

Approved March 5, 1992

Date

MINUTES OF THE House COMMITTEE ON Labor and Industry

The meeting was called to order by Representative Anthony Hensley
Chairperson

9:07 a.m./~~p.m.~~ on February 26, 1992 in room 526-S of the Capitol

All members were present except:

Rep. Everhart - excused Rep. Webb - excused
Rep. Grant - excused
Rep. Sluiter - excused

Committee staff present:

Jerry Donaldson, Principal Analyst
Jim Wilson, Revisor of Statutes
Barbara Dudney, Committee Secretary

Conferees appearing before the committee:

Janet Stubbs, Exec. Dir., Home Builders Assn. of Ks., Inc.
Larry W. Magill, Jr., Independent Insurance Agents of Kansas
Art Brown, Mid-America Lumbermen's Assn.

The meeting was called to order at 9:07 a.m., by the chairman, Rep. Anthony Hensley.

Chairman Hensley announced the continuation of the hearings on House Bill No. 3023. He introduced the following persons as proponents of the bill:

Janet R. Stubbs, Executive Director, Home Builders Association of Kansas, Inc., distributed and read written testimony in support of the bill (attachment #1). She expressed her concerns about the rising costs of workers' compensation insurance and gave the example of a Wichita employer who had a \$6,800 increase in costs in 1991. In response to questions from several members, Ms. Stubbs said she would provide to the committee information on safety programs her members provide their employees.

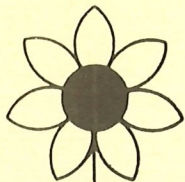
Larry W. Magill, Jr., representing the Independent Insurance Agents of Kansas, distributed and read written testimony in support of the bill (attachment #2). He stated that, "the voluntary workers' compensation market in Kansas is drying up for three reasons." The first reason is "skyrocketing claims for medical costs and indemnity or lost time payments." Second, is "the workers' compensation plan." And third is "the administration of our present workers' compensation act." He acknowledged that the 1987 reforms increased costs "when everyone had hoped they would keep a lid on them."

Mr. Magill then went on to present a section-by-section review of the reasons why he supports the bill. He also distributed a copy of a Workers' Compensation Digest article detailing the results of the Milliman and Robertson study entitled, "The Impact of Fee Schedules and Employer Choice of Physician" (attachment #3). He then answered questions from several members of the committee.

Art Brown, representing the Mid-America Lumbermen's Association, distributed and read written testimony in support of the bill (attachment #4). He pointed out that his industry experienced a 34.9% increase in its workers' compensation insurance rates in 1991. Mr. Brown answered questions from committee members.

The chairman called to the attention of the committee copies of a letter from Trudy Aron, representing the Kansas Chapter of The American Institute of Architects, in support of House Bill No. 3023 (attachment #5).

The meeting was adjourned at 9:55 a.m.



HOME BUILDERS ASSOCIATION

OF KANSAS, INC.

Executive Director
JANET J. STUBBS

OFFICERS

President
VERNON WEIS
P.O. Box 314
Salina, Ks. 67401
913-827-9169

Vice President
GILBERT BRISTOW
1916 Bluestem Terrace
Manhattan, Ks. 66502
913-539-4779

Treasurer
JIM PETERSON
P.O. Box 171
Hutchinson, Ks. 67501
316-662-7616

Secretary
TOM AHLF
7247 Oxford Ct.
Wichita, Ks. 67226
316-685-2025

H.B.A. ASSOCIATIONS
Dodge City
Hutchinson
Junction City
Manhattan
Montgomery County
Salina
Topeka
Wichita

PAST PRESIDENTS
Lee Haworth 1965 & 1970
Warren Schmidt 1966
Mel Clingan 1967
Ken Murrow 1968
Roger Harter 1969
Dick Mika 1971-72
Terry Messing 1973-74
Denis C. Stewart 1975-76
Jerry D. Andrews 1977
R. Bradley Taylor 1978
Joel M. Pollack 1979
Richard H. Bassett 1980
John W. McKay 1981
Donald L. Tasker 1982
Frank A. Stuckey 1983
Harold Warner, Jr. 1984
Joe Pashman 1985
Jay Schrock 1986
Richard Hill 1987
M.S. Mitchell 1988
Robert Hogue 1989
Jim Miner 1990
Elton Parsons 1991

TESTIMONY

HOUSE LABOR AND INDUSTRY COMMITTEE

on

HB 3023
February 26, 1992

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE:

My name is Janet Stubbs appearing on behalf of the Home Builders Assn. of Kansas. The membership of this association is comprised of small businesses related to the construction industry which are being severely impacted by rising costs of worker's compensation premiums. We feel it is imperative that the Legislature act to reduce the cost of worker's compensation coverage in order to avoid the demise of businesses of this type which are struggling to survive the current economic climate. Without employers of the type represented by this organization, unemployment will increase.

In 1991, the members of the construction industry saw worker's compensation premiums increase approximately 34%. As an example, one Wichita employer of approximately 50 people saw an increase of \$6,800 in 1991. There are numerous other examples which could be sighted to demonstrate the severity of the problem. Now we are being told to expect increases of a similar magnitude this year.

The Home Builders Association of Kansas views HB 3023 as a reasonable and justified attempt to prevent the abuse of and inequity in the system and relieve the burden on the businesses of Kansas. We urge your favorable consideration of HB 3023.

Labor & Industry
2-26-92
Attachment # 1



Testimony on HB 3023
Before the House Labor and Industry Committee
February 26, 1992

By: Larry W. Magill, Jr. for the
Independent Insurance Agents of Kansas and the
Professional Insurance Agents of Kansas

Thank you Madam/Mr. Chairman/Chairwoman, and members of the committee for the opportunity to appear today in support of HB 3023. Our state is facing a workers compensation crisis of unprecedented proportion and we think this bill will get to the heart of the problem before we reach the stage of a complete workers compensation market collapse.

The voluntary workers compensation market in Kansas is drying up for three reasons. First, our present rates are significantly inadequate, largely because of skyrocketing claims for medical costs and indemnity or lost time payments. Attached to my testimony is a graph showing the trend lines for medical and indemnity costs since 1983. Also attached to my testimony is a chart showing the rate increases requested by the National Council on Compensation Insurance and those granted since 1983. You will note that a total of nearly a 50% rate increase has been denied over that span of time and they have been delayed a total of 25 months.

Other conferees have mentioned that insurance companies are losing, on average, \$1.20 for every dollar of workers compensation they write. Some companies are experiencing significantly worse results than that and are questioning whether they can write any workers compensation coverage in Kansas regardless of the other insurance written for the account.

The second problem is with the Workers Compensation Plan. It grew from 24% of the market in 1989 to 27% of the market in 1990 and is

probably larger than that now. It wrote \$84 million in premium volume out of a total of \$293 million and suffered an underwriting loss of \$44 million on top of that. That led to a 22.9% assessment on all insurance companies to pay for the losses of the plan. That means that for every dollar of workers compensation business they write, they must set aside 23 cents to pay their assessment. Their losses are averaging 93 cents and their expenses approximately 27 cents. By my math, that generates a combined loss ratio of 143% before investment income.

The third problem is with the administration of our present workers compensation act. Business simply cannot afford to pay for our workers compensation law the way it is being administered and interpreted by the courts. The 1987 reforms actually increased costs when everyone had hoped they would help keep a lid on them.

I would like to offer a few comments on some of the specific reforms in HB 3023:

*Elimination of coverage for pre-existing conditions not caused by work. This seems only fair and represents one of the big cost shifting problems going on today between the health insurance system and the workers compensation system. For example, one of my members in southeast Kansas related the story of a person who was hired as a part-time employee by the school district. The person had not been previously employed outside the home. The person worked for one month before turning in a claim for carpal tunnel syndrome in both hands. The condition was created by embroidery or similar handwork the person had done at home prior to going to work for the school district. Nevertheless, the claim was allowed and a substantial award was paid.

*Prohibiting a claimant from claiming more than 100% disability in

a lifetime. This only makes sense to us as it is difficult to understand how a person can receive more than a 100% cumulative disability rating.

*Required use of the American Medical Association's guidelines for the evaluation of permanent impairment. This was supported by the consultants from the National Conference of State Legislators as a way to avoid "dueling doctors" and bring more objectivity to disability ratings. The present system only encourages both parties to bring in extreme ratings with the ALJ's caught in the middle.

*Establishing a medically objective definition of permanent total disability that does not consider sociological, educational or economic factors. Again, this was supported by the National Conference of State Legislators' consultants in the special joint hearing held on January 27, 1992. The workers compensation system cannot afford to pay for all the social problems we might have in Kansas.

*A cap on white collar recoveries. Attached to our testimony is a copy of a newspaper article on former workers compensation director Anderson's workers compensation claim that, as far as we know, is still pending. Under the present system, highly paid white collar workers can recover huge disability awards for a very small percentage disability rating that does not cause them to miss a day of work. If left unchecked, this type of claim will become all too common.

*A waiver of coverage for salaried management level employees and executives. We have some misgivings about this recommendation since it will encourage employers to subject themselves to the tort system for injuries to this class of employee under the employer's liability section of the workers compensation policy. We are not real sure what the insurance industry's reaction to this will be, but assume that if it

became widespread, the cost of employers liability would rise significantly. We also have a concern that most group health insurance policies today exclude work-related injuries regardless of whether they are covered by workers compensation or not. This could leave a significant gap for this group of employees. However, a large enough employer could possibly negotiate this exclusion away in their group health coverage.

*Clarification of the 1987 work disability definition. The courts have absolutely misinterpreted the intent of work disability when they allow huge awards to workers who are returned to the same or higher wages. The system cannot afford the luxury of the Hughes decision.

*Social security and retirement benefits offset. The workers compensation system is designed to replace lost wages for people who would otherwise be working. It makes no sense to pay lost wages when a person is retired. We would agree that some adjustments should be made for amounts the worker paid into a retirement program.

*Terminating vocational rehabilitation at age 65. Again, it makes no sense to provide vocational rehabilitation to a person who is retired and has no intention of working. If the legislature makes vocational rehabilitation voluntary, it may take care of this problem.

*Disallow compensation for normal aging. The system cannot afford to pay for the aging of the work force. It is designed to pay for accidental injury, not functional impairment due to age.

*Discretionary vocational rehabilitation. The vocational rehabilitation mandate in the 1987 act has turned out to be one of the most expensive changes we've made in workers compensation in years. We must make vocational rehabilitation completely voluntary to avoid it

being used as leverage to force up lump sum settlements or to draw out awards. Vocational rehabilitation is being overutilized and is ineffective. The system should provide enough incentive that where it is appropriate the employer has a desire to provide the benefit.

*Excluding attorney fees on vocational rehabilitation. Vocational rehabilitation benefits are very similar to medical benefits where attorneys fees are not allowed now.

*Fraud. The most common complaint we hear about the current workers compensation system from agents and businesses is that fraudulent claims are simply overlooked by the administrative law judges. Regardless of what video tapes, tape recordings or other evidence is presented, the ALJ's award benefits. There must be a better way of keeping workers from "gaming" the system.

*Implementation of the medical fee schedule. We support paying reasonable and customary charges for workers compensation medical expenses the same as health insurance. We urge the legislature to effectively implement the 1990 medical fee schedule act and encourage the director to provide businesses and insurers with the information they need to pay appropriate medical fees. We also hope the legislature will encourage the director to set up PPO organizations that businesses and their insurers can take advantage of.

*Appeal of preliminary awards. Preliminary awards are being abused with benefits stretching into months and even years with no right of appeal by the employer or their insurer to a different administrative level. If this requires additional hearing officers at the director's appeal level, then the legislature should fund those positions.

*Limitations on attorney fees. Our present workers compensation

system is far too litigious. It is supposed to be a no-fault system guaranteeing benefits to workers promptly and equitably. Attorneys often are taking 25% of what the claimant may have received in any event. Limiting attorneys fees to the actual increase in an award due to the attorneys' involvement will help limit the number of litigated cases.

*Alcohol and/or drug use. Providing more objective criteria for disallowing compensation to injuries where alcohol or drug use was a contributing factor should send a clear signal to workers that they must take responsibility for not being in an impaired condition.

*Subrogation rights. Injured workers should not be allowed to collude with negligent third parties and designate liability awards for noneconomic damages to avoid subrogation of workers compensation benefits paid. The legislature should simply provide that workers compensation benefits will be reimbursed first with the worker keeping any difference.

*Increasing the minimum payroll before workers compensation is mandatory from \$10,000 to \$20,000. We have some concerns about this change, since it implies to employers that they need not carry workers compensation coverage. Employers must understand that if they fail to carry workers compensation coverage under this exemption, then they are subject to tort liability actions for their negligence without any insurance protection. We are not certain that carriers would be willing to provide employers liability only for small employers that do not want to carry standard workers compensation coverage.

*Limits on coverage of out-of-state accidents. We also have concerns about this provision since it may leave the business uncertain as to whether they have any coverage for a given accident. For example, if the person is injured in a monopolistic state, with the present law

you at least know that they are entitled to Kansas benefits if the firm is located in Kansas.

*Change of physician. Allowing the employer to provide the names of three physicians for the employee to select one would be a big improvement over the present law. If the legislature is serious about controlling the medical costs under workers compensation, this is a key provision to enact. This would allow the employer to set up PPO's (preferred provider organizations) and to be certain the employee goes to a physician familiar with work-related injuries.

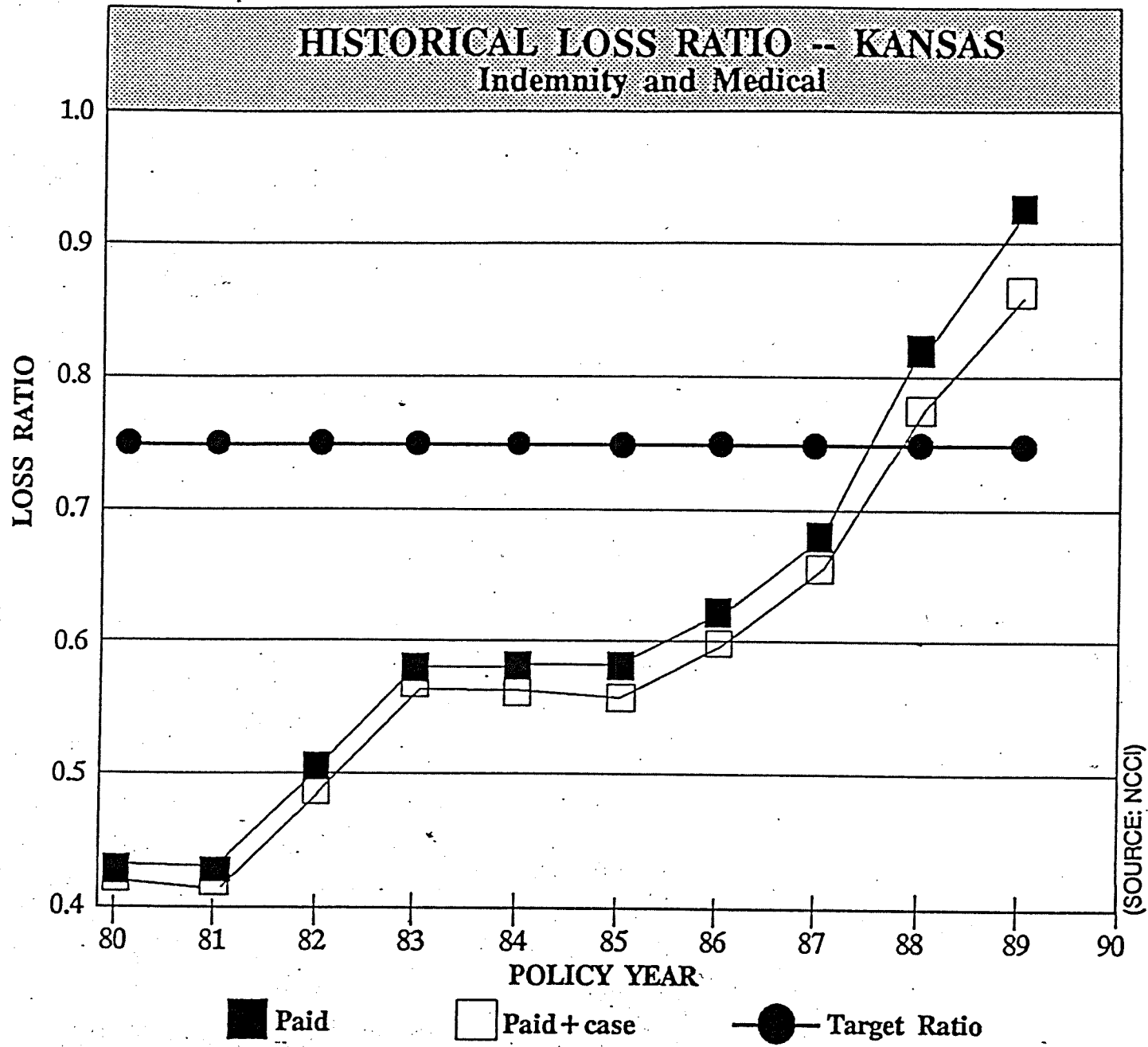
*Allowing the claimant an option to have schedule injury benefits computed by the claimants advisory office without attorney involvement. This system has worked well in Wisconsin and Oregon and has reduced the incidence of dueling docs where each party obtains extreme disability ratings from different doctors and the administrative law judges are free to pick whatever rating they would like. This system would allow the treating physician to provide the medical information needed for a rating, which is the way it should be.

*Workers compensation appeal board. One of the major frustrations of businesses and insurers is the feeling that appeals from bad administrative law judge decisions do no good. It is hoped that an appeal board will provide a more professional and impartial review of ALJ decisions and that an appeal directly to the appeals court will eliminate erratic decisions by district courts. District courts are not equipped to handle specialized workers compensation cases.

We have not commented on every change in the 35 or so contained in this bill, however, we support all of them with the exception of the three we have some reservations about and urge this committee to take

prompt action on the legislation this session. It will take at least two years once major reforms are enacted for the claims to begin coming through the pipeline reflecting the new law. In the meantime, the workers compensation situation for businesses in Kansas is going to continue to deteriorate. The legislature must act now. We urge you to recommend this measure favorably for passage.

If we can provide any additional information or answer any questions, we would be happy to.



Post-It™ brand fax transmittal memo 7671	# of pages ▶
To <i>CAROL MAGILL</i>	From <i>NCTAYLOR</i>
Co.	Co. <i>NCCI</i>
Dept.	Phone #
Fax #	Fax #

KANSAS

WCIP Growth

<u>Policy Year</u>	<u>Percentage in WCIP</u>	<u>Residual Market Burden</u>
1982	8.4%	1.3%
1983	6.5%	2.8%
1984	7.1%	3.6%
1985	12.9%	7.1%
1986	21.7%	9.2%
1987	24.5%	15.2%
1988	21.7%	13.4%
1989	24.1%	20.5%
1990	27.7%	22.9%

Premium Level Changes/History

<u>Requested</u>		<u>Approved</u>		<u>Shortfall</u>	
<u>Date</u>	<u>Amount</u>	<u>Date</u>	<u>Amount</u>	<u>Time</u>	<u>Amount</u>
09-01-83	+2.8%	12-01-83	+0.0%	3 mo.	2.8%
03-01-85	+15.8%	05-01-85	+10.0%	2 mo.	5.8%
05-01-86	+17.0%	07-01-86	+9.0%	2 mo.	8.0%
05-01-87	+19.0%	10-01-87	+10.2%	5 mo.	8.8%
05-01-88	+5.5%	12-01-88	+5.5%	7 mo.	-
12-01-89	+22.6%	05-01-89	+5.3%	5 mo.	17.3%
05-01-91	+30.9%	06-01-91	+24.0%	1 mo.	6.9%
				Total	25 mo. 49.6%

OUTLOOK

NCCI, in conjunction with Tillinghast of Denver, is completing a closed claims study based on the findings of an earlier NCCI conducted claims survey. Results, in a DCI-type format are to be used to identify detailed cost driver indications and possibly generate reform measures for the upcoming legislature. Results are expected by early-February.

Independent Insurance Agents of Kansas

815 Topeka Avenue, Topeka, Kansas 66612 (913) 232-0561



Larry Magill, Jr. CAE, CPCU, CLU, AAI
Executive Vice President

February 25, 1992

TO: Members of the House Labor and Industry Committee

FROM: Larry Magill

RE: Milliman and Robertson Study on the Impact of Fee Schedules
and Employer Choice of Physician

Attached is a copy of the Workers Compensation Digest article detailing the results of the Milliman and Robertson study that the committee requested when I appeared in support of HB 2872 and HB 2873.

The study found that employer choice of physician lowered costs by between 5.3 and 7.9 percent.

The study also found that states with fee schedules had between 3.5 and 5.4% lower average costs.

If we can provide any additional information, please let me know.

cc: Committee Staff

*Labor & Industry
2-26-92
attachment # 3*

The Impact of Fee Schedules and Employer Choice of Physician

by DAVID DURBIN and DAVID APPEL

David Durbin is a consulting economist at Milliman & Robertson, Inc.

David Appel is Director, Economic Consulting at Milliman & Robertson, Inc.

It is no longer news that medical costs in the United States have been skyrocketing. The most recent data show that in 1989, national health care costs rose 11 percent to \$604.1 billion, accounting for 11.6 percent of GNP. Only slightly less publicized is the fact that workers compensation

medical costs have also increased dramatically. Almost \$10 billion were paid out in workers compensation medical benefits in 1987 (the latest year available), a 15 percent increase over 1986.¹

The ramifications of both phenomena are enormous. On the one hand, the scarcity of economywide resources portends continued and growing market distortions in the overall provision of medical care. The availability and quality of affordable care are growing concerns. In the case of workers compensation, rising insurance costs impact industrial competitiveness and profitability and thus affect employment, savings, and ultimately economic growth and development.

A particularly disconcerting piece of the medical care cost puzzle in the United States concerns the quality of care and the efficacy of health care expenditures. Unfortunately, there is little evidence to suggest that health status has been improved by the enormous increase in spending. Although per capita health expenditures in this country, both in dollar terms and as a percent of total economic output (GNP), are greater than

in any other country, health status as measured by traditional indicators is not particularly impressive. According to the National Center for Health Statistics², the U.S. ranks only eighteenth in the world in infant mortality rates, while males in the U.S. have only the fifteenth highest life expectancy at birth and women the eleventh highest.

Similarly in workers compensation, the tremendous explosion in medical expenditures has not been matched by improvements in health status.

“... little to suggest that health status has been improved by the enormous increase in spending.”

Based on data compiled from the Call for Detailed Claim Information, the average temporary total spell has been virtually unchanged through the 1980s. In addition, the proportion of claims resulting in permanent disability has remained constant. According to the Bureau of Labor Statistics, while the frequency of occupational injuries and illnesses has fluctuated through the 1980s and is at basically the same level (8.6 injuries or illnesses per 100 full-time workers) in 1989 as 1980, the severity of those injuries has increased almost 14 percent. In 1989, there were 74.2 workdays lost per 100 full-time workers

due to work-related injury or illness.³

A number of reforms have been suggested with the aim of slowing the spiraling trend in both economywide medical care costs and workers compensation medical costs without sacrificing access to or quality of care. Although documentation of the magnitude of the problem is fairly extensive, the empirical evidence on the effectiveness of such reforms, particularly for workers compensation, is sparse. The analysis presented in this article addresses this void and considers two widely cited cost containment initiatives: use of medical fee schedules and allowing the employer the initial choice of treating physician. This article updates preliminary results from a study reported at the Workers Compensation Congress in 1989 and reprinted in NCCI DIGEST.⁴

The paper proceeds as follows: Section I provides a brief overview of medical cost trends in the economy and for workers compensation, and highlights some of the underlying dynamics affecting the rising costs. Section II develops an economic model that considers several important economic and demographic characteristics thought to impact the growth in workers compensation medical costs. This discussion also includes such features as fee schedules and choice of physician. Section III contains the results from statistical models which are designed to measure the net impact of cost containment initiatives after consideration of the important economic and demographic characteristics that affect workers compensation medical costs. Section IV contains some concluding comments and observations.

I. OVERVIEW: MEDICAL COST TRENDS

The workers compensation system provides income replacement in the form of cash benefits, virtually unlimited coverage for medical care, and rehabilitation services for injuries or illnesses that arise out of and in the course of employment. Traditionally, indemnity benefits have made up the major part of total program costs. However, in the past two decades medical costs have risen dramatically. Medical expenditures, which were approximately one-third of total costs in the early 1970s, now comprise 40 percent or more of total incurred workers compensation benefits, with a level in excess of 50 percent not uncommon in individual states.⁵ Medical payments per covered worker have increased at an average annual rate of 11 percent over the past decade⁶ compared to an economywide 9 percent annual growth in per capita medical expenditures.⁷ Average medical costs per lost-worktime claim are estimated to be more than \$3,400 in 1989, which is double the level in 1980.⁸

While workers compensation medical costs have grown slightly more rapidly than overall health costs, a number of the underlying dynamic forces driving the two are similar. Among the determinants of health care inflation, several are particularly germane to workers compensation. The most widely cited factors include:

- lack of cost sharing
- demand creation
- fee-for-service-based reimbursement practices
- technological advances
- surplus of physicians

- medical malpractice insurance
- demographic changes

These factors have been discussed extensively elsewhere.⁹ Even though all these factors play a role in workers compensation, there are some important differences between workers compensation medical care expenditures and non-workers compensation medical care expenditures. These differences have important implications for cost containment initiatives.

The most significant difference between medical treatment in workers compensation and the general economy is the role of the medical provider in a system that provides both medical benefits and income support.¹⁰ The provider may be called upon to determine when the injured worker should return to work. This may be antithetical to the usual patient-provider relationship because the provider may have a conflict of interest between medical and financial incentives.

The other significant difference between workers compensation and general medical care expenditures concerns cost sharing, especially the increase in cost sharing that is taking place in other health insurance programs while workers compensation remains essentially a first-dollar provider. There are incentives for both medical providers and injured workers to shift costs to the workers compensation system. The lack of a formal monetary price to medical care from the individual injured worker's perspective is in fact one of the major impediments to implementing cost containment controls in workers compensation.

Many of the cost containment initia-

tives appearing in the general health sector rely on controlling the demand for medical services by increasing the level of cost sharing on the part of consumers. This takes the form of increased deductibles or co-insurance. The strategy is straightforward: an increase in out-of-pocket expense costs to consumers should reduce the demand for and consumption of medical care.¹¹

The lack of a direct role for prices in rationing medical service in workers compensation creates special problems in containing workers compensation expenditures. Cost sharing is currently not a viable alternative in workers compensation. As a consequence, much of the cost containment effort in workers compensation has centered on the supply-side or producer-side initiatives.

a. WORKERS COMPENSATION COST CONTAINMENT

Workers compensation cost containment strategies have been essentially twofold. First, the provision and utilization of services may be scrutinized to ensure that only necessary services are rendered. This managed care approach includes concurrent and retrospective review, preadmission certification and prior authorization for nonemergency treatment, as well as the use of case management, including establishing standards for initial patient contact and timing of progress reports. The idea is to limit treatment to clinically proven procedures rendered in the most cost-effective manner.

Another method for controlling the utilization of services involves the selection of the treating physician. The underlying concept is that if the

employer has the initial selection, then physicians who offer discounts or who practice conservative medicine can be selected. That is, incentives should exist for employers to select providers who render cost-effective treatment. However, this practice has not been unanimously endorsed and there is no formal research that directly tests the effectiveness of this strategy.¹²

In addition, states differ on the implementation of employer-selected physicians. For example, included among the jurisdictions with employee choice are Connecticut, Washington, D.C., and New York, which actually have limited free choice in the sense that employees must choose from a list of physicians provided by the state workers compensation agencies. In Georgia, Tennessee, and Virginia, the employee selects the physician, but from a list maintained by the employer. For this study these latter three states are considered employer-choice states. In California, Michigan and Pennsylvania the employer has the right to choose, but after a pre-specified period the employee has free choice.

b. FEE SCHEDULES

The second widely used cost containment strategy is that the price of services may be regulated by a schedule of fees corresponding to the kind and nature of treatment. These medical fee schedules will typically stipulate the maximum fees for services performed by a variety of medical care providers such as physicians, osteopaths, chiropractors, physical therapists, and so on. Hospital services may also be subject to fee schedules. The actual schedules may be based on some percentile of the usual and

customary fee or may be based on a relative value scale which accounts for the time, skills and intensity of the service rendered.

There is conflicting evidence about the effectiveness of fee schedules. On the one hand, the expectation is that states with fee schedules may have lower costs since insurers have control over maximum reimbursement levels. An alternative result of a fee schedule may be the overutilization of services. This may occur as physicians attempt to maintain income levels by overprescribing services with the highest returns. Previous work, from

“ . . . states differ on the implementation of employer-selected physicians. ”

which the current analysis is an extension, found that instituting a fee schedule will save from 3 percent to 7 percent of costs in the long run. On the other hand, research by the Workers Compensation Research Institute¹³ found little support for the effectiveness of fee schedules, not unlike some of the research findings relating to Medicare fee schedules.

It is likely that the conflicting results on the impact of fee schedules are due to differences across states in the area of implementation, compliance and monitoring of the schedule. Borba¹⁴ provides details of some of the important differences between states in the ways they compute their

fee schedules as well as the oversight and monitoring of the schedules. For example, Florida statutes (at least prior to the enactment of the Comprehensive Economic Development Act of 1990) are very specific, requiring a three-member panel consisting of the insurance commissioner, as well as employee and employer representatives. Not only does the Florida statute require the panel to consider prevailing charges for similar treatments, but it is also required to consider the impact of the schedule upon employers and the health care system. New York uses a relative value scale, which is adjusted to reflect regional differences in prices between urban and rural areas. California requires the administrative director to establish a fee schedule after holding public hearings no less than biannually.

In contrast to these apparently well-monitored schedules, a survey of administrative features of workers compensation systems performed by the NCCI Research Division (and which forms the basis for this study) provided information on states that may have less effective schedules. For example, according to a member of the Rhode Island Accident Board, even though Rhode Island has had a fee schedule since 1982, the allowable fees were not updated and enforced until 1989.

As mentioned, standards vary by state in establishing a fee schedule. Although 27 states currently use some sort of fee schedule for physician charges, there is no one prototype schedule. The WCRI illustrates this by considering the range of allowable fees for several common work-

ers compensation procedures. It is not uncommon for some states to have fee schedules for the same procedure that are two and three times higher than other states.¹⁵

The research on the effectiveness of fee schedules in workers compensation is in its infancy. For example, while the WCRI research does document the nature of the medical care cost problems, there is no attempt to fully model the host of factors thought to drive costs. Thus, the WCRI did not consider changes in medical costs over time and, more problematic, did not consider other economic and demographic factors affecting medical costs.

“Higher benefits imply a lower opportunity cost to being on a claim.”

The underlying rationale behind utilization and price controls is clear. The first seeks to control medical expenditures growth by controlling the mix and intensity of services to make sure the treatment is appropriate for the injury. The second seeks to control expenditures by restraining prices. The use of fee schedules in this regard is, of course, only appropriate to the extent that fees are lowered on average. As mentioned above, one common practice is to set fees at some percentile of the usual and customary charge. If that percentile is greater than the mean or average cost, the result could actually be a net increase in medical expenditures.

Questions remain concerning the effectiveness of such programs in containing workers compensation medical expenditures. Equally important, and in some ways more problematic, are questions about the implications of these cost containment programs on the availability and quality of care injured workers receive. This paper attempts to answer only the first set of questions. Namely, the principal issue is: Are costs lower under certain workers compensation medical cost containment strategies? Questions on the availability and quality of care are more difficult and await further research.

II. DETERMINANTS OF WORKERS COMPENSATION MEDICAL COSTS

a. MODEL

There is a small but growing body of research that seeks to explain workers compensation costs—both indemnity and medical—by examining the underlying economic and demographic conditions of the various state markets for workers compensation. Since workers compensation is a state-mandated program that is administered and regulated by individual states, it is appropriate to consider each state as a separate market for workers compensation.

Following models in the workers compensation literature, average workers compensation medical costs are investigated as a (log) linear function of benefits, wages, and variables representative of current and expected future economic conditions. Based on models from the health care literature,¹⁶ demographic and education controls are also included, as these factors have been found to influence

the demand for and consumption of medical care. There are also some controls to represent other aspects of workers compensation systems.

There are three additional factors included given the interest in cost containment in workers compensation. First, given that workers compensation medical expenditures comprise only a small portion of total medical expenditures (roughly 1.7 percent), the influence of the total health care market is obviously quite strong. Thus, a control for the average cost

“... longer waiting periods may give rise to increased utilization of medical care ...”

per inpatient stay in a hospital is added to the model; the intent is to control for outside forces that influence overall medical care costs.

The last two factors are those of principal interest to this investigation. Controls are added for whether a state uses a medical fee schedule in workers compensation and for whether the employer or employee has the initial choice of physician. The strategy for the empirical analysis is to control for as much variation in workers compensation medical costs as possible due to the economic and demographic factors. Then the net impact of the cost containment strategies can be ascertained.

Table I contains a list of variables used in the analysis and indicates the expected impact on workers compensation medical costs. The rationale for the expected signs is contained in the next section.

b. ECONOMIC EXPECTATIONS

The underlying premise of the model used in the analysis derives from the notion that workers make decisions based on an evaluation of expectations about their economic well-being. The two principal variables that relate to this “expected utility” framework are the average weekly wages and expected temporary total benefits. Wages are expected to be negatively related to medical costs: higher wages imply a higher opportunity cost to being on a claim, and therefore a more rapid return to work. On the other hand, benefits are expected to be positively related to medical costs. Higher benefits, all else the same, imply a lower opportunity cost to being on a claim. The result would be more claims filed and the extension of the durations of claims. A second order effect may be observed if the incentives to file claims are stronger than those to extend the duration and those new claims are relatively less expensive. In that case, average costs may actually decline.

The interest rate variable captures the cost of workplace safety improvements and is expected to have a positive sign. As interest rates rise, investing in safety improvements becomes more costly, and in addition, firms have incentives to substitute labor for capital in their production processes. The result is higher anticipated workers compensation medical costs.

VARIABLE	DEFINITION	SOURCE	EXPECTED SIGN
LCPIAVGM	Average workers compensation total medical costs, deflated by the Consumer Price Index (CPI), in logs	Unit Statistical Plan Database.	
LCAVGH	Average hospital costs per day for nonprofit, nongovt. orgs., deflated by the CPI, in logs	American Hospital Association, "Hospital Statistics."	+
LWAIT	Waiting period for income benefits, in logs	"Analysis of Workers' Compensation Laws," U.S. Chamber of Commerce.	+
LDRATE	Annual discount rate for 3-month treasury bills, in logs	"Business Conditions Digest," U.S. Department of Commerce, Bureau of Economics Analysis.	+
LCPIWG	Ratio of wage and salary employment disbursements, to total nonagricultural employment, by state	Wage and salary data—U.S. Chamber of Commerce, Bureau of Labor Statistics. Nonagricultural employment data—"Employment & Earnings," U.S. Bureau of Labor Statistics.	-
TIME	Series for 1 to 20, 1965 = 1, 1984 = 20		+
TIME2	Square of TIME		+
CHOICE	Equals 1 for employer choice of physician, 0 otherwise	NCCI Survey of Individual State Accident Boards, 1989, requesting choice of physician and fee schedule rules for 1965-1984.	-
FEE	Equals 1, if fee schedule is in place, 0 otherwise	NCCI Survey of Individual State Accident Boards, 1989, requesting choice of physician and fee schedule rules for 1965-1984.	-
LCONSTR	Ratio of construction employment to total nonagricultural employment, by state, in logs	"Employment and Earnings," U.S. Bureau of Labor Statistics.	+
SELF	Equals 1 if state allows self-insurance, 0 otherwise	"Analysis of Workers' Compensation Laws," U.S. Chamber of Commerce.	+
LEXPBEN	Expected temporary total benefits, deflated by CPI, in logs	"Analysis of Workers' Compensation Laws," U.S. Chamber of Commerce and calculations based on NCCI standard wage distribution.	+

TABLE 1
DATA SOURCES AND DEFINITIONS

Since the unit of observation in this study is the average medical costs in a given state and year, the characteristics of the labor force will have an important influence on the number and costs of workplace accidents. To control for this, a variable has been constructed that represents the proportion of total employment in construction. Since construction is typically a more risky industry, it is expected that the sign on this variable will be positive. As the proportion of employment that is engaged in risky

“... employer choice of physician lowers medical costs by between 5.3 and 7.9 percent.”

occupations increases, workers compensation medical costs should also rise.

Another state-specific variable considered is whether a state allows group self-insurance. Since the workers compensation average medical cost data relates only to those purchasing insurance, and since firms that self-insure do so because they think they can insure more cheaply than in the market, the expected sign is positive. The allowance of self-insurance should leave the relatively worse risks in the market, i.e., those with higher losses.

The health economics literature suggests that the level of education is an important determinant of the

amount of medical care individuals consume. Interestingly, the literature suggests more highly educated individuals may actually consume less medical care because they live lifestyles conducive to better health. However, in this instance, the investigation relates to consumption of medical care given an injury. More education is expected to lead to higher workers compensation medical costs as people will be more informed and more likely to demand treatment for injuries. Previous research also suggests that education is positively related to the propensity to litigate workers compensation claims which will tend to increase claim durations and medical care costs.¹⁷

Average inpatient hospital costs per day represents a control for inter-jurisdictional differences in overall medical costs not otherwise captured. The expectation is that this will have a positive impact on average workers compensation medical costs. The waiting period (the amount of time before receipt of indemnity benefits), a control for differences in state workers compensation systems, is also expected to have a positive impact on claim costs as a longer waiting period will tend to exclude shorter duration, less costly claims from the system. In addition, longer waiting periods may give rise to increased utilization of medical care as a justification for receiving indemnity benefits. Thus it is expected that higher duration and cost claims will remain.

Finally, there are two dichotomous or dummy variables (i.e., zero/one indicator variables) introduced that represent whether the state uses a fee schedule to regulate workers

STATE	FEE SCHEDULE	CHOICE OF PHYSICIAN	
Alabama	No	Employer	Employee
Alaska	No	Employer	Employee
Arizona	Yes	Employer	Employee
Arkansas	No	Employer	Employee
California	Yes	Employer	Employee
Colorado	Yes	Employer	Employee*
Connecticut	No	Employer	Employee*
Delaware	No	Employer	Employee*
District of Columbia	No	Employer	Employee*
Florida	Yes	Employer	Employee*
Georgia	Yes	Employer	Employee
Hawaii	Yes	Employer	Employee
Idaho	No	Employer	Employee
Illinois	No	Employer	Employee
Indiana	No	Employer	Employee
Iowa	No	Employer	Employee
Kansas	No	Employer	Employee
Kentucky	No	Employer	Employee
Louisiana	No	Employer	Employee
Maine	No	Employer	Employee
Maryland	Yes	Employer	Employee
Massachusetts	Yes	Employer	Employee
Michigan	Yes	Employer	Employee
Minnesota	Yes	Employer	Employee
Mississippi	No	Employer	Employee
Missouri	No	Employer	Employee
Montana	Yes	Employer	Employee
Nebraska	Yes	Employer	Employee
New Hampshire	No	Employer	Employee
New Jersey	No	Employer	Employee
New Mexico	No	Employer	Employee
New York	Yes	Employer	Employee
North Carolina	Yes	Employer	Employee
Oklahoma	Yes	Employer	Employee
Oregon	Yes	Employer	Employee
Pennsylvania	No	Employer	Employee
Rhode Island	Yes	Employer	Employee
South Carolina	Yes	Employer	Employee
South Dakota	No	Employer	Employee
Tennessee	No	Employer	Employee
Texas	Yes	Employer	Employee
Utah	Yes	Employer	Employee
Vermont	No	Employer	Employee
Virginia	No	Employer	Employee
Wisconsin	No	Employer	Employee

* Employee choice in these jurisdictions is limited in that employees are required to select physicians from lists prepared by the State Agency.

Source of data for physician rules was U.S. Chamber of Commerce, "1989 Analysis of Workers' Compensation Laws."

TABLE 2
STATE ADMINISTRATIVE PROFILE
(EXCLUDING MONOPOLISTIC STATE FUNDS)

compensation medical costs and whether a state allows the employer the initial choice of physician. The expectation is that both of these variables will have negative signs, i.e., the use of these strategies should lower average workers compensation medical costs.

C. DATA AND ANALYTICAL TECHNIQUES
Data on workers compensation costs¹⁸ and economic and demographic factors have been assembled for 33 states from 1964-1984, a time of significant increases in workers

... the average temporary total spell has been virtually unchanged through the 1980s.

compensation medical costs. This time period covers both economic expansions and contractions as well as significant changes in the composition of the labor force. In addition, the selection of states and years in the sample contains a number of states with and without fee schedules, with and without employer choice of physician, and contains states that have had changes with respect to either program. The breadth of the data should allow insights and comparisons on the effectiveness of fee schedules and choice of physician. Table 2 contains the results from the NCCI Research Division survey on

states' use of fee schedules and choice of physician rules. Changes in these respective programs are also identified. Given data availability on workers compensation costs and other control variables, 33 states are used in the analysis.

Two analytical techniques are employed. The first is a comparison of workers compensation medical costs from 1965-1984 (and their rate of growth) between the two sets of categories (fee versus nonfee and employer choice versus employee choice) under investigation. In this manner, we can readily observe if there have been any cost differences between states employing fee schedules or where the employer is allowed the initial choice of physician. Any differences in costs that are observed will be tested to see if they are statistically meaningful.

The second technique involves multivariate analysis using the economic model described above. This will allow a measurement of the net impact of the cost containment strategies after consideration of relevant economic and demographic information and will provide an estimate of how much costs differ in states that allow these cost containment initiatives.

III. EMPIRICAL RESULTS

a. DESCRIPTIVE STATISTICS

As mentioned in Section I, workers compensation medical payments have increased at an annual average rate of 11 percent over the past decade. For the states in the sample, average incurred medical costs increased at an annual average rate of 10.8 percent from 1964 to 1984. This corresponds to an annual growth rate

of 5.6 percent in excess of the general rate of price inflation as measured by the Consumer Price Index. The average yearly nominal and real (i.e., excess of inflation) medical costs for the sample are presented in Table 3 and depicted in Graph 1. The yearly growth rates are also presented. Since 1973, nominal workers compensation medical costs have had double-digit yearly increases.¹⁹

Table 4 contains average medical costs split by whether the state uses a medical fee schedule. In every year, fee schedule states had average costs less than states not using a fee sched-

ule. Further, the difference between the two sets of states has grown from 5.5 percent in 1964 to 17.9 percent in 1984 with differences in excess of 20 percent observed in the early 1980s.

The averages may be slightly misleading since several states instituted fee schedules during the same period; therefore, growth rates may be more meaningful. On average over the same period, average medical costs in fee schedule states increased at a 10.6 percent annual rate; nonfee schedule states increased at 11 percent annually. Although this difference is small, because it is an annual

YEAR	AVERAGE MEDICAL		AFTER INFLATION	
	AMOUNT	% CHANGE	AMOUNT	% CHANGE
1964	208.83		249.69	
1965	213.00	2.00	257.03	2.94
1966	231.43	8.65	264.24	2.81
1967	251.07	8.49	279.54	5.79
1968	270.02	7.55	292.05	4.48
1969	300.27	11.20	309.49	5.97
1970	339.04	12.91	326.27	5.42
1971	372.61	9.90	346.34	6.15
1972	399.98	7.35	358.20	3.42
1973	446.26	11.57	367.36	2.56
1974	531.65	19.13	381.17	3.76
1975	637.35	19.88	416.34	9.23
1976	731.72	14.81	456.20	9.57
1977	808.75	10.53	485.34	6.39
1978	900.74	11.37	504.68	3.98
1979	1005.81	11.66	517.03	2.45
1980	1135.17	12.86	534.92	3.46
1981	1306.79	15.12	577.23	7.91
1982	1490.50	14.06	640.42	10.95
1983	1664.13	11.65	716.74	11.92
1984	1635.01	-1.75	745.25	3.98
Total Percentage Change		682.94		198.47
Annual Average Pct Change		10.84		5.62

TABLE 3
GROWTH IN WORKERS COMPENSATION MEDICAL COSTS

average rate the cost differences will compound over time. In addition, the difference in average costs between fee and nonfee schedule states is statistically significant. The probability that the observed difference in costs is due to chance alone is less than 5 percent.²⁰

Graph 2 shows the difference in average medical costs for fee and nonfee schedule states. Notice that even though fee schedule states have lower costs, the rates of increase have been similar. The difference in costs becomes noticeable in the mid-to-late 1970s and has grown since then.

YEAR	FEE	NON-FEE	% DIFF
1964	199.68	211.43	-5.56
1965	204.07	215.31	-5.22
1966	212.52	236.22	-10.03
1967	229.80	256.54	-10.42
1968	245.06	275.79	-11.14
1969	273.53	306.76	-10.83
1970	300.32	349.95	-14.18
1971	322.27	387.43	-16.82
1972	348.95	415.21	-15.96
1973	396.65	462.00	-14.15
1974	485.16	546.11	-11.16
1975	586.87	652.16	-10.01
1976	665.42	750.55	-11.34
1977	724.58	832.40	-12.95
1978	772.62	937.58	-17.59
1979	827.17	1057.23	-21.76
1980	915.63	1200.60	-23.74
1981	1087.58	1373.61	-20.82
1982	1280.03	1559.37	-17.91
1983	1399.18	1754.41	-20.25
1984	1486.90	1699.34	-12.50
Total Percentage Change	644.64	703.74	
Annual Average Pct Change	10.56	10.98	

TABLE 4
AVERAGE MEDICAL COSTS:
FEE V. NONFEE STATES

Table 5 contains average medical costs disaggregated by whether states have employer or employee choice of initial physician. In every year, employer choice states had lower average medical costs with the difference growing throughout the sample period. In 1964, employer-choice states had average medical costs of \$203.24 compared to \$239.35 for employee-choice states. That is, employer-choice states had 15 percent lower average medical costs. This difference in medical costs grew from 15 percent in 1964 to 36.5 percent in 1984.

The annual average growth rate for employer-choice states was 10.2 percent compared to 11.8 percent for employee-choice states. Thus not only were costs lower on average for employer-choice states but the rate of growth was also lower. The difference in medical costs between employer- and employee-choice states is statistically significant; the probability that this difference is due to chance alone is less than .01 percent.²¹

Graph 3 illustrates the differences in medical costs between employee- and employer-choice states. Up until about 1972-73, average costs between the two were fairly stable. Since 1973, employer-choice states have had much lower medical costs, with this difference becoming more significant.

On the basis of some simple statistical analysis and casual observation of average costs and their growth rates, it appears that both medical fee schedules and employer choice of physician are associated with lower average workers compensation medical costs. However, there are a great many factors that influence workers compensation medical costs and

these simple observations may not be generalizable. For example, if either of these initiatives is systematically related to some of the other important cost drivers, then the effectiveness of the initiatives may be indeterminate. The multivariate analysis attempts to control for such situations.

b. MULTIVARIATE ANALYSIS

The structure of the data requires some care in the multivariate analysis. A variant of regression analysis is employed that controls for the fact that the data are both time series and cross-sectional in nature: i.e., average

medical costs are observed for 21 years and 33 states. The Appendix contains a technical discussion of the analytical technique.

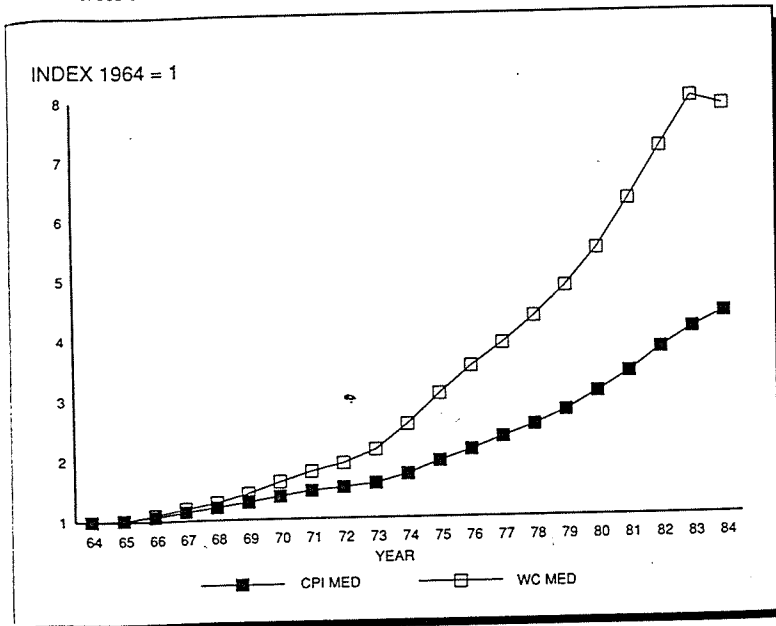
The results from the regression analyses are contained in Table 6. Two different specifications are reported. The first contains the estimates from the basic economic model and variables discussed above. The second contains the results from a model which includes the original variables plus controls for the increasing trend in medical costs that has been observed over time. The idea is to test whether the economic and policy

variables are distinct from secular forces known to affect time series data. For example, it is well-known that economic time series data tend to exhibit a positive trend which can obscure the statistical results of regression analyses. As mentioned previously, the models follow those in the literature and are specified such that the coefficients may be attributed as elasticities; i.e., each coefficient represents the percentage change in average medical costs given a percentage change in the individual variable holding constant all other factors.

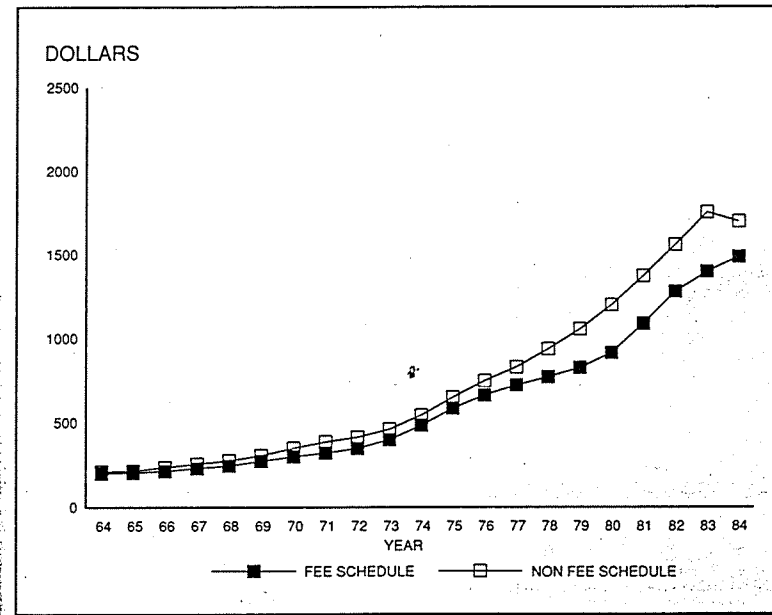
Column (1) of Table 6 contains the

results from the basic model specification. Two general comments are worth noting. First, each of the variables is correctly signed; that is, each confirms prior predictions. Second, each is statistically significant. The two important policy variables, the variable representing whether a state uses a fee schedule and the variable representing employer choice of physician, are both associated with lower average medical costs.

The fee schedule coefficient is $-.035$. The interpretation is that, all other factors in the model considered, states with fee schedules will have 3.5 percent lower average medical costs



GRAPH 1
WORKERS COMPENSATION GROWTH IN MEDICAL COSTS



GRAPH 2
WORKERS COMPENSATION AVERAGE MEDICAL COSTS

than states without a fee schedule. The coefficient on the choice of physician variable is $-.082$. The interpretation is that states with employer choice of physician will have 7.9 percent lower average medical costs.²² These results are reinforced by the models that include the time controls contained in Column (2) of Table 6. With a couple of exceptions, the estimated parameters again conform to the predictions and are statistically meaningful. The fee schedule coefficient is $-.056$ which translates into 5.4 percent lower average costs in states with the schedules. The choice of physician coefficient is $-.054$

YEAR	EM- PLOYER	EM- PLOYEE	% DIFF
1964	203.24	239.35	-15.09
1965	207.24	246.25	-15.84
1966	226.56	260.05	-12.88
1967	247.02	275.16	-10.23
1968	267.64	281.75	-5.01
1969	295.48	322.47	-8.37
1970	330.31	394.44	-16.26
1971	364.05	428.06	-14.95
1972	389.95	463.05	-15.79
1973	434.72	522.09	-16.73
1974	478.67	672.00	-28.77
1975	552.74	765.73	-27.82
1976	628.13	888.82	-29.33
1977	687.91	993.32	-30.75
1978	758.29	1116.10	-32.06
1979	844.07	1258.87	-32.95
1980	946.71	1414.00	-33.05
1981	1087.63	1612.12	-32.53
1982	1216.40	1874.49	-35.11
1983	1336.55	2170.87	-38.43
1984	1419.89	2237.07	-36.53
* Total Percentage Change	598.63	834.64	
** Annual Average Pct Change	10.21	11.82	

TABLE 5
AVERAGE MEDICAL COSTS:
EMPLOYER V. EMPLOYEE CHOICE

which translates into 5.3 percent lower average costs in states that allow employers to select the initial physician.

The two main variables that comprise the expected utility framework are wages and benefits. The wage coefficient is negative and significant as predicted. The coefficient is $-.399$ in column (1); thus, a 10 percent increase in wages will give rise to almost a 4 percent decrease in average medical costs, everything else held constant. This variable represents the greater opportunity cost to being out of work. As wages rise, and benefits are held constant, the implicit cost to being on a workers compensation claim rises and hence workers will choose to file fewer claims, and once injured, stay on a claim for shorter durations.

The benefit variable represents income when on a claim. As benefits increase, with wages held constant, the opportunity cost of being on a claim decreases. The estimated coefficient is small but positive. The coefficient is $.009$; thus, a 10 percent increase in benefits will give rise to a .9 percent increase in average medical costs.

A brief review of the remaining variables shows that an increase in overall hospital costs gives rise to an increase in workers compensation medical costs.

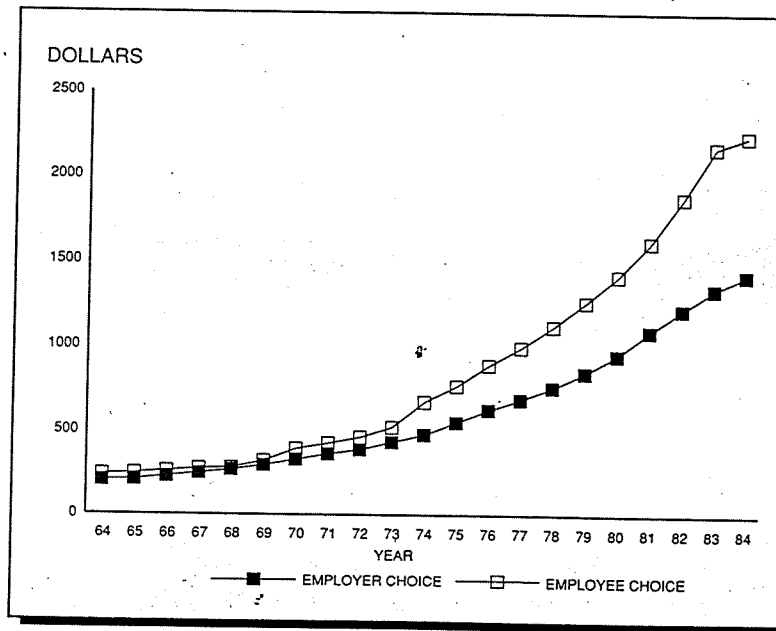
Similarly, increases in interest rates, the waiting period, the proportion of construction employment, the allowance of group self-insurance, and the education level are all associated with higher average medical costs. Other than the group self-insurance variable, which is similar to the fee and choice of physician in that it takes on values that are either zero or one

to indicate the presence of the factor, all other coefficients may be strictly interpreted as elasticities.

In Column (2), the estimated parameters on the time controls are also as might be expected. The positive sign on both time and the square of time indicate that medical costs have been rising at an increasing rate, at least over the sample period. This is certainly consistent with the observations in Section I, but it is significant in that other economic controls are considered. The expected utility framework is verified although there is some ambiguity with some of the remaining economic variables. Sta-

tistically, the models perform well explaining a significant amount of the variability in average medical costs.

Combining the results from the two multivariate models, it is clear both fee schedules and employer choice of physician lower costs. Averaging the two models suggests that fee schedules appear to lower average costs by approximately 4.5 percent when economic factors are considered. Recall, the simple descriptive statistics also found fee schedule states to have lower costs and lower growth rates over time. It seems that price controls do reduce costs and that this reduction is not compromised by an increased



GRAPH 3
WORKERS COMPENSATION AVERAGE MEDICAL COSTS

utilization of services. This is not to say that increased utilization does not occur. Rather, on average, costs are lower in fee schedule states even after consideration of other relevant factors.

The initial choice of physician appears to have a larger impact on medical costs than fee schedules. On average across both specifications, employer-choice states have 7 percent lower costs than employee-choice states. In

some ways this is not surprising since employer selection may be based on both price and utilization controls. This finding is also consistent with the descriptive statistics whereby employee-choice states were observed to have higher average costs and larger growth rates.

IV. CONCLUSIONS AND FUTURE RESEARCH

In the initial phase of this study, fee schedules and employer choice of physician were found to lower workers compensation costs.²³ This follow-up report confirms those findings but refines the estimates of the magnitude of the cost savings. The models presented here are expanded to consider additional economic and demographic considerations, and more importantly, the statistical techniques are specifically suited for the kind of data used in the analysis. The data used are quite extensive; information on workers compensation costs, administrative structure, and economic and demographic characteristics have been assembled for 33 states and 21 years.

The results from the present analysis are that fee schedules lower costs by between 3.5 and 5.4 percent. The previous analysis suggested that fee schedules lower costs by up to 11 percent in the long run (over a period of time). This is not inconsistent with the descriptive statistics presented above. The simple average difference in costs between fee schedule and nonfee schedule states over the 1964-1984 period was 14 percent. The multivariate analysis presents the net impact after consideration of factors that may give rise to the institution of fee schedules in the first place, e.g., high costs or other economic considerations, and

suggests that the marginal impact of moving to a fee schedule will be in the range of 3.5 to 5.4 percent.

Similarly, although greater in magnitude, employer choice of physician lowers medical costs by between 5.3 and 7.9 percent. The previous analysis suggested that the long-run effect of employer choice of physician on costs was 13 percent. This too is consistent with the observations on the differences in costs and growth rates presented in the section on descriptive statistics.

“The average annual growth rate in employer-choice states was 10.2 percent . . .”

While one of the strengths of the present study is the breadth of the data combined with an appropriate analytic technique, it is also ironically a weakness. The use of aggregate statewide data can obscure distributional or individual claimant considerations. For example, it is well-known that individual claim data for workers compensation claimants is highly skewed; there are relatively few very expensive claims that comprise a large percentage of total costs. Use of statistics like average costs will not capture this phenomenon. Clearly, one aim of future research should be to assess the effectiveness of these and other cost containment strategies using individual claim data.

One additional caveat concerning the

analysis in this paper should be recognized. The use of dichotomous or dummy variables to capture differences in whether a state has a fee schedule or is an employer- or employee-choice state is an oversimplification of the different systems that actually exist. Capturing and quantifying these differences pose significant problems for future research.

Finally, this study did not attempt to address the important issues of availability and quality of care. These issues are especially important given the historical role of workers compensation. These issues will also need to be addressed with specially designed studies and individual claim data.

These caveats notwithstanding, the results presented have a basis in economic theory and support the effectiveness of fee schedules and employer choice of physician in containing workers compensation medical costs. While it remains for future research to refine the extent of the cost savings, both fee schedules and employer choice of physician do appear to offer medical cost savings for workers compensation.

APPENDIX

Formally, the Parks method of the TSCS procedure in SAS was used for the analysis. This procedure is essentially an error components model. Statistically, the error structure of the regression model may be affected by the nature of the data. In particular, the disturbances across the states in each time period are likely to be heteroskedastic and perhaps correlated. It is also expected that the disturbances of the cross-sectional units

Variable	(1)	(2)
Intercept	5.967 (38.261)	1.196 (10.710)
Choice	-0.082 (37.888)	-0.054 (23.892)
Fee	-0.036 (14.835)	-0.056 (14.638)
Lcvgbhp	0.676 (108.55)	0.300 (42.903)
Lwait	0.003* (1.658)	-0.0001* (.087)
Ldrate	0.009 (6.027)	-0.013 (17.522)
Lconstr	0.024 (8.000)	-0.016 (3.176)
Self	0.037 (37.968)	-0.0001 (.056)
Lexpben	0.009 (11.392)	0.006 (23.791)
Lcpiwg	-0.399 (25.215)	-0.301 (23.791)
Lhseduc	0.006 (18.937)	-0.001 (5.541)
Time		.008 (14.597)
Time2		.001 (97.226)

* All variables significant at .01 unless otherwise noted.

TABLE 6
WORKERS COMPENSATION
MEDICAL COST REGRESSIONS:
COEFFICIENTS WITH
T-STATISTICS IN PARENTHESES*
(N = 660)

over time are serially correlated. A generalized least squares procedure is employed to handle these problems.

The procedure essentially entails three steps. In the first step, an ordinary least squares regression procedure is applied to all pooled observations. Estimates of the residuals are used to obtain estimates of the autocorrelation coefficients, which are in turn used to transform the data. Ordinary least square regression is then applied to the transformed data

and the estimated residuals from the regression are used for an estimate of the variance-covariance matrix. The variance-covariance matrix is used in the last step, which is a generalized least squares procedure. Estimates obtained using this methodology are unbiased, consistent, and asymptotically efficient, and hence can be used to draw inferences about the determinants of average workers compensation medical costs across all states.²⁴

NOTES

1. *Social Security Bulletin*, Annual Statistical Supplement, 1989, U.S. Department of Health and Human Services, Social Security Administration, table 8.B1, 310.
2. *Health, United States, 1989*, National Center for Health Statistics, Department of Health and Human Services, Publication No. 90-1232, Hyattsville, Maryland, March 1990.
3. *Monthly Labor Review*, U.S. Department of Labor, Bureau of Labor Statistics, November 1990, table 51, 101.
4. "Cost Containment," *NCCI DIGEST*, Volume IV, Issue IV, Dec. 1989, 25-56.
5. National Council on Compensation Insurance, *Annual Statistical Bulletin*, 1990 edition.
6. *Social Security Bulletin*, Annual Statistical Supplement, 1990, U.S. Department of Health and Human Services, Social Security Administration, table 8.B1.
7. Levit, Katharine, Mark Freeland and Daniel Waldo, "National Health Care Spending Trends: 1988," *Health Affairs*, 92, Summer 1990, 171-184.
8. National Council on Compensation Insurance, *Issues Report*, 1990, 13.
9. For a thorough theoretical discussion of the rationale behind these problems, see "Cost Containment," *NCCI DIGEST*, Volume IV, Issue IV, 25. For a recent inventory of individual state practices concerning cost containment, see Boden et al., "Medical Cost Containment in Workers' Compensation: A National Inventory," *Workers Compensation Research Institute*, WC-90-4, November 1990. Also see Pozzebon, Silvana, *Health Care Cost Containment: A Review of the Literature*, a background report to the Minnesota Legislature for cost containment in the workers compensation system, 1990.
10. See Boden et al., *ibid.*
11. This prediction is supported by empirical observation. Significant research from the Rand Health Care Experiment beginning in the mid-1970s found that consumers were responsive to changes in the price of medical care. Medical care was found to be similar to other "normal" goods; as the price to the consumer increases, the demand for medical care does decrease. The Rand health experiment estimated demand

- elasticities that ranged from $-.1$ to $-.2$; the "non-experimental" literature reports elasticities from $-.1$ to -2.1 . The interpretation of an elasticity of $-.1$ is that a 10 percent increase in the price of the good or service in question will cause a 1 percent decline in the demand for that good or service. Thus cost sharing through deductibles and coinsurance can significantly impact the demand for medical services. In addition, the Rand experiment found that the type of medical service is sensitive to cost sharing reimbursement practices. For example, the impact of cost sharing was stronger for outpatient care than inpatient services. See Willard G. Manning et al., "Health Insurance and the Demand for Medical Care: Evidence from a Randomized Experiment," Feb. 1988, The Rand Corporation, Santa Monica, CA.
12. Appel, David, and David Durbin, "Long Duration Workers' Compensation Claims," *NCCI DIGEST*, Volume 1, Issue 1, 1987, observe that for long duration claims employee choice of physician may decrease costs. They hypothesize that this finding may be due to the specialized nature of their sample and was not the central theme of their analysis. John Lewis (1989) finds, based on a limited sample of claims from Illinois, Colorado, Texas and California, that employees are infrequently referred to their treating physician by the employer.
 13. Victor, Richard B., and Charles Fleischman, "How Choice of Provider and Recessions Affect Medical Costs in Workers' Compensation," Cambridge, MA, Workers Compensation Research Institute, 1990.
 14. Borba, Philip S., "The Impact of Medical Fee Schedules?," *NCCI DIGEST*.
 15. Boden, Leslie I., Joan M. DeFinis and Charles A. Fleischman, "Medical Cost Containment in Workers' Compensation: A National Inventory," Workers Compensation Research Institute, Cambridge, MA, WC-90-4, November 1990.
 16. Grossman, Michael, "The Demand for Health: A Theoretical and Empirical Investigation," NBER Occasional Paper 119, National Bureau of Economic Research, New York, 1972.
 17. Borba, Philip S., and David Appel, "The Propensity of Permanently Disabled Workers to Hire Legal Services," *Industrial and Labor Relations Review*, April 1987.
 18. The data on workers compensation medical costs are based on first report Unit Statistical Plan policy year data from NCCI and provided by WCRI for non-NCCI states. The policy year data have been converted to an accident year basis for comparisons with the economic and demographic data. The details of the conversion are available upon request.
 19. The one exception is 1984 where the growth rate is negative. This is somewhat misleading; 1984 data is incomplete due to the technique of transforming policy year data to an accident year basis.
 20. A T-test of the differences in mean medical costs yields a $t=1.75$ which is significant with $p=.0405$ in a one-tail test.
 21. A T-test of the differences in costs between employer- and employee-choice states yields a $t=5.37$ with $p=.0001$.
 22. It is well-known that in logarithmic models, elasticities on dummy variables $= \exp(B) - 1$.
 23. "Cost Containment," *NCCI DIGEST*, op. cit.
 24. See Kmenta, Jan, *Elements of Econometrics*, Macmillan Publishing Company, New York, 1971, 512-514.



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TO: MEMBERS OF THE HOUSE LABOR AND INSUSTRY COMMITTEE
TESTIMONY ON HOUSE BILL # 3023

FEBRUARY 26, 1992 Room # 526-S

Mr. Chairman, members of the committee, My name is Art Brown, and it is my pleasure to visit with you today in support of House Bill # 3023.

Our membership, which consist of over 350 lumber dealers in the State of Kansas, feels that this bill, though not a total panacea for the multitude of problems that currently exist in the Workers Compensation system, would appear to be welcome relief to slow down the staggering costs that this industry is currently being subjected.

In 1991, our industry was subjected to a 34.9 % increase in their rates. There is talk of another 30-40% increase for 1992. Simply stated, there is no way these dealers can keep taking increases like this and hope to survive. Since 1988, 47 retail lumber operations have closed throughout the State. We would readily concede that increased rates for Workers Compensation was not the reason for these closings, but rate increases such as this is the wrong direction to be going for businesses who are looking to grow, rather than cut back, which many dealers will be forced to do with this type of increased costs.

*Labor & Industry
2-26-92
attachment #4*

FEDERATED WITH THE NATIONAL LUMBER AND BUILDING MATERIAL DEALERS ASSOCIATION

There are several examples that could be shown as to the problems that dealers have and are currently facing with these higher rates. One I would share is the dealer who had an employee, under advise of attorney who filed a claim for a bad back and recieved \$20,000.00 payment for this condition, even though he had had this problem for years and it was not a work related condition. It was just eaiser to get restitution through the Work Comp. system, then to try and pursue it though tort action.

I will not bore the committee with stories such as this, as I know you have several other conferees that wish to testify to this bill. We feel, as a membership, that this committee knows full well that there is a problem and a very severe one with the system the way it is set up now. Any solution that is generated during this session may not be able to give short term relief when passed. Therefore, the industry is looking at a 34.9% increase from last year and another increase potential this year. The membership is saying, " Let's stop it here." No More!!

I will not go through a point by point review of the summary sheet that Representative O'Neal outlined for the committee over the past few days. Several of the points outlined in the presentation he made have struck a very positive chord with our members, and from early signs we are hearing, many of you will be hearing from these dealers.

The feeling is that there is concern on this issue, now it is time to take action on that concern and adopt the meaningful legislation that will at least slow down these horrendous rate increases.

As stated in the start of this testimony, we do not necessarily say that this bill is a total cure-all for the problems that exist in the areas of Workers Compensation.

It is, however, the best attempt to date that we have seen that would try to solve some of the problems that exist. This statement is not being made by me, but by insurance administrators, managers and owners who deal with this issue on a day to day basis in their businesses.

As a final note, in visiting with about 8 dealers on the phone about this legislation it became apparent that some of the mid-size to larger dealers are going to have to look very strongly at issues such as hiring freezes and even possible job layoffs if the proposed increase being talked about comes to pass.

Understand, the housing market in Kansas, for the most part, has been dismal. Increases such as this are just too big to pass on in total, and what the dealer absorbs is just an increase to the cost of doing business. In a down market such as this, increased costs for product simply scares buyers off of buying decisions they might otherwise make. It is a vicious cycle that just keeps feeding itself.

Again, we know there is concern in this committee to solve this problem. If not all the components of this bill look to be a viable at least some provisions look to be a real positive step in the right direction. It is our hope that the committee chooses to take action on this bill and start the ball rolling toward some much needed relief on this very difficult issue.

I thank you for your time, and stand to answer any questions you may have.

AIA Kansas

A Chapter of The American Institute of Architects



February 26, 1992

TO: Representative Hensley and Members of the House Labor and Industry Committee

FROM: Trudy Aron

RE: SUPPORT of HB 3023

The American Institute of Architects in Kansas (AIA Kansas) supports legislation which will control the drastic increases our members have seen in their Workers' Compensation premiums.

Several architectural firms have reported that their current insurance carriers are cancelling their coverage at the end of their annual policy year. These firms have not had claims; their carriers are just getting out of this type of business all together. We fear that fewer carriers will mean even higher rates.

The depressed national economy is severely hurting our members. Increases in workers compensation premiums are making a difficult year more difficult. These increases are forcing firms to cut back in other areas, such as paid health insurance for employees.

We urge you to support the reforms outlined in HB 3023 which we believe will decrease workers compensation costs and, therefore, our premiums.

700 SW Jackson, Suite 209
Topeka, Kansas 66603-3731
Telephone: 913-357-5308
800-444-9853
Facsimile: 913-357-6450

*Labor & Industry
2-26-92
Attachment #5*