AUTOMOBILE PHYSICAL DAMAGE RATEMAKING

BY

LUTHER L. TARBELL, JR.

The Automobile Physical Damage line of insurance embraces the more commonly known coverages of Automobile Fire, Automobile Fire and Theft, Automobile Comprehensive, (which encompasses Fire and Theft plus additional coverages) and Automobile Collision. The manual rates for these coverages are made for a great majority of insurance companies by the National Automobile Underwriters Association. The present ratemaking procedure of the NAUA was established in 1952. Prior to its adoption, automobile physical damage rates had been developed under a so-called "50/50 formula" wherein all expenses (except allocated claim expense which was handled as an element of loss) were stated as a percentage of the premium dollar and indicated state rate changes were developed by comparing a permissible loss ratio (50%) with an experience loss ratio. This paper proposes to set forth the procedures now followed under the "needed premium revenue" method of ratemaking presently in effect. Where practicable the steps of a rate revision will be illustrated with exhibits relating to a typical revision, the 1957 revision of automobile physical damage rates for the state of Connecticut.

Source Data

The NAUA is the statistical bureau for all states (except Louisiana, North Carolina, Texas and Virginia), the District of Columbia, Alaska and Puerto Rico.[1] Member companies of the NAUA are obligated to report their experience on all risks written in these jurisdictions, while subscriber companies are to report their experience in any states and territories in which they are subscribers. Any subscriber writing at deviating rates must report its premium writings adjusted to a manual basis. Companies which are neither members nor subscribers may report their experience under the approved plan where the proper authority in the state has made such provision.

Statistical Plan

Statistical reportings of the data necessary for ratemaking purposes are required under the approved "Automobile Statistical Plan for Fire, Theft, Comprehensive, Collision and Allied Coverages" of the NAUA. This plan became effective July, 1956 and makes available, on a direct basis, all written premiums and exposures and all paid losses involving any automobile physical damage coverage. Pre-

[1]The NAUA has been appointed a statistical agent for the states of Louisiana, North Carolina, Texas, Virginia and Hawaii and experience *may* be reported, using the special codes applicable in these states, through the NAUA.

mium writings may be reported monthly on unit premium punch cards or quarterly on summary punch cards giving the following essential information:

1. Company code number
2. Accounting month and year
3. Identification (Policy Number)
4. Effective month and year
5. Expiry month and year
6. Exposure in car months
7. Risk location—State & Territory
8. Class
9. Age group
10. Form
11. Encumbrance
12. Transaction code (plus or minus entries)
13. Coverage code
14. Premiums
    a. Other than Collision
    b. Collision only

A code number has been assigned to each state and the territories within each state are defined and assigned codes. The class code for private passenger automobiles depends upon the collision class plan in effect in a given state and upon the symbol assigned the vehicle insured. Most states employ the three class collision plan which involves:[2]

Private Passenger Automobiles (Individually Owned)	*Premium Class*[3]
No Male Operator Under Age 25	
Non-Business Use	1
Business and Non-Business Use	3
Male Operator Under Age 25—Business and Non-Business Use	
Neither Owner nor Principal Operator or Owner or Principal Operator—Married	2A
Owner or Principal Operator—Unmarried	2C

The class codes assigned commercial automobiles are based upon the original cost new (complete car—chassis and body) and the use of the vehicle as to local, intermediate or long distance hauling. Class codes are also assigned Public Automobiles (taxis, livery, buses etc.) and Miscellaneous type vehicles (snowplows, street sweepers, motorcycles, etc.).

The symbols assigned private passenger vehicles, which are actually a part of the class code, are based upon the FOB list price and are shown in the Automobile Physical Damage Manual of the NAUA. The original cost new is used to group commercial vehicles into

[2]New Hampshire employs a no collision class plan (essentially one class). Special class plans are in effect in Texas and Puerto Rico.

[3]In addition to classes 1, 2A, 2C and 3 there are Farm classes of 1F, 2AF, and 2CF for use where farmer credit is in effect.

similar categories. The purpose of these groupings is to establish relativities between the differently priced makes and models of motor vehicles so that rates which reflect the values at risk may be developed. Age group codes are assigned to the vehicles, depending upon the number of months prior to the date the insurance attaches that the vehicle was purchased new. Private passenger automobiles are assigned age group codes as follows:

Automobiles Purchased New Prior to Date Insurance Attaches:	*Code*
Not more than 6 months	1
More than 6 months, not more than 18 months	2
More than 18 months, not more than 30 months	3
More than 30 months	4

Commerical vehicles written under actual value policies take the same codes as above, while those written under the stated amount forms are coded as either new (code 1—not more than 18 months) or old (code 3—more than 18 months). Public vehicles take the same age group codes as private passenger automobiles while buses and miscellaneous types are grouped as either new or old. Both dealers risks and fleet rated risks require no age group coding.

Fire, Theft, and Comprehensive (excluding collision) coverages may be written for both private passenger cars and commercial vehicles on either a stated amount or an actual value basis, except for fleet rated risks and antique automobiles which must be written under the stated amount form. Where the stated amount form is used the rates per $100 of insurance are applied to the amount of insurance stated in the policy to arrive at the premium to be charged. Under the actual value form of policy, premium charges are calculated and published by the NAUA for each symbol and age group of automobile by territory. The method of determining actual value premiums is to average the values at risk for each symbol and use a percentage of this value, depending upon the age group of the auto, to develop a premium from the stated amount rates.[4]

The following table shows the percentages of the value for any private passenger automobile symbol or commercial vehicle cost grouping used in calculating actual value comprehensive premiums:

Age Groups	*Private Passenger*	*Commercial*
1	Mfg. Price at Factory	Original Cost New (chassis & body)
2	90% of " " " "	75% of " " " " " "
3	75% of " " " "	50% of " " " " " "
4	60% of " " " "	35% of " " " " " "

[4]In the development of Commercial actual value premiums the fire rate for age groups 3 and 4 is increased by 50% before multiplying by the average value at risk.

Collision coverage is written on an actual value basis only; therefore, the manual carries premiums to be charged by territory, classification, symbol or original cost new, and age group. These premiums are calculated in the same manner as the actual value premiums for Comprehensive, using average values at risk and percentages of these values based on the age group of the vehicle.

The following table shows the percentage of the value for any private passenger automobile symbol or commercial vehicle cost grouping for local hauling used in calculating collision premiums.[5]

Age Groups	*Private Passenger*	*Commercial—Local Hauling*
1	Mfg. Price at Factory	Original Cost New (chassis & body)
2	95% of " " " "	" " " " " "
3	90% of " " " "	80% of " " " " " "
4	85% of " " " "	80% of " " " " " "

Coverage codes are used to split the premiums being reported into (a) Other than Collision (i.e. Fire, Fire and Theft, Comprehensive, etc.) and (b) Collision only (i.e. Full Coverage, $50 Deductible, etc.).

Paid losses are to be reported monthly on unit loss punch cards giving the following information:

1. Company number
2. Accounting month and year
3. Effective month and year
4. Expiry month and year
5. Loss month and year
6. Risk location—State & Territory
7. Class
8. Age group
9. Encumbrance
10. Coverage
11. Cause of loss
12. Number of losses
13. Loss payment

Loss reportings must also designate catastrophe losses as defined by the association. When, in the opinion of the staff of the NAUA, any event could produce losses for non-collision coverages estimated to exceed one-half of the amount necessary to classify the event as a catastrophe, code numbers will be assigned to each state involved and losses arising from this event will be so designated. Losses from a single event which amount to 5% or less of the annual statewide premium volume for non-collision coverages will be treated in the usual manner and included in the experience. When losses from a single event exceed 5%, up to a maximum of 25% of the annual statewide premium volume, that portion of the losses in excess of 5% will be distributed over the three year period used for ratemaking on the basis of one-half for the first year, one-third for the second year and one-sixth for the third year. Where catastrophe losses are in excess of 25% of the annual statewide premium volume the losses in excess of 25% shall be disregarded in the rating of the state. To provide for this exclusion of losses in excess of 25% a 1% catastrophe loading

[5]There is no age differential for intermediate or long distance hauling.

shall be included in the rate for those non-collision coverages which are subject to a catastrophe hazard.

Special Annual Reports

In addition to the regular reportings under the Statistical Plan, two supplemental "calls" are also issued. One requires an analysis of Direct Taxes, Licenses and Fees Incurred by State and also Direct Written Premiums by State for the Auto Physical Damage coverages. The other requests the automobile physical damage experience shown in the Insurance Expense Exhibit compiled annually by each company plus the following countrywide items not available in this exhibit:

1. Unearned Premiums, December 31, previous year
2. Unearned Premiums, December 31, current year
3. Net losses paid current year

In analysing the statistics reported under either of these supplemental calls aggregate comparisons are made with the data gathered under the continuous reportings of the Statistical Plan and any significant discrepancies are reconciled.

Ratemaking Procedure

The ratemaking procedure of the NAUA can be outlined by the following steps:

1. Determination of an overall statewide rate level change.
2. Distribution of this indicated change to the various coverages based upon the experience of the coverage.
3. Distribution of the indicated change by coverage to territories based upon the experience by territory.
4. Distribution of the territorial indicated change to classification based upon the classification relativities established from experience.

Statewide Rate Level

The first step in a revision of rates is the determination of the required change in the statewide rate level for all coverages and classes combined. This indicated change is obtained by comparing the weighted average actual premiums earned for the experience period adjusted to current rates with "needed premium revenue" for the same period.[6] Calendar year statistics are used since most physical damage losses develop and are paid within a relatively short period of time. The experience of the years being reviewed is weighted on the basis of 70% for the latest year, 20% for the first previous year

[6]The method of adjusting to current rates the calendar year's actual earned premiums is through the use of comparative areas as outlined in Mr. Ralph Marshall's article "Workmen's Compensation Insurance Ratemaking" P. C. A. S., Volume XLI, pp's 30-32.

and 10% for the second previous year.[7] Since the largest weight is given the latest year's experience the economic conditions reflected by this period tend to become incorporated in the rate revision at nearly full value.

Calculation of the "Needed Premium Revenue"

The "needed premium revenue" is composed of the following dollar amounts:

1. Losses incurred
2. Loss adjustment expenses incurred
3. Company expenses incurred

increased by percentage loadings for the following items:

4. Acquisition
5. Taxes
6. Profit and contingencies

and is developed from the statistics gathered under the Statistical Plan and from the experience received through the special calls.

Losses and Loss Adjustment Expenses

Paid loss data by state is available from the unit punch card reportings of the Statistical Plan. In order to produce incurred values for each state the experience received from the special call for Insurance Expense Exhibit data is utilized. By relating countrywide losses incurred to losses paid (Exhibit I) a factor is developed which is used to adjust the statewide paid loss data to an incurred basis (Exhibit II, Line 3).

Loss adjustment expenses paid and incurred as reported in the Insurance Expense Exhibit include both allocated and unallocated claim expense. The relationship between paid losses and paid loss adjustment expense on a countrywide basis develops a ratio (Exhibit I) to apply to statewide paid losses (Exhibit II, Line 9) to arrive at statewide allocated and unallocated loss adjustment expense paid. By relating countrywide loss adjustment expenses paid to incurred another ratio (Exhibit I) is derived which is applied to the statewide paid figure (Exhibit II, Line 12) to produce statewide allocated and unallocated loss adjustment expense incurred.

Losses incurred, as calculated above, are adjusted through the use of a trend factor to bring them as closely as possible in line with current price levels as of the date of the revision. The present factor used is based upon the automobile repair cost figures compiled by the U. S. Bureau of Labor Statistics as part of their Consumers' Price Index. Previously the factor was developed from the Consumers'

[7] The experience period has recently been revised to two years giving the latest year's experience 70% weight and the first previous year's experience 30%. This change was incorporated because of the inflationary trend of our economy in an attempt to give the most current experience greater effect in the ratemaking procedure.

Price Index. This Index is developed using the 1947-1949 period as the base. The Index is recorded as of the 15th of each month and a moving average of the previous twelve months is calculated. As of the date of a rate revision the current Index is related to the twelve month averages for the three years being used in the ratemaking and a factor to adjust each year's losses to current price levels is developed (Exhibits III and IV).

Company Expenses

The items of expense shown in the Insurance Expense Exhibit which comprise company expenses incurred are also calculated as dollar amounts to be included in the "needed premium revenue". Countrywide data for these expenses are available from the special call for Insurance Expense Exhibit Statistics and by relating this data to the countrywide Earned Premiums a factor to apply to earned premiums is developed (Exhibit I). It is then necessary to develop statewide earned premiums from the Statistical Plan reportings of written premiums. To accomplish this the ratios of unearned premiums to written premiums as of December 31st of available calendar years are calculated. Ratios for periods of other than a calendar year are secured by interpolation for those states for which rate revisions are scheduled for June or September 30.[8] To calculate the statewide earned premiums for any twelve month period the unearned ratio for the previous twelve month period is applied to the written premium for that period and added to the product of the written premiums and the complement of the unearned factor for the period under consideration. For example: Earned Premium for Calendar Year 1955 = 1954 Unearned Ratio X 1954 Written Premium + 1955 Written Premium X (1.00 − 1955 Unearned Ratio). Having thus established statewide earned premiums, the countrywide ratios to earned premiums of Company Expenses Incurred are applied to develop the corresponding statewide expenses (Exhibit II, Lines 13-15).

Under a pure premium system of ratemaking any rate revision due to a change in the pure premium underlying the rate automatically carries with it a revision of the dollar provision for expenses in the rate. This is due to the fact that expenses are treated as percentages of the premium dollar and the expense allowance thus varies directly with an increase or decrease in rate. The "needed premium revenue" system treats all items of loss and expense (except taxes, acquisition, and profit and contingencies) as dollar amounts so that actual experience is used for both losses and expenses.

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[8]The schedule of rate revisions is staggered throughout the year under the following system:

1. NAIC Zones 1 and 2—fiscal year ending June 30
2. NAIC Zones 3 and 4 including Oklahoma and excluding Wisconsin—fiscal year ending September 30
3. NAIC Zones 5 and 6 excluding Oklahoma and including Wisconsin and Alaska—calendar year

Taxes, Acquisition and Profit and Contingencies

The data supplied under the special call which requests an analysis of Direct Taxes, Licenses and Fees Incurred by State is used to develop a percentage of earned premiums which reflects taxes incurred for any specified state (Exhibit II, Line 17). By combining this percentage with the budgetary allowance of 20% for Acquisition and 5% for Profit and Contingencies a total loading is calculated to be used in the "needed premium revenue" (Exhibit II, Line 18—As of the date of the Connecticut revision the provision for Acquisition was 25%).

Indicated Statewide Rate Level Change

The combination of the dollar amounts developed for losses, loss adjustment expenses and company expense incurred all loaded by dividing this total by unity minus the percentage provision for Taxes, Acquisition, and Profit and Contingencies previously determined, produces the "needed premium revenue" for each year of the experience period under consideration. The statewide indicated rate level change is found by comparing the weighted three year "needed premium revenue" with the weighted actual earned premiums brought up to present rate level (Exhibit II—The indicated change of +29.50% was modified to +16.71% to reflect the hurricane losses incurred in 1954 and 1955 which were not excluded from the ratemaking procedure at that time). An additional step not contained in the Connecticut filing is now incorporated in order to bring in the one percent charge for the limitation of catastrophe losses for those lines subject to such losses.

By weighting the latest available twelve months written premium for Comprehensive, Fire and Theft, and related coverages by the indicated change due to experience and the one percent provision for catastrophes and adding the written premiums for all other coverages weighted only for the experience change developed, a total statewide indicated change is calculated (Exhibit II, Page 2). This indicated statewide change is based upon all classes and all coverages and must next be distributed to territory and coverage.

Distribution to Coverage—Private Passenger

Rates for the major private passenger automobile coverages—full comprehensive, \$50 deductible comprehensive, \$50 deductible collision and \$100 deductible collision—are determined separately using the following procedure. The average adjusted loss ratio for the entire state for the three year period of experience being used is calculated (60.93% excluding hurricane experience). This loss ratio represents the experience of all classes and all coverages of automobile physical damage experience and is directly comparable with the indicated change in rate level developed above. By dividing this loss ratio by unity plus the indicated percentage change in statewide rate level

(+16.71% excluding hurricane experience) an adjustment factor is developed (60.93 ÷ 1.1671 = 52.21). Loss ratios for each major coverage by territory, adjusted to current rate levels, are developed for each year of the experience period (Exhibit V—Cols. 14, 15, 16).* From these loss ratios a three year weighted average coverage loss ratio is calculated (Exhibit V—Col. 17) and divided by the factor developed above to compute an indicated change by coverage (Exhibit V—Col. 22). In effect the use of this adjustment factor compares an indicated statewide loss ratio (a loss ratio which varies from year to year depending upon the expense and loss provisions which go into the "needed premium revenue") with an adjusted coverage loss ratio to develop the percentage change in rates indicated for a coverage. The percentage change by coverage based on loss ratio experience thus developed is used to modify the territorial changes indicated by loss costs.

Distribution to Territories—Private Passenger

The territorial losses and allocated loss adjustment expenses paid for each coverage as compiled under the Statistical Plan are divided by the earned car years (written car years developed to earned by applying the factors previously used to develop written premium to earned) to arrive at the loss costs, or pure premiums, by territory for each of the three years experience being reviewed (Exhibit V—Cols. 18, 19, 20). The three year weighted average loss costs (Exhibit V—Col. 21) are then multiplied by the reciprocal of the factor (or loss ratio on indicated rate level) developed above (1÷52.21=1.9153) to produce an average premium indicated by the loss costs (Exhibit V—Col. 23). By comparing this indicated premium with the present average premium as determined from the existing schedule of rates (Exhibit V—Col. 28) an indicated percentage change is developed (Exhibit V—Col. 24). We now have two indicated changes, one developed from a comparison of loss ratios and one derived from loss costs. The distribution to territory is now made based on the indicated change developed from loss costs by coverage and territory modified so that for the coverage the change will be that developed by the comparison of loss ratios. This is accomplished by dividing unity plus the loss ratio indicated change for a coverage (for Comprehensive 1.931) by unity plus the total loss cost indicated change for a coverage (for Comprehensive 1.949) and multiplying each territorial average indicated premium developed from the loss cost by the resultant (for Comprehensive 1.931 ÷ 1.949 = .991) (Exhibit V—Col. 26). A comparison between the average premium developed under the existing schedule of rates by territory and the indicated average premium by territory produces the indicated rate level changes. The next step is to select a table or schedule of rates which most closely reflects these indicated changes.

* Exhibit V, see page 147.

Distribution to Classification—Private Passenger

The relativity between the different makes and models of automobiles as defined by the symbol groupings has been established for comprehensive and for collision using countrywide experience. These relativities are reviewed periodically and any marked deviations from the existing tables are adjusted. Using these tables of relativities, premium and rate schedules for each symbol or group of symbols have been developed. For example: the comprehensive rate for a symbol J, age group 1 automobile is $.22 per 100 dollars under schedule #2 (producing a premium of $5) while under schedule #32 the rate is $3.52 per 100 dollars (producing a premium of $72). For a symbol N, age group 1 automobile the corresponding rates would be $.19 (producing a premium of $7) and $2.96 (producing a premium of $111). Thus, within the limits imposed by rounding, the same relativity between symbols is maintained regardless of the level of rates in effect.

Using the latest available countrywide exposure distribution, the average premium developed by each schedule is calculated and an exhibit showing the percent effect of a change from one schedule to another is prepared. If, for example, the indicated change developed for a territory presently using the rates and premiums of comprehensive schedule #5 should be an increase of 55%, schedule #9, which produces an average premium 53.6% greater than that of schedule #5, might be used. In the selection of the revised schedule to be used factors other than the indicated increase developed by the ratemaking procedure are considered. For example, in the 1957 revision in Connecticut, the indicated statewide increase for comprehensive coverage was 93.1%. However, since this increase was developed from experience for the three years ending June 30, 1956 which included catastrophe losses (which at this time were not excluded from the ratemaking procedure) suffered during the hurricanes and floods of 1954 and 1955, the change was limited to an increase of 53.6%.

The original tables of relativities were developed for Fire coverage and for Theft coverage with Comprehensive being determined by combining these schedules and loading them for the additional hazards covered under this form of policy. Since comprehensive has become the major coverage (accounting for more than 90% of the "other than collision" private passenger premium) the tables are now designed to reflect the relationship between various symbols for comprehensive coverage. Fire rates and Fire and Theft rates are now quoted as percentages of comprehensive rates so that they retain the same relativity as the comprehensive rates.

Collision schedules are designated by amounts in dollars (i.e., $27 Schedule, $28 Schedule, etc.) and are developed to reflect a uniform relationship between age, price and form of deductible coverage depending upon the classification plan in effect in the state for which the revision is being promulgated. The relativity between classes of the three class collision plan is given in the following table:

Class	*Relativity to Class 3*
1	80% of Class 3
2A	115% of Class 3
2C	150% of Class 3
3	100% of Class 3
1F	70% of Class 1 = 56% of Class 3
2AF	70% of Class 2A = 80.5% of Class 3
2CF	70% of Class 2C = 105% of Class 3

The above mentioned schedules are developed from countrywide statistics of the distribution and experience of automobiles by symbol, age and coverage groups so that the actual rates or premiums developed by the ratemaking procedure vary by territory and state according to the experience, but the relativities between symbols and age groups are standard.

Private passenger coverages, other than those for which rate changes are determined separately, are expressed as percentages or averages of the major lines. Such coverages as Full Collision, $25 Deductible Collision, etc. do not develop sufficient experience to have credible statistics and, therefore, their rates or premiums are expressed as functions of the major coverages. The following table gives these relationships:

Coverage	*Premium Calculation*
Full Coverage Collision	400% of $ 50 Deductible Premium
$ 25 Deductible Collision	160% of $ 50 Deductible Premium
$ 75 Deductible Collision	50% of the sum of $50 & $100 Deductible Premium
$ 150 Deductible Collision	80% of $100 Deductible Premium
$ 250 Deductible Collision	60% of $100 Deductible Premium
$ 500 Deductible Collision	40% of $100 Deductible Premium
$1000 Deductible Collision	20% of $100 Deductible Premium
80% Convertible Collision	180% of $ 50 Deductible Premium
Convertible Collision (Initial Prem.)	200% of $ 50 Deductible Premium

Of these coverages the $150 and $250 Deductible Collision are the only ones for which premiums are calculated and published in the Automobile Physical Damage Manual. The remainder are of slight volume and may be calculated using the above rules when an insured requests this coverage.

Fire, and Fire and Theft coverage are related to the Comprehensive rates so that any change developed for Comprehensive is reflected in these rates. The experience for Fire, and Fire and Theft is reviewed on a statewide basis and the relationship percentages adjusted as the experience of these coverages follows or differs from that of Comprehensive coverage.

Commercial Vehicles

The experience for commercial vehicles is relatively slight so that a formula approach to ratemaking such as that used for private passenger coverages must be tempered with underwriting judgment. Since the majority of the commercial coverage written is for Local Hauling vehicles, only these coverages are reviewed in statistical detail on a statewide basis. Experience for Intermediate and Long Haul vehicles is reviewed on a regional basis supplemented by available Fleet experience. The major coverages available to commercial vehicles are: Fire; Fire and Theft (with and without Combined Additional Coverage); Fire, Theft and Windstorm; Comprehensive; and Collision. In reviewing the statewide experience for the non-collision coverages the weighted average three year loss ratio[9] on current level for each coverage is compared with an "adjustment factor" (the statewide loss ratio for all classes and all coverages on indicated rate level) to develop an indicated rate level change. These indications are used as guides for the pitching of the rate levels by coverage. The rates for the non-collision coverages are developed by combining separate rates for Fire, Theft, a Comprehensive loading, and a Combined Additional Coverage charge so that the rate for a given coverage can be modified by revising one of its elements. If, for example, the coverage experience should indicate an increase for Comprehensive and decreases for Fire and Theft, and Fire and Theft with Combined Additional Coverage, the Fire portion of the rate could be reduced while the Comprehensive loading could be increased. This would reduce the Fire and Theft rate and the rate for Fire and Theft with Combined Additional Coverage while the Comprehensive rate would be increased.

The Fire rates and Comprehensive loadings for Intermediate and Long Distance Hauling are pitched to their own experience. The Fire rates for old vehicles are 50% greater than those for new, and credits are given to vehicles powered by other than gasoline or liquefied petroleum gas. Theft rates and Windstorm rates for commercial vehicles are the same for all radii of operation and for gasoline or diesel powered vehicles since these hazards are not functions of the distance of operation nor of the type of fuel used. From these rates premiums are developed and published for each cost and age grouping using average values at risk and percentages of these values depending upon the age group as previously described.

The $50 and $100 Deductible Collision coverages for Local Hauling vehicles are reviewed on a statewide basis by comparing the adjusted

[9]The experience period currently in use is two years weighted 70% for the latest year and 30% for the first previous year.

average loss ratios with the "adjustment factor," and the rate schedules which produce the indicated rate level change are proposed. Regional experience, supplemented by Fleet experience, is employed in determining levels for the Intermediate and Long Haul classes. Premium charges are published for the more common coverages such as $50, $100, $250 and $500 Deductible Collision and the formulae for the calculation of any other desired Deductible are printed in the Manual. The collision premiums for Local Hauling vehicles reflect the age differentials previously outlined while Intermediate and Long Hauling take the same premium regardless of the age of the vehicle. This is done because most of the large vehicles used in this type of hauling are constantly being overhauled and repaired and it is felt that age does not become a factor in the insuring of these vehicles.

Public Vehicles

The experience for public vehicles is reviewed on the same basis as that of commercial vehicles. Certain classes of these vehicles have rates defined by the manual rules as functions of the private passenger or commercial rates so that they are directly affected by any rate revisions for these classes. Public vehicles, except buses, develop their own Fire rates and Theft rates and are charged collision premiums of three (3) times the private passenger class 3 collision premium for similar symbol and age groups. Buses are classified as either "Defined Buses" and "All Other Buses." Here again the Fire rate and the Theft rate are developed from the actual experience of the group. Comprehensive, which cannot be written for taxis, livery autos and jitneys, is available for buses and the rate is determined by combining the Fire rate and the Theft rate plus a loading for the "unrateable hazard" covered under Comprehensive. Collision premiums for "Defined Buses," except school buses, are the regular Local Hauling-Commercial Automobile Collision premiums, while school buses take premiums of 50% of the regular Local Hauling-Commercial Automobile Collision premiums. "All Other Buses" are classified according to distance of operation (operation under 150 miles and operation over 150 miles) and use the premiums applicable to Intermediate and Long Distance commercial automobiles.

Other Vehicles and Miscellaneous Coverages

Miscellaneous types of vehicles such as: Fire or Police Department Automobiles, Ambulances, Armored Cars, Bookmobiles, Motorcycles, Snow Plows, Trench Diggers etc. take rates and premiums defined by the NAUA manual rules as functions of private passenger or commercial comprehensive and/or collision rates. The experience of these vehicles is reviewed annually on a countrywide basis in order to determine if any classification differs significantly or has increased in volume sufficiently to develop credible rates on its own experience. Miscellaneous coverages, such as: towing and labor costs, personal effects, flood or rising waters, etc. are reviewed annually on a countrywide basis.

Comprehensive and Fire and Theft Fleet Rating Plans

Two fleet rating plans for Comprehensive and Fire and Theft are available—Formula "A" and Formula "C". Formula "A" is applicable to risks which meet the following criteria:

A. Under one ownership or under lease or rental agreement as defined by the plan
B. Have been previously insured for at least one year and nine months
C. Consist of at least 50 automobiles or of less automobiles if at least 25 buses are covered.

Formula "C" is applicable to all other fleet risks providing they are:

A. Under one ownership or under lease or rental agreement as defined by the plan.
B. Comprised of not less than 5 or more than 49 automobiles
C. Comprised of more than 50 automobiles or of less number if at least 25 buses are covered *and* have not previously been insured at least one year and nine months.

In developing the rate to be charged under either Formula, the following information for the experience period to be used in the rating is required:

1. Net written premiums for each year of the experience period for each coverage
2. Incurred losses (exclusive of loss adjustment expense) for each policy year
3. The rates (for each coverage and class of automobile) at which policies were written each year
4. Form of latest year's policy—perils insured, reductive clauses or restricted forms
5. Total of net liability written or the number of cars insured each year.

The basic experience period is three years (where the experience for the latest policy period is not obtainable, experience for at least the first nine months shall be filed). In the event only two years experience is available the modification shall be two-thirds of the three year modification.

Under Formula "A" the three year experience loss ratio is calculated and a percentage modification applicable to last year's rates for all classes is obtained from a table of debits and credits. These modifications range from a debit of 75% for a three year loss ratio of

88% and over to a credit of 50% for a three year loss ratio of from 0 to 0.9% (Exhibit VI). Where incurred losses for any one year exceed the following:

Latest Year's Experience—2 times the earned premium
First Prior Year's Experience—1½ times the earned premium
Second Prior Year's Experience—1 times the earned premium

such excess losses shall be considered catastrophe losses and be excluded from the rating. Formula "A" is designed to experience rate the large risk which has previously been insured.

Under Formula "C" the rate to be charged is the base fleet rate (each classification of vehicle is given a base rate which is usually a manual rate or function of a manual rate), modified by the application of a size credit plus or minus an experience credit or debit. (Exhibit VII)

The basic experience period is two years and nine months (where only one year and nine months experience is available the experience debits or credits shall be two-thirds of the basic experience period modification). Where experience for at least one year and nine months is not available under Formula "C" only the size of fleet credit shall be applicable.

Incurred losses are limited (treated as catastrophe) where they exceed the following:

Latest Nine Months' Experience—3 times the adjusted premium (written for period adjusted to earned)
First Prior Year's Experience —2 times the earned premium
Second Prior Year's Experience—1 times the earned premium

Collision Fleet Rating

Collision fleet rating is also available for those risks which qualify. The criteria for qualification are as follows:

1. Under one ownership or under lease or rental agreement as defined by the plan
2. Consist of not less than 5 automobiles (including trailers and semi-trailers)
3. Have been previously insured for a period of at least one year
4. All vehicles owned by the insured must be covered against collision.

The information necessary to rate a fleet is as follows:

1. Net written collision premiums received each year
2. Collision losses incurred (exclusive of all loss adjustment expenses) allocated to policy year
3. Any premium reduction for size of risk experience and/or schedule rating applied in each year.

The basic experience period shall be two years and nine months (where only one year and nine months' experience or nine months' experience is available, the modification shall be two-thirds or one-third of the basic period modification). The modifications for experience and size of risk are combined into one table. Fleets are grouped into five size categories (5-10; 11-25; 26-50; 51-100; over 100) with modifications ranging from 21% to 56% credit for risks with three year loss ratios between 0% and 5% and from 25% to 92% debit for three year loss ratios of over 100% (Exhibit VIII). Incurred losses for any period are limited where they exceed the same criteria as outlined under Formula "C" for Comprehensive and Fire and Theft.

Schedule Rating

Schedule rating for collision is also available to any risk which qualifies for experience rating. The purpose of the Schedule Rating Plan is to supply a means of modifying manual premiums (in addition to any experience modification) to recognize any specific characteristics of a risk which are not reflected by experience rating. The following schedules give the range of modifications available for various aspects of a risk:

	Range of Modification		
	Credit		*Debit*
Management	5%	to	5%
Employees	5	to	5
Equipment	5	to	10
Safety Organization	10	to	5

Retrospective Rating

As of July 1957 it became permissible to retrospectively rate Automobile Physical Damage coverage under the provisions of Retrospective Rating Plan D. Under this plan the premium for the Physical Damage coverages is determined after the policy period has expired and is developed from a combination of the risk's losses and basic expenses subject to a maximum premium and a minimum premium.

Countrywide

Exhibit I
August 1956

FROM "INSURANCE EXPENSE EXHIBITS"
PART II — ALLOCATION TO LINES OF BUSINESS

Consolidated Experience of National Automobile Underwriters Association Members and Stock Company Subscribers (exclusive of companies specializing in writing insurance for a finance company or companies)

	Column 9 & 10 Line No.	*1953*	*1954*	*1955*
Net Premiums	1	676,037,565	636,114,955	645,242,503
Premiums Earned	2	646,024,679	650,933,696	636,856,424
Losses Paid	3a	294,092,473	278,118,108	289,749,389
Losses Incurred	3	291,656,577	272,330,489	294,904,024
Ratio to losses paid		.991 717	.979 190	1.017 790
Loss Adjustment expenses paid	4	40,653,508	41,288,019	41,486,407
Ratio to losses paid		.138 234	.148 455	.137 691
Loss Adjustment expenses incurred	5	40,918,779	41,195,553	41,948,143
Ratio to loss adjustment expenses paid		1.006 525	.997 760	1.011 130
Acquisition Incurred	6	177,212,676	167,693,123	172,580,248
Company expenses incurred	7 & 13	66,961,907	68,396,878	70,337,191
Ratio to premiums earned		.103 653	.105 075	.110 444
Taxes, licenses and fees incurred	14	18,070,458	17,142,560	17,435,787
Total Expenses excluding Federal income and real estate taxes (lines 5, 6, 7, 13 and 14)	15	303,163,820	294,428,114	302,301,369
Gain from underwriting (line 2 minus 3 minus 15)	16	51,204,282	84,175,093	39,651,031
% of Premiums Earned		7.93	12.93	6.23

Connecticut

Exhibit II

APPLICATION OF RATE FORMULA FOR 3 YEARS ENDING SEPTEMBER 30, 1956

	Year Ending September 30 1954	1955	1956	*3 Yr. Wghted Average (10-20-70)*
1. Losses Paid	9,093,273	11,695,643	13,423,476	
2. Ratio Losses Inc. to Losses Pd.	.991 717	.979 190	1.017 790	
3. Losses Incurred	9,017,953	11,452,257	13,662,280	
4. Losses Incurred	9,017,953	11,452,257	13,662,280	
5. Factor to Adjust to Current Price Level	1.024 348	1.029 720	1.019 913	
6. Losses Inc. Adj. " " " "	9,237,522	11,792,618	13,934,337	13,036,312
7. Losses Paid	9,093,273	11,695,643	13,423,476	
8. Ratio Loss Adj. Exp. Pd. to Losses Pd.	.138 234	.148 455	.137 691	
9. Loss Adj. Exp. Paid	1,256,999	1,736,277	1,848,292	
10. Loss Adj. Exp. Paid	1,256,999	1,736,277	1,848,292	
11. Ratio Loss Adj. Exp. Inc. to Loss Adj. Exp. Pd.	1.006 525	.997 760	1.011 130	
12. Loss Adj. Expenses Incurred	1,265,201	1,732,388	1,868,863	1,781,202
13. Premiums Earned	19,557,664	19,257,635	20,199,354	
14. Ratio Company Expenses to Premiums Earned	.103 653	.105 075	.110 444	
15. Company Expenses Incurred	2,027,210	2,023,496	2,230,897	2,169,048
16. Total Losses & Expenses (Excl. Taxes, Licenses & Fees) Incurred (Lines 6 + 12 + 15)	12,529,933	15,548,502	18,034,097	16,986,562
17. Ratio Taxes, Licenses & Fees Inc. To Needed Premium Revenue	.02739	.02767	.02850	
18. Ratio Total Losses & Expenses (Excl. Taxes, Licenses & Fees) Inc. to Needed Premium Revenue (.70000 minus line 20)	.67261	.67233	.67150	
19. Needed Premium Revenue (Line 16 ÷ Line 18)	18,628,824	23,126,295	26,856,436	25,287,647
20. Premiums Earned, Adjusted to Current Rates	18,281,000	18,544,000	19,987,000	19,527,800
21. Overall Adjustment Indicated	+1.90%	+24.71%	+34.37%	+29.50%

State________________________

COMPUTATION OF TOTAL OVERALL INDICATED CHANGE *INCLUDING* PROVISION FOR CATASTROPHES

Coverages	*Year Ending* *Written Premiums*	*Indication from Exhibit II* %	*Amount*	*Provision for Catastrophes* %	*Amount*	*Total Indicated Change* %	*Amount*
Comprehensive; Fire; Fire & Theft; Fire Theft and Miscellaneous Added Coverages							
All Other Coverages							
Total Overall							

Exhibit III

December 1956

CONSUMERS' PRICE INDEX
(COST OF LIVING INDEX)
U. S. BUREAU OF LABOR STATISTICS

Calculation of Factors to adjust the Losses Incurred to the current price level. Based on the new Series Index (1947-1949 = 100)

Factors applied to the experience for States in NAIC Zones 1 and 2 in Association jurisdiction:

Connecticut	New York
Delaware	Ohio
Dist. of Columbia	Pennsylvania
Maine	Rhode Island
Maryland	South Carolina
Massachusetts	Vermont
New Hampshire	West Virginia
New Jersey	

12 Months Average as of	9-30-54	115.0	Actual as of 11-15-56
	9-30-55	114.4	117.8
	9-30-56	115.5	

$$\frac{117.8}{115.0} = 1.024348$$

$$\frac{117.8}{114.4} = 1.029720$$

$$\frac{117.8}{115.5} = 1.019913$$

Exhibit IV

CONSUMERS' PRICE INDEX
(COST OF LIVING INDEX—ALL ITEMS)
U. S. BUREAU OF LABOR STATISTICS

NEW: 100 = 1947-49

	As of 15th of Month	*Average previous 12 Months*	*As of 15th of Month*	*Average previous 12 Months*	*As of 15th of Month*	*Average previous 12 Months*
	1950		*1951*		*1952*	
Jan.	100.6	101.6	108.6	103.5	113.1	111.4
Feb.	100.4	101.5	109.9	104.3	112.4	111.6
Mar.	100.7	101.4	110.3	105.1	112.4	111.8
Apr.	100.8	101.3	110.4	105.9	112.9	112.0
May	101.3	101.3	110.9	106.7	113.0	112.2
June	101.8	101.2	110.8	107.4	113.4	112.4
July	102.9	101.4	110.9	108.1	114.1	112.7
Aug.	103.7	101.5	110.9	108.7	114.3	113.0
Sept.	104.4	101.7	111.6	109.3	114.1	113.2
Oct.	105.0	102.0	112.1	109.9	114.2	113.4
Nov.	105.5	102.3	112.8	110.5	114.3	113.5
Dec.	106.9	102.8	113.1	111.0	114.1	113.6
	1953		*1954*		*1955*	
Jan.	113.9	113.6	115.2	114.6	114.3	114.8
Feb.	113.4	113.7	115.0	114.7	114.3	114.7
Mar.	113.6	113.8	114.8	114.8	114.3	114.7
Apr.	113.7	113.9	114.6	114.9	114.2	114.5
May	114.0	114.0	115.0	114.9	114.2	114.5
June	114.5	114.0	115.1	115.0	114.4	114.5
July	114.7	114.1	115.2	115.0	114.7	114.5
Aug.	115.0	114.1	115.0	115.0	114.5	114.4
Sept.	115.2	114.2	114.7	115.0	114.9	114.4
Oct.	115.4	114.3	114.5	114.9	114.9	114.5
Nov.	115.0	114.4	114.6	114.9	115.0	114.5
Dec.	114.9	114.5	114.3	114.8	114.7	114.5
			1956			
		Jan.	114.6	114.6		
		Feb.	114.6	114.6		
		Mar.	114.7	114.6		
		Apr.	114.9	114.7		
		May	115.4	114.8		
		June	116.2	114.9		
		July	117.0	115.1		
		Aug.	116.8	115.3		
		Sept.	117.1	115.5		
		Oct.	117.7	115.7		
		Nov.	117.8	116.0		

Exhibit VI

FORMULA "A" EXPERIENCE MODIFICATIONS

APPLY TABLE SEPARATELY TO FIRE AND TO THEFT AND TO THE COMPREHENSIVE ADDITIONAL RATE

Three Years Experience Loss Ratio	*Percentage Modification All Classes*	*Three Years Experience Loss Ratio*	*Percentage Modification All Classes*	*Three Years Experience Loss Ratio*	*Percentage Modification All Classes*
	Increase		*Increase*		*Reduction*
88% & over	75%	58.0 – 58.9%	16%	29.0 – 29.9%	31.0%
87.0 – 87.9	74	57.0 – 57.9	14	28.0 – 28.9	32.0
86.0 – 86.9	72	56.0 – 56.9	12	27.0 – 27.9	33.0
85.0 – 85.9	70	55.0 – 55.9	10	26.0 – 26.9	34.0
84.0 – 84.9	68	54.0 – 54.9	8	25.0 – 25.9	35.0
83.0 – 83.9	66	53.0 – 53.9	6	24.0 – 24.9	36.0
82.0 – 82.9	64	52.0 – 52.9	4	23.0 – 23.9	37.0
81.0 – 81.9	62	51.0 – 51.9	2	22.0 – 22.9	38.0
80.0 – 80.9	60	50.0 – 50.9	0	21.0 – 21.9	39.0
79.0 – 79.9	58		*Reduction*	20.0 – 20.9	40.0
78.0 – 78.9	56	49.0 – 49.9	1.5	19.0 – 19.9	40.5
77.0 – 77.9	54	48.0 – 48.9	3.0	18.0 – 18.9	41.0
76.0 – 76.9	52	47.0 – 47.9	4.5	17.0 – 17.9	41.5
75.0 – 75.9	50	46.0 – 46.9	6.0	16.0 – 16.9	42.0
74.0 – 74.9	48	45.0 – 45.9	7.5	15.0 – 15.9	42.5
73.0 – 73.9	46	44.0 – 44.9	9.0	14.0 – 14.9	43.0
72.0 – 72.9	44	43.0 – 43.9	10.5	13.0 – 13.9	43.5
71.0 – 71.9	42	42.0 – 42.9	12.0	12.0 – 12.9	44.0
70.0 – 70.9	40	41.0 – 41.9	13.5	11.0 – 11.9	44.5
69.0 – 69.9	38	40.0 – 40.9	15.0	10.0 – 10.9	45.0
68.0 – 68.9	36	39.0 – 39.9	16.5	9.0 – 9.9	45.5
67.0 – 67.9	34	38.0 – 38.9	18.0	8.0 – 8.9	46.0
66.0 – 66.9	32	37.0 – 37.9	19.5	7.0 – 7.9	46.5
65.0 – 65.9	30	36.0 – 36.9	21.0	6.0 – 6.9	47.0
64.0 – 64.9	28	35.0 – 35.9	22.5	5.0 – 5.9	47.5
63.0 – 63.9	26	34.0 – 34.9	24.0	4.0 – 4.9	48.0
62.0 – 62.9	24	33.0 – 33.9	25.5	3.0 – 3.9	48.5
61.0 – 61.9	22	32.0 – 32.9	27.0	2.0 – 2.9	49.0
60.0 – 60.9	20	31.0 – 31.9	28.5	1.0 – 1.9	49.5
59.0 – 59.9	18	30.0 – 30.9	30.0	0.0 – 0.9	50.0

Exhibit VII

FORMULA "C"

TABLE OF SIZE CREDITS AND EXPERIENCE CREDITS AND DEBITS

	Size of Fleet Number of Automobiles including trailers and semi-trailers as per Conditions of Eligibility for Formula "C"		
	5-10	*11-25*	*26-49**
Size Credit	*15%*	*20%*	*25%*
Experience Credit Earned/Incurred Loss Ratio			
0.0% – 4.9%	30%	30%	30%
5.0 – 9.9	27	27	27
10.0 – 14.9	23	23	23
15.0 – 19.9	20	20	20
20.0 – 24.9	17	17	17
25.0 – 29.9	14	14	14
30.0 – 34.9	10	10	10
35.0 – 39.9	7	7	7
40.0 – 44.9	3	3	3
45.0 – 49.9	0	0	0
Experience Debit			
50.0% – 54.9%	0%	0%	0%
55.0 – 59.9	3	3	3
60.0 – 64.9	7	7	7
65.0 – 69.9	10	10	10
70.0 – 74.9	14	14	14
75.0 – 79.9	17	17	17
80.0 – 84.9	20	20	20
85.0 – 89.9	23	23	23
90.0 – 94.9	27	27	27
95.0 & Over	30	30	30

NOTE: *Use the credits and debits in this column for rating fleets of over 49 automobiles including trailers and semi-trailers (over 24 buses) which are not eligible for rating under Formula "A".

Exhibit VIII

COLLISION FLEET EXPERIENCE ADJUSTMENTS

	Size of Fleet				
Manual Loss Ratio	*5-10*	*11-25*	*26-50*	*51-100*	*Over 100*
0 – 5	.79	.76	.70	.60	.44
5 – 10	.81	.79	.74	.65	.51
10 – 15	.83	.81	.77	.70	.59
15 – 20	.86	.84	.81	.75	.66
20 – 25	.88	.87	.84	.80	.73
25 – 30	.90	.90	.88	.85	.81
30 – 35	.93	.92	.92	.90	.88
35 – 40	.95	.95	.95	.95	.96
40 – 45	.97	.98	.99	1.00	1.03
45 – 50	1.00	1.01	1.02	1.05	1.10
50 – 55	1.02	1.03	1.06	1.10	1.18
55 – 60	1.04	1.06	1.09	1.15	1.25
60 – 65	1.07	1.09	1.13	1.20	1.33
65 – 70	1.09	1.12	1.16	1.25	1.40
70 – 75	1.11	1.14	1.20	1.30	1.47
75 – 80	1.14	1.17	1.24	1.35	1.55
80 – 85	1.16	1.20	1.27	1.40	1.62
85 – 90	1.18	1.23	1.31	1.45	1.70
90 – 95	1.21	1.25	1.34	1.50	1.77
95 – 100	1.23	1.28	1.38	1.55	1.84
Over 100	1.25	1.31	1.41	1.60	1.92

Exhibit V

)SALS:	
SENGER	$+3,749,284
MMERCIAL	- 52,127
IER	
AL +17.79%	$+3,697,157

PRESENT:	
FIRE	FIRE & THEFT
20%	40%

PROPOSED:	
FIRE	FIRE & THEFT
15%	30%

(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)
	PRESENT		VOLUME LATEST YEAR		PROPOSALS		EFFECT	
ST STED TIO % IANGE	TABLE OR SCHED.	AVERAGE PREMIUM	WRITTEN PREMIUMS ($000's)	NUMBER OF LOSSES	TABLE OR SCHED.	AVERAGE PREMIUM	%	DOLLARS
991								
48.3	#5	8.61	930,622	12,571	#9	13.23	+53.6	
81.6	#5	8.61	960,037	12,941	9	13.23	+53.6	
73.4	#5	8.61	693,961	11,045	9	13.23	+53.6	
75.5	#5	8.61	137,786	2,943	9	13.23	+53.6	
23.3	#5	8.61	865,501	12,376	9	13.23	+53.6	
93.1		8.61	3,587,907	51,876			+53.6	+1,923,119
014								
11.0	$21	49.30	2,825,742	7,196	$23	53.85	+ 9.2	+259,968
15.7	21	49.30	3,096,157	7,890	24	56.15	+13.9	+430,366
17.2	22	51.60	2,661,344	7,121	25	58.50	+13.4	+356,620
24.4	22	51.60	430,695	1,222	25	58.50	+13.4	+57,713
17.5	22	51.60	3,198,314	8,247	25	58.50	+13.4	+428,574
15.7		50.49	12,212,252	31.676			+12.6	+1,533,241

ENTIRE STATE-OVERALL

CONNECTICUT

INCL. CATASTROPHE INDICATIONS: +29.50% $ +6,131,582

EXCL. CATASTROPHE INDICATIONS +16.71% $ +3,473,177

PRIVATE PASSENGER

PRO
P
C
O
T

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)		(22)	(23)	(24)	(25)
RATE HISTORY							EXPERIENCE - 3 YEARS ENDING June 30, 1956														COVERAGE AND TERRITORY	INDICATIONS			
IOR O	6-7-54		6-13-55		5-16-56		LOSS FREQUENCY			AVERAGE LOSS			ADJUSTED LOSS RATIOS				LOSS COSTS			3 YR. WGHTD AVER.		% CHANGE INDICATED BY LOSS RATIO	AVERAGE PREMIUM INDICATED BY LOSS COST	% CHANGE INDICATED BY LOSS COST	LOSS C INDIC. AD. TO LOSS
54	NEW LEVEL	% OF CHANGE	NEW LEVEL	% OF CHANGE	NEW LEVEL	% OF CHANGE	1954	1955	1956	1954	1955	1956	1954	1955	1956	3 YR. WGHTD AVER.	1954	1955	1956						AVERAGE PREMIUM
MPREHENSIVE														FACTOR 52.21				FACTOR 1.9153			ENTIRE STATE-OVERALL				
#4	#4	-	#4	-	#5	+5.8	11.3	11.6	11.2	34	51	65	43.4	69.2	84.3	77.77	4	6	7	6.73	HARTFORD COUNTY	+49.0	12.89	+49.7	12.77
4	4	-	4	-	5	+5.8	11.1	12.1	11.6	41	64	76	49.7	88.4	100.6	93.72	4	8	9	8.24	FAIRFIEDL COUNTY	+79.5	15.78	+83.3	15.64
4	4	-	4	-	5	+5.8	13.6	13.7	13.3	38	47	64	58.3	74.1	99.1	90.79	5	6	9	7.87	NEW HAVEN COUNTY	+73.9	15.07	+75.0	14.93
4	4	-	4	-	5	+5.8	16.1	15.2	17.9	33	44	152	61.4	77.3	317.8	250.36	5	7	27	21.57	WATERBURY	+379.5	41.31	+379.8	40.94
4	4	-	4	-	5	+5.8	10.8	12.1	11.6	40	66	98	48.0	92.2	132.4	117.17	4	8	11	10.13	REM. OF STATE	+124.4	19.40	+125.3	19.23
					5	+5.8	11.7	12.4	12.1	38	57	80	49.7	81.2	112.2	100.80	4	7	10	8.76	TOTALS	+93.1	16.78	+94.9	16.63
50 DED. COLLISION																									
23	$22	-4.2	$21	-4.4	$21	-	11.9	11.7	12.7	218	218	230	51.9	51.3	60.3	57.77	26	25	29	28.18	HARTFORD COUNTY	+10.6	53.97	+ 9.5	54.73
23	22	-4.2	21	-4.4	21	-	12.5	12.4	13.6	216	218	220	52.7	54.1	61.8	59.45	27	27	30	29.38	FAIRFIELD COUNTY	+13.9	56.27	+14.1	57.06
23	22	-4.2	22		22	-	13.7	12.3	14.2	220	211	230	57.4	50.2	64.4	60.99	30	26	33	31.13	NEW HAVEN COUNTY	+16.8	59.62	+15.5	60.45
23	22	-4.2	22	-	22	-	14.0	12.3	15.6	215	200	228	56.9	47.3	70.0	64.40	30	25	26	30.04	WATERBURY	+23.3	63.28	+22.6	64.17
23	22	-4.2	22	-	22	-	11.9	11.4	12.8	245	241	253	56.5	54.5	65.6	62.56	29	27	32	31.23	REM. OF STATE	+19.8	59.81	+15.9	60.65
		-4.2		-2.1			12.5	11.9	13.4	225	222	234	54.7	52.5	63.6	60.41	28	26	31	30.09	TOTALS	+15.7	57.63	+14.1	58.44