ALASKA LEGISLATURE COMMITTEE FILES 1983 - 1984 8672
2581 HLC HB 486 - HB 508 2581

HB

486

STATE OF ALASKA 1984 LEGISLATIVE SESSION
FISCAL NOTE

Revision Date: 3/16/84

REQUEST (L&C)
Bill/Resolution No.: CS For HB 486
Title: State Park Facility Fees

Sponsor: Bettisworth
Requestor:
Date of Request: 2/2/84

FISCAL DETAIL
Agency Affected: Natural Resources
Program Category Affected: NRM&EC

BRU, Program or Subprogram(s) Affected:
Parks, Park Management/Operations

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 84	FY 85	FY 86	FY 87	FY 88	FY 89
OPERATING						
100 PERSONAL SERVICES		13.5	14.0	14.6	15.2	15.8
200 TRAVEL						
300 CONTRACTUAL		3.0	4.5	4.5	4.5	4.5
400 SUPPLIES		1.5	1.5	1.5	1.5	1.5
500 EQUIPMENT		3.0				
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS						
800 MISCELLANEOUS						
TOTAL OPERATING		21.0	20.0	20.6	21.2	21.8
CAPITAL		35.7	17.9	17.9	-0-	-0-
REVENUE		200.0	210.0	231.0	254.1	280.0

FUNDING: (Thousands of Dollars)

GENERAL FUND		56.7	37.9	38.5	21.2	21.8
FEDERAL FUNDS						
OTHER						
TOTAL		56.7	37.9	38.5	21.2	21.8

POSITIONS:

FULL-TIME						
PART-TIME		1	1	1	1	1
TEMPORARY						

SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

ANALYSIS: Attach a separate page for analysis

Prepared By: Al Meiners/Mike Lee/Marcy Halloran Phone: 265-4506, 465-2407
Division: Parks/Management Date: 2/2/84

Approved by Commissioner: [signature] Date: 2/3/84
Agency: Department of Natural Resources

Distribution (by Agency preparing fiscal note):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

12/1/83

STATE OF ALASKA 1984 LEGISLATIVE SESSION
FISCAL NOTE

Revision Date: 2/22/84

REQUEST
Bill/Resolution No.: CSHB 486(Res)
Title: State Park Facility Fees

Sponsor: Bettisworth
Requestor:
Date of Request: 2/22/84

FISCAL DETAIL
Agency Affected: Natural Resources
Program Category Affected: NRMEC

BRU, Program or Subprogram(s) Affected:
Parks, Park Management/Operations

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 84	FY 85	FY 86	FY 87	FY 88	FY 89
OPERATING						
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300 CONTRACTUAL		3.0	4.5	4.5	4.5	4.5
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500 EQUIPMENT		3.0				
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POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

ANALYSIS: Attach a separate page for analysis

Prepared By: Al Meiners/Mike Lee/Mary Halloran Phone: 265-4506, 465-2407
Division: Parks/Management Date: 2/2/84

Approved by Commissioner: James K. Campbell Date: 2/22/84
Agency: Department of Natural Resources

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12/1/83

STATE OF ALASKA 1984 LEGISLATIVE SESSION
FISCAL NOTE

Revision Date: 2/22/84

REQUEST
Bill/Resolution No.: CSHB 486(Res)
Title: State Park Facility Fees

Sponsor: Bettisworth
Requestor:
Date of Request: 2/22/84

FISCAL DETAIL
Agency Affected: Natural Resources
Program Category Affected: NRMEC

BRU, Program or Subprogram(s) Affected:
Parks, Park Management/Operations

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 84	FY 85	FY 86	FY 87	FY 88	FY 89
OPERATING						
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POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

ANALYSIS: Attach a separate page for analysis

Prepared By: Al Meiners/Mike Lee/Mary Halloran Phone: 265-4506, 465-2407
Division: Parks/Management Date: 2/2/84

Approved by Commissioner: James K. Caulfield Date: 2/22/84
Agency: Department of Natural Resources

Distribution (by Agency preparing fiscal note):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

12/1/83

HB

497

Alaska State Legislature

House of Representatives

Pouch V
State Capitol
Juneau, Alaska 99811

Official Business

MEMORANDUM

January 19, 1984

TO: Representative Cowdery, Chairman
House Labor & Commerce Committee

FROM: Representative Joe Flood

SUBJECT: HB 497 - Overcrowding in Schools

On Tuesday, January 26th, the Committee on Labor & Commerce will be hearing HB 497, which is a bill that I sponsored. I feel this is important legislation and therefore appreciate your committee's willingness to give this legislation a fair and complete hearing.

The bill is important because it deals with the quality of education here in Alaska. A quality that is eroding away. In fact, as you may already be aware, our students graduation rates and test scores are falling. I find this to be unacceptable. I think we can do better.

That is why I introduced HB 497. This bill will provide the opportunity for school board members and teachers to meet together so they can negotiate on class size. This is important because if we can reduce class size we can increase student achievements and, once again bring our education standards up to the quality we all expect and need.

The issue of class size is not new. It was brought to the attention of the state Supreme Court several years ago. At that time the Court suggested, "It would be helpful if the legislature, through future enactments provided specific guidance on a number of items which unions seek to negotiate.". Thus, the Supreme Court is inviting a bill such as HB 497.

In that same opinion, the Court also asserted that under the Alaska Constitution, Article VII, Section 1, the legislature has exclusive domain over education in the state. I believe that we members must respond to this obligation and pass legislation that can, in a cost effective manner deal with some of our schools problems.

I believe this bill will do just that. It will provide the opportunity to reduce class size and therefore increase student achievement. I hope you will support this legislation with me and believe, as I do, that something must be done and done now. Students are flocking into the Anchorage, Matsu and Kenai districts. Class size is putting a terrible burden on our teachers abilities to provide an effective and efficient learning environment. This bill will at least provide the opportunity to deal with class size and do so at the local level so we can maintain the local control over schools that we all want.

You will note that I have also enclosed some additional backup information for your review. If you have additional questions to be answered before the hearing on Thursday, please call.

Thank you for your time and consideration in regards to this matter.

cc: Representative Furnace
Representative Ringstad
Representative Uehling
Representative Wendte
Representative Koponen
Representative Pestinger

Scores low despite pay in schools

From staff and wire reports

In the past decade, Alaska has retained the distinction of having the best-paid teachers in the country and has reduced the student-teacher ratio in the classroom, but the dropout rate has been increasing and test scores have been falling.

The numbers are not so discouraging in Anchorage as in other parts of the state, says Anchorage School District Superintendent Gene Davis.

The statewide composite is drawn from figures released Thursday by the U.S. Department of Education. Secretary T.H. Bell said the statistics show that the school systems that spend the most money don't necessarily get the best results.

The data compares figures in 1982 to 1972 and puts them into national perspective.

Alaska teachers' salaries in 1982 averaged $29,000. The District of Columbia is second at $22,883. The national average is $17,360.

In 1972, Alaska led the way at $14,124, followed by New York at $11,400. The national average was $9,615.

During that 10-year period, the number of students per class in Alaska schools declined from 21 to 16, moving Alaska from 18th in the country to a tie for eighth. The national average declined from 22.3 to 18.9.

But Alaska's graduation rate declined from 79.3 percent to 71 percent, dropping it from 25th to 38th in the country. The national rate went from 77.2 percent to 72.8 percent.

Alaskans' scores on the American College Test (ACT) fell from 19.6 to 18.7 (on a scale of 1 to 36). Nationally, the ACT scores went from 15.5 to 13.5 so Alaska's standing actually improved from a tie for 15th to a tie for 13th.

The dropout rate in Anchorage appears to be declining, Davis said. As for test scores, he acknowledged a decline last year in Anchorage, but said average test scores here are nevertheless higher than the state or national average.

The biggest problem in Anchorage is the high turnover rate of students each year, Davis said. Family mobility resulted in a 35 percent turnover rate last year, he said.

Reprinted from the March 1979 KAPPAN

The Class Size/Achievement Issue:
New Evidence and a Research Plan

by Leonard S. Cahen and Nikola N. Filby

Using "meta-analysis," Gene Glass and Mary Lee Smith have discovered important student achievement gains when class size is reduced to 15 or below. Cahen and Filby are now involved in intensive field study of the whys and hows of these gains.

On the average, student achievement increases as class size is reduced, and the advantage rises sharply for a class of 15 and below. Reductions in size of from, say, 28 to 25, are projected to make only a small difference in average achievement.

These are perhaps the most significant conclusions reached in a new "meta-analysis" of half a century of research, performed as part of a project in class size and instruction being conducted by the Far West Laboratory for Educational Research and Development with National Institute of Education funds.

Gene Glass and Mary Lee Smith of the University of Colorado were responsible for the meta-analysis. At the same time, a complementary and converging approach to the question of class size/achievement relationships was undertaken and is continuing. A small number of field studies were designed in which class size is experimentally controlled and intensive observation of classroom procedures is being conducted. A chief object is to find out what aspects of instruction in smaller classes account for the achievement advantages.

The remainder of this article will detail the procedures, findings, conclusions, and policy implications of the Far West project.

For the research synthesis, we felt that the new approach called meta-analysis would prove to be a powerful way of resolving some of the inconclusive findings reported in the literature. Glass, a primary developer of meta-analysis methodology, reported that the class size/student achievement literature might lend itself to the technique.[1]

Meta-analysis provides a method for the statistical integration of data across many studies.[2] Studies of psychotherapy and tutoring, among other fields, have already been integrated via meta-analysis. Meta-analysis proceeds by calculating the size of one or more measures of effect in each study, then pools these measures as data points for further analysis. In the case of class size studies, each data point is a measure of the difference in achievement between two classes of different size.

Glass and Smith first obtained and read some 300 reports, publications, theses, etc., that reported findings on class size and achievement. The search was made through ERIC, dissertation abstracts, research reports and reviews,[3] and from nominations and suggestions from other researchers. Glass and Smith found current reviews by Doris Ryan and T. Barr Greenfield[4] and C. D. Latleur, R. J. Sumner, and E. Witton[5] very helpful. Only 77 of the 300 documents could be used. They yielded 725 comparisons of achievement in different class sizes. Many studies yielded multiple sets of data. For example, one might report achievement data for reading, mathematics, and science for three grade levels, thus yielding nine comparisons. The studies provided a data set based on nearly 900,000 pupils and spanned over half a century. Sixty-five percent of the comparisons were obtained from journals, approximately 16% from books, and 11% from unpublished sources. Approximately 8% came from theses, a source not generally tapped in prior examinations of the literature. Approximately 56% of the comparisons were obtained on children whose ages ranged from 5 to approximately 11½ years.

As expected, most of the studies compared class size in the range of 20 or larger. Comparisons of classes of about 26 pupils with classes of more than 30 were common, 10 with 20 far less so. For many years researchers expected to see dramatic differences between class sizes of 25 and 28.

Glass and Smith define class size as the pupil-to-instructor ratio (P/I). One teacher with 30 pupils gives a P/I of 30, two with 30 a P/I of 15. One teacher doing supplementary math instruction with four pupils gives a P/I of four. The search for an appropriate descriptive ratio has a long history in the research on class size.[6] Any ratio is, at best, a crude indicator of how much teacher attention any pupil receives. One hopes that as the total number of pupils in a class decreases, the teacher will be able to provide more appropriate, personal instruction for every pupil. How to help teachers take advantage of reduction in total class size becomes a crucial issue, to be discussed later.

Glass and Smith define "delta" as a key concept. A statistical index of the achievement advantage of one size class over another size class, delta is defined as the mean achievement score for the smaller class in a study minus the mean of the larger class in the study, the difference then being divided by the within-group

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LEONARD S. CAHEN is director and NIKOLA N. FILBY associate director of the Class Size and Instruction Project, Far West Regional Laboratory, San Francisco. *The study reported here was produced under NIE grant No. OB-NIE-G-78-0103.*

Cahen and Filby wish to acknowledge the help and support of Joseph Caverly and Virginia Koehler of the National Institute of Education. Some support for the project came from the Carnegie Scholars Program, Center for the Study of Evaluation, UCLA, NIE grant No. OB-NIE-G-78-0213.

standard deviation. To illustrate, Class A has 10 pupils. Class B in the same study has 20. The students in each class are given an achievement test of 50 items. The mean for Class A is 35. The mean for Class B is 30. The within-group standard deviation is 10. The delta for this hypothetical case would be .5, i.e., (35-30) – 10. Delta is a standard score. Its value can be positive, negative, or zero. Assuming a normal distribution, a delta of plus one is one standard deviation above the mean and has a percentile rank of 84. A delta of plus .5 represents the 69th percentile.

The calculation of delta is straightforward when means and standard deviations are given and when the standard deviations are equal, but these conditions are not always met. Glass worked out formulas for estimating delta from other common statistics, such as a correlation coefficient. Problems can arise in defining the within-group standard deviation when the groups differ widely in variability. In this case the estimate of delta may be biased. Continued work on the methodology of meta-analysis, as developed by Glass, will need to study the effects of heterogeneous variability on the magnitude of deltas and the relationship of the deltas to other variables in the studies being examined.

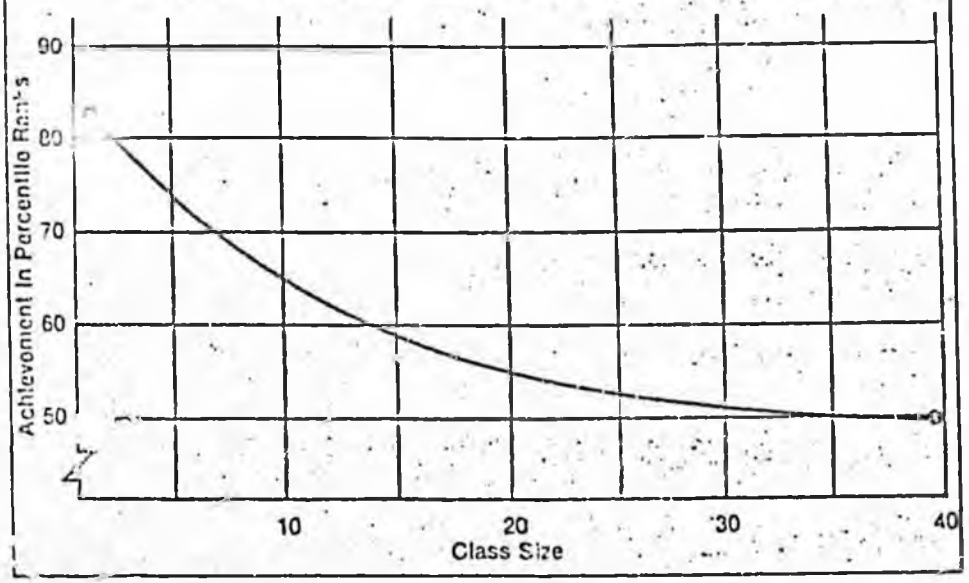
Of the 725 deltas calculated, 60% were positive, indicating that achievement was higher in the smaller class. The average delta was .09. Further analysis revealed two important interactions: The size of the difference depended on the sizes of the classes being compared; it also depended on the quality of the research design. Effects were stronger in studies having good design characteristics — e.g., where pupils were randomly assigned to classes or were "matched," or where the same teachers or pupils participated in both the smaller and the larger class. The average delta in well-designed studies was .40.

To take into account the influence of different class sizes, a regression model was developed to predict delta. After preliminary models were tried, the final system predicted delta (advantage of smaller over larger) from three variables: 1) number of students in the smaller class; 2) square of the number of students in the smaller class; 3) difference between the number of students in the smaller class and the number of students in the larger class. The regression model was used to generate a graph of predicted achievement. Predicted achievement scores were transformed to a percentile rank on a hypothetical nationally normed standard achievement test. The Glass-Smith curve for well-designed studies is shown in Figure 1.

In this figure the curve starts to rise most dramatically when class size is reduced below 15 pupils. The average pupil in class sizes of 40, 20, 15, 10, and five would be expected to score at the 50th, 53th, 58th, 65th, and 75th percentiles respectively. The predicted outcome difference can be described in grade-equivalent units over one school year: 1.00 years of growth for class size 40, 1.15 years for size 20, 1.24 years for size 15, 1.45 years for size 10, and 1.72 for size five. These data show an impressively large advantage for smaller classes.

Figure 1. The Glass-Smith Curve of Achievement and Class Size

(Data integrated across approximately 100 comparisons from studies exercising good experimental control)



The overall difference in results between the well-controlled and poorly controlled studies was dramatic. The curve for the poorly designed studies was almost flat, indicating, at best, a very small advantage to smaller classes. Almost half of the deltas came from the poorly designed studies. Little wonder class size research has been so inconclusive.

Glass and Smith analyzed data separately for elementary and secondary pupils. Small-class advantages were slightly stronger at the secondary level. It is our opinion that the advantages are too small to lead to a conclusion that elementary pupils would profit less than secondary pupils if class size were reduced. There also appeared to be no difference in results for different subject matters, such as reading or mathematics.

The meta-analysis reports that there is no correlation between class size and achievement advantage in the studies performed before 1940. Over half the 725 deltas were from pre-1940 studies. It is not surprising that surveys of the literature prior to World War II typically concluded that reducing class size had no effect on achievement.

Over the next few months we plan to fit the Glass-Smith equation to data not analyzed when the model was developed. This will allow us to estimate the error in the model for different class size comparisons. We anticipate that new studies will be identified, but these, like those available to Glass and Smith, will contain few data for class size smaller than 20, the range we believe to be crucial.

How does one judge the importance of the differences shown in Figure 1? Is the percentile advantage in achievement between class sizes of 15 and 30 big enough to make it worthwhile to reduce size by this much? Policy makers will have to decide. As researchers, we encourage the concept of utility. We regard the delta difference between class size 30 and 25 as relatively trivial. But the difference between class size 30 and 15 has utility. Enough pupils should profit to warrant pursuing ways of creating the smaller class. We acknowledge the economic difficulty of putting this judgment into practice. But we encourage investigations of reduced instructional group size for parts of the school day. More on this later.

A cautionary comment about the small changes in achievement above a class size of 20: Achievement tests measure only one aspect of instruction. They do not capture the quality or humanness of the classroom environment. Certainly larger classes permit less relaxed interaction with individual pupils. Teachers often feel overwhelmed and frustrated.

It is also important to point out that the Glass-Smith meta-analysis shows the relationship of class size and achievement without any attempt to see how this relationship is conditioned by a set of variables we shall call quality of instruction. It would be useful to find out whether, and how, good and poor teaching or environmental conditions alter the curve.

The Field Studies

The Glass-Smith meta-analysis indicates that, on the average, achievement

> *The field studies may show how to achieve even greater gains in small classes.*

increases as class size decreases. If this is true, it must be because of some change in classroom instruction. With fewer pupils to attend to, a teacher should be able to improve the quantity and/or quality of instruction.

P. J. Porwoll and others have concluded that many qualities of classroom instruction, such as increased individualization, are improved when class size is reduced.[7] Glass and Smith are now doing a meta-analysis of studies relating class size to classroom processes, student attitude, and teacher satisfaction. Teacher satisfaction is an important outcome to consider in its own right.[8] It appears from the literature search that relatively few studies have systematically examined the question of *how* class size influences student achievement. The field studies undertaken by the Class Size and Instruction Project address this question.

The basic plan of the current field studies is to reduce class size experimentally and see what changes take place in the classroom. In each of two schools, we work with two second-grade classes, each taught by a single teacher. Midway through the year a third teacher is hired and some students from each class are moved to the new third class. Many methodologies are used to learn about the nature of schooling in the larger class situation (before the split), and this can be compared with what we learn when the classes are made smaller after the split.

An important aspect of the field studies is the role of the classroom teachers. We hope to make them collaborators in the investigation of an important educational question. As a research team, we shall form hypotheses about what might be different in a smaller class, and we shall collect evidence about what actually changes. The teachers are encouraged to "tinker," i.e., try new techniques. This means that the field studies are not a "clean" experimental test of class size but are instead a combination of class size experiment and inservice training for teachers. It is exactly this combination that we consider it important to study. Many people have suggested that reducing class size will have no effect if teachers do exactly the same thing in a small class as in a large one and that it is important to help teachers take advantage of the opportunity of a small class."

[illegible] we [illegible] than the increases in achievement should be even greater than those shown in the Glass-Smith curve.

A major source of our perspective in describing classroom instruction is our previous work on the Beginning Teacher Evaluation Study (BTES).[10] In our current work we hope to elaborate and extend the BTES model of instruction, thus building a cumulative research program.[11] BTES researchers, working with second- and fifth-grade classes, looked at a series of questions about pupil learning in mathematics and reading and how this learning was related to teaching behaviors and characteristics of classroom learning environments. The BTES study convinced us that the teacher controls learning conditions that are positively associated with pupil learning. For example, larger pupil achievement gains were associated with teacher monitoring of pupil behavior, the teacher's ability to diagnose pupil status and prescribe appropriate educational tasks (quantity and quality), and teacher feedback. Classes with larger gains were typically associated with teachers who held academic goals for their pupils and provided relatively large amounts of direct instruction. It was also observed that the teaching/learning environments in these classes were supportive. Teachers did not have to be punitive in order to have children learn. As we began to design our plan for the Class Size and Instruction Project, we wondered how the learning environments in classes could be changed if we reduced the number of pupils for whom the teacher had responsibility. If class size could be reduced by one-third or one-fourth, would the teacher be able to provide a more individualized form of instruction? Would the teacher be able to diagnose pupil needs better, assign more appropriate work, and monitor the work more frequently? Would pupils' "wait time" (waiting for teacher direction or help) be reduced? Would pupil/pupil and pupil/teacher interaction change?

How would teachers feel about teaching and their pupils when class size was reduced? Would there be more time for informal discussions with pupils? Would there be changes in the curriculum or learning activities such as more and different types of art or science lessons? Would pupils now be allowed to talk to each other as they worked?

The following categories of questions provide a framework for our inquiry [illegible] interactions, [illegible] environment, rule setting, interruptions and disruptions, diagnosis, assessment and pupil evaluation, teacher feedback, reward systems, teacher expectations prior to splitting, and teacher evaluation of conditions before and after splitting.[12]

Two schools are participating in the study. One is a rural school near Charlottesville, Virginia, directed by Gail McCutcheon of the University of Virginia. Pupils are primarily low socioeconomic level blacks (60%). Before they were split in January, 1979, each class had about 19 pupils. Splitting reduced the classes to approximately 13 [illegible]dents each. Parent volunteers assist [illegible] [illegible]chers.

The seco[illegible] [illegible]ool is located in Oakland, Calif[illegible]nia. Both second-grade classes prior to splitting were composed of 34 students, so size dropped to approximately 23 students per class after splitting in February, 1979. Classroom aides are used. There is a staggered reading schedule, meaning that half the students in a class come for an hour in the morning and the other half remain at the end of the day for their smaller group instruction in reading. Nikola Filby, one of the authors, teaches the class created by the split.

Methods of Data Collection

The central activity in the field study will be to document and describe differences in instruction before and after splitting. Research on teaching today is multidisciplinary and uses many approaches to knowing. Some researchers advocate the experimental method as the most powerful way of detecting teaching/learning relationships. Others feel that understanding can best be attained by spending many hours in classrooms watching the process, talking to teachers, etc. Many researchers like ourselves think it is wise to combine many methods: We observe and record what we see, we measure some dimensions, we ask our teachers to help us understand what we see. Our methodology includes both qualitative and quantitative approaches. The Oakland and Virginia researchers have developed descriptions of different approaches to inquiry being used in the study under the following headings: 1) "case study" observation, 2) interviews with teachers, 3) systematic, quantitative observation, 4) teacher journals, 5) achievement testing, 6) samples of student work, 7) photographs, and 8) later follow-up.[13]

Reporting the Findings

The detailed case studies of each class will be a major form for reporting our study findings. The case studies will document any changes between instruction in the large-class phase and the small-class phase. We hope to discover whether changes in instruction are a function of reduced class size. The case studies will also address more general questions about important characteristics of classroom in-

struction that should be understood regardless of class size.

It is our goal to blend the information obtained from the case studies, teacher logs, and interviews with the information obtained through quantitative records. The "numbers" gathered by systematic observation may help tell us *if* changes took place after splitting. The other sources of information can then, we hope, tell us *how* the changes took place.

Issues and Policies

To date, major reviews of the literature on class size have reported conflicting findings in the research.[14] Some studies supported smaller class sizes; others did not. Reviewers generally found the literature complex and inconclusive. Some reviewers became pessimistic about the value of smaller classes.[15] The Glass-Smith meta-analysis is unique because it presents a statistical synthesis that reveals general trends. Previous reviews and the conclusions drawn from them were primarily reached from an "armchair" synthesis of the literature. Studies were classified as supportive of smaller class size, larger class size, or inconclusive. The classifications were guided by the statistical significance reported. No evaluation was given in the counting or classification procedure to studies nearing conventional levels of significance. For example, studies showing probability levels greater than .05 would typically be classified as nonsignificant and thus be placed in the inconclusive category. In contrast, Glass and Smith used all the available data to develop a continuous distribution of effects and therefore move their analysis beyond the nominal classification of supportive (favoring smaller classes), nonsupportive (favoring larger classes), and inconclusive (failure to reject the null hypothesis). We feel that the new findings by Glass and Smith present a convincing case that average achievement increases as class size decreases, especially when class size is below 20 pupils per class. Earlier arguments that smaller classes cannot be justified on the basis of test scores must be reexamined in light of the Glass-Smith findings.

We must point out, however, that there are many exceptions to the general trend. Smaller is not always better. Previous reviews of the literature have done a commendable job of describing the limitations of particular [illegible] of class size and explaining how research in the area must accept the problem as interactive — a [illegible]

No surplus, only underutilized teachers.

Glass-Smith analyses did not find any general interactions in the data; that is, class size effects were *not* noticeably different for children of different ages or abilities or studying different subjects. But there were many instances in the data where small classes did not produce superior achievement. Two possible explanations are the nature of the teaching that takes place and imprecision in the construct "class size."

As discussed earlier, a number of people have pointed out that the effect of class size depends on the intervening classroom instruction. Poor teaching will not be effective, even in a small class. Teachers may need help in learning to use the potential available in the small-class situation. We are exploring this issue in the field studies. Certainly anyone who plans to reduce class size should plan also to support and educate personnel to realize the potential.

From discussions of class size in the literature, it is clear that better designs are needed if we are to understand the complexities of instruction and how the complexities are influenced by the sometimes poorly defined global term "class size." Donald Pidgeon has described other characteristics of students and classrooms that influence the size of the job facing a teacher.[17] He mentions homogeneity of pupils, classroom space available, and ancillary assistance available in the classroom. The concept of teacher load is discussed in the literature. While the term is usually used to describe the teaching responsibilities of secondary teachers, it applies to the elementary school as well. A teacher who has responsibility for grading essays probably has a different out-of-school workload than a shop teacher. The teacher who has many students learning English as their second language has additional teaching burdens. The problems created by disruptive students must be reckoned with in assessing teaching load responsibilities. The Class Size Committee of the Los [illegible] Education Association has attempted to weight factors in the classroom (i.e., number of slow learners, hyperactive pupils, bilingual pupils, etc.) in adjusting class size so that it better reflects the range of teaching responsibilities.[18] All of these issues create complications in simplified [illegible] class size.

[illegible] have [illegible] political climate [illegible]

in collaboration with Gene Glass and Mary Lee Smith, we shall commission reaction papers to the meta-analysis on class size and achievement and the second meta-analysis dealing with the relationship of class size and classroom processes, teacher satisfaction, and pupil affect. Within our funding restriction we shall seek reaction papers from teachers, administrators, economists, and researchers. These papers will serve to clarify and highlight the different viewpoints on class size and the trade-offs that must be made. In the end, individual states, communities, or parents must make their own value judgments.

We would hope that in discussions of class size many different alternatives will be considered. The data suggest that there is relatively little pay-off for small overall reductions (e.g., 28 to 25). Attention should be given to ways to make larger reductions in more limited situations. Flexible arrangements within a school might allow the creation of smaller instructional groups for part of the school day or for those students most in need of closer supervision or individual attention. Some school districts use a staggered schedule so that students spend part of the day in a smaller class. Paraprofessionals can help. The use of nonprofessional instructional staff (aides, parent volunteers, and pupil tutors) deserves careful attention. R. G. Stennett, A. L. Hyer and Robert M. McClure, and Beatrice A. Ward and William J. Tikunoff have discussed issues relating to the use of noncertificated personnel in classroom instruction.[19] We would also hope that schools examine ways to rehire some of the many talented teachers who have lost their positions or cannot find teaching positions. We share the positions of John Corbally[20] and Herbert Walberg and Sue Pinzur Rasher[21] that the large number of unemployed teachers should be viewed as an underutilization of talent, not as a surplus. It is interesting to ponder what instruction in schools could be with two professionals teaching 30 pupils, at least for reading and mathematics in the primary grades.

We are concerned that the Smith-Glass curve may be interpreted by "budget at any cost" school administrators and citizens to mean that class size can be increased beyond 30 pupils without achievement deficit or other consequences.

[illegible] is [illegible] that the present [illegible] student achievement [illegible] income. Glass and Smith are presently completing a second meta-analysis for our project. This analysis will

(Continued on page 538)

Class Size/Achievement
(Continued from page 495)

examine the relationship of class size, instructional processes, teacher morale, and pupil affect. The studies will include pieces of research that previously have not been integrated into most of the literature reviews. Their report is scheduled for publication later this spring. We can anticipate that this further analysis and the field studies will give a richer picture of the benefits of smaller classes. Certainly many teachers are convinced of the need for smaller classes. NEA President John Ryor has said that wages and class size were primary strike issues in 1978-79.[22] In November, 1978, half of the Fresno, California, public school teachers struck in a dispute over class size. The school board had rejected the Fresno Teachers Association proposal to add an aide in elementary school classes with more than 33 students.

We need to consider a broad range of outcomes — the relationship between class size and the quality and humaneness of the nation's schools. These concerns may make even small changes in class size worthwhile and may increase the impetus to find ways to create some small classes. We encourage educators and the public to think seriously about what we want our schools to be and how smaller classes might help make that image a reality.

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2. [illegible]

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3. Howard E. Blake, "Class Size: A Summary of Selected Studies in Elementary and Secondary Schools" (Doctoral dissertation, Teachers College, Columbia University, 1954). See also Henry J. Otto and Fred von Borgersrode, "Class Size," *Encyclopedia of Educational Research*, 2nd ed., 1950, pp. 212-16; Henry J. Otto et al., *Class Size Factors in Elementary Schools*, Bureau of Laboratory Schools Publication #4 (Austin, Tex.: University of Texas Press, 1954); P. J. Porwoll, *Class Size: A Summary of Research* (Arlington, Va.: Educational Research Service, 1978); James B. Pugh, Jr., *Performance of Pupils and Teachers in Small Classes* (New York: Metropolitan School Study Council, Teachers College, Columbia University, 1965); Stanley M. Shapson, *Optimum Class Size? A Review of the Literature* (Toronto, Ontario: Toronto Board of Education, Research Department, November, 1972); George E. Sitkei, *The Effects of Class Size: A Review of the Research*, Research Studies Series, 1967-68 (Los Angeles: Los Angeles County Superintendent of Schools, 1968); and William S. Vincent, "Class Size," *Encyclopedia of Educational Research*, 4th ed., 1969, pp. 141-46.

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5. C. D. Lafleur, R. J. Sumner, and E. Witton, *Class Size Survey* (Canberra: Australian Government Publishing Service, 1974).

6. Porwoll, op. cit.

7. Ibid. See also B. McKenna, "Measures of Class Size and Numerical Staff Adequacy Related to a Measure of School Quality" (Doctoral dissertation, Teachers College, Columbia University, 1955); Pugh, op. cit.; and Donald H. Ross and Bernard McKenna, *Class Size: The Multi-Million Dollar Question* (New York: Teachers College, Columbia University, 1955).

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20. [illegible], Letter in "Backtalk," *Phi Delta Kappan*, December, 1974, p. 277.

21. [illegible] and Sue Pinzur Pasher, "The [illegible] Makes a Difference," *Phi Delta Kappan*, May, 197[illegible], pp. [illegible]

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STATE OF ALASKA 1984 LEGISLATIVE SESSION
FISCAL NOTE

Revision Date:

REQUEST
Bill/Resolution No.: HB 497
Title: Labor Negotiations by School Boards
Sponsor: Flood
Requestor: Labor and Commerce
Date of Request: 1-19-84

FISCAL DETAIL
Agency Affected: Education
Program Category Affected:
BRU, Program or Subprogram(s) Affected:

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 84	FY 85	FY 86	FY 87	FY 88	FY 89
OPERATING						
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 SUPPLIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS						
800 MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0
CAPITAL	0	0	0	0	0	0
REVENUE	0	0	0	0	0	0

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	0	0	0	0	0	0

POSITIONS: N/A

FULL-TIME						
PART-TIME						
TEMPORARY						

SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

While the bill has no fisical impact on this department, it will have an indeterminate impact on school districts.

ANALYSIS: Attach a separate page for analysis

Prepared By: Steve Hole Phone: 1-20-84
Division: Office of the Commissioner Date:

Approved by Commissioner: Harold Raynolds, Jr. Date: 1-20-84
Agency: Education

Distribution (by Agency preparing fiscal note):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

12/1/83

HB

505

MARCH 28, 1984

TO: JOHN

FROM: KEN

RE: HB 505 "RELATING TO INSURANCE"

THE PURPOSE OF HB 505 IS TO UPDATE THE PENALTY PROVISIONS IN THE INSURANCE CODE IN TITLE 21 OF THE ALASKA STATUTES. UNDER CURRENT LAW, MANY OF THE VIOLATIONS OF THE INSURANCE CODE HAVE CRIMINAL PENALTIES, SUBJECT TO PROSECUTION AS A MISDEMEANOR. THIS LEGISLATION WOULD CREATE CIVIL PENALTIES FOR CERTAIN VIOLATIONS OF THE INSURANCE CODE. ACCORDING TO THE DIVISION OF INSURANCE THIS WOULD PREVENT MANY OF THE ADMINISTRATION VIOLATIONS OF THE INSURANCE CODE WHICH MANY INSURANCE COMPANIES NOW TAKE LIGHTLY.

QUESTIONS:

1. HOW MANY VIOLATIONS DO YOU ESTIMATE OCCUR EACH YEAR THAT ARE NEVER PROSECUTED ?

2. COULD YOU ESTIMATE THE ADDED EXPENSE TO THE DIVISION BECAUSE OF THESE VIOLATIONS ?

3. WHY IS THERE SUCH A STRONG EFFORT NOW TO CURB THESE VIOLATIONS OF THE CODE ?

4. ON PAGE 2, LINE 11, HOW WAS THE FIGURE 2,500 DECIDED ?

5. ON PAGE 2, LINE 25, 25 THOUSAND DOLLARS IS A CONSIDERABLE AMOUNT OF MONEY TO BE FINED BY THE DIRECTOR OF THE DIVISION OF INSURANCE FOR A CIVIL PENALTY. SHOULDN'T CRIMES SUCH AS EMBEZZLEMENT BE PUNISHED UNDER THE CRIMINAL STATUTES ?

SECTION BY SECTION ANALYSIS OF CSHB 505 (L&C) 3/26/84

This proposal, while lengthy, is a relatively straightforward cleanup and update of the penalty provisions in the insurance code. The first function of this bill is to consolidate the criminal penalties of the insurance code in a single section, Sec.21.36.360. There are no NEW criminal penalties created, but there are some upgrades. Currently, any violation of Title 21 (the insurance code), is a misdemeanor unless otherwise specifically labeled.

The second function of this bill is to establish an administrative penalty for any violation of the insurance code. In many cases there is no administrative or civil penalty for a violation of the code. This means that the violator gets away with the act, since a district attorney is going to be less than enamored with prosecuting as a misdemeanor some of the technical violations we see in the administration of the code. This bill sets up a dual course, where an administrative remedy and a criminal remedy will be available for any violation of the code. This is accomplished by changing all the present criminal language to civil penalty language. In doing this, the penalty levels, which have not been changed since 1966, have been reviewed and upgraded.

The third element of this bill deals with a growing concern amongst insurance regulators concerning information sought during investigations of criminal activities. In recent months a number of fraud investigations have commenced in the west, some in which our division is participating. The challenge we currently face is that there is no immunity available for persons sharing or providing information. This fact has impeded a number of investigations across the country. In some cases other insurance regulators are willing to act as our agent in securing information but have no protection if they do so. Presently two states have adopted legislation that deals with this issue. We have used a model that tracks a National Association of Insurance Commissioners model.

Section 1. Page 1, lines 9-16.
This is a new civil penalty section that fines an insurer who fails to submit its annual financial statement when due. It also gives the director the authority to suspend the activities of an insurer who fails to submit the statement when due. The concern here is that the statement is the director's principal tool in determining the financial health of an insurer and its absence leaves that health in question.

Section 2. Page 1, lines 17-25.
This section establishes a new civil penalty. The section deals with violations of AS 21.09.220-250, which is the section on the countersignature law which is in the process of repeal, and with writing through unlicensed agents. The current criminal penalty is transferred to Section 10 [see Sec. 21.36.360(i)].

Section 3. Page 1, lines 26-29 & page 2, lines 1-7.
This section establishes a new civil penalty. AS 21.22 is the insurance

holding company act which is concerned with the acquisition of, control of, or, merger with a domestic insurance company. The current criminal penalty is transferred to Section 10 [see Sec. 21.36.360(h)].

Section 4. Page 2, lines 8-12.
This section establishes a new civil penalty. AS 21.27 is the insurance agents, brokers, solicitors, and adjusters licensing act. The current criminal penalty is transferred to Section 10 [see Sec. 21.36.360(j)].

Section 5. Page 2, lines 13-19.
This section establishes a new civil penalty. It deals with reporting of premiums to an insurer by a licensee. The current criminal penalty is transferred to Section 10 [see Sec. 21.36.360(n)].

Section 6. Page 2, lines 20-27.
This section establishes a new civil penalty. is concerned with the monies a licensee receives as premium from an insured or as return premium from an insurer. These are trust funds and their misuse or misappropriation is a matter of particular concern to the division. The current criminal provision is transferred to Section 10 [see Sec. 21.36.360(b)(5)].

Section 7. Page 2, lines 28-29 & page 3, lines 1-11.
This section deals with the penalties for violation of the licensing law. The principal change here is an upgrading of the amount of penalty.

Section 8. Page 3, lines 12-21.
This section upgrades the fine applied in lieu of suspension, revocation, of refusal to renew a license from $500 to $2500.

Section 9. Page 3, lines 22-29 & page 4, lines 1-2.
This section establishes a new civil penalty. It deals with persons refusing examination by the director of their activities in the surplus lines market. The current criminal penalty is transferred to Section 10 [see Sec. 21.36.360(l)].

Section 10. Page 4, lines 3-29, all of pages 5-9 & page 10, lines 1-14.
This section centralizes the criminal provisions of the insurance code. The chapter into which this has been inserted is the trade practices and frauds chapter, a logical place to look for these provisions. The new section also deals with investigation information confidentiality and immunity.

Sec 21.36.360(a). Page 4, lines 3-9.
This subsection prohibits fraudulent and criminal acts and provides that the criminal penalties are in addition to civil penalties. We have made a distinction beteween fraudulent and criminal because of the connotation

associated with the term "fraudulent". The word as used in this section generally means to intentionally injure, defraud, or deceive.

Sec 21.36.360(b)(1). Page 4, lines 10-15.
This section is drawn from the current AS 21.36.180(a), which is repealed in Section 22. No substantive change.

Sec 21.36.360(b)(2)-(3). Page 4, lines 16-24.
These sections are drawn from the current AS 21.36.200, which is repealed in Section 22. No substantive charge.

Sec 21.36.360(b)(4). Page 4, lines 25-29 & page 5, lines 1-2.
This section is drawn from the current AS 21.36.180(b), which is repealed in Section 22. No substantive change.

Sec 21.36.360(b)(5). Page 5, lines 3-5.
This section is drawn from the current AS 21.27.360(c) which is amended in Section 6. No substantive change.

Sec 21.36.360(b)(6). Page 5, lines 6-7.
This section effectively upgrades the criminal offense of failing to pay a tax liability under this title, depending on the amount the person has failed to pay. It is currently a misdemeanor under the general penalty section of the insurance code, AS 21.90.020.

Sec 21.36.360(c). Page 5, lines 8-16.
This section is drawn from the current AS 21.69.060 which is amended in Section 14. It deals with solicitation to form an insurer without a solicitation permit. No substantive change.

Sec 21.36.360(d)-(e). Page 5, lines 17-27.
These sections are drawn from the current AS 21.06.170(e) which is repealed in Section 22, and deals with perjury in an examination, investigation or hearing of the division. No substantive change.

Sec 21.36.360(f). Page 5, lines 28-29 & page 6, lines 1-3
This section is drawn from the current AS 21.69.210 and deals with false accounts, documents, or advertisements in forming an insurer. See Section 15. No substantive change.

Sec 21.36.360(g). Page 6, lines 4-7.
This section is drawn from the current AS 21.69.390 and deals with the removal or concealment of records of a domestic insurer. See Section 16. No substantive change.

Sec 21.36.360(h). Page 6, lines 8-9.
This section is drawn from the current AS 21.22.170 and deals with insurance holding companies. See Section 3. No substantive change.

Sec 21.36.360(i). Page 6, lines 10-21.
This section is drawn from the current AS 21.09.250-260 and deals with the writing of business by insurance companies through persons not licensed by this state. See Section 2. No substantive change.

Sec 21.36.360(j). Page 6, lines 22-29 & page 7, lines 1-5.
This section is drawn from the current AS 21.27.010(d), AS 21.66.160, and AS 21.84.420(a) and deals with agents, brokers, solicitors, and adjusters licensing. See Sections 4, 12, and 18. No substantive change.

Sec 21.36.360(k). Page 7, lines 6-14.
This section is drawn from the current AS 21.27.370 in the licensing chapter which requires all parties to the insurance transaction have the appropriate license. The penalty is drawn from the general penalty section, AS 21.90.020. No substantive change.

Sec 21.36.360(l). Page 7, lines 15-19.
This section is drawn from the current AS 21.33.320 dealing with examination of surplus lines transactions. See Section 9. No substantive change.

Sec 21.36.360(m). Page 7, lines 20-23.
This section is drawn from the current AS 21.69.510(a) dealing with unauthorized dividends of a domestic insurer. See Section 17. No substantive change.

Sec 21.36.360(n). Page 7, lines 24-28.
This section is drawn from the current AS 21.27.360 dealing with agents and brokers trust accounts. See Section 5. No substantive change.

Sec 21.36.360(o). Page 7, line 29 & page 8, lines 1-3.
This section is drawn from the current AS 21.36.200 which is repealed in Section 21. It deals with false applications for insurance. No substantive change.

Sec 21.36.360(p). Page 8, lines 4-5.
This section is drawn from the current AS 21.90.020, the general penalty section of the insurance code. See Section 20. No substantive change.

Sec 21.36.360(q). Page 8, lines 6-20.
This subsection establishes the level of criminal violation in each of

the activities described in the section. i.e., whether it is a class B felony, class C felony, class A misdemeanor, or a class B misdemeanor.

Sec 21.36.370. Page 8, lines 21-29 & page 9, line 1.
This section is drawn from the current AS 21.36.180(b) which is repealed in Section 22. No substantive change.

Sec 21.36.380. Page 9, lines 2-8.
This is a new provision which requires that claims forms contain a warning that falsification is a felony.

Sec 21.36.390. Page 9, lines 9-19.
This is a new requirement requiring insurers to advise the director when they have knowledge of a fraudulent claim. It also provides immunity from civil liability for persons providing such information without malice.

Sec 21.36.400. Page 9, lines 20-29 & page 10, lines 1-5.
This is a new section. It provides confidentiality for data received under Sec.21.36.390. Presently investigations are considered examination of the insurer and are confidential while necessary, but this is not true when an insurer is not involved thus impeding investigation.

Sec 21.36.410. Page 10, lines 6-13.
This is an important new provision that enables the director to effectively share investigative functions with other states. It allows the director to designate another state to act on his behalf and vice-versa. The information would be in the participating state as well as the principle state. This would be a valuable tool in investigating violations of the insurance code by non residents. Further, the sharing of the data will better enable us to head off problems before they are sufficiently entrenched and cause loss to the insureds in this state and the insurer.

Section 11. Page 10, lines 14-25.
This section upgrades the rate law penalty provisions to make them more meaningful. Presently the gain from a violation of that law may well exceed the loss from a penalty application. With this new provision, that would no longer be the case.

Section 12. Page 10, lines 26-29 & page 11, lines 1-7.
This section establishes a new civil penalty. It deals with doing a title insurance business without an effective certificate of authority. The current criminal provision is transferred to Section 10 [see Sec. 21.36.360(j)].

Section 13. Page 11, lines 8-21.
This section substantially upgrades the title insurance rate law

penalties. The gain from writing a title insurance policy at an inappropriate rate is far more profound than in a property/casualty situation. It is also more likely to occur.

Section 14. Page 11, lines 22-26.
This section establishes a new civil penalty. AS 21.69 deals with the organization and corporate procedures of domestic insurers. The current criminal penalty is transferred to Section 10 [see Sec. 21.36.360(c)].

Section 15. Page 11, lines 27-29 & page 12, lines 1-6.
This section establishes a new civil penalty. This section deals with deliberate falsification of company records. The current criminal penalty is transferred to Section 10 [see Sec. 21.36.360(f)].

Section 16. Page 12, lines 7-17.
This section establishes a new civil penalty. This section deals with the removal or concealment of the records of a domestic insurer. The current criminal penalty is transferred to Section 10 [see Sec. 21.36.360(g)].

Section 17. Page 12, lines 18-26.
This section establishes a new civil penalty. It deals with the unauthorized payment of dividends. The current criminal penalty is transferred to Section 10 [see Sec. 21.36.360(m)].

Section 18. Page 12, lines 27-29 & page 13 lines 1-5.
This section establishes a new civil penalty. It deals with the unlicensed agent of a fraternal benefit society. The current criminal penalty is transferred to Section 10 [see Sec. 21.36.360(j)].

Section 19. Page 13, lines 6-18.
This section establishes a new civil penalty. It deals with misrepresentations under the fraternal benefit society chapter. The current criminal penalty is transferred to Section 10[see Sec. 21.36.360(p)].

Section 20. Page 13, lines 19-29 & page 14, lines 1-7.
This section is needed in view of the transfer of the criminal penalty in Section 19. AS 21.84 is an exclusive chapter that incorporates the other provisions of AS 21 only by specific reference within that chapter. No substantive change.

Section 21. Page 14, lines 8-17.
This section establishes a new general civil penalty for violations of the insurance code not specifically carrying a stated civil penalty. The current criminal general penalty is transferred to Section 10 [see Sec. 21.36.360(p)]. The effect of this change is to have a civil penalty and a criminal penalty for any violation of the insurance code. This fact will

alaska all lines charter

division of insurance newsletter

VOL. 15, NO. 2 FALL/WINTER 1983

LET THE SURPLUS LINES BROKER BEWARE

"A surplus lines broker shall ascertain the financial condition of an insurer before placing insurance with him. A violation of this section is punishable by a fine of not less than $50 or more than $250 for each offense. The department shall also revoke his license and may not license him as a surplus lines broker for a period of two years thereafter."

Surplus lines brokers who fail to ascertain the financial condition of insurers as required by AS 21.33-.180, run the risk of losing their license, as well as being liable for losses if an insurer proves to be insolvent. During the past year, we have followed up on numerous consumer complaints where policy security runs from poor to insolvent. Some of these policies fail to name the actual insurers as required by law. Instead, we see coverage backed by "Lloyds and foreign companies." The foreign companies are domiciled in Bermuda, Cayman Islands, Africa and Hong Kong. In many cases, it is more correct to say they were domiciled in these countries but have since gone broke, leaving policyholders little option but to recover from the surplus line broker. The Division of Insurance urges every licensee to know his/her markets. Agents and brokers must ascertain the quality of markets utilized by a surplus lines broker when they farm out coverage to a surplus lines wholesaler.

The responsibility to determine the financial condition of an insurer cannot be delegated. The surplus lines broker carries a heavy responsibility when dealing with the unauthorized market and will be held responsible for his conduct.

RURAL HEALTH CARE

Bethel Family Health Services, Inc. (BFHS), a rural, private health care provider, recently entered into an agreement with the Indian Health Service (IHS). This agreement is unique and the first of its kind in the entire United States.

This agreement makes available acute in-patient care, emergency room services, laboratory services, and radiology services to the population of the Bethel area, who are not IHS beneficiaries. Bethel is a rural village not connected by any road or rail system to a major population center. In fact, Bethel is approximately 475 air-miles from Anchorage, the nearest population center.

In effect, BFHS can be viewed as a "retailer" of health care services that purchases some services from the "wholesaler," IHS - a "hospital within a hospital."

Any licensed physician or mid-level practitioner employed by BFHS that meets the credential requirements of IHS may be granted hospital privileges. In fact, this is what is anticipated in the agreement. BFHS medical staff will be treating their own patients but in the IHS facility.

IHS has established a fee schedule for those services contracted by BFHS. IHS intends to modify this fee schedule annually each October 1 to reflect changes in the actual costs incurred based upon the Medicare methodology. BFHS is financially responsible for all charges incurred on behalf of its own patients. BFHS will be billed directly by IHS and, in turn, will bill their patients. However, BFHS must pay IHS directly and must collect from their patients.

1983 INSURANCE COMPANY ANNUAL STATEMENTS AND PREMIUM TAX

The Alaska premium tax statements were mailed to all insurance companies doing business in Alaska during the week of November 14. The annual reports are due in Juneau on or before March 2, 1984. Premium tax payments must be received in the Division of Insurance before April 1. A postage mailing date stamp will not be accepted in lieu of actual receipt.

The 1983 INSURANCE REPORT is now available from the Division of Insurance for $10.00 per copy. Please send checks in advance with order. Make them payable to the Director of Insurance and/ or the Division of Insurance.

SHOW CAUSE ORDERS

83-10: World Underwriters/Richard Buestad

The division negotiated with Corroon Black/Dawson (50% owner of World Underwriters Northwest) a stipulated agreement signed by Richard Buestad (50% owner of World Underwriters Northwest) whereby World Underwriters Northwest agreed to pay a $50,000 fine, $25,000 suspended, and $2,500 to help defray investigative costs. In addition, World Underwriters Northwest agreed to withdraw their request for renewal of their nonresident surplus line broker license and not reapply for any license for two years. The basis for the penalties was the allegation that World Underwriters Northwest transacted business with admitted companies while not properly licensed, altered policies, issued fraudulent endorsements, charged premiums in excess of those reported to the companies and failed to maintain a proper trust account.

83-11: Corroon and Black/Dawson and Company, Inc., Withdrawn without prejudice.

83-12: Rollins Burdick Hunter of Washington entered into a stipulated agreement with the division whereby they agreed to several points, including that they would pay $2,500 to help defray investigative costs and forfeit to the division $7,500, a sum equivalent to the commissions received by Rollins Burdick Hunter of Washington on premium charges based on rates not filed with the division. The agreement was based on the division's contention that Rollins Burdick Hunter knew or should have known that certain policy dailies and endorsements received from an intermediary and given to the insured were not identical with those authorized by the company.

83-13: Alexander and Alexander. Hearing postponed indefinitely.

83-14: Baccala and Shoop entered into a stipulated agreement whereby they agreed to pay a $50,000 fine with $25,000 suspended, provided no violations occur between November 1, 1983 and December 31, 1984. All of Baccala and Shoop's licenses were suspended until December 31, 1984. Such suspension is stayed provided no violations occur between November 1, 1983 and December 31, 1984. The basis for the penalties was the allegation that Baccala and Shoop had acted as a general agent in Alaska without a license, transacted admitted business with improperly or unlicensed individuals and allowed an intermediary to alter policies and to charge premiums in excess of the premium reported to the company.

83-16: Alaska National Insurance Company. Fine levied for dealing with improperly licensed persons.

83-17. John Anderson. Hearing pending.

83-18: Rosemurgy and Company fined $5,000 for an unlicensed trainee adjuster adjusting claims. They are further prohibited from using trainee adjusters for a period of five years.

83-19: F. B. Beattie and Company, Inc. has entered into a stipulated agreement and agreed to pay a $4,000 penalty to the division for acting as a broker without a proper license and provide a list of all business conducted with admitted companies in the past two years. The division has agreed to issue F. B. Beattie and Company, Inc., a broker's license.

83-20: Frontier Underwriters, Inc., has entered into a stipulated agreement and agreed to pay a $4,500 penalty to the division for acting as a broker without a proper license. The division has agreed to issue Frontier Underwriters a broker's license.

CEASE AND DESIST ORDERS

83-12: Automobile Warranty Corporation was ordered to cease and desist from conducting the business of insurance in the State of Alaska without a license.

83-13: Everett Sports Cars was ordered to cease and desist from conducting the business of insurance in the State of Alaska without a license.

83-14: Gold Rush Auto Sales was ordered to cease and desist from conducting the business of insurance in the State of Alaska without a license.

83-15: Universal Dealer Services, Inc., was ordered to cease and desist from conducting the business of insurance in the State of Alaska without a license.

83-16: Stephen J. Way International was ordered to cease and desist from conducting the business of insurance in the State of Alaska without a license.

83-17: Frontier Underwriters, Inc., was ordered to cease and desist from dealing with admitted insurance companies in the State of Alaska.

83-18: Swett and Crawford (Seattle) was ordered to cease and desist from dealing with admitted insurance companies in the State of Alaska.

83-19: F. B. Beattie and Company, Inc. was ordered to cease and desist from dealing with admitted insurance companies in the State of Alaska.

83-20: Don Sherwood was ordered to cease and desist from conducting the business of insurance in the State of Alaska without a license.

83-21: Loveless and Company, Inc., was ordered to cease and desist from conducting the business of insurance in the State of Alaska without a license.

83-22: Seligman and Seligman was ordered to cease and desist from conducting the business of insurance in the State of Alaska without a license.

83-23: Corroon and Black/Carter and Higgins was ordered to cease and desist from conducting the business of insurance in the State of Alaska without a license.

83-24: Cordell Excess and Surplus Lines was ordered to cease and desist from conducting the business of insurance in the State of Alaska without a license.

83-25: Professional Reinsurance Office, Inc., was ordered to cease and desist from conducting the business of insurance in the State of Alaska without a license.

83-26: Swett and Crawford (Dallas) was ordered to cease and desist from conducting the business of insurance in the State of Alaska without a license.

83-27: Stewart Smith Mid-America, Inc., was ordered to cease and desist from conducting the business of insurance in the State of Alaska without a license.

83-28: PENCO was ordered to cease and desist from conducting the business of insurance in the State of Alaska without a license.

83-29: The Nelson Company was ordered to cease and desist from conducting the business of insurance in the State of Alaska without a license.

83-30: GBS Insurance Agency was ordered to cease and desist from conducting the business of insurance in the State of Alaska without a license.

83-31: Alaska Commercial and Marine Insurance Brokerage, Inc./Martin Horn was ordered to cease and desist from acting as surplus lines brokers without a license. Martin Horn was ordered to cease and desist from acting as a broker on Alaska commercial license until qualifies to do so.

83-32: Miro and Associates was ordered to cease and desist from conducting the business of insurance in the State of Alaska without a license.

83-33: Bruce C. Davis was ordered to cease and desist from acting as a broker and dealing with admitted companies in the State of Alaska.

83-34: International Rental Insurance Services, Inc., was ordered to cease and desist from conducting the business of insurance in the State of Alaska without a license.

alaska all lines charter

division of insurance newsletter

VOL. 15, NO. 1 SPRING/SUMMER 1983

DIRECTOR'S COMMENTS

by Kenneth C. Moore

"Change" is a word you hear with increasing frequency. With each change new problems arise. As a regulator of the business of insurance my major concern is Solvency of Insurance Companies.

Insolvencies are occurring with increasing frequency. These events are happening to both life and property and casualty companies. The citizens of Alaska deserve nothing less than the very best. As a producer agent-broker you owe this high degree of responsibility to each member of the buying public. If you have any questions there are some simple steps that can be taken. A few of them are:

1. Check the "Best's" rating. If you do not have a current guide, call the division's office in Anchorage or Juneau.

2. Twice a year we publish a "White List" of companies which meet our unofficial guide for surplus lines companies. Please understand that our publishing of the list is no guarantee of solvency. It simply means that we have made some checks as to capital and surplus. We also follow various guides as to policy service, promptness of payments and a host of other informative information, including trust deposits. We do not deny that there is some subjectivity in the formation of this list. Without the freedom of that choice I would immediately eliminate its publication.

3. Sharing information between us is important. Many of you rub shoulders on the same street with persons who have information. Likewise, I will share with you if you will only ask.

Let's keep our market clean.

PROTECT OUR FISHING FLEET

by John George

Fishing is a major component of the economy of Alaska. Likewise, fishermen are extremely reliant upon insurance for protection of their property and defense of potential liability. Recent events have caused the fishing industry to have some misgivings concerning the integrity of the insurance industry.

The Division of Insurance has revoked licenses of those who may have been a part of this confusion. We found instances of subscription policies which failed to name the security. The division also found policies listing a company actually being written in a different company.

Investigation revealed at hearings that companies were being used whose financial background was suspect. Consequently, we have vessel owners who have hull losses, P and I claims and return premiums unpaid.

It is the duty of the broker and surplus lines broker to determine the substance of the security. No licensee is privileged to pass the blame on to some other wholesale source.

Due to situations described above, many lenders have adopted the director's "White List" as the standard for acceptance of surplus lines companies on mortgaged vessels. Cut rate prices set by the use of unreliable security have become the standard by which all legitimate quotes are compared. Unpaid claims reflect on all insurance companies.

Fishermen contacted by the division have indicated that they do not understand marine insurance and are very dissatisfied with the handling of all marine claims. In order to gain the confidence of fishermen the insurance industry will need to fully explain the options, differences between admitted and surplus companies and the procedures for collecting a loss from insurers.

NONADMITTED CARRIERS
by Dorothy Devinney

A broker selling insurance coverage in nonadmitted carriers should be aware of the consequences to his client and himself should the company not pay a claim due to poor claims practices or insolvency.

Every nonadmitted policy in Alaska is required to have the following wording on it:

> "This contract is registered as a surplus line coverage under the insurance law of Alaska."

In addition to the wording required under AS 21.33-.120, Bulletin 81-4 (Amendment) requires the following wording affixed to the face of the policy:

> "THIS POLICY OF INSURANCE IS NOT COVERED BY THE ALASKA INSURANCE GUARANTY ASSOCIATION ACT."

This lettering must be in red and at least 3/16" high.

The meaning of the above wording should be explained to every insured.

Explanations

It means that the benefits of the State insolvency law do not apply. It means that the insurance director does not have a control over the company, nor can be of any service in claims or have any control over the company's assets.

It also could mean that the broker providing the policy could be held liable for an insolvency, even if the risk is reinsured in a solvent admitted or nonadmitted company.

The benefits of the reinsurance do not flow to the insured, but rather to the receiver of the insolvent ceding company for the benefit of "all" insureds, unless there is a cut-through endorsement.

Every broker should take extra precautions when dealing with a nonadmitted insurer and when covering property outside the State or in dealing with a foreign insurer.

MARKET SURVEILLANCE
by Norm Cheney

Recently, the division has become aware of many illegal activities taking place in the marketplace. These activities range from companies paying commission to unlicensed brokers all the way up to fraud. Many of the activities appear to be the result of intense competition for business in the commercial arena. While the division welcomes and encourages healthy competition in all areas of the insurance market, we would urge all members of the industry to confine their competitive efforts within the legal and moral framework upon which an industry based on trust must rely.

All admitted companies are urged to review their procedures to verify that all agents, brokers and general agents they do business with are properly licensed and that the rates being charged are filed with and approved by this division. Those utilizing schedule rating plans should review Bulletin 82-9 to make sure they are in compliance. When conducting field audits have the auditor look beyond the numbers; quite often irregularities can be picked up through the correspondence in the file. This tactic was instrumental recently in aiding the division in the identification of apparently illegal overcharges totalling almost $78,000.

While the vast majority of agents and brokers licensed in Alaska conduct their business in an ethical manner, there are few that do not choose to follow the rules. These are not the type of representatives the insurance industry needs in Alaska. The division encourages your cooperating in helping to ferret out those undesirable elements for the betterment of the industry as a whole.

Thirteen Alaskan insureds have received refunds and credits totalling $77,995 as a result of an investigation conducted by the Division of Insurance. The cash refunds were $61,443 plus $3,210 interest, in addition one insured received a $13,342 credit on an existing policy. The refunds ranged from a low of $103 to a high of $22,953. The division's three-

month investigation uncovered evidence that the 13 insureds had been overcharged for insurance through the use of allegedly altered policy dailies and forged endorsements. In most cases, it appeared that the producing brokers were unaware of any illegal premium manipulation. The insurance companies whose policies were altered are Twin City Fire, American [illegible]tennial and Old Republic. They, while innocent of any direct involvement in the scheme, agreed to pay to the insureds through their general agent Baccala and Shoop Insurance Services the overcharges plus interest from the date of the overcharge and will be reimbursing the division for investigative expenses. Their cooperation in this matter has been appreciated.

The investigation is continuing and the division expects to issue at least four show cause orders on this matter in July.

BULLETIN 83-5

TO: ALL AGENCIES AND COMPANIES

RE: QUALIFYING TESTS AND EXAMINATION PROCEDURES FOR PRODUCERS

Due to previous problems encountered in the past, new guidelines have been established to permit more efficient and equitable testing procedures, ultimately benefiting all applicants for licensure. These procedures are primarily applicable to the Anchorage and Fairbanks testing facilities.

1. All test fees are payable in advance and must be received in the Juneau office by the Thursday prior to the test.

   A. Test dates in Anchorage are the first and third Thursdays of each month at 7:00 p.m.

   B. There is only one test date per month in Fairbanks, that is the first Thursday of the month at 1:00 p.m.

In Anchorage, all fees are collectible in advance (AS 21.06.250(a)). NO checks will be accepted in the Anchorage office.

2. All applicants are requested to be at the test site no later than 6:45 p.m. to facilitate processing of the admittance cards so the examination may promptly begin at 7:00 p.m. (The test time is 7:00 p.m. to 10:00 p.m.)

3. If your admittance card is lost, not received by the day prior to the test date, or if there are errors on your admittance card, notify Juneau no later than noon, Juneau time, of the test day (10:00 a.m. Anchorage time). Juneau can authorize a new admittance card to be issued by the Anchorage office. You will be required to turn in the old admittance card when you pick up the corrected one. No corrected admittance cards will be accepted at the test site. Identification will be required, along with your admittance card before any applicant will be allowed to sit for an examination.

If an applicant cannot appear on the scheduled test date, they must notify the Juneau office (465-2578) 72 hours prior to the test date for rescheduling. For nonappearance without notification, the fee will be forfeited and another fee will need to be submitted before another examination date is scheduled.

4. When an applicant fails to pass an examination, there must be at least a 20-day study period before retesting. After the third time the applicant has failed to pass the examination, the applicant must wait at least 90 days from the date of the most recent failure before being eligible to retake that examination.

SHOW CAUSE ORDERS

82-8: All insurance licenses of Fred [illegible] Tucker and Fred A. Tucker and Company [illegible] evoked for numerous violations of the Insur[illegible]de pertaining to surplus lines placements o[illegible]ng and vessel insurance.

83-1: Any and all licenses held by John C. Karnos were permanently revoked and fines totalling $35,000 were levied for misappropriating funds for his personal use.

83-2: John C. Murphy entered into a consent agreement in lieu of SC 83-2 for misappropriating funds for his personal use and for acting as an agent without a license. A fine of $1,000 was levied and his adjuster's license was permanently revoked.

83-3: Integrity Insurance Company entered into a stipulated agreement with the director and reimbursed $1,000 in investigation expenses for paying commissions to an unlicensed person or firm.

83-4: Forrest Gene Short's agent's license was voluntarily surrendered until July 1, 1983 for irregularities pertaining to insurance applications.

83-5: Mead Reinsurance Corporation entered into a stipulated agreement with the director and reimbursed $1,000 in investigation expenses for paying commissions to an unlicensed person or firm.

83-6: Planet Insurance Company entered into a stipulated agreement with the director and reimbursed $1,000 in investigation expenses for paying commissions to an unlicensed person or firm.

83-7: Marsh and McLennon (Seattle) was fined $2,000 with $1,432 suspended for failing to file Surplus Line Affidavits from September 1982 - January 1983.

83-8: LaBow Haynes Company, Inc., entered into a stipulated agreement and paid fines of $9,425 for writing insurance without a proper license and dealing with matters outside the scope of their license.

83-9: Fred S. James' hearing for charging a fee in excess of filed insurance rates was postponed until August.

CEASE AND DESIST ORDERS

82-5: Leroy E. Kuehne was ordered to cease and desist from conducting the business of insurance in the State of Alaska without a license.

83-1: S. J. Petrakis Insurance Services, Inc., was ordered to cease and desist from transacting insurance in the State without a license and paid a $2,000 penalty pursuant to a stipulated agreement.

83-2: Alexander Howden Insurance Services, Inc., of Atlanta, was ordered to cease and desist from conducting the business of insurance in the State of Alaska without a license.

83-3: Baccala and Shoop Insurance Services of San Francisco, Los Angeles and Seattle were ordered to cease and desist from transacting insurance in the State of Alaska without a license. A fine of $2,000 was levied by stipulated agreement.

83-4: Patricia Fleischman, Inc., was fined $2,000 for dealing with an unlicensed producer in Alaska by the terms of a stipulated agreement.

83-5: Independent Contractors-Operators Association was ordered to cease and desist from conducting the business of insurance in Alaska without a license.

83-6: Patrick Hines was issued a Cease and Desist Order to stop the practice of insurance in Alaska with out a license. Mr. Hines was subsequently issued an agent's license.

83-7: Aviation Insurance Unlimited Agency, Inc., was ordered to cease and desist from conducting the business of insurance in Alaska without a license.

83-8: John Robbins and Lightwing Insurance Agency was ordered to cease and desist from conducting the business of insu ance in Alaska without a license.

83-9: Samuel W Hartman was ordered to cease and desist from conducting the business of insurance in the State of Alaska without a license.

83-10: Not issued.

83-11: World Underwriters Northwest, Inc., was ordered to cease and desist from acting as a broker as they are only licensed as a nonresident surplus line broker.

BULLETINS

82-9: Schedule or Individual Risk Modification Plans. This bulletin eliminates aggregate limitations on schedule or individual risk modification plans for property and casualty. Rate modifications are limited, however, to the extent that they must be justified and shall not be discriminatory.

83-1: Notifies all resident and nonresident surplus line brokers that International Indemnity Company of Texas has not been approved for our "White List."

alaska all lines charter

division of insurance newsletter

VOL. 14, NO. 1 FALL/WINTER 1982

DIRECTOR'S COMMENTS
by Kenneth C. Moore

TIME FOR REVIEW

In March 1979, I listed my specific philosophies and goals for the Division of Insurance.

My Philosophy remains the same.

Here are the goals restated. True evaluation must come from you, to see how we have measured up to the goals. I would appreciate your comments on how I view the results:

1. To bring the personnel of the Division of Insurance into closer contact with the public.

   Result - Through public hearings, seminars, and literature, we have exposed ourselves. Inquiries are increasing, which would indicate some success.

2. To personally visit as many cities and villages as the travel budget will permit.

   Result - We have tried. Alaska is a huge area. We will continue in this effort.

3. To publish an educational handbook on automobile insurance covering rate making factors and tips on securing automobile insurance.

   Result - This book as well as one on homeowners has been published, the demand has been heavy.

4. To hold hearings in as close proximity as possible to the principals of such hearings.

   Result - Completely accomplished for Alaskan residents.

5. To utilize the Division of Insurance financial and market surveillance personnel on any questions of solvency or market conduct where such action is justified and do so without delay.

   Result - In the admitted market our efforts need improvement. In the Surplus Lines Market our actions have brought better results.

6. To personally make contacts in the insurance world that hopefully result in the insurance companies competing for business.

   Result - There is now intense competition. The marketplace in many instances has corrected itself. Our sales effort in Workmen's Compensation and Nonstandard Automobile Insurance has been a notable success.

7. To encourage the insurance companies writing business in Alaska to invest portions of their assets in Alaska enterprises.

   Result - Success here has been beyond our fondest expectations. Investments have expanded at the rate of approximately one hundred million dollars per year. In this we had the wholehearted assistance of our staff and from our agents and brokers.

2. Employees of admitted insurers need not be licensed to solicit, bind or otherwise carry on the business of insurance for their employer.

Licensees must also limit their insurance dealings to those types of insurance for which they are licensed. The most frequently noted violations are agents acting as brokers and agents or brokers acting as surplus line brokers.

TO COMPANIES APPOINTING AGENTS:

Agent appointment Forms 08-230 not submitted in four copies, typewritten, and signed by an authorized person will no longer be accepted by the division. Deviation from this in the past has caused delays in issuing appointments and overall confusion. We will be better able to serve you under the new procedure.

ATTENTION RESIDENT BROKERS:

Broker licenses will be up for renewal December 31, 1982. The division will attempt to send a renewal Form 08-266 sometime before the first of December. If the form has not been received before the time indicated, notify our office in Juneau or Anchorage so a form can be sent or picked up. Submit forms and fees on time or a late filing may result in a penalty.

SHOW CAUSE ORDERS

81-14: Barry Callahan's agent license was revoked and fines totalling $850.00 were levied for submitting false applications for insurance.

81-11: Lawrence M. English's life agents license was revoked and fines totalling $4,000.00 were levied for soliciting surplus lines insurance without an appropriate license.

81-16: Neil Padgett, Harold Wurster, and John Kelczewski all had their life agents licenses permanently revoked and fines totalling $1,650.00 were levied for trade practice violations committed as agents of Combined Insurance Company of America. Combined entered into an agreement limiting the scope of their future operations in this State and agreed to reimburse the State for up to $20,000.00 in past and future investigation costs related to their agents.

82-2: Greg Parks entered into a settlement agreement for operating without a valid license for a period in excess of one year. A penalty of $2,000.00 was levied.

82-3: Bayly Martin and Fay, Clyde Clary, Lois Clary, Jack Katzenmeyer, and Mary Shields have each entered into an agreement in settlement of Show Cause 82-3.

BMF as owners agreed to closely monitor their Aiaska operations in the future and pay a $75,000.00 fine. BMF was dismissed from further actions without prejudice.

Clyde Clary's licenses were revoked and a fine of $75,000.00 was levied with $70,000.00 suspended provided that he commit no further violations of AS 21.

Lois Clary's surplus lines brokers license was revoked and fines of $50,000.00 were levied with $45,000.00 suspended provided that she commit no further violations of AS 21 during the next five years. She is also prohibited from dealing with premium finance matters for five years.

Jack Katzenmeyer agreed not to violate any part of AS 21.

Mary Shields was fined $10,000.00 with $9,000.00 suspended provided that she not violate AS 21 during the next five years. She is prohibited from exercising any signatory powers on behalf of any insurance agency in this State.

82-5: Lambert "Pete" Peterson hearing was continued pending the outcome of criminal proceedings against him. NOTE: Peterson was convicted on seven criminal counts. Sentencing has been set for January 14, 1983. Peterson has announced his intent to appeal.

82-7: Gail Brewer's insurance licenses were revoked for unfair trade practices relating to his failure to place coverage despite his assurances to the client that coverage was in effect at all times.

CEASE AND DESIST ORDERS

81-15 & 81-16: Robert and John Deck were ordered to cease and desist from soliciting insurance without a license.

82-2: Cease and Desist Order issued to Alaska Shield for acting as an insurer without a Certificate of Authority. On appeal a hearing has been set for March 1983 with the concurrence of all parties.

82-3: Property Management Service, Inc. was ordered to cease and desist from solicitation of insurance without a license.

82-4: Midwest Mutual Insurance Company was ordered to cease and desist solicitation of insurance in the State of Alaska without a Certificate of Authority.

BULLETINS

82-1: Notifies all resident and nonresident surplus lines brokers that surplus line affidavits must be filed within 30 days of the end of the month for which the report is made.

82-2: On February 2, 1982, the director issued an updated list of eligible unauthorized insurers who have met Alaska's minimum trust or capital and surplus requirements.

82-3: The director continued permission to place aircraft workers compensation in the surplus lines market. This bulletin also sets out certain conditions on the placement of this coverage.

82-4: Rescinded

82-5: Advised all insurers of possible delays caused by renovation of the Juneau office. Renovation was completed October 14.

82-6: On August 10, 1982, the director issued an updated list of eligible unauthorized insurers who have met Alaska's minimum trust of capital and surplus requirements.

82-7: Removed Oceanus Mutual Underwriting Association from the "White list" of approved unauthorized insurers on October 7, 1982.

82-8: Notified all surplus lines brokers to cease using Amherst Insurance Company. The company is in receivership.

REGULATORY ORDERS

81-6: Adopted medicare supplement regulations.

81-7: Authorizes political subdivisions as a qualifying group for life and disability coverages.

81-8: Requires insurers to adopt supplement payment coverage pertaining to attorney fees.

81-9: Pertains to filings by title insurers.

81-10: Adopted regulations pertaining to variable life insurance.

81-11: Approved merger of INA Corporation and Connecticut General Corporation.

81-12: Approved the application of Alaska National Insurance Company to invest in a wholly owned subsidiary in order to acquire ownership in their home office building.

82-1: Repeals regulations pertaining to deposits required by insurers holding a Certificate of Insurance.

In this newsletter we have omitted the changes in company names and companies newly admitted to conduct business in the State. Copies of these lists are available upon request. Please enclose a stamped self-addressed envelope with your request.

STATE OF ALASKA 1984 LEGISLATIVE SESSION
FISCAL NOTE

Revision Date: 3-29-84

REQUEST
Bill/Resolution No.: CSHB 505(L&C)
Title: Insurance

Sponsor: Labor and Commerce
Requestor: Labor and Commerce
Date of Request:

FISCAL DETAIL
Agency Affected: Commerce and Economic Dev.
Program Category Affected: Public Protection

BRU, Program or Subprogram(s) Affected:
Division of Insurance

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 84	FY 85	FY 86	FY 87	FY 88	FY 89
OPERATING	0	0	0	0	0	0
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 SUPPLIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS						
800 MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENEPAL FUND	0	0	0	0	0	0
FEDERAL FUNDS						
OTHER						
TOTAL	0	0	0	0	0	0

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

ANALYSIS: Attach a separate page for analysis

Prepared By: Kenneth C. Moore, Director
Phone: 465-2515
Division: Insurance
Date: 3/29/84

Approved by Commissioner: Richard A. Lyon
Date: 3/29/84
Agency: Commerce and Economic Development

Distribution (by Agency preparing fiscal note):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

12/1/83

STATE OF ALASKA 1984 LEGISLATIVE SESSION
FISCAL NOTE

Revision Date:

REQUEST
Bill/Resolution No.: HB 505
Title: Insurance

Sponsor: Martin
Requestor: Labor & Commerce
Date of Request:

FISCAL DETAIL
Agency Affected: Commerce & Economic Dev.
Program Category Affected: Public Prot

BRU, Program or Subprogram(s) Affected:
Division of Insurance

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 84	FY 85	FY 86	FY 87	FY 88	FY 89
OPERATING	0	0	0	0	0	0
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 SUPPLIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS						
800 MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND	0	0	0	0	0	0
FEDERAL FUNDS						
OTHER						
TOTAL	0	0	0	0	0	0

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

ANALYSIS: Attach a separate page for analysis

Prepared By: Kenneth C. Moore, Director Phone: 465-2515
Division: Insurance Date:

Approved by Commissioner: Richard A. Lyon Date: 1/20/84
Agency: Commerce & Economic Development

Distribution (by Agency preparing fiscal note):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

12/1/83

HB

508

United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada

Composed of journeymen and apprentices who have jurisdiction over every branch of the plumbing and pipe fitting industry

LOCAL NO. 262

STREET ADDRESS 245 Marine Way #7

CITY, STATE, ZIP Juneau, Alaska 99801

SUBJECT MATTER

DATE

January 31, 1984

Mr. Chairman, Committee Members,

My name is Dwight Perkins and I am the Business Manager for the United Association of Plumbers & Pipefitters Local Union 262 in Juneau, Alaska. I am also speaking on behalf of the Alaska state Pipe Trades Council of the United Association with a membership of two thousand state wide.

I've come to speak in oppostition of House Bill 508, an act realating to the Plumbing code. I would like to give you some background of the code and address some concerns that we have.

In October 1981 at it's 52nd. Annual Conference, the International Association of Plumbing and Mechanical Officials adopted the Uniform Plumbing Code, 1982 edition. Up until 1982 all such codes had limited the use of polybutylene, Polethylene, Polyvinal Chloride and Asbestos Cement Pipe for water distribution systems outside of a building, under section 1004 materials.

In addition section 401-materials limited the use of ABS and PVC Piping installation for drainage and venting systems to residential construction, not more than two stories in height.

The 1982 addition of the Uniform Plumbing code has lifted restrictions regarding the use of PB water pipe under section 1004 so that now it may be used for hot and cold water distribution systems within a building.

In Section 401, ABS and PVC Piping installations can be used where all combustible construction is allowed.

Because of the less stringent attitudes the International Association of Plumbing and Mechanical Officials has adopted raises several issues of concern not only here in Alaska but nationwide.

The issues I would like to address regarding the use of plastic pipe, whether PB., PVC, asbestos cement pressure piping or ABS presents the following problems:

1. Durability

2. Thaw ability in Arctic regions as well as other parts of the state.

3. Fire Hazards (both combustibility and gases released upon combustion)

4. Use of water system as the electricial "ground"

5. Permeability and related public health issues

6. Worker safety

1. Durability In discussing the issue of Durability the most obvious difference between plastic and metal pipe is durability. Some of Alaska is earthquake prone and hence durability can be quite important. In construction of large residential buildings and commercial buildings, the increased usage makes durability important. This issue has the advantage of being self evident. Cast iron, mallable iron or copper piping and its qualities are apparent to all and a comparision with the qualities of plastic, particularly in temperature extremes such as those in the interior, needs no further amplificiation.

2. Thaw Ability The issue of thaw ability in arctic regions as well as other parts of the state is cause for concern in that sometimes pipes freeze. The common methods of thawing pipes are (a) the use of propane torches, (b) the use of steam, and (c) the use of clamp on electricial generators. Noe of these can be used on plastic pipe. In any installation where the freezing of a pipe represents a danger to either a considerable investment or a large number of people, the ability to thaw is

important.

3. Fire Hazards The 1979 edition of the Uniform Plumbing code states that ABS or PVC installation be limited to residential construction, not more than two stories in height. The 1982 UPC states that ABS and PVC piping iinstallation shall be limited to the structures where combustable construction is allowed. It also states that PB pipe may be used for hot and cold water distribution system within a building. The problems in this area are twofold. First, plastic pipe will burn. In burning, the plastice makes itself useless as a pipe and hense terminates the water which is often necessary to fight a fire. Additionally the burning of the pipe generates gases.

4. Grounding Most modern construction involves electricity. Electricity presents the problem of short circuits. Almost all communications that use electricity require additional grounding. Traditionally, this grounding is done through the water system in a building. In a plastic pipes water system, there is no readily available ground. If the water has sufficient mineral content and if the grounds are inserted through the pipe, adequate grounding may occur. Otherwise the defense against electricial accidents and fires is worthless in plastic piped building.

5. Permeability Recent tests in California have duplicated field and laboratory experiences of water utility

districts and enviromental health experts concur that ploy vinyl chloride (PVC), Polyethylene (PE) and Polybutylene (PB) water service lines can be and are permeated by gasoline, petroleum distillates and industrial solvents. The Public Health impact can be serious enough to require the removal of an entire underground network of plastic water service lines and may cause serious health consequences for its consumers. Since plastic pipe was found to have a potentially adverse effect on the environment and because of its threat to water quality, worker safety, and fire safety, state agencies in California will not allow its expended use until all scientific and public health questions have been answered.

Because the International Association of Plumbing and Mechanical Officials proceeded with the expanded use of plastic pipe in its 1982 Uniform Plumbing Code, a colition of state public and private consumer groups, environmental and labor organizations sued I.A.M.P.O. and forced a notice of disclaimer at each location in the code where plastic pipe is mentioned.

6. Worker Safety Assemblage in small construction quantities such as residential housing, do not normally bring workers beyond the dangerously toxic levels of exposure to the Benzene, Chloroform and kindred glue. On larger projects, the time spent on their assemblage puts workers beyond the safe limits of such exposure and in effect forces him to sniff glue. Because the damage from these chemicals is permanent and irreversible, the united association and its members strenously object to the

current state of the art process for assembling plastice pipe.

In closing, I would ask that you consider holding House Bill 508 in Committee and review the amdenments the muncipality of anchorage has adopted regarding the 1982 edition of Uniform Plumbing Code.

LEGISLATIVE PROPOSAL ANALYSIS

Subject of Proposed Bill:

"Adoption of 1982 Uniform Plumbing Code"

Background Information:

Every third year, the International Association of Plumbing and Mechanical Officials adopts a revised plumbing code incorporating advances and improvements in technology. During the Twelfth Legislature, the department did not propose legislation to adopt the 1982 version of the Uniform Plumbing Code because there were conflicts between the Uniform Plumbing Code and the Uniform Building Code. The Department of Public Safety (Fire Marshall's Office) will propose legislation to adopt the most recent edition of the Uniform Building Code which is consistent with the 1982 Uniform Plumbing Code.

Summary:

The most noticeable changes in the plumbing code are as follows:

Section 108 allows for a larger grease interception to serve one or more fixtures. Section 203(d) states that copper tubing used for water service shall have a weight of not less than Type L.

Table 4-3, footnote #4. Evidence indicates that a three-inch horizontal waste will effectively handle discharge from three water closets; thus the code change, so that only four water closets or six unit traps are allowed on any vertical stack, and not to exceed three water closets or six unit traps on any horizontal branch or drain.

Section 601 changes will not allow cold storage rooms, refrigerators, cooling counters, etc. designed to hold food or drink, or sinks for washing or preparation of food, to be directly connected to a waste or vent pipe. All drains shall discharge through an air gap into a open drain or approved receptor.

Section 1004 is one of the major changes, and allows Poly Butylene (PB) water pipes to be used for hot and cold water distribution tubing systems, using inserts for connectors. It also inserts language to assure that when metal pipe is used as a building ground, it will be replaced by metal pipe when repairs are made to these pipes.

Also adopted were insulation standards for cold water service and yard piping. These standards were for Poly Vinyl Chloride (PVC), asbestos cement pressure piping and Poly Butylene (PB).

Those groups most affected by this change will be plumbers, contractors, local governments and state agencies issuing building permits.

Estimated Fiscal Impact: (FY '83 - FY '87)

To the state: -0-

To others: -0-

V CEQA SUMMARY

This chapter covers various information not presented earlier but required by the California Environmental Quality Act (CEQA) for Environmental Impact Reports. As this document is a preliminary environmental review, this section has not been fully developed. When the draft and final versions of the EIR are proposed, it is likely to expand and some of the findings will undoubtedly change or at least be stated more confidently.

A. Significant Unavoidable Environmental Impacts

For this preliminary environmental review of a very subtle and complex proposal, SRI chose to describe our current overall conclusions about the proposed plumbing code changes and our reasons for them, without making definitive findings of significance except where they were clearcut.

First, we discovered nothing to suggest that the issues discussed earlier as the prime ones are insignificant or that other issues are dominant. The only new issue of potential significance that surfaced was the permeation of buried plastic pipe by contaminants in soil and the resulting possible public health impacts. Although the possibility that such effects could occur from permeation of water supply lines from the meter to the house is plausible, any potential problem would also occur--probably in much greater proportion--from the public water distribution system. This problem should be re-examined when better understood and if found significant should influence state policies with respect to plastic use in both public and residential systems. With

adequate education of building inspectors on the permeation issue, improper installation of plastic water service in contaminated soils should be rare.

As to public health impacts from chemicals leaching from water pipe into potable water, we find that significant impacts are possible but unproven, both for plastic pipes--especially the chlorinated varieties--and for metal ones, specifically copper systems. If the upper ranges of possible concentrations of leachates are regularly reached, the cumulative risks to public health may be high enough to be of concern by typical standards of acceptable risk, for example, a lifetime cancer risk of one in a million. The chemicals of concern are lead from the solder in copper pipes, possibly leading to neurologic disorders, and carbon tetrachloride, perchloroethylene, and trichloroethylene from plastic (especially PVC and CPVC) pipes, possibly resulting in cancer.

Two major considerations limit the significance of the findings. First, the status of information about long-term levels of leachates is exceedingly flimsy. Reasonable further testing could resolve at least part of the uncertainty (see Section VI). Second, the risk assessment procedure is moderately conservative. If risks still appear to be of concern after concentrations are better known, more attention would need to be devoted to assuring that the assessment procedure took into account detailed properties of the chemical. Finally, thorough initial flushing would effectively mitigate the effects of the rapidly leaching materials, especially the solvents used with plastic pipe. Overall, current information does not establish an environmental preference between copper and plastic pipe, with neither clearly likely to cause a great number of deaths or serious illnesses.

For worker safety and health, a similar situation exists. Both lead from solder fumes in installing copper pipe and solvents from installing ABS, PVC, and CPVC pipe could be hazardous if plumbers have high exposures by inhalation; dermal absorption could also be significant in the case of solvents. The diseases of concern for solder fumes are related to the lead exposure and are neurologic. The solvents may also cause nerve damage, and

they may be involved in liver damage or reproductive problems as well. However, they are not implicated in cancer unless benzene is more common than thought. Unless the NIOSH report about to be released resolves the range of exposures satisfactorily, further testing would be useful before completing the EIR. Safety issues generally favor plastic over metal, which appears to lead to more burns (hot solder and especially flux) and strains and contusions (from heavier metal pipes). PB (like PE, although its uses are not proposed for change) poses little if any worker safety and health concern. Use of gloves, other protective equipment, ventilation, and simple care will significantly reduce any potential hazards from either plastic or metal pipe, but these practices have not achieved widespread acceptance among plumbers.

Fire safety is a very real concern with plastic DWV pipe; ABS is combustible, and PVC and CPVC will at least soften and slump in lines. If these plastics are installed as direct substitutes for metal, as they already are in non-fire-rated residences, they will degrade the fire resistance of structures. The gaskets in no-hub cast iron will also fail in fires and cause the pipe to fall, leaving fire passages. But the proposed code changes apply to fire-rated, fire-resistive construction that could retain its fire rating if appropriate installation procedures are developed and enforced. In such conditions, no degradation of fire resistance would occur. This issue thus turns on enforcement, not science. The potable water pipes, kept cooler by the water inside and of much lower mass, are not a significant fire safety issue.

As with fire safety, smoke toxicity is an issue in which plastic can only be less environmentally acceptable than metal. However, whether the difference is significant is less certain. Both ABS, which seems likely to contribute the majority of pipe mass in California, and the polyolefins PB and PE produce combustion products that are not highly toxic; few if any additional fatalities or serious injuries would be likely from their combustion. PVC and CPVC both produce significant quantities of hydrogen chloride vapor in fire environments, and this corrosive material could, under certain circumstances, make a difference in the probability of human

survival in lines. The frequency of such occurrences is clouded by lack of a generally accepted test for smoke toxicity. This problem is currently being addressed both by the State of California Department of Industrial Relations and by the State of New York. We believe OHCD should pay close attention to results from those studies, but does not need to delay a decision solely on those grounds.

No other significant adverse impacts are likely to result from the expanded use of plastic plumbing pipe if relatively simple mitigation measures are taken. Plastic drain pipes may be slightly noisier than cast iron pipe. See the following section (V-B) for further elaboration.

Overall, the SRI study team sees little evidence that expanded use of plastic plumbing pipe would cause significantly greater environmental problems than the materials it would replace. Unfortunately, lack of evidence is not the same as lack of hazard. We believe it is especially important to gather more information on leaching of chemicals from both plastic and metal pipe systems into potable water and on the exposures of plumbers to material from plastic (ABS, PVC, CPVC) and metal (copper) plumbing systems.

Table V-1 summarizes our present assessment of our relative environmental concern about pipe systems. There we show our relative degrees of concern for different materials for each of the major areas of impacts. A high rating does not necessarily mean an impact that is significant in the sense of CEQA, but does mean that the material rated seems to us more likely to be environmentally harmful than other materials on that dimension. For example, the chlorinated plastics clearly are of highest concern for smoke toxicity, but may not pose any significantly higher impacts in the proposed new DWV uses (fire-resistive construction).

Table V-1

RELATIVE DEGREE OF CONCERN REGARDING
POTENTIAL ENVIRONMENTAL IMPACTS*

Impact Area	Potable Water				Drain, Waste, and Vent			
	Plastic		Metal		Plastic		Metal	
	PB/PE	PVC/CPVC	Copper	Galv. Steel	ABS	PVC/CPVC	Copper/ Gal. Steel	Ca Ir
Public Health	3	4	3	3	0	0	0	
Worker Safety	1	2	4	2	2	2	3+	
Worker Health	0	3	4	2	4	4	3+	
Fire Safety	3	2	0	0	5	4	0	
Smoke Toxicity	1	3	0	0	3	5	0	
Other Impacts	0	0	0	0	1	1	0	

*Key: 0 - No concern
1 - Considerably less concern than average
2 - Less concern than average
3 - About average concern
4 - More concern than average
5 - Considerably more concern than average

Note: High relative concern does not necessarily imply high absolute concern; significance of ratings depends on mitigation measures taken.

+More for copper, less for galvanized.

B. Insignificant Effects

The following environmental effects of expanded uses for plastic plumbing pipe may occur but are probably insignificant by any reasonable interpretation of CEQA:

- Plastic pipe systems may fail slightly more frequently than metal systems until a body of experience with installation errors has accumulated.
- Plastic pipe will consume slightly more petroleum than metal pipe, but slightly less energy overall.
- Plastic pipe will contribute a slightly different load of pollutants to public waste water treatment systems, but the direction of impact, let alone its magnitude, is uncertain.
- Plastic DWV pipe will be slightly noisier than metal systems if installed so as to contact wall surfaces; this may be more significant than otherwise in the multifamily, fire-rated construction that is affected in the DWV code changes.
- Plastic DWV pipe could be damaged by pipe cleaning equipment, but because of its resistance to corrosion, the frequency of such cleaning should be low.
- Plastic pipe will slightly decrease the life-cycle cost of plumbing and therefore of housing, but not enough to change demand patterns or growth.
- Small shifts in employment from metal pipe manufacturing to plastic pipe manufacturing will occur.
- A small reduction in the work of plumbers will occur, mostly as a result of repair and renovation work by do-it-yourselfers.

C. Effects of Alternative Actions

In addition to the proposed project, e.g., the proposed change to the 1982 Uniform Plumbing Code (UPC) allowing certain new uses of plastic plumbing pipe as described in the Project Description, this environmental review has examined the potential effects of alternatives to the proposed project on the quality of the natural and human environment. The eventual EIR will consider alternatives as well as the project itself to provide a

baseline for evaluating the significance of the impacts and to provide possible alternative courses of action should the proposed project create significant adverse impacts that cannot be successfully mitigated. With this goal in mind, the alternatives we have selected for analysis are no changes to the state code, partial approval of plastic pipe use, and complete rejection of all plastic pipe (that is, reversal of earlier provisions allowing certain uses of plastic pipe).

Under the no-action alternative, there would be no changes in the state code regarding the use of plastic plumbing pipe. All currently approved uses for plastic pipe would continue to be permitted and no new uses of plastic pipe would be allowed. None of the impacts attributable to the use of plastic pipe in expanded applications would be observed; any public health and worker safety and health effects of currently allowed plastic and metal piping systems would persist.

The partial approval alternative would amend the state code to permit certain new uses of plastic pipe, but not all of the new uses proposed under the project. Counting cold and hot water supply in a given application as one new use, the proposed project would change the code to permit 11 new uses of plastic pipe (i.e., 1 new use for ABS pipe, 3 for PB pipe, 1 for PVC pipe, and 6 for CPVC pipe). Considering all the possible combinations of these uses, over 2,000 partial approval alternatives are possible.

Our analyses of the environmental consequences of the proposed project have guided our selection of the subset of the partial approval alternatives to be considered in the EIR. That is, we define the partial approval alternative(s) to permit those new uses of plastic plumbing pipe that are least likely to have significant adverse effects on the quality of the natural and human environment. At present, the only partial alternative that seems reasonably certain to meet this requirement is to allow PB for hot and cold water supply both outside buildings and inside buildings that are not fire-rated or within the fire-resistive construction of fire-rated buildings. No other new uses of plastic pipe would be allowed. Parenthetically, there seems little reason to prohibit PB in exposed

locations of fire-rated buildings as long as the penetrations of fire-resistant construction are designed to maintain the rating of that construction. The state of information on the impacts of this alternative is generally the same as on those of the metal water pipe currently allowed for these two uses. Although PB will certainly burn and metal will not, the additional risk of fire spread appears minimal, as does that of smoke toxicity. Leachates from PB have not been shown to be risk-free, but neither have those from copper or galvanized steel. Of the two plastic alternatives, PB is somewhat less likely to be a public health hazard than CPVC, although the relative ratings of PB, CPVC, copper, and galvanized steel will not be clear without further testing (see Section VI). PB is clearly a preferred material, from the worker safety and health viewpoint, compared both with metal systems and with plastics that require cementing.

Under the option of disallowing currently allowed uses of plastic pipe, any impacts of these materials would disappear and those of metal systems reappear. The possibility of permeation of water supply piping by organic contaminants would decrease to the extent that PVC and PE supply lines would be replaced by metal with impermeable joints (but even metal pipe joints can be permeable). Leachates from PVC and PB would be replaced by those from copper, with no clear impact, positive or negative, on public health. The metal pipes would be somewhat more likely to corrode in soil than plastic (galvanized steel is not recommended for buried supply lines). Only small changes in worker safety and health would result from the changes in water supply piping.

Any major impacts of disallowing current uses of plastic pipe would be associated with the widespread use of ABS (and less widespread use of PVC) in DWV applications. Fire load and fire spread would be reduced in nonfire-rated construction. It is probable that few fatalities or little property damage would be avoided by this action, but both are possible benefits. Smoke toxins would also decrease somewhat, especially if PVC were replaced. The decrease in plumbers' exposures to solvent cements would be offset by increased work-related injuries from working with cast iron and, to some extent, with soldered joints in copper DWV. Whether the net effect

on worker safety and health would be positive or negative is difficult to predict, given the current lack of information on plumbers' exposures.

Finally, the alternative that would disallow current uses of plastic would transfer some profits and jobs from the plastics to the metal pipe industries. Since large quantities of DWV are involved, these impacts would probably be greater than those for the prime project alternative of allowing expanded uses of plastic pipe. Houses could become more expensive, depending on the prices of cast iron and copper, but probably not enough to significantly affect the demand for housing.

In summary, the alternative of approving only the expanded uses of PB appears to pose fewer environmental risks than does the full proposed project given the state of current information. Because metal systems also pose some unique risks and may be comparable to plastic systems in other risk areas, we are not prepared to say that the no-project alternative or the alternative that would disallow current uses of plastic are environmentally preferable to the partial approval alternative, or even to the full proposed project.

D. Cumulative and Long-Term Implications

Increased use of plastic plumbing pipe can contribute to cumulative environmental impacts in two ways.

First, the sum of the environmental impacts of plastic pipe could be significant even when no one individual impact is deemed significant. In the case of plastic pipe, the most plausible example is for the various leachates that could each contribute to public health impacts. For example, no one leachate might reach the level of 10^{-6} lifetime risk for cancer, but the cumulative risk of all leachates acting together might exceed that level. Given the current uncertainties about the public health impacts, especially those concerning the long-term levels of leachates in drinking water, we are unable to determine whether the cumulative impact is

significant. A similar situation is found with worker health impacts, where the risk of one solvent might be insignificant, but that of two or more could be significant. For fire safety, the cumulative impact of all the proposed new uses for plastic pipe are likely to be dominated by the new DWV uses; the contribution of PW pipe is likely to be negligible. The same is true of smoke toxicity, except that the combined affect of HCl, CO, and other toxicants could be significant even when the effects of any one alone were not.

A second issue of cumulative impact is the question of whether the expanded use of plastic water pipe would add to the impacts of other similar actions and in total create a significant effect even though the use of plastic water pipe is not itself significant. We can consider two levels of cumulative impacts:

- Cumulative impact of expanded and existing use of plastic plumbing pipe.
- Contribution of plastic plumbing pipe to total use of plastic products.

As has been made clear earlier, the expanded uses of plastic pipe are in many ways rather small in comparison to existing approved use of plastic pipe. Most new California houses are already being plumbed with ABS DWV if they are not fire-rated; the addition of 10% (by weight) more plastic pipe as PB or (less likely) CPVC water pipe will be of little consequence for fire safety, especially as water piping is less sensitive. The increase for plastic pipe in fire-rated construction, of course, is total since no plastic is being used now; however, if ways of maintaining the rating are developed as required by code, little fire safety impact would be expected. Similarly, the cementing of plastic potable water pipe is probably much less of a problem for workers than the cementing of already approved ABS DWV. Thus, the greatest issue of cumulative impact involves public health impacts, in which plastic in residences can add to plastic in public utility distribution systems. We have no way of estimating the relative contribution of each to the total hazard, as the source of contaminants

found in the water supply (control) during leaching tests is not known. We doubt that the combined effects of distribution and residential piping would be significant if neither one alone were, but we cannot rule out that possibility. Similarly, permeation of plastic distribution pipes by toxic substances is more likely than it is for residential piping systems, but the significance of either, in terms of an overall risk assessment, will not be clear for a long time.

With regard to plastics in total, the expanded uses of plastic pipe will be a relatively small contribution in most respects. Plastics are by now endemic in our society. Most of the contaminants of PVC and CPVC that could be public health hazards will be ingested in much greater quantities from other PVC products such as food containers or, in the case of some of the chlorinated methanes, simply from waste products reaching the raw water supply. Those from PB and PE are similar to those from PE food contact materials. If plasticizers do contaminate plastic pipe, they will still do so at much lower levels than they do in any number of plasticized products to which people are regularly exposed, such as flexible vinyl upholstery (where they would yield inhalation rather than ingestion exposures). But equally clearly, plastic pipe does contribute to the total load of plastic-related hazards in California--for example, to the total of all combustible plastics in residences. The hazards from the total use of plastics are undoubtedly appreciable, even though nearly impossible to estimate. Whether or not they are greater or less than the hazards of the materials they replace is perhaps even more difficult to state. About all that can be said is that plastic pipe is not an unusually prominent or special case among plastics in general.

CEQA also requires an assessment of whether long-term environmental costs will be incurred as a result of short-term economic or other benefits. Certainly, any public health impacts of plastic pipe that do occur will probably be delayed for decades, as will some of the worker health or smoke toxicity impacts. However, for the purpose of determining the environmental consequences of the expanded uses of plastic pipe, those

should be counted as current impacts, and not discounted in comparison with current benefits. We believe that, when it is viewed from this perspective, this CEQA issue is irrelevant to the decision at hand.

E. Significant Irreversible Changes

CEQA also requires an assessment of environmental changes or consumption of resources that would be permanent and irreversible. For example, the mining of a mountain is an essentially irreversible impact, whereas most air pollutants and their impacts would disappear once the source of pollution is removed.

In the case of the expanded use of plastic plumbing pipe, there would be a small permanent commitment of petroleum resources (but not other energy sources) to the manufacture of the pipe constituents. Total energy resources would be conserved to a slight degree. If any deaths occurred as a result of diseases caused by leachates or occupational exposures, or from fire or smoke toxicity, they would also be irreversible. If plastic pipe were later disapproved, the occurrence of new fatalities would gradually disappear. Some of the leachates from plastic pipe are mutagens and some mutations can be heritable. Thus, it is possible that a heritable--and more likely than not adverse--mutation could persist in the population as a result of drinking from plastic water pipes. Neither the specifics of the leachates in water from plastic pipe nor the overall state of the art of genetic risk assessment allows an evaluation of this possibility at present. If the impacts of plastic pipe eventually were judged unacceptable, it is possible that the metal pipe industry would have declined by that time to the point at which it would prove difficult to revive, but that possibility is also extremely speculative. Overall, we believe that the reversibility of the impacts is not as important an issue to resolve as the magnitude and significance of current impacts.

F. Growth-Inducing Impacts

California's population is projected to increase from the 1980 total of 23.8 million people to 25.9 million by 1985 and to 27.9 million by 1990 (California Department of Finance, 1981). The proposed code change is not likely to significantly affect this forecast population growth for the following reasons. First, the reduction in the cost of housing construction that would result from use of the newly permitted plastics in place of currently approved plumbing materials is so small that it would have virtually no effect on the sales price or rent of dwelling units in the state. Therefore, there will be no change in the demand for housing and consequently no additional in-migration of residents who would be attracted by a drop in the price of housing. Second, the plumbing material substitutions that are likely to result from the proposed code change would not significantly affect employment opportunities in the state and so would not affect the in-migration and out-migration forecasts. Nor would either housing prices or employment opportunities significantly affect shifts in population from one part of California to another.

Bill No. House Bill 508

Date January 26, 1984

Title "An Act relating to the Plumbing Code."

Contact: Eileen Plate
465-2700
Bob Bacolas
465-4870

Every three years, the International Association of Plumbing and Mechanical Officials revises its minimum standards for the installation of plumbing to incorporate technological advances. The 1982 code described in this bill is the most recent effort in this regard. The 1979 code presently in effect for the State of Alaska is therefore outdated and will not be reprinted by the International Association of Plumbing and Mechanical Officials.

Adoption of the 1982 Uniform Plumbing Code would bring Alaska's minimum standards into conformity with those commonly accepted and used by industry across the nation. The latest edition of the Uniform Plumbing Code is also commonly adopted by political subdivisions in the state as the minimum standards enforced under their building inspection programs.

Since the time the 1982 code was adopted by the International Association of Plumbing and Mechanical Officials, a number of water quality, worker safety and fire safety questions have been posed nationally concerning 1982 code provisions which permit the use of plastic pipe (section 401 of chapter 4 dealing with drainage systems and section 1004 of chapter 10 dealing with water distribution). This concern also exists in Alaska, and no doubt will be brought out in the hearings on House Bill No. 508. Although the Department supports adoption of the 1982 code at this time, should it be determined in the course of the hearings that there are compelling reasons to prohibit the use of plastic pipe, we would not have any strong objection to the specific questioned sections being excluded from the State's minimum plumbing standards.

House Bill No. 508 would not have any fiscal impact on the Department of Labor.

APPROVED:

Jan Robinson

POSITION PAPER/Department of Labor

STATE OF ALASKA 1984 LEGISLATIVE SESSION
FISCAL NOTE

Revision Date:

REQUEST
Bill/Resolution No.: HB 508
Title: "An Act relating to the plumbing code"
Sponsor: Rep. Cowdery/Rep. Liska
Requestor: House Labor/Commerce
Date of Request: January 18, 1984

FISCAL DETAIL
Agency Affected: Labor
Program Category Affected: Public Protection
BRU, Program or Subprogram(s) Affected: Labor Standards & Safety

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 84	FY 85	FY 86	FY 87	FY 88	FY 89
OPERATING						
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 SUPPLIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS						
800 MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND	0	0	0	0	0	0
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

ANALYSIS: Attach a separate page for analysis

Prepared By: Robert J. Bacolas, Sr. Phone: 465-4870
Division: Labor Standards & Safety Date:

Approved by Commissioner: Jim Robison Date: 1/26/84
Agency: Labor

LEG:A:31
Distribution (by Agency preparing fiscal note):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

12/1/83

United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada

Local Union of journeymen and apprentices who have jurisdiction over every branch of the plumbing and pipe fitting industry

LOCAL NO. 375 STREET ADDRESS 3568 Geraghty Street

CITY, STATE, ZIP Fairbanks, Alaska 99701

SUBJECT MATTER Proposed Substitute for HB 508 DATE January 26, 1984

The Honorable Niilo Koponen
House of Representatives
State Capitol
Pouch V
Juneau, Alaska 99811 (Mail Stop 3100)

Dwight Perkins
245 Marine Way #7
Juneau, Alaska 99801

Dear Niilo and Dwight:

I am enclosing the proposed substitute for HB 508 which has been drafted in legislative form by Art Robson, our house counsel. I am sending a copy of this letter to our legislative friends so that they will know what is occurring.

After Senator Vic Fischer advised us of the pendency of this bill, Art got together with Dwight Perkins to see what had been done elsewhere. They extracted the modifications which were made by the Municipality of Anchorage and those are the modifications made in the proposed substitute bill. This may not be exactly the way we would have done it, but with Anchorage already having thoroughly debated the matter and adopted the new Uniform Plumbing Code in this form, we feel the interests of uniformity require that we all go together so that the State adopts it in the same form. Adoption in this form will take care of all our concerns and fears.

I understand there is a possibility that Rick Eliason will introduce this form in the senate so that it can proceed in both houses simultaneously.

We back this substitute one hundred percent and we hope that our legislative friends will do likewise. I hope to be in Juneau personally later on in the session to get together with everyone on

this, the natural gas pipeline proposals, and other matters that effect the work life of our members.

My thanks for all your help.

Sincerely yours,

J. L. ARSENAULT, Business Manager
Financial Secretary - Treasurer
U.A. Local 375

CLM

Enclosure

c.c. The Honorable Don Bennett
The Honorable Richard Eliason
The Honorable Bettye Fahrenkamp
The Honorable Vic Fischer
The Honorable Joe Josephson
The Honorable Jay Kerttula
The Honorable H. Pappy Moss
The Honorable Pat Rodey
The Honorable Bob Bettisworth
The Honorable Don Clocksin
The Honorable Mike Davis
The Honorable Jim Duncan
The Honorable Walt Furnace
The Honorable Ronald L. Larson
The Honorable Hugh Malone
The Honorable Mike M. Miller
The Honorable Mike W. Miller
The Honorable John Ringstad
The Honorable Richard Shultz
The Honorable Mike Szymanski

IN THE HOUSE BY COWDERY AND LISKA

SUBSTITUTE FOR

HOUSE BILL NO. 508

IN THE LEGISLATURE OF THE STATE OF ALASKA

THIRTEENTH LEGISLATURE - SECOND SESSION

A BILL

For an Act entitled: "An Act relating to the plumbing code."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 18.60.705 is amended to read:

Sec 18.60.705. PLUMBING CODE. The Department of Labor shall adopt, as the official minimum plumbing code for the state, the Uniform Plumbing Code, 1982 [1979] edition, adopted at the 52nd [49TH] Annual Conference, October 1981 [SEPTEMBER, 1978], International Association of Plumbing and Mechanical Officials, chs. 1 - 13 and appendices, useful tables, and installation standards, but excluding Part I, Administration, pages 1a - 6a, all of Subsection (e) and its exception, as well as the second and third sentences of Part (a) of Section 1004, Chapter 10, Page 75, and subject to AS 18.60.710 - 18.60.740. The following amendments to said code shall be adopted:

- In Chapter 4, Page 37, Section 401(a) and (b), shall be amended by deletion of the words "extra strength vitrified clay pipe" and "vitrified clay".

- In Chapter 4, Page 37, Section 401(a), subparagraphs number (1),(2) and (3), shall be deleted and will be replaced by the following words:

"1. No galvanized wrought iron or galvanized steel pipe or ABS or PBC shall be used under ground, but all such pipe shall be kept at least six inches above ground.

2. ABS or PBC installations shall be limited to residential construction not over 25 feet in stack height. ABS and PBC shall be no less than Schedule 40 iron pipe size standard steel pipe thickness. ABS or PBC shall not penetrate any one hour wall unless it is sleeved with a minimum of 20 gauge metal for a distance of six inches beyond the wall or changed to Schedule 40 galvanized DWV copper or cast iron pipe to a metal trap connection."

- In Chapter 5, Page 45, Section 503(a), subsection number (2), shall be deleted and replaced with the following words:

"2. ABS or PBC installations shall be limited to residential construction not over 25 feet in stack height. ABS and PBC shall be no less than Schedule 40 iron pipe size standard steel pipe thickness. ABS or PBC shall not penetrate and one hour wall unless it is sleeved with a minimum of 20 gauge metal for a distance of six inches

beyond the wall or changed to Schedule 40 galvanized DWV copper or cast iron pipe to a metal trap connection."

* Sec. 2. AS 18.60.740(1) is amended to read:

(1) "code" means the Uniform Plumbing Code, 1982 [1979] edition, adopted at the 52nd [49TH] Annual Conference, October 1981 [SEPTEMBER 1978], International Association of Plumbing and Mechanical Officials as modified by AS 18.60.705;

JANUARY 31, 1984

TO: JOHN

FROM: KEN

RE: HB 508, PLUMBING CODE

WHAT THE BILL DOES

HOUSE BILL 508 WOULD REPLACE THE STATES CURRENT UNIFORM PLUMBING CODE, the 1979 EDITION, WITH THE NEWER 1982 EDITION.

COMMENTS

AS YOU KNOW, THIS BILL IS QUITE CONTROVERSIAL WITHIN THE INDUSTRY. THE PLUMBERS UNIONS OPPOSE ITS IMPLEMENTATION WHILE NUMEROUS OTHER GROUPS INVOLVED WITH PLUMBING FAVOR THE NEW CODE. YOU CAN EXPECT SOME PRETTY HEATED DEBATE OVER THE HEALTH AND SAFETY ISSUES IN VOLVED WITH THE NEW CODE.

IN THE 1979 EDITION, PLASTIC PIPE WAS VERY RESTRICTED AS TO HOW IT COULD BE USED. IN THE 1982 CODE THE USE OF PLASTIC PIPE HAS BEEN EXPANDED TO INCLUDE VENTILATION SYSTEMS, HOT AND COLD WATER DISTRIBUTION, AND IN DRAINAGE.

I HAVE ATTACHED AN ADDITIONAL PAGE WITH QUESTIONS FOR SEVERAL DIFFERENT WITNESSES.

QUESTIONS ON 508

FOR PLUMBERS UNION.

1. IS IT TRUE PLASTIC PIPE SUCH AS POLYBUTALYENE IS MORE LABOR EFFICIENT AND ACTUALLY TAKES LESS TIME TO INSTALL ?
2. ISN'T TRUE THERE ARE CONSIDERABLE HAZARDS FROM TECHNICS USED TO INSTALL PIPES OTHER THAN THOSE MADE FROM PLASTIC ?

FOR SHELL OIL CO.

1. WHAT KIND OF TESTS HAVE YOU CONDUCTED THAT PROVE TO YOU PLASTIC PIPE IS SAFE TO USE AS PRESCRIBED BY THE 1982 UNIFORM PLUMBING CODE ?
2. DO HAVE ANY RESERVATIONS ABOUT THESE SHELL PRODUCTS ? ARE THEY AS SAFE, IN YOUR PROFESSIONAL OPINION, AS PIPE MADE FROM OTHER MATERIAL SUCH AS COPPER OR CAST IRON ?

FOR TOM HIGHAM

1. WHY DID THE INTERNATIONAL ASSOCIATION OF PLUMBERS AND MECHANICAL OFFICIALS DECIDE TO INCLUDE THE USE OF PLASTIC PIPE IN THE 1982 UNIFORM PLUMBERS CODE ?
2. IS THERE CONSIDERABLE DIFFERENCE IN SAFETY IN USING PLASTIC PIPE AND THE MORE CONVENTIONAL PIPES, IN YOUR OPINION ?
3. MR HIGHAM, IN YOUR OPINION, IS THIS AS MUCH A POLITICAL ISSUE AS IT IS WORKERS SAFETY ISSUE ? WHY IS THAT ?

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

MARIE SHIBUYA-SNELL, DIRECTOR OF THE CALIFORNIA DEPARTMENT OF CONSUMER AFFAIRS, FRIENDS OF THE EARTH, CONSUMER FEDERATION OF CALIFORNIA, STATE BUILDING AND CONSTRUCTION TRADES COUNCIL OF CALIFORNIA, AND AILEEN ADAMS, Plaintiffs, vs. INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS, a California corporation, and DOES I through XX, Defendants.	CASE NO. C 395 294 JUDGMENT EXTENDING AND MODIFYING INJUNCTION

The above-captioned matter was duly and regularly called for trial on December 12, 1983, in Department 32 of the Superior Court, the Honorable Jack A. Crickard, Judge Presiding. Roger Dickinson, Esq., appeared on behalf of plaintiff Marie Shibuya-Snell, Director of the California Department of Consumer Affairs ("Director"); Michael H. Remy, Esq., and Tina A. Thomas, Esq., appeared on behalf of plaintiff California State Building and Construction Trades Council, AFL-CIO ("Union Council"); and Geoffrey Cowan, Esq.,

entered an appearance on December 12, 1983, behalf of plaintiffs Consumer Federation of California, Friends of the Earth and Aileen Adams.

John F. McKenna, Jr., Esq , appeared on behalf of defendant International Association of Plumbing and Mechanical Officials ("IAPMO").

The matter was heard on December 12, 13, 14, 15, 16, 20 and 21, 1983. Evidence, both oral and written, was submitted by all parties, and the matter was duly submitted.

IT IS NOW ORDERED, ADJUDGED AND DECREED:

1. Upon the authority of Code of Civil Procedure Section 526 Subdivision (1), the existing preliminary injunction, granted upon the application of plaintiff Director's predecessor in office, is partially modified and continued in force as the permanent order of this Court.

2. Pursuant thereto, Defendant IAPMO, its agents, officers, employees, and representatives, and all persons acting in concert or participating with IAPMO are hereby permanently enjoined from disseminating, directly or indirectly, to any individual or organization in California, the 1982 Edition of the Uniform Plumbing Code ("UPC") or the IAPMO Directory of Plumbing Research Recommendations ("Research Directory"), without including a warning notice. The warning notice required to be included shall appear in no less than 10-point bold type and shall state as follows:

> NOTICE: An Environmental Impact Report is now being prepared in California to determine whether the use of CPVC, PVC, or PB plastic pipe for transing potable water poses a danger to public health or the environment. At the time of this printing of the 1982 Edition of the Uniform Plumbing Code,

and this update of IAPMO's Directory of Plumbing Research Recommendations, the State of California does not permit any expansion of the use of such pipe, in applications permitted by the Uniform Plumbing Code, beyond those applications permitted in the 1979 Edition of the Uniform Plumbing Code.

For information on California restrictions, contact the State Housing Law Section of the California Housing and Community Development Department.

Immediately below the notice, in the same size or smaller type, the following statement may appear, at the option of IAPMO:

(This notice is inserted herein pursuant to a court Order in the case of CALIFORNIA DEPARTMENT OF CONSUMER AFFAIRS v. INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS, Los Angeles Superior Court No. C-395294.)

The notice shall not contain, include, or be accompanied by any other information or materials.

3. The notice shall be affixed

(a) To the inside cover of each copy of the UPC affected by this Order, and

(b) Upon the reverse side of the division page entitled "Water Systems and Related Items" (No. 5) of each copy the Research Directory,

(c) By suitable adhesive material along the notice's top and bottom borders, in a manner calculated to ensure that the accidental removal of the notice does not occur.

4. The foregoing orders shall take effect 30 days after entry of this Judgment, and the foregoing orders shall automatically terminate, both as to the UPC and the Research Directory, upon the date the 1982 Edition of the UPC is superceded by the publication of the 1985 Edition of the UPC.

5. All relief sought by plaintiffs, other than the relief granted to plaintiff Director by the foregoing orders, is denied.

6. Each party shall bear their own court costs.

DATED: JAN 24 1984.

JACK A. CRICKARD

JACK A. CRICKARD
JUDGE OF THE SUPERIOR COURT

Shell Chemical Company
A Division of Shell Oil Company

P.O. Box 7637
Stockton, CA 95207

February 2, 1984

The Honorable John Cowdery
House of Representatives
State Capitol
Pouch V
Juneau, Alaska 99811

Dear Representative Cowdery:

I'd like to thank you for your prompt and efficient handling of HB 508. I also extend my appreciation to the entire committee for the courtesies extended during my appearance before the House Committee on Labor and Industries.

There is one matter that I believe deserves further comment. On February 1, 1984, during Committee discussion on the bill, Representative Koponen commented on two different occasions that "representative from Shell supports the amendments submitted by the United Association (Union)." Please be advised that Shell did not nor does not support these amendments.

First of all, I speak on behalf of polybutylene. The U.A. amendments delete all reference to polybutylene in the Code. Given the substantial performance and economic benefits of polybutylene, this amendment is clearly not in the best interest of the people of Alaska. When you combine the performance benefits -

Corrosion resistance
Resistance to scale
Freeze resistance

with the savings realized in the installation of polybutylene, you can understand why polybutylene has been widely accepted by the Code approval agencies and the contractor and developers across the United States.

The remainder of the U.A. amendements are also not supported by Shell. Simply stated these amendments would be a step back in time. The deletion of materials already approved by the U.P.C. or the restriction of their use would inflict an economic penalty on the builder and consumer. This penalty would be inflicted with no basis in fact.

Please feel free to contact me if I can clearify any of the above.

Very truly yours,

M. J. O'Brien
Regional Sales Manager
Polybutylene Department

MJO/ja

1984 JAN 31 PM 2 19

STATE OF ALASKA 1984 LEGISLATIVE SESSION
FISCAL NOTE

Revision Date:

REQUEST
Bill/Resolution No.: HB 508
Title: "An Act relating to the plumbing code"
Sponsor: Rep. Cowdery/Rep. Liska
Requestor: House Labor/Commerce
Date of Request: January 18, 1984

FISCAL DETAIL
Agency Affected: Labor
Program Category Affected: Public Protection
BRU, Program or Subprogram(s) Affected: Labor Standards & Safety

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 84	FY 85	FY 86	FY 87	FY 88	FY 89
OPERATING						
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 SUPPLIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS						
800 MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND	0	0	0	0	0	0
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

ANALYSIS: Attach a separate page for analysis

Prepared By: Robert J. Nacolas, Sr. Phone: 465-4870
Division: Labor Standards & Safety Date:

Approved by Commissioner: Jim Robison Date: 1/26/84
Agency: Labor

LEG:A:31
Distribution (by Agency preparing fiscal note):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

12/1/83

LEGISLATIVE PROPOSAL ANALYSIS

Subject of Proposed Bill:

"Adoption of 1982 Uniform Plumbing Code"

Background Information:

Every third year, the International Association of Plumbing and Mechanical Officials adopts a revised plumbing code incorporating advances and improvements in technology. During the Twelfth Legislature, the department did not propose legislation to adopt the 1982 version of the Uniform Plumbing Code because there were conflicts between the Uniform Plumbing Code and the Uniform Building Code. The Department of Public Safety (Fire Marshall's Office) will propose legislation to adopt the most recent edition of the Uniform Building Code which is consistent with the 1982 Uniform Plumbing Code.

Summary:

The most noticeable changes in the plumbing code are as follows:

Section 108 allows for a larger grease interception to serve one or more fixtures. Section 203(d) states that copper tubing used for water service shall have a weight of not less than Type L.

Table 4-3, footnote #4. Evidence indicates that a three-inch horizontal waste will effectively handle discharge from three water closets; thus the code change, so that only four water closets or six unit traps are allowed on any vertical stack, and not to exceed three water closets or six unit traps on any horizontal branch or drain.

Section 601 changes will not allow cold storage rooms, refrigerators, cooling counters, etc. designed to hold food or drink, or sinks for washing or preparation of food, to be directly connected to a waste or vent pipe. All drains shall discharge through an air gap into a open drain or approved receptor.

Section 1004 is one of the major changes, and allows Poly Butylene (PB) water pipes to be used for hot and cold water distribution tubing systems, using inserts for connectors. It also inserts language to assure that when metal pipe is used as a building ground, it will be replaced by metal pipe when repairs are made to these pipes.

Also adopted were insulation standards for cold water service and yard piping. These standards were for Poly Vinyl Chloride (PVC), asbestos cement pressure piping and Poly Butylene (PB).

Those groups most affected by this change will be plumbers, contractors, local governments and state agencies issuing building permits.

Estimated Fiscal Impact: (FY '83 - FY '87)

To the state: -0-

To others: -0-

V CEQA SUMMARY

This chapter covers various information not presented earlier but required by the California Environmental Quality Act (CEQA) for Environmental Impact Reports. As this document is a preliminary environmental review, this section has not been fully developed. When the draft and final versions of the EIR are proposed, it is likely to expand and some of the findings will undoubtedly change or at least be stated more confidently.

A. Significant Unavoidable Environmental Impacts

For this preliminary environmental review of a very subtle and complex proposal, SRI chose to describe our current overall conclusions about the proposed plumbing code changes and our reasons for them, without making definitive findings of significance except where they were clearcut.

First, we discovered nothing to suggest that the issues discussed earlier as the prime ones are insignificant or that other issues are dominant. The only new issue of potential significance that surfaced was the permeation of buried plastic pipe by contaminants in soil and the resulting possible public health impacts. Although the possibility that such effects could occur from permeation of water supply lines from the meter to the house is plausible, any potential problem would also occur--probably in much greater proportion--from the public water distribution system. This problem should be re-examined when better understood and if found significant should influence state policies with respect to plastic use in both public and residential systems. With

adequate education of building inspectors on the permeation issue, improper installation of plastic water service in contaminated soils should be rare.

As to public health impacts from chemicals leaching from water pipe into potable water, we find that significant impacts are possible but unproven, both for plastic pipes--especially the chlorinated varieties--and for metal ones, specifically copper systems. If the upper ranges of possible concentrations of leachates are regularly reached, the cumulative risks to public health may be high enough to be of concern by typical standards of acceptable risk, for example, a lifetime cancer risk of one in a million. The chemicals of concern are lead from the solder in copper pipes, possibly leading to neurologic disorders, and carbon tetrachloride, perchloroethylene, and trichloroethylene from plastic (especially PVC and CPVC) pipes, possibly resulting in cancer.

Two major considerations limit the significance of the findings. First, the status of information about long-term levels of leachates is exceedingly flimsy. Reasonable further testing could resolve at least part of the uncertainty (see Section VI). Second, the risk assessment procedure is moderately conservative. If risks still appear to be of concern after concentrations are better known, more attention would need to be devoted to assuring that the assessment procedure took into account detailed properties of the chemical. Finally, thorough initial flushing would effectively mitigate the effects of the rapidly leaching materials, especially the solvents used with plastic pipe. Overall, current information does not establish an environmental preference between copper and plastic pipe, with neither clearly likely to cause a great number of deaths or serious illnesses.

For worker safety and health, a similar situation exists. Both lead from solder fumes in installing copper pipe and solvents from installing ABS, PVC, and CPVC pipe could be hazardous if plumbers have high exposures by inhalation; dermal absorption could also be significant in the case of solvents. The diseases of concern for solder fumes are related to the lead exposure and are neurologic. The solvents may also cause nerve damage, and

they may be involved in liver damage or reproductive problems as well. However, they are not implicated in cancer unless benzene is more common than thought. Unless the NIOSH report about to be released resolves the range of exposures satisfactorily, further testing would be useful before completing the EIR. Safety issues generally favor plastic over metal, which appears to lead to more burns (hot solder and especially flux) and strains and contusions (from heavier metal pipes). PB (like PE, although its uses are not proposed for change) poses little if any worker safety and health concern. Use of gloves, other protective equipment, ventilation, and simple care will significantly reduce any potential hazards from either plastic or metal pipe, but these practices have not achieved widespread acceptance among plumbers.

Fire safety is a very real concern with plastic DWV pipe; ABS is combustible, and PVC and CPVC will at least soften and slump in lines. If these plastics are installed as direct substitutes for metal, as they already are in non-fire-rated residences, they will degrade the fire resistance of structures. The gaskets in no-hub cast iron will also fail in fires and cause the pipe to fall, leaving fire passages. But the proposed code changes apply to fire-rated, fire-resistive construction that could retain its fire rating if appropriate installation procedures are developed and enforced. In such conditions, no degradation of fire resistance would occur. This issue thus turns on enforcement, not science. The potable water pipes, kept cooler by the water inside and of much lower mass, are not a significant fire safety issue.

As with fire safety, smoke toxicity is an issue in which plastic can only be less environmentally acceptable than metal. However, whether the difference is significant is less certain. Both ABS, which seems likely to contribute the majority of pipe mass in California, and the polyolefins PB and PE produce combustion products that are not highly toxic; few if any additional fatalities or serious injuries would be likely from their combustion. PVC and CPVC both produce significant quantities of hydrogen chloride vapor in fire environments, and this corrosive material could, under certain circumstances, make a difference in the probability of human

survival in lines. The frequency of such occurrences is clouded by lack of a generally accepted test for smoke toxicity. This problem is currently being addressed both by the State of California Department of Industrial Relations and by the State of New York. We believe DHCD should pay close attention to results from those studies, but does not need to delay a decision solely on those grounds.

No other significant adverse impacts are likely to result from the expanded use of plastic plumbing pipe if relatively simple mitigation measures are taken. Plastic drain pipes may be slightly noisier than cast iron pipe. See the following section (V-B) for further elaboration.

Overall, the SRI study team sees little evidence that expanded use of plastic plumbing pipe would cause significantly greater environmental problems than the materials it would replace. Unfortunately, lack of evidence is not the same as lack of hazard. We believe it is especially important to gather more information on leaching of chemicals from both plastic and metal pipe systems into potable water and on the exposures of plumbers to material from plastic (ABS, PVC, CPVC) and metal (copper) plumbing systems.

Table V-1 summarizes our present assessment of our relative environmental concern about pipe systems. There we show our relative degrees of concern for different materials for each of the major areas of impacts. A high rating does not necessarily mean an impact that is significant in the sense of CEQA, but does mean that the material rated seems to us more likely to be environmentally harmful than other materials on that dimension. For example, the chlorinated plastics clearly are of highest concern for smoke toxicity, but may not pose any significantly higher impacts in the proposed new DWV uses (fire-resistive construction).

Table V-1

RELATIVE DEGREE OF CONCERN REGARDING
POTENTIAL ENVIRONMENTAL IMPACTS*

Impact Area	Potable Water				Drain, Waste, and Vent			
	Plastic		Metal		Plastic		Metal	
	PB/PE	PVC/CPVC	Copper	Galv. Steel	ABS	PVC/CPVC	Copper/ Gal. Steel	Ca Ir
Public Health	3	4	3	3	0	0	0	
Worker Safety	1	2	4	2	2	2	3+	
Worker Health	0	3	4	2	4	4	3+	
Fire Safety	3	2	0	0	5	4	0	
Smoke Toxicity	1	3	0	0	3	5	0	
Other Impacts	0	0	0	0	1	1	0	

*Key: 0 - No concern
1 - Considerably less concern than average
2 - Less concern than average
3 - About average concern
4 - More concern than average
5 - Considerably more concern than average

Note: High relative concern does not necessarily imply high absolute concern; significance of ratings depends on mitigation measures taken.

+More for copper, less for galvanized.

B. Insignificant Effects

The following environmental effects of expanded uses for plastic plumbing pipe may occur but are probably insignificant by any reasonable interpretation of CEQA:

- Plastic pipe systems may fail slightly more frequently than metal systems until a body of experience with installation errors has accumulated.
- Plastic pipe will consume slightly more petroleum than metal pipe, but slightly less energy overall.
- Plastic pipe will contribute a slightly different load of pollutants to public waste water treatment systems, but the direction of impact, let alone its magnitude, is uncertain.
- Plastic DWV pipe will be slightly noisier than metal systems if installed so as to contact wall surfaces; this may be more significant than otherwise in the multifamily, fire-rated construction that is affected in the DWV code changes.
- Plastic DWV pipe could be damaged by pipe cleaning equipment, but because of its resistance to corrosion, the frequency of such cleaning should be low.
- Plastic pipe will slightly decrease the life-cycle cost of plumbing and therefore of housing, but not enough to change demand patterns or growth.
- Small shifts in employment from metal pipe manufacturing to plastic pipe manufacturing will occur.
- A small reduction in the work of plumbers will occur, mostly as a result of repair and renovation work by do-it-yourselfers.

C. Effects of Alternative Actions

In addition to the proposed project, e.g., the proposed change to the 1982 Uniform Plumbing Code (UPC) allowing certain new uses of plastic plumbing pipe as described in the Project Description, this environmental review has examined the potential effects of alternatives to the proposed project on the quality of the natural and human environment. The eventual EIR will consider alternatives as well as the project itself to provide a

baseline for evaluating the significance of the impacts and to provide possible alternative courses of action should the proposed project create significant adverse impacts that cannot be successfully mitigated. With this goal in mind, the alternatives we have selected for analysis are no changes to the state code, partial approval of plastic pipe use, and complete rejection of all plastic pipe (that is, reversal of earlier provisions allowing certain uses of plastic pipe).

Under the no-action alternative, there would be no changes in the state code regarding the use of plastic plumbing pipe. All currently approved uses for plastic pipe would continue to be permitted and no new uses of plastic pipe would be allowed. None of the impacts attributable to the use of plastic pipe in expanded applications would be observed; any public health and worker safety and health effects of currently allowed plastic and metal piping systems would persist.

The partial approval alternative would amend the state code to permit certain new uses of plastic pipe, but not all of the new uses proposed under the project. Counting cold and hot water supply in a given application as one new use, the proposed project would change the code to permit 11 new uses of plastic pipe (i.e., 1 new use for ABS pipe, 3 for PB pipe, 1 for PVC pipe, and 6 for CPVC pipe). Considering all the possible combinations of these uses, over 2,000 partial approval alternatives are possible.

Our analyses of the environmental consequences of the proposed project have guided our selection of the subset of the partial approval alternatives to be considered in the EIR. That is, we define the partial approval alternative(s) to permit those new uses of plastic plumbing pipe that are least likely to have significant adverse effects on the quality of the natural and human environment. At present, the only partial alternative that seems reasonably certain to meet this requirement is to allow PB for hot and cold water supply both outside buildings and inside buildings that are not fire-rated or within the fire-resistive construction of fire-rated buildings. No other new uses of plastic pipe would be allowed. Parenthetically, there seems little reason to prohibit PB in exposed

locations of fire-rated buildings as long as the penetrations of fire-resistant construction are designed to maintain the rating of that construction. The state of information on the impacts of this alternative is generally the same as on those of the metal water pipe currently allowed for these two uses. Although PB will certainly burn and metal will not, the additional risk of fire spread appears minimal, as does that of smoke toxicity. Leachates from PB have not been shown to be risk-free, but neither have those from copper or galvanized steel. Of the two plastic alternatives, PB is somewhat less likely to be a public health hazard than CPVC, although the relative ratings of PB, CPVC, copper, and galvanized steel will not be clear without further testing (see Section VI). PB is clearly a preferred material, from the worker safety and health viewpoint, compared both with metal systems and with plastics that require cementing.

Under the option of disallowing currently allowed uses of plastic pipe, any impacts of these materials would disappear and those of metal systems reappear. The possibility of permeation of water supply piping by organic contaminants would decrease to the extent that PVC and PE supply lines would be replaced by metal with impermeable joints (but even metal pipe joints can be permeable). Leachates from PVC and PB would be replaced by those from copper, with no clear impact, positive or negative, on public health. The metal pipes would be somewhat more likely to corrode in soil than plastic (galvanized steel is not recommended for buried supply lines). Only small changes in worker safety and health would result from the changes in water supply piping.

Any major impacts of disallowing current uses of plastic pipe would be associated with the widespread use of ABS (and less widespread use of PVC) in DWV applications. Fire load and fire spread would be reduced in nonfire-rated construction. It is probable that few fatalities or little property damage would be avoided by this action, but both are possible benefits. Smoke toxins would also decrease somewhat, especially if PVC were replaced. The decrease in plumbers' exposures to solvent cements would be offset by increased work-related injuries from working with cast iron and, to some extent, with soldered joints in copper DWV. Whether the net effect

on worker safety and health would be positive or negative is difficult to predict, given the current lack of information on plumbers' exposures.

Finally, the alternative that would disallow current uses of plastic would transfer some profits and jobs from the plastics to the metal pipe industries. Since large quantities of DWV are involved, these impacts would probably be greater than those for the prime project alternative of allowing expanded uses of plastic pipe. Houses could become more expensive, depending on the prices of cast iron and copper, but probably not enough to significantly affect the demand for housing.

In summary, the alternative of approving only the expanded uses of PB appears to pose fewer environmental risks than does the full proposed project given the state of current information. Because metal systems also pose some unique risks and may be comparable to plastic systems in other risk areas, we are not prepared to say that the no-project alternative or the alternative that would disallow current uses of plastic are environmentally preferable to the partial approval alternative, or even to the full proposed project.

D. Cumulative and Long-Term Implications

Increased use of plastic plumbing pipe can contribute to cumulative environmental impacts in two ways.

First, the sum of the environmental impacts of plastic pipe could be significant even when no one individual impact is deemed significant. In the case of plastic pipe, the most plausible example is for the various leachates that could each contribute to public health impacts. For example, no one leachate might reach the level of 10^{-6} lifetime risk for cancer, but the cumulative risk of all leachates acting together might exceed that level. Given the current uncertainties about the public health impacts, especially those concerning the long-term levels of leachates in drinking water, we are unable to determine whether the cumulative impact is

significant. A similar situation is found with worker health impacts, where the risk of one solvent might be insignificant, but that of two or more could be significant. For fire safety, the cumulative impact of all the proposed new uses for plastic pipe are likely to be dominated by the new DWV uses; the contribution of PW pipe is likely to be negligible. The same is true of smoke toxicity, except that the combined affect of HCl, CO, and other toxicants could be significant even when the effects of any one alone were not.

A second issue of cumulative impact is the question of whether the expanded use of plastic water pipe would add to the impacts of other similar actions and in total create a significant effect even though the use of plastic water pipe is not itself significant. We can consider two levels of cumulative impacts:

- Cumulative impact of expanded and existing use of plastic plumbing pipe.
- Contribution of plastic plumbing pipe to total use of plastic products.

As has been made clear earlier, the expanded uses of plastic pipe are in many ways rather small in comparison to existing approved use of plastic pipe. Most new California houses are already being plumbed with ABS DWV if they are not fire-rated; the addition of 10% (by weight) more plastic pipe as PB or (less likely) CPVC water pipe will be of little consequence for fire safety, especially as water piping is less sensitive. The increase for plastic pipe in fire-rated construction, of course, is total since no plastic is being used now; however, if ways of maintaining the rating are developed as required by code, little fire safety impact would be expected. Similarly, the cementing of plastic potable water pipe is probably much less of a problem for workers than the cementing of already approved ABS DWV. Thus, the greatest issue of cumulative impact involves public health impacts, in which plastic in residences can add to plastic in public utility distribution systems. We have no way of estimating the relative contribution of each to the total hazard, as the source of contaminants

found in the water supply (controls) during leaching tests is not known. We doubt that the combined effects of distribution and residential piping would be significant if neither one alone were, but we cannot rule out that possibility. Similarly, permeation of plastic distribution pipes by toxic substances is more likely than it is for residential piping systems, but the significance of either, in terms of an overall risk assessment, will not be clear for a long time.

With regard to plastics in total, the expanded uses of plastic pipe will be a relatively small contribution in most respects. Plastics are by now endemic in our society. Most of the contaminants of PVC and CPVC that could be public health hazards will be ingested in much greater quantities from other PVC products such as food containers or, in the case of some of the chlorinated methanes, simply from waste products reaching the raw water supply. Those from PB and PE are similar to those from PE food contact materials. If plasticizers do contaminate plastic pipe, they will still do so at much lower levels than they do in any number of plasticized products to which people are regularly exposed, such as flexible vinyl upholstery (where they would yield inhalation rather than ingestion exposures). But equally clearly, plastic pipe does contribute to the total load of plastic-related hazards in California--for example, to the total of all combustible plastics in residences. The hazards from the total use of plastics are undoubtedly appreciable, even though nearly impossible to estimate. Whether or not they are greater or less than the hazards of the materials they replace is perhaps even more difficult to state. About all that can be said is that plastic pipe is not an unusually prominent or special case among plastics in general.

CEQA also requires an assessment of whether long-term environmental costs will be incurred as a result of short-term economic or other benefits. Certainly, any public health impacts of plastic pipe that do occur will probably be delayed for decades, as will some of the worker health or smoke toxicity impacts. However, for the purpose of determining the environmental consequences of the expanded uses of plastic pipe, those

should be counted as current impacts, and not discounted in comparison with current benefits. We believe that, when it is viewed from this perspective, this CEQA issue is irrelevant to the decision at hand.

E. Significant Irreversible Changes

CEQA also requires an assessment of environmental changes or consumption of resources that would be permanent and irreversible. For example, the mining of a mountain is an essentially irreversible impact, whereas most air pollutants and their impacts would disappear once the source of pollution is removed.

In the case of the expanded use of plastic plumbing pipe, there would be a small permanent commitment of petroleum resources (but not other energy sources) to the manufacture of the pipe constituents. Total energy resources would be conserved to a slight degree. If any deaths occurred as a result of diseases caused by leachates or occupational exposures, or from fire or smoke toxicity, they would also be irreversible. If plastic pipe were later disapproved, the occurrence of new fatalities would gradually disappear. Some of the leachates from plastic pipe are mutagens and some mutations can be heritable. Thus, it is possible that a heritable--and more likely than not adverse--mutation could persist in the population as a result of drinking from plastic water pipes. Neither the specifics of the leachates in water from plastic pipe nor the overall state of the art of genetic risk assessment allows an evaluation of this possibility at present. If the impacts of plastic pipe eventually were judged unacceptable, it is possible that the metal pipe industry would have declined by that time to the point at which it would prove difficult to revive, but that possibility is also extremely speculative. Overall, we believe that the reversibility of the impacts is not as important an issue to resolve as the magnitude and significance of current impacts.

F. Growth-Inducing Impacts

California's population is projected to increase from the 1980 total of 23.8 million people to 25.9 million by 1985 and to 27.9 million by 1990 (California Department of Finance, 1981). The proposed code change is not likely to significantly affect this forecast population growth for the following reasons. First, the reduction in the cost of housing construction that would result from use of the newly permitted plastics in place of currently approved plumbing materials is so small that it would have virtually no effect on the sales price or rent of dwelling units in the state. Therefore, there will be no change in the demand for housing and consequently no additional in-migration of residents who would be attracted by a drop in the price of housing. Second, the plumbing material substitutions that are likely to result from the proposed code change would not significantly affect employment opportunities in the state and so would not affect the in-migration and out-migration forecasts. Nor would either housing prices or employment opportunities significantly affect shifts in population from one part of California to another.