50
	September	8	0.33	0.84	0.50	0.85	1.00
	October	9	0.38	0.47	1.00	1.00	1.00
	November	12	0.48	0.83	0.78	1.35	1.93
	December	11	0.46	0.76	1.05	1.50	2.35
Day of week	Monday	16	0.65	0.97	1.28	1.85	2.85
	Tuesday	12	0.50	0.75	1.00	1.35	1.93
	Wednesday	12	0.50	0.66	1.00	1.00	1.85
	Thursday	11	0.46	0.85	0.78	1.70	2.43
	Friday	12	0.48	0.73	0.78	1.00	1.00
	Saturday	17	0.69	0.76	1.28	1.85	2.00
	Sunday	16	0.65	0.88	1.00	1.35	2.35
Hour of day	00:00 - 06:00	11	0.46	0.76	0.78	1.00	1.43
	06:01 - 09:00	10	0.40	0.74	1.00	1.35	1.50
	09:01 - 11:00	8	0.33	0.56	1.00	1.00	1.43
	11:01 - 13:00	10	0.40	0.55	1.00	1.00	1.00
	13:01 - 15:00	10	0.40	0.85	0.78	1.00	1.00
	15:01 - 18:00	16	0.67	0.70	1.50	1.50	1.50
	18:01 - 24:00	21	0.88	1.30	1.78	2.70	3.43

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.
2. Crashes represent only long forms.
3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 18

EXPECTED ANNUAL ACCIDENT VALUE TABLE FOR SIX COUNTIES

Ramps, Signalized, AADT/lane for Major Road < 7,500

Total Number of Intersections -23

		Number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	10	0.41	0.69	1.00	1.00	1.90
	Head On	2	0.09	0.25	0.00	0.40	0.50
	Angle	17	0.74	1.30	1.70	2.40	3.85
	Left Turn	16	0.70	1.26	1.35	1.90	3.35
	Right Turn	0	0.00	0.00	0.00	0.00	0.00
	Sideswipe	1	0.04	0.21	0.00	0.00	0.00
	Pedestrian/Bicycle	0	0.00	0.00	0.00	0.00	0.00
	Other	3	0.11	0.00	0.00	0.40	0.50
Severity	No Injury	16	0.70	1.51	1.35	1.50	4.65
	Possible Injury	11	0.46	0.86	1.00	1.40	1.95
	Non-Incapacitating Injury	12	0.50	1.06	1.35	1.50	1.95
	Incapacitating Injury	3	0.13	0.22	0.50	0.50	0.50
	Fatal Crashes	0	0.00	0.00	0.00	0.00	0.00
Light Conditions	Daylight	31	1.35	2.32	3.75	4.90	5.00
	Dusk	2	0.07	0.23	0.00	0.00	0.45
	Dawn	1	0.02	0.10	0.00	0.00	0.00
	Dark (w/street lights)	12	0.50	0.83	1.20	1.90	2.00
	Dark (wo/street lights)	3	0.11	0.26	0.35	0.50	0.50
Surface Condition	Dry	41	1.76	2.66	4.40	6.60	7.45
	Wet	6	0.24	0.67	0.35	0.90	1.00
	Slippery	1	0.02	0.10	0.00	0.00	0.00
	Others	1	0.02	0.10	0.00	0.00	0.00
Month of year	January	5	0.20	0.45	0.50	0.50	1.40
	February	1	0.04	0.14	0.00	0.00	0.45
	March	5	0.22	0.36	0.50	0.90	1.00
	April	4	0.15	0.32	0.50	0.50	0.95
	May	4	0.17	0.39	0.50	0.50	0.95
	June	1	0.04	0.14	0.00	0.00	0.45
	July	4	0.17	0.47	0.35	0.50	0.95
	August	4	0.17	0.47	0.35	0.50	0.95
	September	8	0.33	0.73	0.50	1.30	1.50
	October	5	0.20	0.36	0.50	0.50	0.50
	November	7	0.30	0.63	0.50	0.50	0.50
	December	2	0.09	0.25	0.00	0.40	0.50
Day of week	Monday	8	0.33	0.60	0.85	1.40	1.50
	Tuesday	9	0.37	0.73	1.00	1.00	1.45
	Wednesday	12	0.50	0.88	1.00	1.80	2.45
	Thursday	6	0.26	0.50	0.50	0.90	1.00
	Friday	5	0.20	0.36	0.50	0.90	1.00
	Saturday	8	0.33	0.67	0.85	1.40	1.50
	Sunday	3	0.11	0.30	0.00	0.40	0.95
Hour of day	00:00 - 06:00	4	0.15	0.38	0.35	0.50	0.95
	06:01 - 09:00	6	0.26	0.60	0.50	0.50	1.40
	09:01 - 11:00	2	0.09	0.33	0.00	0.00	0.45
	11:01 - 13:00	5	0.20	0.33	0.50	0.50	0.95
	13:01 - 15:00	3	0.11	0.21	0.50	0.50	0.50
	15:01 - 18:00	11	0.48	0.83	1.00	1.40	2.40
	18:01 - 24:00	14	0.61	1.09	1.00	1.40	3.30

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.
2. Crashes represent only long forms.
3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

CATEGORY 19

EXPECTED ANNUAL ACCIDENT VALUE TABLE FOR SIX COUNTIES

One Way and T Intersection, Signalized

Total Number of Intersections-14

		Number of crashes per year	Mean crashes per intersection per year	Standard Deviation	85th Percentile	90th Percentile	95th Percentile
Collision Type	Rear End	23	1.61	1.18	2.55	3.20	3.68
	Head On	0	0.00	0.00	0.00	0.00	0.00
	Angle	15	1.04	0.93	2.00	2.00	2.35
	Left Turn	11	0.75	1.34	1.05	1.70	3.05
	Right Turn	1	0.04	0.13	0.00	0.00	0.18
	Sideswipe	16	1.11	0.79	1.53	1.85	2.18
	Pedestrian/Bicycle	4	0.25	0.38	0.52	0.85	1.00
	Other	11	0.79	0.80	1.53	1.85	2.18
Severity	No Injury	28	2.00	1.24	3.50	3.50	3.85
	Possible Injury	7	0.46	0.57	1.03	1.35	1.50
	Non-Incapacitating Injury	6	0.39	0.63	0.55	1.20	1.68
	Incapacitating Injury	1	0.07	0.18	0.02	0.35	0.50
	Fatal Crashes	1	0.04	0.13	0.00	0.00	0.18
Light Conditions	Daylight	54	3.82	3.22	6.55	7.20	9.08
	Dusk	2	0.14	0.23	0.50	0.50	0.50
	Dawn	3	0.18	0.25	0.50	0.50	0.50
	Dark (w/street lights)	20	1.39	0.90	2.05	2.70	3.00
	Dark (wo/street lights)	1	0.04	0.13	0.00	0.00	0.18
Surface Condition	Dry	73	5.21	3.65	9.05	9.70	11.40
	Wet	4	0.29	0.43	1.00	1.00	1.00
	Slippery	0	0.00	0.00	0.00	0.00	0.00
	Others	1	0.07	0.18	0.02	0.35	0.50
Month of year	January	5	0.32	0.32	0.50	0.50	0.68
	February	7	0.50	0.55	1.03	1.35	1.50
	March	10	0.71	0.83	1.53	1.85	2.18
	April	7	0.46	0.46	1.00	1.00	1.18
	May	6	0.43	0.58	1.03	1.35	1.50
	June	5	0.32	0.37	0.52	0.85	1.00
	July	8	0.57	0.70	1.05	1.70	2.00
	August	7	0.50	0.59	1.00	1.00	1.35
	September	8	0.57	0.58	1.50	1.50	1.50
	October	5	0.32	0.42	1.00	1.00	1.00
	November	5	0.32	0.42	1.00	1.00	1.00
	December	8	0.54	0.54	1.03	1.35	1.50
Day of week	Monday	11	0.75	0.78	1.05	1.70	2.18
	Tuesday	11	0.75	0.61	1.50	1.50	1.68
	Wednesday	11	0.75	0.78	1.50	1.50	1.85
	Thursday	11	0.79	0.99	1.05	1.70	2.53
	Friday	12	0.82	1.08	1.53	1.85	2.70
	Saturday	11	0.79	0.58	1.50	1.50	1.50
	Sunday	13	0.93	0.81	2.00	2.00	2.18
Hour of day	00:00 - 06:00	8	0.57	0.55	1.00	1.00	1.35
	06:01 - 09:00	6	0.39	0.49	1.00	1.00	1.18
	09:01 - 11:00	3	0.21	0.47	0.52	0.85	1.18
	11:01 - 13:00	4	0.29	0.26	0.50	0.50	0.50
	13:01 - 15:00	5	0.32	0.46	0.52	0.85	1.18
	15:01 - 18:00	9	0.61	1.13	1.05	1.70	2.70
	18:01 - 24:00	8	0.57	0.43	1.00	1.00	1.18

Note: 1. Crashes extracted from years 2000 and 2001 for Brevard, City of Orlando, Hillsborough, Miami-Dade, and Seminole, and years 1999 and 2000 for Orange County.
2. Crashes represent only long forms.
3. Standard Deviation, 85th, 90th, and 95th Percentiles represent crash statistics per year per intersection.

APPENDIX H

TESTS TO COMPARE THE CRASHES IN EACH COUNTY TO THE CRASHES IN THE COMBINED DATABASE

Category 1
2 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road >= 5,000

		BC	CO	HC	OC	SC	DC
Collision Type	Rear End		√	√		√	
	Head On	√	√	√	√	√	√
	Angle	√	√	√	√	√	
	Left Turn	√	√	√	√	√	
	Right Turn	√	√	√	√	√	√
	Sideswipe	√	√	√	√	√	
	Pedestrian/Bicycle	√	√	√	√	√	√
	Other	√	√	√			
Severity	No Injury	√	√	√		√	
	Possible Injury	√			√	√	
	Non-Incapacitating Injury	√	√	√	√	√	√
	Incapacitating Injury	√	√	√	√	√	√
	Fatal Crashes	√	√	√	√	√	√
Light Conditions	Daylight	√	√	√		√	
	Dusk	√	√	√	√	√	√
	Dawn	√	√	√	√	√	√
	Dark (w/street lights)	√	√	√		√	
	Dark (wo/street lights)	√	√	√	√	√	√
Surface Conditions	Dry		√	√		√	
	Wet	√	√	√	√	√	
	Others	√	√	√	√	√	√
Month of year	January	√	√	√	√	√	
	February	√	√	√	√	√	
	March	√	√	√	√	√	
	April	√	√	√	√	√	
	May	√	√	√	√	√	√
	June	√	√	√	√	√	
	July	√	√	√	√	√	
	August	√	√	√	√	√	
	September	√	√	√	√	√	
	October	√	√	√	√	√	
	November	√	√	√	√	√	
	December	√	√	√	√	√	
Day of week	Monday	√	√	√	√	√	
	Tuesday	√	√	√		√	
	Wednesday	√	√	√	√	√	
	Thursday	√	√	√	√	√	
	Friday	√	√	√	√	√	
	Saturday	√	√	√	√	√	
	Sunday	√	√	√		√	
Hour of day	00:00 - 06:00	√	√	√	√	√	
	06:01 - 09:00	√	√	√	√	√	√
	09:01 - 11:00	√	√	√	√	√	√
	11:01 - 13:00	√	√	√	√	√	√
	13:01 - 15:00	√	√	√	√	√	√
	15:01 - 18:00	√	√	√	√	√	
	18:01 - 24:00	√	√	√	√	√	

√ represents the similarity in the county mean and the mean of the combined database.

Category 2
2 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road < 5,000

		BC	CO	HC	OC	SC	DC
Collision Type	Rear End			√			
	Head On				√		
	Angle			√		√	
	Left Turn			√		√	
	Right Turn				√		
	Sideswipe	√			√	√	√
	Pedestrian/Bicycle				√	√	√
	Other				√		√
Severity	No Injury			√			√
	Possible Injury			√			
	Non-Incapacitating Injury			√			
	Incapacitating Injury	√				√	
	Fatal Crashes		√		√	√	
Light Conditions	Daylight	√	√	√	√	√	√
	Dusk						
	Dawn				√		
	Dark (w/street lights)						
	Dark (wo/street lights)		√				
Surface Conditions	Dry	√	√	√	√	√	√
	Wet						√
	Others					√	
Month of year	January				√		
	February						
	March				√		
	April	√					
	May						
	June	√					
	July	√					
	August	√					
	September	√					
	October				√		√
	November				√		
	December	√			√		
Day of week	Monday						
	Tuesday						√
	Wednesday	√			√		
	Thursday				√	√	
	Friday			√	√	√	
	Saturday				√		
	Sunday						
Hour of day	00:00 - 06:00	√					
	06:01 - 09:00	√					
	09:01 - 11:00						
	11:01 - 13:00				√		
	13:01 - 15:00				√	√	
	15:01 - 18:00			√			
	18:01 - 24:00			√			

√ represents the similarity in the county mean and the mean of the combined database

Category 3
4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road >= 7,000 (LTLs <= 2)

		BC	CO	HC	OC	DC
Collision Type	Rear End	√	√	√	√	√
	Head On		√		√	
	Angle	√			√	√
	Left Turn		√			√
	Right Turn	√	√			
	Sideswipe	√	√		√	√
	Pedestrian/Bicycle		√			
	Other	√		√	√	√
Severity	No Injury	√	√	√	√	√
	Possible Injury		√			√
	Non-Incapacitating Injury		√			
	Incapacitating Injury					
	Fatal Crashes	√		√	√	
Light Conditions	Daylight	√	√	√	√	√
	Dusk		√	√		
	Dawn		√			
	Dark (w/street lights)	√	√	√	√	√
	Dark (wo/street lights)		√			
Surface Conditions	Dry	√	√	√	√	√
	Wet	√	√	√	√	√
	Others	√	√	√	√	√
Month of year	January		√		√	√
	February					√
	March		√	√		√
	April		√	√	√	√
	May	√			√	√
	June		√	√	√	√
	July	√	√	√	√	√
	August		√		√	√
	September	√	√			√
	October	√			√	√
	November		√			√
	December		√		√	√
Day of week	Monday	√	√		√	√
	Tuesday	√	√		√	√
	Wednesday	√			√	√
	Thursday	√	√		√	√
	Friday	√	√		√	√
	Saturday	√	√		√	√
	Sunday	√	√	√	√	√
Hour of day	00:00 - 06:00		√			√
	06:01 - 09:00		√			√
	09:01 - 11:00		√			√
	11:01 - 13:00		√			√
	13:01 - 15:00		√			√
	15:01 - 18:00		√		√	√
	18:01 - 24:00	√	√			√

√ represents the similarity in the county mean and the mean of the combined database

Category 4
4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road >= 7,000 (LTLs > 2)

		BC	CO	HC	OC	SC	DC
Collision Type	Rear End	√					√
	Head On		√				
	Angle	√	√			√	√
	Left Turn	√	√	√			√
	Right Turn		√				
	Sideswipe	√					√
	Pedestrian/Bicycle						
	Other		√		√	√	√
Severity	No Injury	√	√	√	√	√	√
	Possible Injury		√			√	√
	Non-Incapacitating Injury			√		√	√
	Incapacitating Injury			√			√
	Fatal Crashes						
Light Conditions	Daylight	√	√		√	√	√
	Dusk						
	Dawn						
	Dark (w/street lights)	√	√		√	√	√
	Dark (wo/street lights)				√		√
Surface Conditions	Dry	√	√	√	√	√	√
	Wet				√		√
	Others		√		√		
Month of year	January		√				√
	February	√					√
	March		√				√
	April						√
	May						√
	June						√
	July	√					√
	August	√	√				√
	September	√					√
	October						√
	November						√
	December						√
Day of week	Monday	√	√			√	√
	Tuesday	√			√		√
	Wednesday	√			√	√	√
	Thursday	√			√		√
	Friday	√	√	√	√		√
	Saturday	√					√
	Sunday	√			√		√
Hour of day	00:00 - 06:00	√					√
	06:01 - 09:00				√		√
	09:01 - 11:00						√
	11:01 - 13:00						√
	13:01 - 15:00				√		√
	15:01 - 18:00			√	√		√
	18:01 - 24:00	√	√	√	√		√

√ represents the similarity in the county mean and the mean of the combined database

Category 5
4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road < 7,000 (LTLs <= 2)

		BC	HC	OC	SC	DC
Collision Type	Rear End			√		√
	Head On		√	√		
	Angle	√		√		
	Left Turn					
	Right Turn	√	√	√	√	
	Sideswipe		√		√	
	Pedestrian/Bicycle		√	√	√	
	Other					√
Severity	No Injury	√		√		√
	Possible Injury			√		√
	NonIncapacitating Injury					
	Incapacitating Injury					
	Fatal Crashes	√	√	√	√	√
Light Conditions	Daylight	√		√		√
	Dusk	√			√	
	Dawn		√	√		
	Dark (w/street lights)			√	√	√
	Dark (wo/street lights)				√	
Surface Conditions	Dry	√				√
	Wet					
	Others	√	√	√		
Month of year	January		√			
	February		√			
	March					
	April		√			
	May		√		√	
	June				√	
	July				√	
	August					
	September				√	
	October		√			
	November					
	December		√		√	
Day of week	Monday					√
	Tuesday					√
	Wednesday					
	Thursday			√	√	√
	Friday			√		
	Saturday			√	√	
	Sunday		√	√		
Hour of day	00:00 06:00				√	
	06:01 09:00					
	09:01 11:00					
	11:01 13:00				√	
	13:01 15:00					
	15:01 18:00			√		
	18:01 24:00			√		

√ represents the similarity in the county mean and the mean of the combined database

Category 6
4 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road < 7,000 (LTLs > 2)

		BC	CO	HC	OC	SC	DC
Collision Type	Rear End		√		√	√	
	Head On		√			√	
	Angle				√	√	
	Left Turn						
	Right Turn		√				
	Sideswipe						
	Pedestrian/Bicycle					√	
	Other				√	√	
Severity	No Injury	√	√		√	√	
	Possible Injury		√				
	Non-Incapacitating Injury						
	Incapacitating Injury			√			
	Fatal Crashes	√	√	√	√	√	√
Light Conditions	Daylight	√	√		√	√	
	Dusk						
	Dawn	√					
	Dark (w/street lights)	√			√	√	
	Dark (wo/street lights)						
Surface Conditions	Dry	√	√		√	√	
	Wet				√		
	Others				√		
Month of year	January						
	February						
	March						
	April						
	May						
	June						
	July						
	August						
	September						
	October						
	November						
	December						
Day of week	Monday		√			√	
	Tuesday				√		
	Wednesday				√		
	Thursday				√		
	Friday				√		
	Saturday						
	Sunday				√	√	
Hour of day	00:00 - 06:00						
	06:01 - 09:00						
	09:01 - 11:00						
	11:01 - 13:00						
	13:01 - 15:00						
	15:01 - 18:00				√		
	18:01 - 24:00						

√ represents the similarity in the county mean and the mean of the combined database

Category 7
4 Lane x 4 Lane Intersection, Signalized, AADT/lane for Major Road >= 7,500

		BC	CO	HC	OC	SC	DC
Collision Type	Rear End	√		√		√	√
	Head On	√					
	Angle	√			√	√	√
	Left Turn		√		√	√	√
	Right Turn	√	√				
	Sideswipe	√	√	√	√	√	√
	Pedestrian/Bicycle	√					
	Other		√		√		√
Severity	No Injury	√			√	√	√
	Possible Injury		√	√			√
	Non-Incapacitating Injury			√			
	Incapacitating Injury			√			
	Fatal Crashes	√			√		
Light Conditions	Daylight	√			√	√	√
	Dusk						
	Dawn					√	
	Dark (w/street lights)	√			√	√	√
	Dark (wo/street lights)		√		√	√	√
Surface Conditions	Dry	√			√	√	√
	Wet				√	√	√
	Others	√	√				
Month of year	January						√
	February						√
	March				√		√
	April						√
	May	√					√
	June						√
	July						√
	August						√
	September				√		√
	October				√		√
	November						√
	December						√
Day of week	Monday					√	√
	Tuesday				√		√
	Wednesday				√	√	√
	Thursday				√		√
	Friday				√		√
	Saturday						√
	Sunday				√		√
Hour of day	00:00 - 06:00				√	√	√
	06:01 - 09:00				√		√
	09:01 - 11:00						√
	11:01 - 13:00				√		
	13:01 - 15:00				√		
	15:01 - 18:00				√		√
	18:01 - 24:00	√			√	√	√

√ represents the similarity in the county mean and the mean of the combined database

Category 8
4 Lane x 4 Lane Intersection, Signalized, AADT/lane for Major Road < 7,500

		BC	CO	HC	OC	SC	DC
Collision Type	Rear End	√	√		√	√	√
	Head On		√				
	Angle	√	√	√	√	√	√
	Left Turn						
	Right Turn		√	√		√	
	Sideswipe				√	√	√
	Pedestrian/Bicycle						
	Other		√			√	√
Severity	No Injury	√	√	√	√	√	√
	Possible Injury					√	√
	Non-Incapacitating Injury	√			√		
	Incapacitating Injury						
	Fatal Crashes		√	√	√		
Light Conditions	Daylight	√	√	√	√	√	√
	Dusk						
	Dawn		√		√		
	Dark (w/street lights)	√	√		√	√	√
	Dark (wo/street lights)		√				
Surface Conditions	Dry	√	√	√	√	√	√
	Wet				√	√	√
	Others	√	√		√		
Month of year	January						√
	February					√	√
	March	√					√
	April					√	√
	May						√
	June						√
	July				√	√	√
	August						√
	September						√
	October						√
	November						√
	December						√
Day of week	Monday	√				√	√
	Tuesday				√	√	√
	Wednesday				√	√	√
	Thursday	√			√	√	√
	Friday	√	√		√	√	√
	Saturday	√				√	√
	Sunday				√	√	√
Hour of day	00:00 - 06:00		√			√	√
	06:01 - 09:00					√	√
	09:01 - 11:00					√	√
	11:01 - 13:00					√	√
	13:01 - 15:00					√	√
	15:01 - 18:00					√	√
	18:01 - 24:00	√	√			√	√

√ represents the similarity in the county mean and the mean of the combined database

Category 9
6 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road >= 7,500

		CO	HC	OC	SC	DC
Collision Type	Rear End			√	√	√
	Head On			√	√	
	Angle			√	√	√
	Left Turn			√	√	√
	Right Turn	√		√		√
	Sideswipe			√		√
	Pedestrian/Bicycle					
	Other	√			√	√
Severity	No Injury	√	√	√	√	√
	Possible Injury	√	√	√		√
	Non-Incapacitating Injury	√			√	√
	Incapacitating Injury		√			√
	Fatal Crashes		√	√	√	
Light Conditions	Daylight		√	√	√	√
	Dusk					
	Dawn		√	√		
	Dark (w/street lights)			√	√	√
	Dark (wo/street lights)		√			
Surface Conditions	Dry			√	√	√
	Wet	√		√		√
	Others	√				
Month of year	January					
	February			√		√
	March			√		√
	April					
	May			√		√
	June			√		√
	July			√	√	√
	August			√		
	September				√	
	October			√	√	√
	November			√		√
	December			√		√
Day of week	Monday			√	√	√
	Tuesday			√	√	√
	Wednesday			√		√
	Thursday			√	√	√
	Friday			√	√	√
	Saturday					√
	Sunday			√		√
Hour of day	00:00 - 06:00					
	06:01 - 09:00			√		
	09:01 - 11:00					
	11:01 - 13:00			√		
	13:01 - 15:00			√		
	15:01 - 18:00			√		√
	18:01 - 24:00					√

√ represents the similarity in the county mean and the mean of the combined database

Category 10
6 Lane x 2 Lane Intersection, Signalized, AADT/lane for Major Road < 7,500

		BC	CO	HC	OC	SC	DC
Collision Type	Rear End		√	√	√	√	√
	Head On						
	Angle	√	√		√	√	√
	Left Turn	√			√	√	
	Right Turn		√				
	Sideswipe				√		√
	Pedestrian/Bicycle						
	Other				√		√
Severity	No Injury	√	√		√	√	√
	Possible Injury		√	√			√
	Non-Incapacitating Injury		√	√	√		
	Incapacitating Injury		√	√			
	Fatal Crashes				√		√
Light Conditions	Daylight	√	√		√	√	√
	Dusk	√					
	Dawn		√	√	√	√	
	Dark (w/street lights)	√			√	√	√
	Dark (wo/street lights)		√	√		√	
Surface Conditions	Dry	√	√	√	√	√	√
	Wet		√		√		√
	Others	√		√	√	√	
Month of year	January		√			√	√
	February						√
	March		√				√
	April				√		
	May		√				
	June						
	July		√				
	August						
	September					√	
	October						
	November						
	December		√			√	
Day of week	Monday						
	Tuesday		√		√		√
	Wednesday		√		√		√
	Thursday	√			√		√
	Friday		√	√	√		√
	Saturday		√				√
	Sunday				√		
Hour of day	00:00 - 06:00		√				
	06:01 - 09:00		√		√		
	09:01 - 11:00		√			√	
	11:01 - 13:00		√				
	13:01 - 15:00						
	15:01 - 18:00		√				
	18:01 - 24:00		√	√		√	

√ represents the similarity in the county mean and the mean of the combined database

Category 11
6 Lane x 4 Lane and 6 Lane x 6 Lane Intersection, Signalized

		BC	CO	HC	OC	SC	DC
Collision Type	Rear End	√	√	√	√	√	√
	Head On					√	
	Angle	√		√	√	√	√
	Left Turn				√	√	√
	Right Turn	√	√				√
	Sideswipe	√		√	√	√	√
	Pedestrian/Bicycle	√					
	Other				√		√
Severity	No Injury	√	√	√	√	√	√
	Possible Injury	√	√			√	√
	Non-Incapacitating Injury		√			√	√
	Incapacitating Injury	√		√			√
	Fatal Crashes	√	√		√		
Light Conditions	Daylight	√		√	√	√	√
	Dusk						
	Dawn						
	Dark (w/street lights)	√	√	√	√	√	√
	Dark (wo/street lights)				√		√
Surface Conditions	Dry	√		√	√	√	√
	Wet	√		√	√	√	√
	Others			√	√		√
Month of year	January	√			√		√
	February	√		√	√	√	√
	March	√		√	√		√
	April				√		√
	May			√	√		√
	June			√		√	√
	July			√			√
	August			√	√	√	√
	September	√		√	√	√	√
	October			√	√	√	√
	November				√	√	√
	December		√		√		√
Day of week	Monday			√		√	√
	Tuesday	√		√	√	√	√
	Wednesday	√		√	√	√	√
	Thursday	√		√	√	√	√
	Friday	√		√	√	√	√
	Saturday	√		√		√	√
	Sunday	√		√	√	√	√
Hour of day	00:00 - 06:00	√		√	√		√
	06:01 - 09:00	√				√	√
	09:01 - 11:00				√		√
	11:01 - 13:00			√	√		√
	13:01 - 15:00		√		√	√	√
	15:01 - 18:00	√			√	√	√
	18:01 - 24:00				√	√	√

√ represents the similarity in the county mean and the mean of the combined database

Category 12
T Intersection, Signalized, AADT/lane for Major Road >= 7,500

		BC	CO	HC	OC	SC	DC
Collision Type	Rear End	√			√	√	√
	Head On	√	√				
	Angle				√	√	√
	Left Turn						
	Right Turn		√	√	√		
	Sideswipe				√		√
	Pedestrian/Bicycle			√			
	Other		√		√	√	√
Severity	No Injury	√	√		√	√	√
	Possible Injury		√				√
	Non-Incapacitating Injury						√
	Incapacitating Injury				√		√
	Fatal Crashes		√	√	√	√	
Light Conditions	Daylight	√			√	√	√
	Dusk						
	Dawn		√	√	√		
	Dark (w/street lights)	√			√	√	√
	Dark (wo/street lights)						
Surface Conditions	Dry	√			√	√	√
	Wet				√	√	√
	Others	√	√		√		
Month of year	January						√
	February						√
	March						√
	April						√
	May				√		√
	June					√	√
	July						√
	August				√		√
	September						√
	October						√
	November					√	√
	December						√
Day of week	Monday				√	√	√
	Tuesday				√	√	√
	Wednesday				√		√
	Thursday				√		√
	Friday				√	√	√
	Saturday				√		√
	Sunday	√			√	√	√
Hour of day	00:00 - 06:00						√
	06:01 - 09:00						√
	09:01 - 11:00						
	11:01 - 13:00						
	13:01 - 15:00				√		√
	15:01 - 18:00			√	√	√	√
	18:01 - 24:00				√	√	√

√ represents the similarity in the county mean and the mean of the combined database

Category 13
T Intersection, Signalized, AADT/lane for Major Road < 7,500

		BC	CO	HC	OC	SC	DC
Collision Type	Rear End						√
	Head On	√					√
	Angle						√
	Left Turn						
	Right Turn		√				
	Sideswipe						√
	Pedestrian/Bicycle		√		√	√	
	Other						√
Severity	No Injury			√			√
	Possible Injury						√
	Non-Incapacitating Injury						√
	Incapacitating Injury				√		
	Fatal Crashes				√		√
Light Conditions	Daylight			√	√		√
	Dusk						
	Dawn				√	√	√
	Dark (w/street lights)						√
	Dark (wo/street lights)		√				
Surface Conditions	Dry	√		√	√		√
	Wet						√
	Others	√			√		
Month of year	January				√		
	February						√
	March						
	April						
	May						
	June						
	July						
	August						
	September						
	October						
	November				√		√
	December						
Day of week	Monday						√
	Tuesday						
	Wednesday				√		√
	Thursday				√		√
	Friday				√		√
	Saturday				√		√
	Sunday						
Hour of day	00:00 - 06:00				√		
	06:01 - 09:00						
	09:01 - 11:00						
	11:01 - 13:00						
	13:01 - 15:00						
	15:01 - 18:00			√			√
	18:01 - 24:00						

√ represents the similarity in the county mean and the mean of the combined database

Category 14
Signalized Intersection, One-way Major Road

		CO	HC	DC
Collision Type	Rear End	√	√	√
	Head On	√		
	Angle	√	√	√
	Left Turn	√		
	Right Turn	√		
	Sideswipe	√		√
	Pedestrian/Bicycle	√		
	Other	√	√	√
Severity	No Injury	√	√	√
	Possible Injury	√		√
	Non-Incapacitating Injury	√		√
	Incapacitating Injury	√		
	Fatal Crashes	√	√	
Light Conditions	Daylight	√	√	√
	Dusk		√	
	Dawn			
	Dark (w/street lights)	√	√	√
	Dark (wo/street lights)	√		
Surface Conditions	Dry	√	√	√
	Wet	√		√
	Others			
Month of year	January	√		
	February	√		
	March	√	√	√
	April	√		√
	May	√	√	
	June	√		√
	July	√		√
	August	√		
	September	√		
	October	√		
	November	√		
	December	√		
Day of week	Monday	√	√	√
	Tuesday	√	√	√
	Wednesday	√		√
	Thursday	√		√
	Friday	√	√	√
	Saturday	√		√
	Sunday	√		√
Hour of day	00:00 - 06:00	√	√	
	06:01 - 09:00			
	09:01 - 11:00			
	11:01 - 13:00			
	13:01 - 15:00			
	15:01 - 18:00	√		
	18:01 - 24:00	√		

√ represents the similarity in the county mean and the mean of the combined database

Category 15
Signalized Intersection, One-way Minor Road

		CO	DC
Collision Type	Rear End		
	Head On	√	
	Angle		
	Left Turn		
	Right Turn	√	
	Sideswipe		
	Pedestrian/Bicycle		
	Other	√	√
Severity	No Injury	√	√
	Possible Injury		√
	Non-Incapacitating Injury		
	Incapacitating Injury		
	Fatal Crashes	√	
Light Conditions	Daylight	√	√
	Dusk		
	Dawn	√	
	Dark (w/street lights)		
	Dark (wo/street lights)		
Surface Conditions	Dry	√	√
	Wet		
	Others		
Month of year	January		
	February		
	March		
	April		
	May		
	June		
	July		
	August		
	September		
	October		
	November		
	December		
Day of week	Monday		√
	Tuesday	√	
	Wednesday		
	Thursday		
	Friday		
	Saturday		
	Sunday		
Hour of day	00:00 - 06:00		
	06:01 - 09:00		
	09:01 - 11:00		
	11:01 - 13:00		
	13:01 - 15:00		
	15:01 - 18:00		
	18:01 - 24:00		

√ represents the similarity in the county mean and the mean of the combined database

Category 16
Signalized Intersection, Both Major and Minor Roads are One-way

		CO	DC
Collision Type	Rear End		
	Head On	√	√
	Angle		
	Left Turn	√	
	Right Turn	√	√
	Sideswipe		
	Pedestrian/Bicycle		
	Other		
Severity	No Injury		√
	Possible Injury		
	Non-Incapacitating Injury		
	Incapacitating Injury	√	√
	Fatal Crashes	√	√
Light Conditions	Daylight		√
	Dusk		
	Dawn	√	√
	Dark (w/street lights)		
	Dark (wo/street lights)	√	√
Surface Conditions	Dry		√
	Wet		
	Others	√	
Month of year	January		
	February		
	March		
	April		
	May		
	June		
	July		
	August		
	September		
	October		
	November		
	December		
Day of week	Monday		
	Tuesday		
	Wednesday		
	Thursday		
	Friday		
	Saturday		
	Sunday		
Hour of day	00:00 - 06:00		
	06:01 - 09:00		
	09:01 - 11:00		
	11:01 - 13:00		
	13:01 - 15:00		
	15:01 - 18:00		
	18:01 - 24:00		

√ represents the similarity in the county mean and the mean of the combined database

Category 17
T Intersection, Signalized, AADT/lane for Major Road >= 7,500

		BC	HC	DC
Collision Type	Rear End	√	√	√
	Head On	√	√	
	Angle	√		√
	Left Turn			√
	Right Turn	√		
	Sideswipe	√		√
	Pedestrian/Bicycle	√	√	
	Other	√	√	
Severity	No Injury	√	√	√
	Possible Injury	√	√	√
	Non-Incapacitating Injury			√
	Incapacitating Injury			
	Fatal Crashes	√	√	√
Light Conditions	Daylight	√	√	√
	Dusk			
	Dawn	√		
	Dark (w/street lights)	√	√	√
	Dark (wo/street lights)			
Surface Conditions	Dry	√	√	√
	Wet	√		√
	Others			
Month of year	January			√
	February			√
	March	√		√
	April	√		
	May			
	June			√
	July	√		√
	August	√		√
	September	√		√
	October	√		√
	November			√
	December			
Day of week	Monday	√		√
	Tuesday	√		√
	Wednesday	√		√
	Thursday	√		√
	Friday	√	√	√
	Saturday		√	√
	Sunday	√		√
Hour of day	00:00 - 06:00	√		
	06:01 - 09:00	√	√	√
	09:01 - 11:00			√
	11:01 - 13:00			√
	13:01 - 15:00	√		√
	15:01 - 18:00	√		√
	18:01 - 24:00	√	√	√

√ represents the similarity in the county mean and the mean of the combined database

Category 18
T Intersection, Signalized, AADT/lane for Major Road < 7,500

		BC	HC	DC
Collision Type	Rear End			√
	Head On	√		
	Angle			
	Left Turn			
	Right Turn	√	√	
	Sideswipe	√		
	Pedestrian/Bicycle			
	Other			
Severity	No Injury	√	√	√
	Possible Injury			√
	Non-Incapacitating Injury			√
	Incapacitating Injury	√		
	Fatal Crashes	√	√	√
Light Conditions	Daylight		√	√
	Dusk	√		
	Dawn	√	√	
	Dark (w/street lights)			
	Dark (wo/street lights)	√		
Surface Conditions	Dry		√	√
	Wet			
	Others	√	√	√
Month of year	January			
	February			√
	March			√
	April			
	May			
	June			
	July			
	August			
	September			
	October			
	November			
	December			√
Day of week	Monday			
	Tuesday			
	Wednesday			
	Thursday			
	Friday		√	
	Saturday			
	Sunday			
Hour of day	00:00 - 06:00			
	06:01 - 09:00			
	09:01 - 11:00			
	11:01 - 13:00			
	13:01 - 15:00			
	15:01 - 18:00			
	18:01 - 24:00			

√ represents the similarity in the county mean and the mean of the combined database