

Assessing the value of I.S.O for the Harrison Fire Department

By: Dennis J. Helcher Sr.
Lieutenant
Harrison Fire Department
Harrison, Ohio

A research project submitted to the Ohio Fire Executive Program

21 June 2009

CERTIFICATION STATEMENT

I hereby certify that the following statements are true:

1. This paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

2. I have affirmed the use of proper spelling and grammar in this document by using the spell and grammar check functions of a word processing software program and correcting the errors as suggested by the program.

Signed: _____

Printed Name: _____

ABSTRACT

This studies function was to investigate and determine if there is a value to the Harrison Fire Department (H.F.D.) and the community that depends upon the H.F.D. for fire suppression services, to continue to improve the H.F.D.'s Insurance Services Office (I.S.O.) split 4/9 rating.

The research will further identify the necessary level of I.S.O. Public Protection Classification (P.P.C.) needed to have a cost effective impact on the community and justification to the H.F.D. for the budgetary commitment.

The project was conducted using descriptive and evaluative research, meticulously reviewing literature related directly to the research subject to obtain answers for the following research questions:

- 1) What is the expense the H.F.D. has incurred for improving our I.S.O. rating by addressing the identified needs?
- 2) Does the community benefit from improving the I.S.O. rating?
- 3) Could an improvement in our I.S.O. / P.P.C. affect the community economically?
- 4) Does the Harrison Fire Department reap any benefit for improving its I.S.O. rating?

The procedures consisted of interviews with insurance company representatives, interviews with state and national insurance organizations and a literature review including: review of the I.S.O. requirements, review of insurance statistical data, online research, review of county records, professional journals, research papers and related resources from Harrison Fire Department files.

The research showed that there may be no significant insurance savings for existing residential properties within the current P.P.C. 4 area, but those within the P.P.C. 9 rated areas could see significant reductions of insurance premiums. Determining insurance premiums and or savings for existing commercial structures would require an in-depth review of each individual

property by their insurance carrier to determine if they would gain any significant change or reduction in insurance premiums.

Interestingly, the data has shown that communities obtaining a lower Public Protection Classification have experienced a higher growth in economic development within that community opposed to communities with higher Public Protection Classification's experiencing little or no economic growth. This is the area that the City of Harrison, Ohio governing officials are most interested.

TABLE OF CONTENTS

CERTIFICATION STATEMENT	2
ABSTRACT.....	3
TABLE OF CONTENTS.....	5
INTRODUCTION	7
Statement of the Problem.....	7
Purpose of the study.....	9
Research Questions.....	9
BACKGROUND AND SIGNIFICANCE.....	10
LITERATURE REVIEW	22
PROCEDURES.....	39
Definition Of Terms.....	40
Limitations of the Study.....	41
RESULTS	42
DISCUSSION	46
REFERENCES.....	51
APPENDIX A..... I.S.O. Letter of Regression - July 5, 2001.....	52
APPENDIX BI.S.O. Improvement Plan Acceptance - December 3, 2002.....	53
APPENDIX C...Ohio Inspection Bureau - Classification September 22,1937.....	54
APPENDIX D.....I.S.O. Grading Schedule November 3, 1993.....	55
APPENDIX E.....I.S.O. Grading Schedule April 6, 1993.....	56
APPENDIX F.....I.S.O. Grading Schedule August, 11,2004.....	57
APPENDIX G...American Family Insurance - City Of Harrison, Ohio - Town Class U..	58

APPENDIX H..American Family Insurance - City Of Harrison, Ohio - Town Class S...	59
APPENDIX I...American Family Insurance - City Of Harrison, Ohio - Town Class P...	60
APPENDIX J....Allstate Insurance - Harrison Township, Ohio - P.P.C. 7 to P.P.C. 8...	61
APPENDIX K...Allstate Insurance - Harrison Township, Ohio - P.P.C. 1 to P.P.C. 6...	62
APPENDIX L....Allstate Insurance - West Harrison, Indiana - P.P.C. 7 to P.P.C. 8.....	63
APPENDIX M...Allstate Insurance - West Harrison, Indiana - P.P.C. 1 to P.P.C. 6.....	64
APPENDIX N.....Erie Insurance - Harrison Township, Ohio - P.P.C. 10.....	65
APPENDIX O.....Erie Insurance - Harrison Township, Ohio - P.P.C. 9.....	66
APPENDIX P.....Erie Insurance - Harrison Township, Ohio - P.P.C. 7.....	67
APPENDIX Q.....Erie Insurance - Harrison Township, Ohio - P.P.C. 4.....	68
APPENDIX R.....Erie Insurance - West Harrison, Indiana - P.P.C. 9.....	69
APPENDIX S.....Erie Insurance - West Harrison, Indiana - P.P.C. 8.....	70
APPENDIX T.....Erie Insurance - West Harrison, Indiana - P.P.C. 4.....	71
APPENDIX U.....Erie Insurance - West Harrison, Indiana - P.P.C. 9.....	72
APPENDIX V.....Erie Insurance - West Harrison, Indiana - P.P.C. 8.....	73
APPENDIX W.....Erie Insurance - West Harrison, Indiana - P.P.C. 4.....	74
APPENDIX X.....Motorist Insurance - Harrison Township, Ohio - P.P.C. 9.....	75
APPENDIX Y.....Motorist Insurance - Harrison Township, Ohio - P.P.C. 7.....	76
APPENDIX Z.....Motorist Insurance - Harrison Township, Ohio - P.P.C. 2.....	77
APPENDIX AA.....Motorist Insurance - West Harrison, Indiana - P.P.C. 9.....	78
APPENDIX BB.....Motorist Insurance - West Harrison, Indiana - P.P.C. 8.....	79
APPENDIX CC.....Motorist Insurance - West Harrison, Indiana - P.P.C. 4.....	80

INTRODUCTION

Statement of the Problem

This year many of the nation's fire departments will undergo an Insurance Services Office (I.S.O.) review. Preparation for this review tends to stress department officials primarily from the unidentified, such as what unknown issues may arise during a rating process, understanding what the rating really means to a community, funding necessary changes, and some departments who feel their pride and reputation are at stake.

For many years I.S.O. has evaluated and assigned the nation's fire departments a numeric Public Protection Classification rating of class1 thru class10. The intrinsic value or cost – benefit of this rating has been in question by the fire service, political and industry leaders for many years.

The Harrison Fire Department was evaluated in 2004 with a split P.P.C. rating of 4/9 being assigned. A split P.P.C. rating or class may be assigned to a fire service area if they have large geographically defined urban (incorporated) and rural (unincorporated) areas. This can qualify the urban and rural areas for separate protection classes, giving the residence optimal credit for being inside the enhanced protection area.

(Stross S., I.S.O. Field Representative, Personal Communication, February 2008)

The current leadership desires to have shown enough improvement in our fire protection service to transform the split rating to one all encompassing single digit rating. The incentive or intent is the assumption that insurance premiums will be reduced within our jurisdiction and possibly promote vigorous economic development.

I.S.O. has identified several items that would increase our chances to improve our P.P.C. rating such as: a third fire station, additional on-duty staffing, a fully equipped reserve engine, a

third front line engine, a fully equipped reserve ladder truck, increase fire training hours and replacement of under-sized water mains, unfortunately all of these items are extremely costly.

As the Harrison Fire Department faces increased demands on Fire and EMS services, the local government has often been reluctant to match these demands with the required financial support, causing the administration to consider the possibility of cutting programs, training, community services and necessary departmental improvements.

As H.F.D.'s budget begins to shrink due to an increased demand in services, insurance, fuel, maintenance and salaries, the question has been raised, should our planning and development include Insurance Services Office Public Protection Classification improvement, or should it be directed by a different set of factors?

This research project relates to the Ohio Fire Executive Leadership class as it explores and provides background to an issue of great significance to the City of Harrison. Until this problem is reviewed, the effectiveness of our continued support and intrinsic value of compliance with the I.S.O. recommendations will not be known.

Purpose of the study

The purpose of this study is to analyze the cost versus benefit of improving the I.S.O. / P.P.C. rating for the Harrison Fire Department, the effects on the community, and to continue the development of recommendations for improving the services we provide in an efficient and cost effective manner.

The information and findings will be presented to the fire departments administration for review, and possible implementation into the department's master plan for future planning and economic development.

Research Questions

This study will use the following research methodologies: (1) Descriptive (2) Evaluative research to discover and evaluate the cost effectiveness of I.S.O. compliance and or P.P.C. improvement.

1. What is the expense the H.F.D. has incurred for improving our I.S.O. rating by addressing the identified needs?
2. Does the community benefit from improving the I.S.O. rating?
3. Would an improvement in our I.S.O. Public Protection Classification affect the community economically?
4. Does the Harrison Fire Department reap any benefit for improving its I.S.O. rating?

BACKGROUND AND SIGNIFICANCE

The City of Harrison Fire Department is located approximately 30 miles southwest of Cincinnati, Ohio and was originally formed as the Washington Fire Company No.1.

Increases in community growth and the demand for service have required the department to evolve from an all-volunteer department to a combination department. The department provides 100 % of the fire protection and emergency medical services for 4.2 square miles of incorporated area that form the City of Harrison, Ohio and 18.8 square miles of unincorporated area forming Harrison Township, Ohio.

In addition, H.F.D. contracts fire and emergency medical services for the Village of West Harrison, Harrison Township, Indiana with additional contracts for emergency medical services to Kelso and Logan Townships, Indiana, for a combined service area of 46 square miles. The estimated combined population for these areas is 28,090. (United States Census Bureau, 2000)

Currently the H.F.D. has 21 full-time and 24 part-time personnel, being dual trained as Firefighters and Basic-Emergency Medical Technicians (E.M.T.-B), Intermediate-Emergency Medical Technicians (E.M.T.-I) or Paramedics (E.M.T.-P).

The H.F.D. operates out of two stations with multiple automatic and mutual aid agreements from the neighboring departments in Ohio and Indiana. The H.F.D. operates two pumpers, one tanker/pumper, one rescue quint, one heavy rescue, one brush truck, one hazardous materials unit, three rescue boats, one medic unit and four life squad units. An increase in personnel has been approved and as of January 1, 2009 added two personnel per unit day; bringing the total on-duty personnel to ten per day with minimum staffing of eight. The stations are manned Twenty-Four hours a day 365 days a year with personnel being divided accordingly, six personnel at Station 56 and four personnel at Station 57.

The insurance industry has also developed over time and just like the fire service has a tremendous impact on every community. As the insurance industry developed the insurance underwriters realized they lacked in-depth and accurate information to calculate insurance rates that fairly reflected a communities risk against fire losses.

The National Board of Fire Underwriters (N.B.F.U.) opened its doors in 1866 to promote fire prevention and public fire protection. After a number of conflagrations, including the Great Chicago Fire of 1871 claiming 2,000 acres, 17,500 buildings and 300 lives, the Iroquois Theater fire of 1903 claiming 600 lives and the Baltimore fire of 1904 that claimed 140 acres, more than 70 blocks, and 1,526 buildings the N.B.F.U. expanded its scope, developing the Municipal Inspection and Grading System. Under that program, engineers evaluated the fire potential of many cities. In response, those cities improved their public fire protection services. This program, although valuable, was not widely accepted. (I.S.O. Mitigation Online, 2008)

U.S. cities continued to suffer disastrous fires such as Honolulu 1900, San Francisco 1906, and Collinwood 1908 with a cost of many lives and billions of dollars in property loss.

In the aftermath, insurance companies struggled to gather better and more reliable information on the fire loss characteristics of individual communities. In the mid 1960's the National Board of Fire Underwriters merged with the American Insurance Association. Even after this merger, insurance underwriters still did not have standardized information due to the 30 national and regional rating bureaus in operation. (I.S.O. Mitigation, Online, 2008)

This problem was resolved in 1971; the 30 rating bureaus merged and formed one neutral third party agency. This merger was made possible when all states, except Texas and North Carolina deregulated state control over the insurance industry. This new agency was charged

with the task to standardize and gather reliable, up-to-date information about a community's fire protection services and distribute this information to the insurance industry.

This agency utilized the Grading Schedule for Municipal Fire Protection (G.S.M.F.P.) until 1974 when it developed a new predetermined list. This agency is currently recognized in 48 states and is now known as Insurance Services Office, Commonly referred to as I.S.O.

(I.S.O. Mitigation, Online, 2008)

However, the State of Texas and State of North Carolina still maintain state regulation of the insurance industry and utilize I.S.O as a consultant in creating those states P.P.C.'s for the purpose of calculating fair insurance premiums for the communities within those states.

(Stross S., I.S.O. Field Representative, Personal Communication, February 2008)

I.S.O. evaluates and analyzes data for each community's fire protection services utilizing a predetermined Fire Suppression Rating Schedule (F.S.R.S.), developed in 1974. They currently rate 55,397 community fire departments both professional and volunteer.

(I.S.O., personal communication, 2008)

After completing their evaluation, I.S.O. assigns a Public Protection Classification (P.P.C.) on a scale from class 1 to class 10. Class 1 represents exemplary P.P.C., and class 10 indicates that the area's fire-suppression program doesn't meet I.S.O.'s minimum P.P.C. criteria.

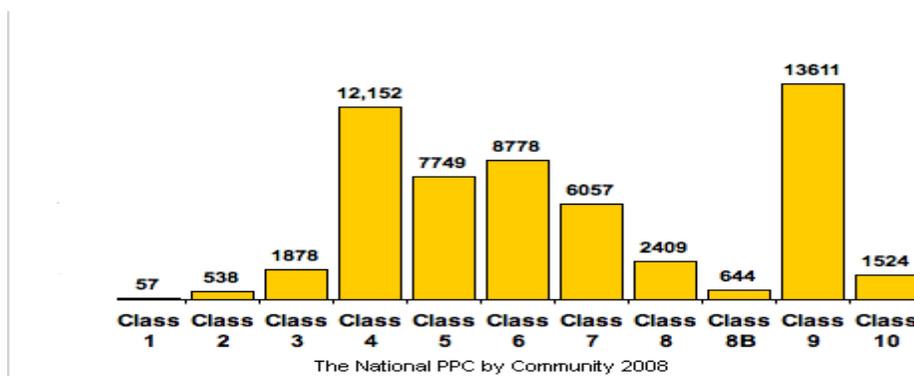
(I.S.O. Mitigation, Online, 2008)

Of 55,397 fire districts evaluated under the P.P.C. program, some 14,000 (about 30 percent) have achieved only a class 9 rating, the lowest recognized protection. More than 1,500 (or 3 percent) have the class 10 rating meaning they have no recognized fire protection.

(I.S.O. Mitigation, Online 2008)

Table 1 shows the nationwide distribution of community's by Public Protection Class.

Table 1



(I.S.O. Mitigation Online, 2008)

Since 1909, the Municipal Inspection and Grading System and its successors have been an important part of the underwriting and rating process for insurers writing personal and commercial fire policies. The Public Protection Classification program was designed to give insurers credible data to help them develop premiums that fairly reflect the risk of loss in a particular location.

The theory behind this Public Protection Classification is to encourage a community's fire protection service (Fire Department) to continually up-grade and improve the fire protection services they provide to lower the communities Public Protection Classification. The reward would be lower insurance premiums within the community served and fewer dollar losses for the insurance industry.

Many communities have made great improvements in their fire protection, and I.S.O. recognizes those improvements with better Public Protection Classifications. But still, more than one-third of the fire districts in the United States have a class 9 rating, which indicates the

minimum recognized standard of fire protection. Furthermore, 62 % of the fire districts have a P.P.C. of class 7 to class 10.

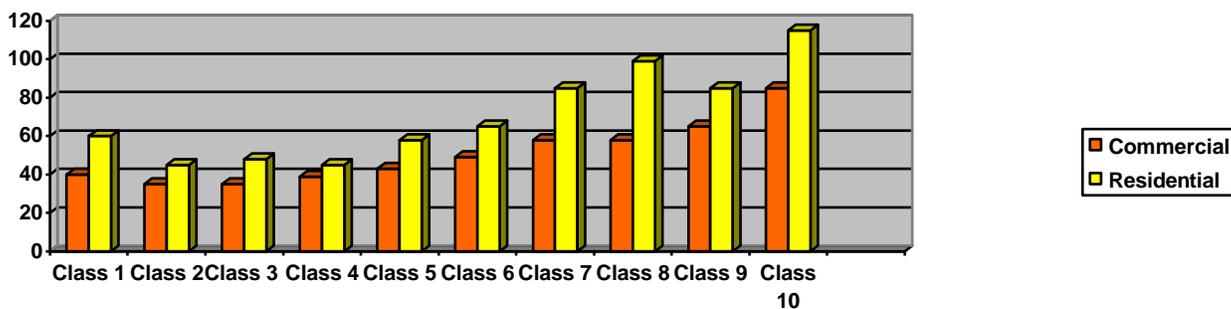
The value of homes in areas graded class 7 to class 10 are rising faster than in areas with lower classifications. From 1994 to 1998, the average amount of insurance purchased by homeowners in communities rated class 7 to class 10 grew nearly 14 times faster than in communities graded class 1 to class 6, where the rate of growth was only 0.3 %.

(I.S.O. Mitigation Online, 2008)

I.S.O. statistics show that, on average, per \$1,000 of insured property, communities with the worst P.P.C. ratings have losses two or more times as high as communities with the best P.P.C. ratings. The statistical losses chart (Table 2) shows significant property losses both in residential and industrial areas as a community's I.S.O. rating increases from P.P.C. 1 to P.P.C. 10. However, the statistical information for I.S.O. class 1 is not considered accurate because there are so few class one communities, only 57 class 1 Public Protection Classes nationwide.

Table 2 shows residential and commercial property losses as they relate to the communities Public Protection Class.

Table 2



(I.S.O. Mitigation Online, 2008)

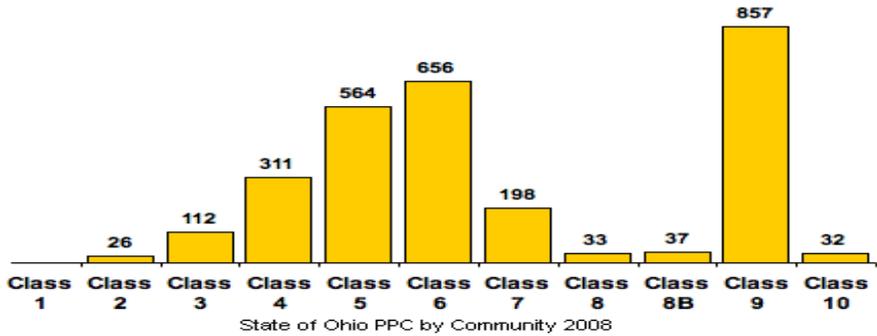
Of the 55,397 nationally rated departments, 2,826 are within the State of Ohio and 1,721 are within the State of Indiana. The Harrison Fire department carries an I.S.O. rating for communities in both states. At the conclusion of the 2001 evaluation it was determined the departments I.S.O. rating would experience a regression in P.P.C. rating from its current split P.P.C. 4/9 rating, to a former split P.P.C. 5/9 rating. (Appendix A) This was due to several deficiencies and a failure to replace aging out of date apparatus. The H.F.D. resolved this issue by submitting a development plan to I.S.O. in 2002 which included the awarding of a contract for a new fire engine to be delivered in 2003. (Appendix B) (H.F.D., I.S.O. file, 2004) I.S.O. re-visited the H.F.D. in 2004 to substantiate the improvement plan was completed and all equipment was in place. (Appendix F) (H.F.D., I.S.O. file, 2004)

As stated earlier I.S.O. issues Public Protection Classes listed class 1 through class 10. However, under certain circumstances I.S.O. Public Protection Classes are awarded using split numeric values. This split value is awarded to jurisdictions that have both incorporated urban areas that can meet a minimum of class 8, or below and unincorporated rural areas that will only meet class 8B or above. The split Public Protection Class allows for a reasonable insurance premium adjustment for those residential and commercial properties within either P.P.C. area covered by one fire department. (S. Stross ISO Field Rep, personal communication, 2008)

Statistically, the H.F.D.'s split rating of P.P.C. 4/9 could be considered better than 89 percent of all I.S.O. rated departments in the State of Ohio, and an outstanding 96 percent better than all I.S.O. rated departments in the State of Indiana.

Table 3 shows the State of Ohio’s distribution of community’s by Public Protection Class.

Table 3

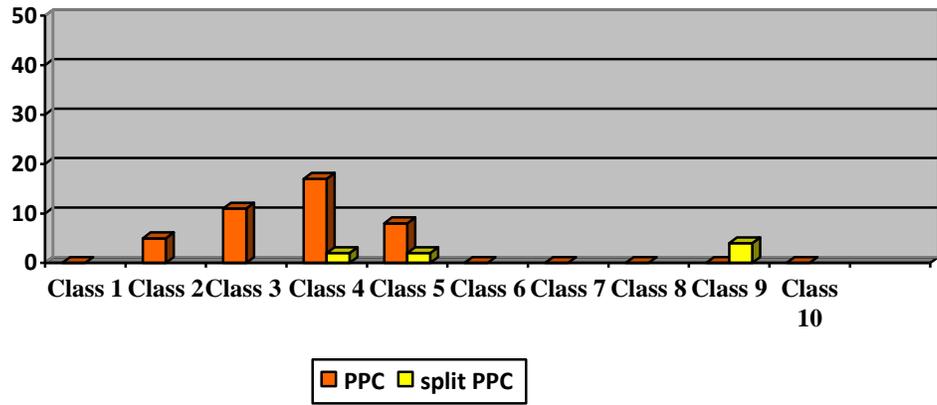


(I.S.O. Mitigation Online, 2008)

I.S.O. listed 45 fire departments in Hamilton County, Ohio in 2004 with single numeric P.P.C.’s ranging from class 2 to class 5, only four (4) had split classifications. In comparison, I.S.O. list only 19 fire departments in Dearborn County, Indiana, including the H.F.D., of those only seven have single numeric Public Protection Classification ranging from class 5 to class 10, and 12 with split classifications none lower than a P.P.C. 05/09.

The unincorporated area of West Harrison, Indiana served by the H.F.D. is one of the split class 05/09 departments. Any department serving a combination incorporated / unincorporated area that the unincorporated area can qualify for less than a class 9 will not be given a split rating in the State of Indiana. (S. Stross I.S.O. Field Rep, personal communication, 2008)

Table 4

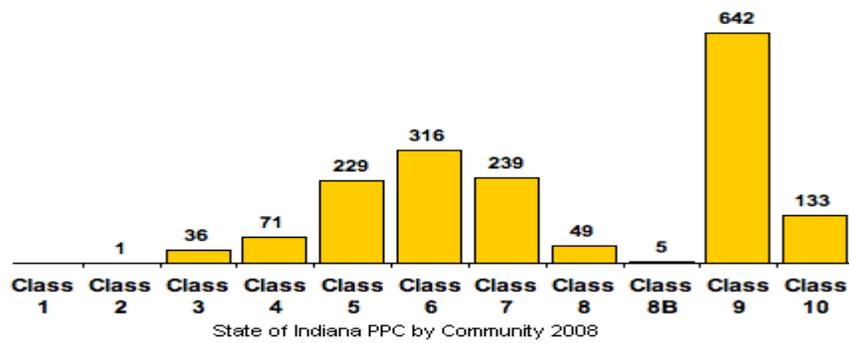


Hamilton County PPC as of 2004
(McGordon Ins. Agency, Erie Insurance, 2008)

As of 2008, several departments have disbanded or merged with neighboring departments, of these many have been awarded lower Public Protection Classes but accurate information has not been made available to determine the exact number of departments with improved ratings.

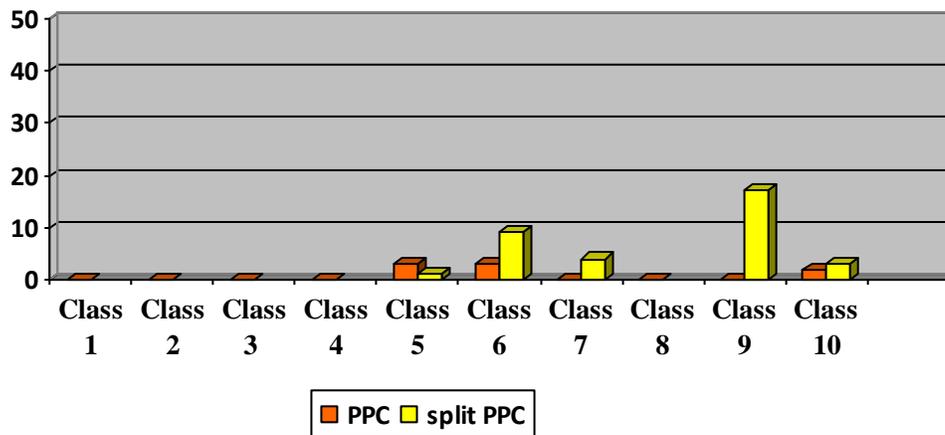
Table 5 shows the State of Indiana's distribution of community's by Public Protection Class.

Table 5



(I.S.O. Mitigation Online, 2008)

Table 6



Dearborn County PPC as of 2004

(McGordon Ins. Agency, Erie Insurance, 2008)

The author found that in 1937, the Village of Harrison, Ohio was rated as a class 07 by the Ohio Insurance Bureau (Appendix C) and re-rated by I.S.O. as a split P.P.C. 07/09 then re-classified in 1983 as a P.P.C. 05/09 (Appendix D), giving the community an average insurance savings of 4 % to 11 %, and in 1993 reclassified a split P.P.C. 04/09 (Appendix E) with an unknown result. (H.F.D. I.S.O. File 2008)

When the ISO evaluation of 2001 threatened a regression in the department's P.P.C., it was felt as a tremendous blow to the administration, and it feared this would increase insurance premiums costing the community thousands of dollars. To prevent the regression of the H.F.D. rating and without a detailed investigation of the true affect this may have on our community, the Harrison, Ohio city council agreed with the H.F.D. administration to resolve the necessary deficiencies.

They included the replacement of a 1983 Boyer 500 G.P.M. Pumper with a 2003 E-One 1,500 G.P.M. Pumper, and several thousand dollars of additional equipment totaling \$220,000.

Since the 2001 evaluation, the H.F.D. has continued to make changes that will affect its I.S.O. public protection classification rating. These changes have included the replacement of a 1973 Sutphen 85 ft. 1,500 G.P.M. Quint with a 2008 Pierce 105 Ft. 2,000 G.P.M. Quint, replacement of the 1973 American-Lafrance 1,300 Gallon Tanker and a 1993 E-One 250 G.P.M. Mini Pumper with a 2008 Pierce Contender Custom combination 2,000 Gallon Tanker/ 1,250 G.P.M. Pumper, moving an existing fully equipped pumper to reserve and the addition of two on-duty personnel around the clock, total expenditures of \$2,200,000. In addition to meeting the National Fire Protection Association Standards (N.F.P.A.), the bid specifications included a full complement of I.S.O. required equipment as listed in the 2006 I.S.O. Fire Suppression Rating Schedule, which included an additional \$23,000 dollars in equipment cost to the Quint and Tanker/Pumper. The H.F.D. also purchased \$2,183.00 dollars in additional equipment for the existing apparatus to maximize I.S.O. credit.

Extensive improvements have been made by the area water purveyors with the expansion and replacement of water lines that included fire hydrants every 300 feet, into over 50 percent of the area that had been rated a P.P.C. class 9, which has not changed since 1937.

(Harrison Fire Department, I.S.O. Files, 2008)

The budget has been adjusted to handle other areas identified for improvement such as, \$10,000 Dollars for outside training, \$3,500 Dollars for increasing hydrant maintenance, and \$56,544 dollars in 2007 for communication up-grades.

During the 2004 I.S.O. evaluation (Appendix F), the H.F.D. scored very low in training and as part of H.F.D.'s commitment to increasing our I.S.O. Rating and the effectiveness of our personnel, it was agreed during collective bargaining between the Harrison Professional Firefighters and the City of Harrison, Ohio that outside training opportunities would be

increased. The collective bargaining contract states, all fulltime employees shall be eligible for a minimum of forty-four (44) hours per calendar year of paid off-duty training with prior written approval from the Fire Chief or his designee. This training shall include but not limited to; Basic E.M.T. Instructor, Fire Instructor, Basic Emergency Rescue Technician, Haz-Mat Technician, Arson Investigator, Fire Inspector, and or related training or certifications. Twelve (12) hours of the forty-four (44) hours shall consist of continuing education to retain certifications required by the City and State of Ohio. An employee may exceed the minimum hours of paid off duty training as approved by the Fire Chief or his designee.

(Harrison Professional Firefighters, Collective Bargaining Agreement, June 2006)

Continual growth and the challenge to meet the I.S.O. requirements have strained the H.F.D. budgetary resources. However, the H.F.D. has committed to provide the highest quality service in a cost effective manner, and if possible improve the Public Protection Classification with the intention of reducing the community's insurance premiums. Total expenditures by the H.F.D. over the last 6 years is an estimated 2,515,227.00

(H.F.D., Capital Expenditures Report, 2008)

Residential development within the city has continued at a steady rate, this includes 400 acres of farmland recently annexed from the neighboring community of Crosby Township, Ohio. This property is scheduled for the development of approximately 260 single-family homes and a small commercial strip center. (Dan Brooks, Harrison Building Department, 2008)

Although commercial growth has been happening, it has not been as prevalent as residential growth. In 1983 the H.F.D. listed some 125-area businesses, as of 2008 the list has grown to 582, an average of 14.64 percent growth per year over the last 25 years.

(H.F.D., Fire Inspectors, Annual Inspection Report)

The city intends to stabilize and diversify our communities financial and economic growth by attracting new commercial and business development to the community, part of the strategy will be to produce a portfolio outlining benefits the City of Harrison, Ohio has to offer.

The idea is if an improved I.S.O. rating truly affects our community's insurance premiums, this could be one of many enticements contributing to diversified development within our area. However, we must remember the historic roots of I.S.O.'s existence to encourage a community to provide efficient, and effective fire protection for the comfort, safety and well being to the residents and businesses therein.

LITERATURE REVIEW

The purpose of this literature review is to gather information and answer the research questions, in terms of potential impact to the H.F.D. and the community. This study will attempt to identify the value and associated cost of continued compliance with the Insurance Services Office requirements and their economic effects.

The mission of the Harrison Fire Department is to provide the highest level of customer service for our community, through fire prevention, education, fire suppression, and emergency medical services with the resources available.

(Harrison Fire Department, Standard Operating Guidelines, Mission Statement 2006)

Government administrators frequently associate a low index score (rating of P.P.C. 1 being the best) with a high functioning all-hazards response system. This is not necessarily so, it simply means that in those areas for which data was collected, the department scored very well. For example, Charleston, South Carolina, is rated as a class 1 city on the I.S.O. scale yet has been cited for numerous Occupational Safety and Health Administration (O.S.H.A.) violations and deficiencies in incident command structure. So a low score may translate to lower fire insurance rates but is not by any means a comprehensive assessment of an emergency response system or its performance.

(Journal of the International Association of Firefighters, Vol.91 No.3 pg.21, May/June 2008)

Ronny Coleman, a fire service leader states, "Historically Many of you will recall that the birth of the fire service was linked to the rise of the insurance industry. At one point, those who advocated improvements in fire protection were also involved in the development of financial security against loss by creating insurance companies." (Coleman R., 2000)

I.S.O.'s own statistics show that large numbers of fire departments provide only marginal or inadequate protection against structure fires. Of almost 56,000 fire districts evaluated under the P.P.C. program, some 14,000 (about 30 percent) have achieved only a class 9 rating, the lowest recognized protection. More than 1,300 (or 3 percent) have the class 10 rating, no recognized protection. (I.S.O. Mitigation Online, 2008)

More than half the communities I.S.O. re-evaluates in any year receive better Public Protection Classifications. Only about 2% receive worse classifications. So it pays for a community to let I.S.O. know about any change that may affect the public protection classification. As an added service, I.S.O. staff members routinely review with local fire officials the factors that went into a P.P.C. grading. I.S.O. provides that service at no charge to the community, and I.S.O. staff can also advise community officials about how particular investments or other efforts may improve the grade. (I.S.O. Mitigation Online, 2008)

The dollar value of a better P.P.C. varies by state. But on average across the country, the cost of fire losses for homeowners in communities graded class 9 is 65% higher than in communities graded class 5. If a community improved from class 9 to class 5, homeowners could expect their premiums for fire insurance to drop substantially. (I.S.O. Mitigation Online, 2008)

Findings from a survey of fire chiefs and other officials conducted for I.S.O. by the independent polling firm Opinion Research Corporation (O.R.C.) of Princeton, New Jersey, and in the results given to I.S.O. in October 2003. Opinion Research Corporation interviewed 500 top fire department officials from randomly sampled communities around the country. The survey examined current conditions, as well as developments likely to occur over the next three years. The margin of error for the survey results is plus or minus 4 %.

Eighty-Six Percent of the fire officials reported that their communities had experienced residential or commercial growth over the past three years. In those communities, almost three-quarters (73%) of the respondents said that the growth is straining their department's ability to protect the community. When asked where growth had occurred, 71% of the chiefs said that it occurred in areas where they needed or still need improvement to water mains, hydrants, or hauled-water services. 50% said that growth had occurred in areas where they needed or still need additional fire stations. (I.S.O. Mitigation Online, 2008)

Fifty-Five percent of the fire chiefs said their communities had experienced heavy or moderate growth in the last three years, and the findings in those places are even more alarming: 84% of the respondents felt that growth has strained their department's resources. (I.S.O. Mitigation Online, 2008)

Reports of heavy or moderate growth came most often from departments with superior fire service, as measured by I.S.O.'s P.P.C. program. 73% of communities with gradings of class 1 to class 3 reported heavy or moderate growth, compared with 57% for communities with gradings of class 4 to class 6 and 42% for communities with gradings of class 7 to class 10. (I.S.O. Mitigation Online, 2008)

I've spent most of my adult life analyzing the key components of good fire protection, and I can tell you this, I can't imagine living in a world without I.S.O.'s Public Protection Classification program. It works because the financial incentives to improve classifications are unique and effective. It works because insurers and residents alike benefit from the informed choices of community leaders. And it works because saving lives and property continues to be the prime mission of local emergency responders.

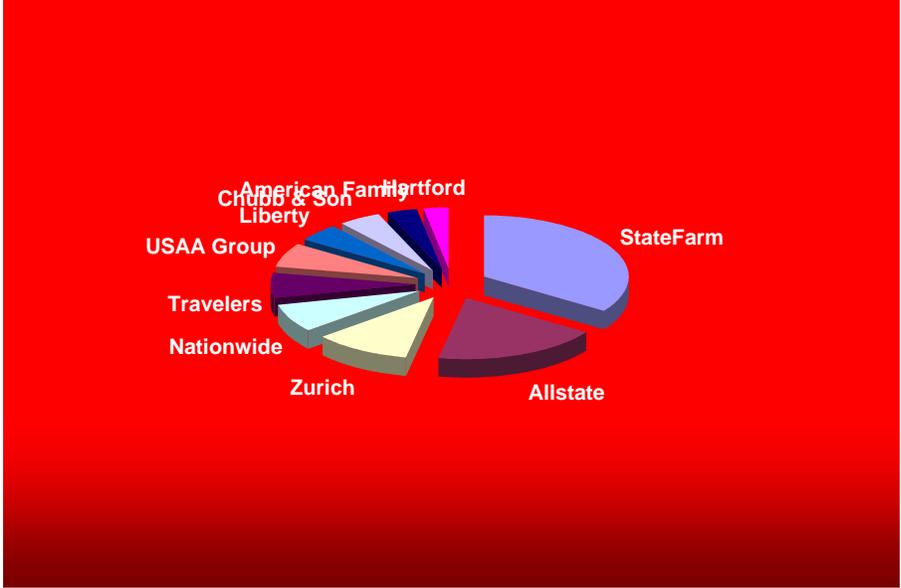
(Dr. Hickley, H.E., Fire Protection Engineering, University of Maryland, 2000)

The National Insurance Institute shows the insurance industry leaders and their percentage of market control as follows:

- 1) State Farm Mutual Group - 22.2%
- 2) Allstate Insurance Group - 11.9%
- 3) Zurich Insurance Group - 7%
- 4) Nationwide Insurance - 4.7%
- 5) Travelers Group - 4.3 %
- 6) U.S.A.A. Group - 4.1% (United Services Automotive Association)
- 7) Liberty Mutual Insurance Group - 3.1%
- 8) Chubb & Son Group - 2.9%
- 9) American Family Insurance - 2.3%
- 10) Hartford Fire & Casualty Group -1.7%

(National Insurance Institute, online, 2006)

Table 7



The author contacted I.S.O. for a current copy of their P.P.C. guidelines and related statistical information and contacted companies from the previous list who had representatives within the boundaries of the Harrison community. The author then made personal contact with the underwriters for State Farm Mutual Group, American Family Insurance, the Nationwide Insurance Company, and two insurance organizations, The National Insurance Institute and The Ohio Association of Independent Insurance Agents and Brokers of America along with conducting online research.

The Ohio Association of Independent Insurance Agents and Brokers of America, state on average I.S.O. Public Protection Classes are placed in groups for the purpose of insurance premium rating as follows: P.P.C. 1 to 3, P.P.C. 4 to 6, P.P.C. 7 to 8, P.P.C. 9 and P.P.C. 10 being classed separately. This grouping will vary from company to company; improving an I.S.O. Public Protection Class from a P.P.C. 4 to P.P.C. 3 may not have any affect on residential insurance premiums. However, it could have a substantial impact on commercial insurance premiums. (Rich Packer, Ohio Association of Independent Insurance Agents and Brokers of America, personal phone communication, 2008)

Late in 2000, State Farm Property and Casualty Insurance Group abandoned their use of the I.S.O. Public Protection Classifications. They developed their own rating system, known as the Sub-zone Rating Factor. This system is based on State Farm's prior claim experience for many types of insured losses including fire, wind, hail, water damage, theft, and liability. Hence, this rating system emphasizes an all hazards approach to contend with property loss. Additionally, the Sub-zone Rating Factor's are based on the five-digit zip codes. This system takes an all-inclusive approach to property loss not just fire. The system is based on past

experience and does not consider assessed capabilities. Therefore, improvements in fire service capabilities theoretically have a beneficial effect on local rates under this plan.

(Wildland News & Notes, www.firewise.org, Vol. 15, No. 1 April 2001)

Allstate Insurance Company continues to utilize the I.S.O. Public Protection Class as a component of their insurance rating plan. The difference in rates is not uniformly spread between the ten classifications but is based on actual experience. This means that there is often not a large variance when a classification moves from a P.P.C 5 to a P.P.C. 4 but there's always a large variance when moving from say a P.P.C. 8 to a P.P.C.7. In fact, there are many situations where we may even have the same rate for a range of protection classes, with groupings such as P.P.C. 1 to P.P.C. 4 and P.P.C. 5 to P.P.C. 6. Protection classes P.P.C. 9 and P.P.C. 10 are considered "unprotected" and have much higher rates. In terms of timing, I.S.O. notifies insurance companies of changes to fire protection classifications. This notification and our systems to be updated generally takes from 2 to 4 months to implement. Once the update is loaded, at the next policy renewal, the new rating associated with the updated fire protection rating will apply. (Lee Ann Welsh, Regional Communications Manager, Allstate Insurance Company, electronic correspondence, 2008)

The author found many insurance agents were reluctant or incapable to answer detailed questions regarding how insurance rates are set and what, if any, impact I.S.O. has on these rates.

Two State Farm agents where contacted and both confirmed State Farm Insurance Group no longer subscribes to the I.S.O. Public Protection Classifications to set insurance premium rates. They have developed a system utilizing Sub-Zones grouping zip codes into protection classes using their past experience with claims for many types of insured losses such as, Fire Theft, Weather and Liability. Both agents declined providing specific property or insurance

premium information. (James Shea, State Farm-Ohio, Edward Brack, State Farm-Indiana, personal communication, 2008) The State Farm underwriters have not responded to any of the author's inquiries.

Gibbon Insurance Agency is the local representative for American Family Insurance.

Ms. Gibbon's states American Family uses an approach similar to State Farm's called "Town Classes." These are broken down into three groups 1) Protected 2) Semi-Protected or 3) Unprotected. They do not utilize the I.S.O. Public Protection Classifications in anyway. This is based on the American Family Insurance Underwriters past experience.

(Gibbons D., American Family Insurance, personal communication, 2008)

For comparative purposes, Ms. Gibbons agreed to quote the authors residence utilizing all three levels of town classes. The author's residence is a brick and masonry structure valued at \$163,000.00 with standard coverage's. If the H.F.D. area where considered a unprotected town class the insurance premium would cost \$961.00 (Appendix G). Obviously, a semi-protected town class was second with a cost of \$880.00 (Appendix H), showing an 8.5 % reduction in premium cost. The protected town class being the least costly, with a quote of \$673.00 (Appendix I) a savings of 30 % compared to the unprotected town class and 23.5 % savings compared to the semi-protected town class. Total savings to the insured is \$288.00.



As of 2008, The Nationwide Insurance Company has begun to utilize the I.S.O. Public Protection Classification and due to the phasing in process they are unable to release any information at this time.

(Carolyn Alexander, Nationwide Insurance Analyst, personal communication, 2008)

Of the remaining insurance leaders, the author found no representatives in the local H.F.D. service area.

The McGordon Insurance Agency represents the Erie and Safco Insurance Companies; these companies currently use the I.S.O. Public Protection Classifications in determining insurance premium rates.

The Erie and Safeco Insurance Companies group Public Protection Classes, starting with class 1 through class 4, class 5 and class 6, class 7 and class 8, class 9 and class 10 being separate classes. A change within class 1 through class 4 does not vary or change insurance premium rates for residential property with either company. Commercial property would require a representative from the corporate office to assess and calculate each commercial property individually to calculate any change in insurance premiums. (Mieth T., McGordon Insurance Agency 2008)

Mrs. Jean Wilson representing Allstate Insurance stated, in the State of Ohio Allstate groups I.S.O. P.P.C.'s into four groups class 1 through class 6, class 7 to class 8, class 9 and class 10 being separate classes. In the State of Indiana they have three P.P.C. groups, class 1 through class 6, class 7 to class 8 and class 9 to class 10. The company also includes an individual's credit score in the calculation.

To estimate the financial impact on our community for changes in the P.P.C. rating, the author requested each insurance agent to provide insurance quotes for three current clients within

the H.F.D.'s service area. Specifically, one inside the incorporated city limits, one in the unincorporated township area and one in West Harrison, Indiana. The property chosen was to be of ordinary construction and if possible have a property value between \$180,000.00 and \$200,000.00 Dollars. The policy should include standard coverage for loss and liability.

Mrs. Wilson selected a Harrison Township, Ohio residential property described as, wood frame structure built in 2001 currently insured at a market value of \$175,000.00, with the endorsements of other structures \$17,500, personal property \$131,250.00, personal liability \$100,000.00, medical payments of \$1,000.00 and the owner having an excellent credit score.

Currently rated a P.P.C. 9 has an annual insurance premium of \$535.49. At P.P.C. 7 the annual insurance premium would be \$396.49 (Appendix J) and a final premium reduction at P.P.C. 6 would have an annual insurance premium of \$355.73 (Appendix K). Total savings to the homeowner for improving the H.F.D.'s P.P.C. 9 to a P.P.C. 6 or lower would be \$179.76, a total reduction of 28 % in annual insurance premiums. (Wilson J., Allstate Insurance, 2008)

There would be no change in premium rates for residential property owners within the City of Harrison, Ohio corporate limits.

A property owner in West Harrison, Indiana with an identical property as previously described, with a P.P.C. 9 would have a premium of \$514.63. Improvement to P.P.C. 7 the premium would drop to \$411.58 (Appendix L) and a final reduction for improvement to P.P.C. 6 or less would have a premium of \$365.71 (Appendix M). Total savings to the homeowner would be \$148.92, a 29 % reduction in annual insurance premiums.

(Wilson J., Allstate Insurance, 2008)

Allstate Insurance agent Edward Babler, states "in my experience an improvement in an I.S.O. Public Protection Class has a greater impact on newer commercial property premiums

more than older existing commercial property due to improvements in construction materials and building codes.” (Babler E., Allstate Insurance, personal communication, 2008)

Terry Mieth of the McGordon Insurance Agency selected a Harrison Township, Ohio residential property described as, brick and masonry structure built in 1989 currently insured at a market value of \$199,000.00, with the endorsements of - other structures \$39,800, personal property \$149,250.00, personal liability \$500,000.00, medical payments of \$1,000.00. This property with a P.P.C. 10, the annual insurance premium would be \$760.00 (Appendix N). At P.P.C. 9 has an annual insurance premium of \$624.00 (Appendix O). At P.P.C. 7 the annual insurance premium would be \$500.00 (Appendix P) and a final reduction would be at a P.P.C. 4 with an annual insurance premium of \$487.00 (Appendix Q). Total savings to the homeowner would be \$273.00, a 34.2% reduction in annual insurance premiums.

There is no change in insurance premiums for improvement below an I.S.O. public protection class 4 rating for residential homeowners, in the H.F.D. service district even if a P.P.C. 1 would be achieved. Commercial insurance premium information is not available.

(Mieth T., Gordon Insurance, personal communication, 2008)

In West Harrison, Indiana, Ms. Mieth quoted premium rates for two residential properties. The first is described as, a wood frame residential dwelling built in 1934 with a market value of \$124,000.00, with endorsements of - other structures \$12,400.00, personal property \$93,000.00, personal liability \$500,000.00, medical payments of \$1,000.00. Currently rated a P.P.C. 9, the resident pays an annual insurance premium of \$877.00 (Appendix R). Improvement to P.P.C 7 or P.P.C. 8 the premium would be \$647.00 (Appendix S) and a final reduction would be at

P.P.C. 4 with a premium of \$567.00 (Appendix T). Total insurance savings to the homeowner would be \$310.00, a 36% reduction in insurance premiums.

(Mieth T., Gordon Insurance, personal communication, 2008)

The second structure showed similar results and is described as, a wood frame residential dwelling built in 2000 with the market value of \$240,000.00, with the endorsements of - other structures \$48,000.00, personal property \$180,000.00, personal liability \$500,000.00, medical payments of \$1,000.00. Currently a P.P.C. 9 pays an annual insurance premium of \$915.00 (Appendix U). Improvement to a P.P.C. 7 the premium would be \$732.00 (Appendix V) and a final reduction at P.P.C. 4 with a premium of \$679.00 (Appendix W). Total insurance savings to the homeowner would be \$236.00, a 26% reduction in insurance premiums.

(Mieth T., Gordon Insurance, personal communication, 2008)

The author was contacted by Kelly Tieman, representing CAI- Insurance Agency, who has a client currently residing in the contracted area of Harrison Township, Ohio. Tieman Stated “Right now our insured is quoted under the P.P.C. 9 rating and is paying an annual insurance premium of \$773.00. Once we can move her to a P.P.C. 4 or lower, her rate will be \$551.00 a reduction of \$222.00. I would say that is a pretty good savings.” This represents a 28.8% savings to the homeowner. (Tieman, K., Personal Correspondence, 2008)

The Broz Insurance Agency represents the Insurance Companies of Auto Owners, American States, Celina, Indiana Insurance, Metropolitan, Motorist Mutual, Progressive, Safco, State Auto, Travelers, Westfield, and Western Surety all the companies currently use the I.S.O. Public Protection Classifications in determining insurance premium rates.

Agent Tim Moorman Sr. representing the Broz Insurance Agency selected a client residing in Harrison Township, Ohio to create a P.P.C. cost breakdown. Mr. Moorman started at the

current P.P.C. 9 rating and ended with the lowest I.S.O. public protection classification rating that would reduce his client's annual insurance premium.

A Harrison Township, Ohio property described as, a wood frame structure built in 1960 with a market value of \$180,000.00, including the endorsements of - other structures \$18,000.00, personal property \$126,000.00, Loss of Use \$36,000.00, personal liability \$300,000.00, medical payments of \$2,000.00. Currently a P.P.C. 9, the annual insurance premium is \$574.00 (Appendix X). Improving to a P.P.C. 7 the annual insurance premium would be \$393.00 (Appendix Y) and the final premium reduction at a P.P.C. 2 with an annual insurance premium of \$384.00 (Appendix Z). Total savings to the homeowner would be \$190.00, a 34.5% reduction in annual insurance premiums.

(Moorman T., Broz Insurance, personal communication, 2008) (Appendix E)

Mr. Moorman stated, with the companies he represents insurance rates within the city limits for commercial and residential property should see a 4% to 8% savings if the H.F.D. improved its P.P.C. 4 rating to a P.P.C. 2 rating. If an insured were paying \$551.00 they could save between \$22.04 and \$44.08 per month.

In West Harrison, Indiana, Mr. Moorman selected an identical property described as, a wood frame structure built in 1960 with a market value of \$180,000.00, including the endorsements of - other structures \$18,000.00, personal property \$126,000.00, Loss of Use \$36,000.00, personal liability \$300,000.00, medical payments of \$2,000.00. Currently a P.P.C. 9, the annual insurance premium is \$1,022.00 (Appendix AA). Improving to a P.P.C. 8 or P.P.C. 7 the annual insurance premium would be \$788.00 (Appendix BB) and the final premium reduction at a P.P.C. 4 with an annual insurance premium of \$711.00 (Appendix CC). Total savings to the homeowner would be \$311.00, a 30.5% reduction in annual insurance premiums.

(Moorman T., Broz Insurance, personal communication, 2008) (Appendix F)

The charts under Table 9 and Table 10 compare the insurance premium rates for Harrison Township, Ohio and West Harrison, Indiana as P.P.C. improvements occur.

Table 9

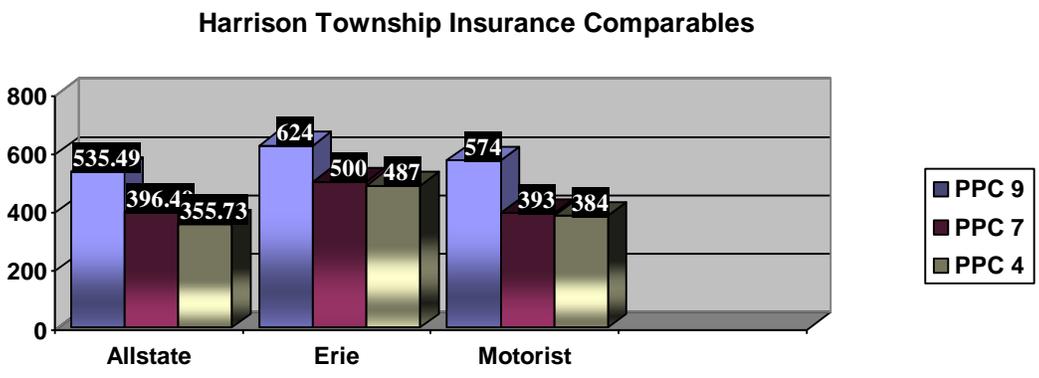
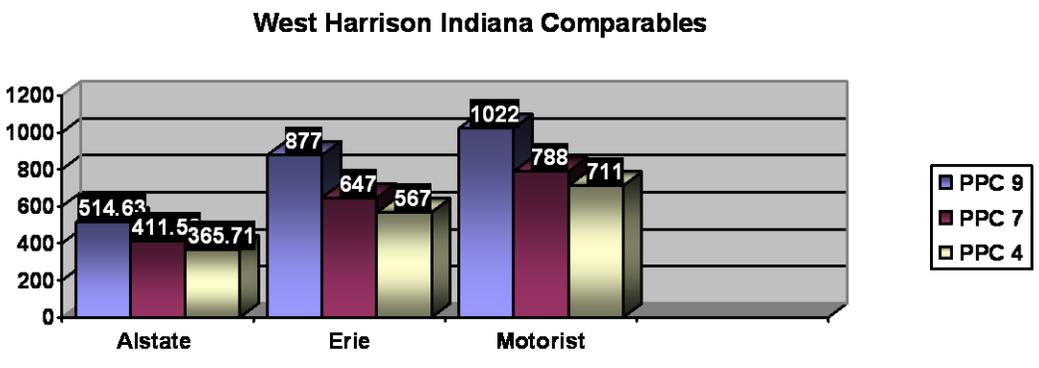


Table 10



To determine the amount of housing units that could be affected by an insurance premium reduction contact was made with the Hamilton County, Ohio Auditors Office and the Dearborn County, Indiana Auditors Office. Hamilton County, Ohio Auditor’s currently list 1,792 single-family homes in Harrison Township, Ohio.

(Hamilton County Auditor, Drake P., personal communication, 2008)

The Dearborn County, Indiana Auditor's Office could not provide this information, however the U.S. Census Bureau lists 841 single family homes in the West Harrison, Indiana service area. (U.S. Census Bureau, Online 2004) Of the 841 single-family homes, the author has determined an estimated 60 % are located in the P.P.C. 9 rated area for a total of 504.

A homeowner in Harrison Township, Ohio, with the current P.P.C. 9 rating and an average market value of \$184,667.00 pay an average insurance premium of \$577.83 per year.. If the H.F.D.'s current split P.P.C. were replaced by a minimum P.P.C. 2 rating, each insured resident could see an average reduction of \$168.92 in insurance premiums.

However, after interviewing the area insurance agents, it is possible some residents are already seeing reductions due to the properties proximity to the city limits, currently rated P.P.C. 4.

The author drove the H.F.D. service area and estimates that 20% or 358 homes could be receiving the current P.P.C. 4 rate. If the remaining 1,434 residents qualified for a reduction, Harrison Township, Ohio community could see a total savings of approximately \$242,231.28 per year.

Likewise, homeowners covered by fire contract in West Harrison, Indiana having an average market value of \$180,000.00, currently rated a P.P.C. 9, pay an average insurance premium of \$832.16 per year. If the H.F.D.'s current split P.P.C. 4/9 rating were replaced by a minimum P.P.C. 4 rating, the average insurance premium would be \$580.68 giving an average annual premium reduction of \$251.48 per residential property.

West Harrison, Indiana residents could see a total area savings of approximately \$126,745.92 per year in insurance premiums. H.F.D.'s efforts to reduce its P.P.C. could potentially generate an area wide savings of approximately \$368,977.20 per year. The estimated

savings is based on an insurance company with no reduction in premiums for under P.P.C. 2 and the guidelines of each individual insurance company could slightly vary.

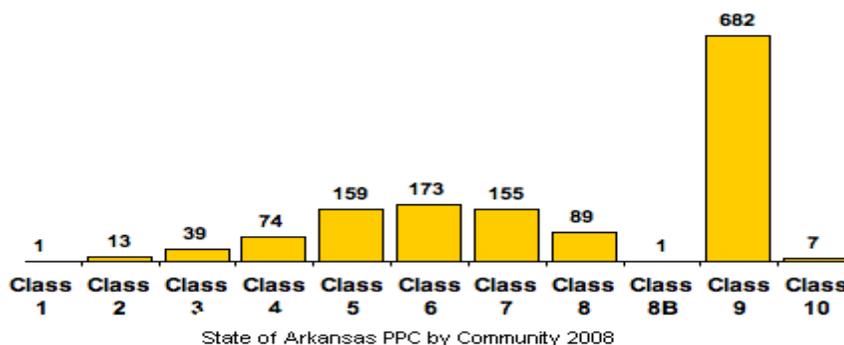
In 2000, the Rural Fire Protection Work Group, a committee appointed by Arkansas Governor Mike Huckabee, quantified the economic benefits of improved fire protection for that state. The work group considered a series of measures designed to improve the Public Protection Classifications of rural Arkansas communities.

In its final report, submitted to Governor Huckabee in August 2000, the work group estimated the statewide cost of those projects at about \$150 million — or \$15 million a year for 10 years. Next, the work group projected the reduction in property insurance premiums when each of 839 rural fire departments had improved its P.P.C. to a minimum of class 7. According to that analysis, the statewide savings would total more than \$100 million per year. More than 425,000 homeowners would share the benefits, with an average annual savings of \$235 per household.

The Arkansas work group projected increased economic activity at more than \$2 billion over a period of 13 years. According to the work group's analysis, that economic activity would generate additional state and local sales-tax revenue more than offsetting the cost of the improvements. (I.S.O. Mitigation, Online 2008)

Table 9 shows the State of Arkansas P.P.C. by community as of June 2008.

Table 9



(I.S.O. Mitigation, Online 2008)

Caliendo suggest “achieving an improved I.S.O. grade was extremely important because it improves the morale of the firefighters and in achieving the grade; it brought them a sense of ownership.” (Caliendo, I.S.O. Classifications, National Fire Executive Program, 2000) However, the author believes this pride in ownership could also expand into the governing body and the community as well.

In summary, insurance companies use similar methods to assess the cost of insurance premiums in a given community. Many insurance companies still believe in utilizing the I.S.O. public protection classification while others have moved to utilize a past experience system to establish and determine insurance premiums based on the loss history of a community.

Though it is not recommended in utilizing I.S.O. as the soul determining factor of fire department development and planning, it should be considered during the process.

The reviewed literature has influenced this research project by indicating a recognized need to continue to improve upon and follow the Insurance Services Offices recommendations. However, only to such extent as to obtain or maintain a P.P.C. rating between class 1, and class 3, any further expense solely for obtaining a class 1 status does not appear to be of any financial benefit to the department or the community. The information obtained from this study will be used to support the recommendations contained within this research project.

PROCEDURES

The Purpose of this research is to develop a document that evaluates the variables and practicality of continued insertion of the I.S.O. Public Protection Classification program in the development and planning of fire protection services provided within the jurisdictional boundaries of the Harrison Fire Department.

The development of the project began with a thorough review of all the literature collected from the Internet, the public library and insurance underwriters. This was conducted to familiarize and increase the author's knowledge within the subject. Secondly, in-depth research was conducted through personal interviews of local insurance agents to assess the impact of I.S.O.'s Public Protection Classification on residential and commercial insurance premiums within the H.F.D. service area.

Many insurance agents declined to comment and or give detailed information as to how their respective insurance company factored rates within the H.F.D. service area.

However, somewhere more than willing to provide information on randomly selected insured properties within H.F.D.'s service area and using several I.S.O. Public Protection Classes gave quotes to determine the impact on insurance premiums for each P.P.C. class that could be realized by the property owner. Each agent was also asked for any other pertinent information that could affect insurance premiums for residential and commercial properties within the H.F.D. service area.

Definition Of Terms

Arson Investigator - A person certified by a state authority as a specialist in the field of fire cause and origin.

Basic E.M.T. Instructor– a person who holds a certification issued by a state authority to instruct and educate individuals to practice and perform as an E.M.T.

Basic Emergency Rope Technician – A person certified by a state authority as a specialist in the field of rope rescue techniques and practices.

E.M.T. – I/ Emergency Medical Technician Intermediate – a person who holds a certification issued by a state authority to practice and perform emergency services such as: Cardio Pulmonary Resuscitation, Intravenous Therapy, administer drugs as directed by the State Board of Emergency Medical Services and any other service approved.

E.M.T. – P / Emergency Medical Technician Paramedic – a person who holds a certification issued by a state as an E.M.T.-P to practice and perform in emergency services such as: Cardio Pulmonary Resuscitation, Intravenous Therapy, administer drugs as directed by the State Board of Emergency Medical Services and any other service approved.

Evaluative Research - The process of collecting and analyzing data in order to educate a person before making a decision.

Fire Instructor – A person who holds a certification issued by a state authority authorizing them to instruct and educate individuals in the practice and performance of Fire Suppression.

Definition Of Terms Continued

Fire Inspector - A person certified by a state authority as a specialist in the field of fire prevention and fire code enforcement.

Fire Suppression Rating Schedule – A predetermined list of items and equipment related to the fire service that has been assigned a numerical value by I.S.O., then the combine total numeric value is converted to the P.P.C. 1 thru P.P.C. 10 rating.

Haz-Mat Technician – A person certified by a state authority as a specialist in the field of Hazardous Material containment.

I.S.O. – Insurance Services Office - A non-profit agency that assesses the fire protection services within a community and provides that information to subscribing insurers.

P.P.C. – Public Protection Classification - A numeric grade assigned to a fire department base on the capabilities of their communications, fire department and water supply. P.P.C. and I.S.O. are used synonymously in this study.

Limitations of the Study

This research and analyses was limited to the fire department, contacting insurance representatives and review of the limited information available.

RESULTS

The results of the literature review provided the following answers to the research questions.

1. What is the expense to the department for improving our I.S.O. rating?

The estimated expense to the department over the last 5 years to maintain and improve our I.S.O. Classification was \$2,515, 227.00. However, the data shows the community would save an estimated \$368,639.36 in annual insurance premiums if the H.F.D. improved the P.P.C. to a single digit P.P.C 4 or lower. The data shows the last 5 years of department expenditures would be offset by insurance reductions in 6.8 years and potentially faster if the commercial properties receive similar results.

The public and government administrators must not allow themselves to associate a low index score (rating of one being the best) with a high functioning all-hazards response system. If a community is ever changing and service demands continue to increase, the H.F.D. must be allowed to expand and grow with each demand to fulfill its mission and provide the highest level of customer service for our community. This would be accomplished through fire prevention, education, fire suppression, and Emergency Medical Services with the resources available.

However if the H.F.D. while following its mission statement, incidentally or purposely affects the I.S.O. Public Protection Classification resulting with little or no financial savings of insurance premiums to the public, but saves one life the expenses will be more than justified.

2. Does the community benefit from improving our I.S.O. rating?

The documentation shows a drop in I.S.O. public protection class 9 to class 4 will have a distinct and significant benefit to the community. Further review of the information only shows a possible insignificant insurance savings for improvements between class 1 through class 3, this alone would not justify undertaking the expense just to lower our I.S.O. rating below a class 4.

However, if the H.F.D. continues to advance its I.S.O. rating to such a time as to combine its split rating to a single classification of class 4 or under, it will have assisted in the savings of insurance premiums for a large percentage of our community.

Even though not fully understood by the governing body or the community, replacement of aging under sized equipment such as the 1983 Boyer 500 G.P.M. Engine, 1973 Sutphen 85 ft. 1,500 G.P.M. Quint, 1973 American-Lafrance Tanker, 1993 E-One Mini Pumper, increases in manning from 8 to 10 around the clock and increased training opportunities, in theory, benefits the community by allowing our personnel to work with the most up to date technology and equipment providing more effective and efficient services around the clock.

Additionally, the data collected has shown communities with poor I.S.O. ratings have substantially higher fire losses than those community's that continually improve their I.S.O. public protection classification, and community's with a P.P.C. 1 to P.P.C. 3 statistically have heavy to moderate growth. So it stands to reason, progressive fire protection services are needed for a community to safely and financially flourish.

3. Would an improvement in our I.S.O. Public Protection Classification affect the community economically?

To begin, the data must be separated between City and Township areas since these areas carry separate I.S.O. ratings. Data associated with the City's I.S.O. rating indicates our efforts to reduce the I.S.O. rating below class 4 may have little to no effect on residential insurance premiums. However, a link between lower I.S.O. ratings and economic growth has been indicated, which could spur significant economic development within the city. Benefits for residents within the city limits may not be in the form of a lower insurance premium, but if a lower I.S.O. rating caused economic development to occur, the benefit would be in the form of

climbing property values and increased employment opportunities stabilizing and strengthening the local economy.

Data associated with Harrison Township, Ohio and the West Harrison, Indiana areas indicate our efforts to reduce the I.S.O. rating below class 9 would have a significant impact on insurance premiums as well as a share in the spur of economic development.

It is the author's opinion the research has provided sufficient data to support continued I.S.O. public protection classification improvements, although costly, the data suggest the return in economic development would more than offset the cost to the Harrison Fire Department and the community served.

4. Does the Harrison Fire Department reap any benefit for improving it's I.S.O. rating?

The historical data shows H.F.D.'s concern for public safety and welfare in addition to the desire to conform to the I.S.O. Public Protection Classification has benefited the H.F.D. Although the H.F.D. had become self-satisfied and complacent, stumbling slightly at its 2001 evaluation, more than half the communities I.S.O. reevaluates in any year receive better Public Protection Classifications. Only about 2% receive worse classifications.

The upgrades and replacement of antiquated apparatus and equipment can only benefit the department giving its personnel the most technologically advanced tools to enhance their capabilities and increase personnel safety. It could also have an effect on the public's perception of how effectively the department spends its tax dollars.

Although the 2008 increase in staffing was approved mainly because of the departments desire to increase the level of E.M.S. services provided to our community. The H.F.D. consciously held off the department's re-evaluation knowing the increase of on-duty personnel would positively affect our I.S.O. Public Protection Classification.

The 2006 collective bargaining agreement states, all fulltime employees shall receive a minimum of forty-four (44) hours per calendar year of paid off duty training provided that the employee receives prior written approval from the Fire Chief or his designee. The author sees the training to be a tremendous benefit for personnel, the city, and the public we protect; by providing higher levels of knowledge in the field. In theory, this will increase the quality and capabilities of the services the H.F.D. provides.

The changes in equipment, apparatus, staffing and the expansion of training opportunities has allowed the department to multiply its capabilities and develop public trust. It has evolved from a sleepy volunteer fire department, hiring its first 7-full-time firefighters in 1987 to the present day combination department, providing services 24 hours a day 365 days per year. Clearly the department has benefited, with weighted importance on the I.S.O. Public Protection Classification to some extent justify the change within the H.F.D.

DISCUSSION

The problems H.F.D. will face with its upcoming I.S.O. review are not much different than problems faced by other departments. Decisions must be made to divide and prioritize resources into an effective use of time, money and equipment to achieve a balance between customer service, governmental scrutiny and the I.S.O. public protection class. Historically, System wide changes and improvements are usually driven by Federal or State Law, National Standards, political persuasion or community demands.

The validity of the I.S.O. Fire Suppression Rating Schedule can be argued, the author would even agree that some of the items listed are antiquated and out of touch with current practices. The author could even recommend the F.S.R.S. be fully researched by I.S.O. and warranted changes made, however this is not part of the current study.

In 2001, I.S.O. hired an independent research firm to conduct a survey of 500 fire chiefs and department officials from across the county. The survey revealed the following information:

1. The Public Protection Class plays an important part in most community's assessment of their fire protection services.
2. 92% of those surveyed stated during budget planning or justification of improvements to their communities P.P.C., they would rate the effect of such changes as very or somewhat important. (I.S.O. Mitigation, Online, 2008)

On one hand the chief officers and city officials eagerly await an ISO re-evaluation in hopes of harvesting fruitful possibilities within our boundaries. On the other hand, the 2004 I.S.O. evaluation stirs fears of deterioration, leaving the fruit to wither on the vine, even though statistically more than half of the communities that are re-evaluated receive a better P.P.C. Only 2% receive worse P.P.C.'s. (I.S.O. Mitigation Online, 2008)

Improving our current P.P.C. has several possibilities; the community could have a substantial savings in insurance premiums for residential properties in the township, the city diversified growth and the comfort of knowing we are providing best fire protection possible to our community.

Statistics show, communities with the worst P.P.C. ratings have losses two or more times as high as communities with the best P.P.C. ratings. (I.S.O. Mitigation, Online 2008)

Furthermore, 73% of communities with public protection class 1 to class 3 reported heavy or moderate growths, compared with 50% for communities with public protection class 4 to class 6 and 42% for communities with public protection class 7 to class 10. (I.S.O. Mitigation, Online, 2008)

This studies findings are similar to those in the 2000 Rural Fire Protection Work Groups study conducted for the State of Arkansas, which showed a reduction of \$235.00 per residential property for statewide improvement to a P.P.C. 7. The statistical data collected shows a reduction of \$251.48 per each residential property in West Harrison, Indiana and \$168.92 per each residential property in Harrison Township, Ohio.

As for the potential gains the HFD is looking for, the advancement of services to the community through additional stations, up to date training, and technologically advanced equipment. These items could have an immeasurable influence on department pride and morale, ensuring a balanced mix of education, technology and mental strength needed to provide the multi-tasked services needed in today's ever changing fire service.

On February 10, 2009 and February 11, 2009, the H.F.D. was re-evaluated by two I.S.O. field representatives, Mr. Rigsby representing the State of Indiana and Mr. Stross representing the State of Ohio. Upon conclusion of a thorough two day review, they could only state the

H.F.D. had made significant improvements since I.S.O.'s last visit; however they were not at liberty to discuss any final P.P.C. awards. Furthermore, it could take up to six months for the I.S.O. district offices to examine, approve and release an official statement to the H.F.D.

On April 28, 2009 the results for the City of Harrison and Harrison Township, Ohio evaluations were received. The City of Harrison, Ohio has been reclassified as a P.P.C. 2 protection area, formerly a P.P.C. 4 and Harrison Township, Ohio has been reclassified as a P.P.C. 2/9-protection area, formerly a P.P.C. 4/9. The Village of West Harrison, Indiana Has been reclassified a P.P.C. 3, formerly a P.P.C. 5 and the areas of Harrison Township, Indiana served by the H.F.D. has been reclassified a P.P.C. 3/9, formerly a P.P.C. 5/9.

Although the H.F.D. was hopeful that the split classification would be replaced with a single digit rating, these results will represent a significant savings in insurance premiums for approximately 80% of Harrison Township, Ohio residential property and has given the City of Harrison, Ohio a promotional opportunity to attract commercial development.

Stevens states the standard (I.S.O.) is a minimum; don't build your fire department around it. It doesn't really matter if we like the I.S.O. list; we'll be graded against it either way. Ignore the list and your citizens and businesses will pay the price for your "minimum" decisions.

(Stevens L., Fire House Magazine, P.8 July 2000)

RECOMMENDATIONS

Based on the supporting documentation and information obtained for this applied research project from Insurance Services Office and independent resources (Appendix A-CC), the data shows that improving the H.F.D.'s split P.P.C. 4/9 I.S.O. rating is worth the effort and cost of these changes to a majority of our service area.

Using the comparison ratings compiled using "test properties", the data indicates that owners in the contracted area of Harrison Township would see a meaningful savings in their insurance premiums should the area receive an improved I.S.O. public protection classification.

However, residential property within the current P.P.C. 4 area would be unlikely to see any significant change in insurance premiums. The necessary data to form conclusive identifiable savings for existing commercial properties in the same P.P.C. 4 area is not available. The complex variables would require each property to be individually assessed for proper calculation of the insurance premiums. This is a costly process that is done by representatives well above our local insurance agents.

Upon the conclusion of I.S.O.'s re-evaluation, it is the author's intent to survey a percentage of our existing commercial properties to assess the savings in annual insurance premiums, if any.

Furthermore, the statistical data shows 73% of communities with gradings of Class 1 thru class 3 reported heavy or moderate growth, compared with 57% for communities with gradings of Class 4 thru class 6 and 42% for communities with gradings of Class 7 thru class 10.

(I.S.O. Mitigation, Online, 2008)

According to the data collected it should be an obvious goal of a community to invest and continue to improve in its fire protection services to insure its economic health and the overall wellbeing of the community.

At the earliest possible time, the author will present these findings and power point presentation to the H.F.D.'s Fire chief, City of Harrison, Ohio City Council and Harrison Township, Ohio Trustees. The goal is to expand the knowledge of the overall I.S.O. process and encourage continued support to improve and maintain the P.P.C., to instill a pride in ownership of the H.F.D.'s services for the community as a whole.

The city of Harrison has a newly elected mayor who has shown robust support of the H.F.D.'s needs when made fully aware of the situation.

This research shall provide confirmation that the direction and latitude afforded the H.F.D. by the mayor and city council has been firmly grounded and these actions have set in motion the future of this community's fire service as a sound investment.

REFERENCES

- Babler, E., Allstate Insurance Company, personal communication, September 2008
- Brack, E., State Farm Insurance-Indiana, personal communication, June 2008
- Alexander, Carolyn, Nationwide Insurance Analyst, personal communication, May 2008
- Coleman, R., Online 1999
- Daniel Brooks, Harrison Building Department, October 2008
- Dr. Hickley, H.E., Fire Protection Engineering, University of Maryland, January 2000
- Gibbons, D., American Family Insurance, personal communication, October 2008
- Harrison Fire Department, Insurance Services Office Evaluation Report, June 2004
- Harrison Fire Department, Standard Operating Guidelines, City of Harrison, Ohio, 2008
- Harrison Professional Firefighters, Collective Bargaining Agreement, June 2006
- Hursong, W., City of Harrison, Fire Chief, personal communication, April 2008
- Insurance Information Institute, Online, May 2006
- Insurance Services Office, Mitigation Online, April 2008
- Insurance Services Office, Fire Suppression Rating Schedule, February 2003
- Journal of the International Association of Firefighters, Vol.91 No.3 pg.21, May/June 2008
- Mieth T., McGordon Insurance Agency, personal communication, May 2008
- Packer, R., Ohio Assoc. of Independent Insurance Agents and Brokers of America, personal phone communication, June 2008
- Shea, J., State Farm Insurance-Ohio, personal communication, June 2008
- Stevens, L., Fire House Magazine, July 2000
- Stross, S., Insurance Services Office, March 2008
- U.S. Census Bureau, December 2008
- Welsh, L., Communications Manager, Allstate Insurance Company, June 2008

REFERENCES

Wildland News & Notes, online, May 2001