		Approved _	March	24, 199 Date	92
MINUTES OF THE <u>SENA</u> T	E COMMITTEE ON	LOCAL GOVER	NMENT		•
The meeting was called to ord	er by <u>Senator Audre</u>	Langworthy Chairperson	·		at
9:10 a.m./pxx. onTu	ept:	, 19 <u>9</u> 2	in room _	531-N	of the Capitol.
Committee staff present:	Theresa Kiernan, Re Mike Heim, Legislat				

Elizabeth Carlson, Committee Secretary

Conferees appearing before the committee:

Terry Humphrey, Kansas Manufactured Housing Barry Hokanson, Director of Planning, Johnson County Cliff Campbell

SB 586 - Storm shelters for mobile home parks

Terry Humphrey, Kansas Manufactured Housing, appeared as an opponent to the bill. She read from a prepared statement.  $(Attachment\ 1)$  She stated HB 2936 is a more reasonable approach to this situation.

SB 727 - Townships, Board of County Commissioners to serve as governing body.

Senator Lee introduced this bill by saying it will solve problems for both urban and rural counties and townships.

Barry Hokanson, Director of Planning, Johnson County, appeared as a proponent of SB 727 with an amendment. (Attachment 2) A problem in Johnson county is with a township with zero population and another with a very small population which makes it difficult to carry on the business and it is necessary for the County Commissioners to take over the duties of the township. He made suggestions for amendments with balloon attachment.

Senator Lee said this bill deals also with some of the smaller rural townships. It gives the townships the opportunity to become part of the county if they so desire. Some of the small townships have only 50 people in the township and this way they can do away with the township.

SB 527-Township road and machinery equipment

Cliff Campbell appeared as a proponent for **SB 527**. He stated they do hav a township road system and the county has the county road system. The have trouble getting people to serve on the township board and the countie don't want to take over the roads. He quoted KSA 68-593 and 68-594 which did not solve the problem of what to do with the road and machinery equipment.

Senator Langworthy asked if there is money owed on the grader, what happens. Ms. Kiernan said it would be sold according to that lien.

Mike Heim said the statute that is being amended is similar to the county unit system, but the county rural highway system statute provides for the transfer of the equipment over to the county but the county unit system under which 2/3rds of the counties operate now has a procedure for the transfer of the equipment as well as the debt to the county. The appraisal for the equipment and also a requirement that the county spend the money within two years within that township on the roads is in the statutes. KSA 68-594 could be made consistent with KSA 58-916 (b) which is already in the law.

#### CONTINUATION SHEET

MINUTES OF THE SENATE COMMITTEE ON LOCAL GOVERNMENT

room \_\_531-NStatehouse, at \_\_9:10 \_\_a.m./xx. on \_\_Tuesday, March 3 , 19<u>9</u>2

Ernie Mosher, League of Kansas Municipalities, stated there are three different systems; the county unit system, county-township system and a county rural highway system.

Mike Heim said you are under the township system, and you have a choice of going under the county unit system, or the rural highway system. 10% of the people in the township can petition for going under another system. The bill needs to be amended to get the county to take over the roads.

The decision was made to see the amendment tomorrow and action will then be taken.

SB 727 - Townships, Board of County Commissioners to serve as governing bodies.

Senator Steineger made the motion to amend SB 727 in line 12 by striking the word "and", and adding "on its own motion, or shall"and in line 14 by striking the word "shall". Senator Burke seconded the motion. Motion carried.

Senator Gaines moved SB 727 be pass favorably as amended. Senator Lee seconded the motion. Motion carried.

SB 586 - Storm shelters for Mobile Home Parks

There was a general discussion of the bill, questions were asked about the economic hardship on the owners of mobile home parks. Terry Humphrey stated Manufactured Housing had contacted all county appraisors in 1987 and they found there were approximately 1,000 mobile home parks in Kansas and at least 50% of them were less than 50 spaces and many were only 10 or 15 spaces. It would have a great impact on some of these mobile home parks. There was testimony that every county does have emergency preparedness. Could an amendment be made to give local authorities the authority to grant exception if it is impossible or not feasible if other arrangements for shelter can be accessible?

Senator Gaines said the 18 square feet requirement per mobile home for the shelter needs to be changed to 8 square feet, accessibility for the handicapped needs to be stricken, the handicapped will be gotten down the steps by others, it should not be made a crime, but it is a civil liability. If there is something nearby in the form of a shelter, the requirement should be waived, and it has to be retroactive.

Senator Daniels said she was extremely flexible on the square footage, the bill was modeled after the Saline county ordinance. A number of construction companies said the cost would be about \$8 to \$12 per square foot depending on how fancy it would be. In Section 2, it requires cities and counties to draw up their own ordinances and requirements, and if they want to give exemptions, that is up to them. She stated she has an amendment she would like to offer that a state architect would draw up plans for storm shelters to be used by smaller cities.

Senator Frahm said in her area some of the mobile home parks have a very low occupancey rate and there should be some kind of waiver for the park.

There was also discussion of why mobile home parks are being singled out; there are many apartments houses and apartment complexes that do not have shelters. The discussion on SB 586 ended.

Senator Frahm moved and it was seconded by Senator Ehrlich that the minutes of February 13, 18, and 20, 1992 be approved. Motion carried.

The meeting adjourned at 10:00 a.m.

Date: 9march 3, 1992

# GUEST REGISTER

# SENATE

# LOCAL GOVERNMENT

NAME	ORGANIZATION	ADDRESS		
BARRY HOKANSON	JOHNSON COUNTY	COURTHOUSE,		
	DEALMING DEDI	GLATHE 66061		
BEN BRADLEY	TOPERA	KS Assoc of Countries		
HARVEY LEAVER	KEEA - PRESIDENT	LEAVENIKIORTH CO COURTHOUSE LEAVEN		
FRANK HEMPEN, JA	KCKA Pres-Flect /Leg.	Douglasco. Rublic Work		
Tendumelio	VM11A	1242 Myssachusetts Lau		
	X/11/1/1	Topoha		
parlana Sitts	Dept of admin	Topka		
Of lotter	Topella IK-C-A	Totellon		
Faye Campbell		Beloit .		
lifted Yearful	Farmer	Belant		
Allester	La Carrer Strains	1.		
	1 29 May Stay	ogedo.		
	7			

#### KANSAS MANUFACTURED HOUSING ASSOCIATION

#### TESTIMONY BEFORE THE

#### SENATE

#### LOCAL GOVERNMENT COMMITTEE

TO: Chairperson Audrey Langworthy and

Members of the Committee

FROM: Terry Humphrey, Executive Director

DATE: March 4, 1992

RE: Senate Bill 586

The Kansas Manufactured Housing Association (KMHA) opposes Senate Bill 586 which mandates storm shelters for both new and existing mobile home parks. However, KMHA wants the Local Government Committee to know that we support House Bill 2936 which requires storm shelters of newly constructed Mobile Home Parks and a discloser statement to prospective tenants if an existing mobile home park has no storm shelter on the property. None-the-less, we opposes SB 586 for the following reasons:

- 1. It unfairly discriminates against mobile home parks by mandating storm shelters for parks and exempting the rest of the housing industry from offering the same service.
- 2. It overlooks the fact that a many mobile home parks historically have offered storm shelters on a voluntary basis.
- 3. It requires storm shelters of all existing mobile home parks and this may be impossible due to unavailable land and cost. Many of the older parks are now land locked due to development. Furthermore this bill would have a catastrophic effect on hundreds of small older parks.
- 4. The square footage requirements in SB 586 are excessive. Most mobile home park storm shelters provide about 8 sq. ft. of shelter space per home. Our research indicates that the average mobile home household size is 2.3 persons.

Perhaps the most important issue is that SB 586 does not address the issues of storm safety. The Andover tornado showed us that storm safety can only be improved if local governments do a better job in: educating the public, emergency preparedness planning and improved waring systems.

Attachment 1-1

Senate Focal govt

March 3, 1992

Recently I reviewed the Topeka Shawnee County Emergency Preparedness Plan and what I learned truly astonished me. The local Emergency Preparedness Plan states as its goal four phases of emergency management—mitigation, preparedness, response, and recovery. The plan also identifies tornados as one of the most likely hazards. A specific component of the plan deals with tornado shelters. The basic policy statement is that all people should take shelter. However, the plan itself, does not list or provide for the use of public or private shelters. However, the plan does provide shelters for a nuclear attack. In short, public shelters do not exist for severe weather even though 55,528 or 34% of Shawnee County residences have no basements.

Upon discovering these facts, I contacted other county officials to see if they provided storm shelters for their citizens and the answer was no. Next I asked why? The responses were: cost, staffing, security problems and liability. In fact, it was mentioned that private locations previously offering shelter were closing their doors due to liability concerns.

In view of this development, I cannot see a rational reason for putting the responsibility of sheltering on one very small segment of the housing stock when local governments will not assume this responsibility themselves. In fact, Kansas has approximately one million housing units and according to the National Census about half of these units have no basements.

The other issue that I would like to discuss, deals with the two studies that Senator Daniels gave to the committee and were quoted heavily by the government agencies who testified last week. These studies are:

- 1. INJURIES FROM THE WICHITA FALLS TORNADO: IMPLICATIONS FOR PREVENTION
- 2. RISK FACTORS FOR TORNADO INJURIES

After reading these articles I was very disturbed by some of the information that was in the 13 year old and 8 year old articles respectively. Subsequently, I called the Manufactured Housing Institute (MHI) in Washington, D.C., and asked them to have their engineers and a independent professional review the articles. Last week I received an assessment of the articles from Dr. Carol B. Meeks, a Professor at the University of Georgia and Mr. Nikpourard, Director of Engineering Standards at MHI. Both professionals raised serious questions about these two articles and noted several weaknesses in the studies. In Mr. Nikpourard assessment he said:

"This article supports some serious misconceptions about manufactured homes (mobile homes). These misconceptions are due to a number of factors: The use of antiquated references, lack of knowledge about manufactured home construction, and as the article points out observation and

Senate focal govt. March 3,1992 information that is anecdotal. These factors in turn have been translated into safety recommendations, the effectiveness of which have never been tested."

Therefore, it would be a mistake for the Legislature to rely on these articles for the purpose of developing public policy. In short, these articles would lead you to believe that manufactured homes are exceedingly dangerous structures in severe weather. However, we do not believe that properly anchored HUD Code manufactured homes are any less safe in severe weather situations than any other type of single story wood frame structures constructed on slabs or over crawl spaces. Attached is Dr. Meeks and Mr. Nikpourard's critique of these articles.

In closing, I want to re-state that we support HB 2936 because it is a reasonable approach to this issue. However, I believe that the real issues of storm safety are not addressed in either the House or Senate bills. Instead, all Kansans would be better served if the Legislature thoroughly reviewed State and Local storm safety plans and activities in interim study. Also, Dr. Scott Lillibridge will release this spring what may be the most comprehensive analysis of a Kansas storm in the history of our state. Consequently, legislative action in advance of this study would be pre-mature. Finally please do not pass SB 586 without knowing the social and economic impact of this bill. Thank you.

Attachment 1-3 Senate Steal govt March 3,1992

# Manufactured Housing Institute

1745 Jefferson Davis Hwy., Suite 511 Arlington, Virginia 22202

Tel: (703) 979-6620 Fax: (703) 486-0938

February 24, 1992

Ms. Terry Humphrey Kansas Manufactured Housing Institute 112 SW 6th Street, Ste. 204 Topeka, KS 66603 MAR 2 - 1992

RE: A Critique of Article Titled, Risk Factor for Tornado Injuries, Journal of Epidemiology, Volume 19, No. 4

### Dear Terry:

Subject article references the epidemiological analysis of 1979 tornado in Witchita Falls, Texas as a corroborating source that "mobile homes were the most risky location to be in during a tornado." The Texas tornado study was separately evaluated and deficiencies in the study were pointed out. This is another example of how a misconception is propagated by being referenced again and again by various research bodies.

The article states that "In the Carolina tornados the following risk factors appeared to predominate; being in a structure more likely to be damaged by the tornado (such as a mobile home)." Manufactured homes (mobile homes) are built to the Federal standard and are capable of withstanding wind speed in excess of 100 mph. It is not the structural integrity of manufactured homes that makes it a risky place to be in at the time of a tornado. The only real risk with manufactured homes are those which are inproperly anchored to a foundation or the soil. Once properly anchored, the risk of destruction and injury is not much higher than any other simple story wood-framed homes on basement slabs or crawl spaces. This was proven by the findings of the study when it sites that "the risk of hospitalization or death in South Carolina was 1.6 times that in North Carolina, regardless of home structure." The fewer deaths and injuries in North Carolina can probably be attributed to the North Carolina's enforcement of tiedown laws at that time.

Based on this article, 17 percent of those who were seriously injured were inside mobile homes. For this finding to be conclusive, following questions need to be answered.

- 1. How many homes were anchored?
- 2. Of those homes that were anchored but still severely damaged, how many were not properly anchored?
- 3. How densely were the manufactured homes built in comparison to the single family homes?
- 4. How many of the homes were built prior to 1976 (per HUD Code)?

Senate Stal govt March 3,1992 The analysis of the responses to the above questions will provide us with more information as to whether the construction integrity of the homes or proper installation were the attributing risk factor.

Once we gather enough information on manufactured home construction integrity, separating installation from construction risk, evaluating the effect of density factor, examining the antiquated information with jaundiced eye, distinguishing between manufactured homes and mobile homes (recognizing homes prior to 1976 as mobile and homes built after 1976 as manufactured homes), only then, we can fairly assess how risky a manufactured home is in comparison to any other types of comparable wood-framed homes.

Sincerely, Makaurfacel Dariush Nikpourfard

Director-Engineering Standards

Attachment 1-5 Senate focal govt March 3, 1992

#### **ASSESSMENT**

of

Injuries from the Wichita Falls Tornado: Implications for Prevention

b y

Carol B. Meeks, Ph.D.

Professor

Department of Housing and Consumer Economics

University of Georgia

Athens, GA 30602

February 22, 1992

Attachment 1-6 Senate focal gout March 3,1992

#### Assessment Overview

The article by Glass et al. "Injuries from the Wichita Falls Tornado: Implications for Prevention" is an interesting case study of the impact of a tornado that struck Wichita Falls, Texas on April 10, 1979. In terms of manufactured housing, the critical flaw is that all of the estimates are based on 14 households who were not randomly selected. In fact, no description at all is given on how they were selected, although the authors go to great lengths to assure the reader that the single-family home sites were randomly selected. This nonrandom selection process jeopardizes the validity of their other estimates and thus the conclusions. I have divided my comments into five sections.

## I. Sample and Data Collection

The authors actually select several samples. It is important to note that not every sample contains information about the population so that sample selection is critical in order to be able to draw implications and make inferences to the population. The first samples to be discussed are those based on housing type.

(a) There is a five percent sample of home sites selected by the attribute method. However, the reader is provided no information on the attributes considered in selection i.e. did they select certain kinds of homes or homes of certain materials or homes in a certain location.

In addition to the 239 homesites, interviewers also interviewed neighbors of these homesites. The reader is told that 75% of the data were obtained from residents of the homesites and 25% from neighbors. Interviewing the neighbors instead of the occupants is a common technique used to increase sampling in an area.

(b) The authors indicate that their goal was to contact occupants of all 89 mobile homes. However only 14 households were contacted. No reason is given for why they did not achieve their goal. Did they run out of time, were they refused? It would have been better to take a random sample of the 89 homes, if they could not contact all of them. It is incorrect to produce population estimates from a nonrandom sample.

Senati Stral gove. March 3, 1992 (c) Apartment owners were assumed to be exactly like single-family home occupants. Why this was done is unclear. Much research indicates renters are very different from homeowners.

The authors also interviewed all persons who were seriously injured or their families as well as the families of all persons who were deceased. In addition the authors also mention a random survey of the community but it is unclear whether they are referring to the random selection of the homesites or something else.

Volunteers were used to visit the home sites to collect data. No information is given on the training, if any, provided to volunteers or the instrument. No analysis is made regarding possible interviewer bias.

## II. Estimates of Location of Residents

After collecting the data, the authors estimate from the survey where the community residents were at the time that the tornado struck. They estimated that 9,705 single-family home owners or 66% of all single-family home owners were in their homes. Similarly 3111 apartment dwellers or 88.6% of all apartment dwellers were in their apartments. Of the mobile home occupants, they estimated that 47 were in the mobile homes at the time the tornado struck. These 47 individuals are 16.8% of all 279 mobile home occupants in the community.

No information is given nor is there any speculation regarding the small percentage of mobile home residents who are in their homes. Are mobile home residents educated to dangers so that they leave the homes? Or are the data from the 14 nonrandom households on which the number of residents at home determined inaccurate?

# III. Estimates of Rate of Injury/Death

To calculate the rate of injury/death per housing type, the authors combine two pieces of data discussed earlier. They take the number of persons injured(deceased) for each housing type and divided that number by the estimated population living in that type of housing.

At this point the accuracy of the estimate of mobile home residents at home becomes critical. The four people who were

Senate focal govt March 3, 1992 seriously injured is divided by the 47 mobile home residents who have been estimated to have been at home. This gives the authors an injury rate of 8.51% for mobile homes. Although the authors report confidence intervals for the other types of housing, no confidence intervals are given for mobile homes. At the 95% probability level with this sample size(47) somewhere between 2% and 19% of the occupants might expect to be injured. This range is rather large in part because the small sample size provides one with little confidence. It is also important to note that the 47 is determined from a nonrandom sample. Estimates to the population are based on random samples which are assumed to represent the population they are trying to explain.

#### IV. Discussion Section

The authors in their discussion section indicate that mobile homes should be tied down. No one would argue with this statement. However no where in the article are any data presented on the tiedown situation. It is unclear why this is included in the article. Although the authors consider construction material, they do not address the issue of basements or shelters for single family homes that may be on a slab.

## V. Questions

This article is very difficult to read. It is not clear after several readings whether there was a random community survey or whether that is the homesite survey. Use of terms like confidence intervals and injury rates are not common everyday language for most community residents. Thus the decision-makers need to pose some critical questions, such as: Should public policy related to manufactured housing be determined on the basis of 14 nonrandomly selected families? Are these 14 families typical of all occupants? Where were most of the mobile home occupants at the time the tornado struck?

Attachment 1-9 Senale focal govt march 3, 1992

# Manufactured Housing Institute

1745 Jefferson Davis Hwy., Suite 511 Arlington, Virginia 22202

Tel: (703) 979-6620 Fax: (703) 486-0938

February 24, 1992

Ms. Terry Humphrey Kansas Manufactured Housing Institute 112 SW 6th Street, Ste. 204 Topeka, KS 66603

RE:

A Critique of Article Titled,
"Injuries From the Wichita Falls
Tornado: Implications for
Prevention," *Science Magazine*Vol. 207, 15 February 1980

Dear Terry:

This article supports some serious misconceptions about manufactured homes (mobile homes). These misconceptions are due to a number of factors: The use of antiquated references, lack of knowledge about manufactured home construction, and as the article points out observation and information that is anecdotal. These factors in turn have been translated into safety recommendations, the effectiveness of which have never been tested.

Many questions arise when one examines the article as it relates to mobile homes. Exclusion of these questions in an evaluation process will lead to further misconceptions among people who deal with safety issues at the time of disaster.

The use of antiquated reference was noted when the article suggests that "proper tiedown that anchors the trailer are effective when wind speeds do not exceed 50 miles per hour, but cannot protect a mobile home in greater wind or from a direct tornado hit" (1978 paper by Institute of Disaster and Research). Manufactured homes (mobile homes) are built to Federal standards known as HUD Code homes and are capable, once properly anchored or permanently sited, of withstanding wind speeds in excess of 100 mph.

Lack of knowledge about performance and construction of manufactured homes results in an inaccurate estimate of the number of people who may have stayed home when tornado struck. The performance determination of manufactured home is skewed if one is to compare how various types of homes performed in a tornado which destroyed or damaged more than 3,000 (89 of which were manufactured homes) of approximately 4800 homes. How was the construction integrity of many totally destroyed single family homes or apartments evaluated against manufactured homes that suffered similar destruction. There was no indication as to how damage estimates on mobile homes were conducted other than through interviews. The following questions and examination of mobile homes are necessary if one is to conclude that "mobile homes" are at high risk to damage in tornados.

Senale focal govt March 3, 1992

- 1. How many mobile homes were anchored in accordance with manufacturer instructions?
- 2. How many mobile homes were sited adequately attached to permanent foundations?
- 3. What was the damage to properly anchored homes in comparison to single family homes?
- 4. How many of the homes were built prior to 1976 (pre HUD Code)?
- 5. Of those mobile homes that were anchored but still severely damaged, how many were not properly anchored?

The answer to the above questions and their analysis could provide better risk and damage estimates.

In the Wichita Falls tornado more than 3000 homesites out of approximately 4800 homes were damaged or destroyed. There were 15 deaths and 27 injuries related to, single family homes, apartments, and public buildings. There were no fatalities related to manufactured homes. Therefore, how can it be concluded that manufactured homes are less safe. When a tornado with the severity of the Wichita, Kansas tornado strikes, the level of destruction and damage to all types of wood framed homes would be equal.

The article states that "people in mobile homes were at greatest risk (85 per 1000). The 85 per 1000 figure is an estimate which was determined based on nonrandom interviews of residents of 14 mobile homes. This "crude population estimate" was used to determine the number of mobile home residents who were at home when the tornado struck (47 was estimated to be at home). The number of people injured (4) divided by the estimated number of people at home times 1000 produces 85 injuries per 1000 for mobile home residents. In comparing single family homes, apartments and mobile homes, it is estimated that 68 percent of single family residents and 89 percent of apartment residents were at home when the tornado struck and only 17 percent were estimated for mobile home residents who were at home at the same time. The following questions should be asked, if one is to estimate the number of manufactured home residents present at their home when the tornado struck.

- 1. Were home owners knowledgeable that with proper tiedown, their home can withstand wind speed in excess of 100 miles per hour?
- 2. Knowing the capability of properly anchored homes to withstand high wind, would they have stayed indoors.

The analysis of the responses to the above questions could very well increase the estimated number of people at home which in turn will lessen the estimated injuries per 1000.

attachment 1-11 Serate focal govt. March 3,1992 We do not believe that properly anchored manufactured homes are any less safer in severe weather situations than any other type of single story wood frame structures constructed on slabs or over crawl spaces. There is a need for more education, differentiation of manufactured homes and mobile homes, and elimination of any references to antiquated information.

Sincerely, Darwish Mippeurfurd

Dariush Nikpourard

Director

Engineering Standards

Attachment 1-12 Senate focal govt March 3, 1992

#### **ASSESSMENT**

of

Injuries from the Wichita Falls Tornado: Implications for Prevention

bу

Carol B. Meeks, Ph.D.

Professor

Department of Housing and Consumer Economics

University of Georgia

Athens, GA 30602

February 22, 1992

Attachment 1-13 Senate Socal govt. March 3, 1992

## Assessment Overview

The article by Glass et al. "Injuries from the Wichita Falls Tornado: Implications for Prevention" is an interesting case study of the impact of a tornado that struck Wichita Falls, Texas on April 10, 1979. In terms of manufactured housing, the critical flaw is that all of the estimates are based on 14 households who were not randomly selected. In fact, no description at all is given on how they were selected, although the authors go to great lengths to assure the reader that the single-family home sites were randomly selected. This nonrandom selection process jeopardizes the validity of their other estimates and thus the conclusions. I have divided my comments into five sections.

# I. Sample and Data Collection

The authors actually select several samples. It is important to note that not every sample contains information about the population so that sample selection is critical in order to be able to draw implications and make inferences to the population. The first samples to be discussed are those based on housing type.

(a) There is a five percent sample of home sites selected by the attribute method. However, the reader is provided no information on the attributes considered in selection i.e. did they select certain kinds of homes or homes of certain materials or homes in a certain location.

In addition to the 239 homesites, interviewers also interviewed neighbors of these homesites. The reader is told that 75% of the data were obtained from residents of the homesites and 25% from neighbors. Interviewing the neighbors instead of the occupants is a common technique used to increase sampling in an area.

(b) The authors indicate that their goal was to contact occupants of all 89 mobile homes. However only 14 households were contacted. No reason is given for why they did not achieve their goal. Did they run out of time, were they refused? It would have been better to take a random sample of the 89 homes, if they could not contact all of them. It is incorrect to produce population estimates from a nonrandom sample.

Stachment 1-14 Sinate focal govt March 3, 1992 (c) Apartment owners were assumed to be exactly like single-family home occupants. Why this was done is unclear. Much research indicates renters are very different from homeowners.

The authors also interviewed all persons who were seriously injured or their families as well as the families of all persons who were deceased. In addition the authors also mention a random survey of the community but it is unclear whether they are referring to the random selection of the homesites or something else.

Volunteers were used to visit the home sites to collect data. No information is given on the training, if any, provided to volunteers or the instrument. No analysis is made regarding possible interviewer bias.

#### II. Estimates of Location of Residents

After collecting the data, the authors estimate from the survey where the community residents were at the time that the tornado struck. They estimated that 9,705 single-family home owners or 66% of all single-family home owners were in their homes. Similarly 3111 apartment dwellers or 88.6% of all apartment dwellers were in their apartments. Of the mobile home occupants, they estimated that 47 were in the mobile homes at the time the tornado struck. These 47 individuals are 16.8% of all 279 mobile home occupants in the community.

No information is given nor is there any speculation regarding the small percentage of mobile home residents who are in their homes. Are mobile home residents educated to dangers so that they leave the homes? Or are the data from the 14 nonrandom households on which the number of residents at home determined inaccurate?

# III. Estimates of Rate of Injury/Death

To calculate the rate of injury/death per housing type, the authors combine two pieces of data discussed earlier. They take the number of persons injured(deceased) for each housing type and divided that number by the estimated population living in that type of housing.

At this point the accuracy of the estimate of mobile home residents at home becomes critical. The four people who were

Strate Socal good. March 3, 1992 seriously injured is divided by the 47 mobile home residents who have been estimated to have been at home. This gives the authors an injury rate of 8.51% for mobile homes. Although the authors report confidence intervals for the other types of housing, no confidence intervals are given for mobile homes. At the 95% probability level with this sample size(47) somewhere between 2% and 19% of the occupants might expect to be injured. This range is rather large in part because the small sample size provides one with little confidence. It is also important to note that the 47 is determined from a nonrandom sample. Estimates to the population are based on random samples which are assumed to represent the population they are trying to explain.

### IV. Discussion Section

The authors in their discussion section indicate that mobile homes should be tied down. No one would argue with this statement. However no where in the article are any data presented on the tiedown situation. It is unclear why this is included in the article. Although the authors consider construction material, they do not address the issue of basements or shelters for single family homes that may be on a slab.

# V. Questions

This article is very difficult to read. It is not clear after several readings whether there was a random community survey or whether that is the homesite survey. Use of terms like confidence intervals and injury rates are not common everyday language for most community residents. Thus the decision-makers need to pose some critical questions, such as: Should public policy related to manufactured housing be determined on the basis of 14 nonrandomly selected families? Are these 14 families typical of all occupants? Where were most of the mobile home occupants at the time the tornado struck?

Attachment 1-16 Senate Socal govt March 3,1992



March 3, 1992

SENATE LOCAL GOVERNMENT COMMITTEE

HEARING ON SENATE BILL 727

TESTIMONY OF GERRY RAY, INTERGOVERNMENTAL OFFICER JOHNSON COUNTY BOARD OF COMMISSIONERS

Madam Chairman, members of the Committee, I regret I cannot appear today on Senate Bill 727, however I am out of town on business and will not return until tomorrow. The Johnson County Commission requested a bill to address problems with township governing bodies brought about by the reduced area and population due to annexation. We appreciate the Local Government Committee's willingness to sponsor and hear the bill.

Senate Bill 727 would allow the Board of County Commissioners to assume the duties and responsibilities of a Township Board by a petition initiated by the residents of the township or by Resolution of the County Commissioners.

For several years we have faced problems with two townships in Johnson County. One is Shawnee Township, which has no residents and consists only of a landfill. The other is Monticello Township that has 134 residents and no one who is available to serve on the Township Board. These two situations have presented many problems, the major ones being the preparation of budgets under state law and some unexpended funds that remain. The existing statutes allow the disorganization and consolidation of townships that are contiguous. However, ours are not contiguous and the statutes do not provide a process to deal with them.

We believe that Senate Bill 727 provides adequate authority for the County to deal with the issue as well as safeguards for the residents through the provision for a protest petition. The bill offers a solution to a dilemma that has existed in Johnson County for some time and we urge the Committee to recommend it favorably for passage.

Again, thank you for the time you have given to help us resolve the problem.



February 27, 1992

TO: Senator Don Montgomery

FROM: Gerry Ray

SUBJ: Senate Bill 663

The following are the answers to the questions you asked during the Local Government Committee hearing on SB 663 on February 26:

...Percentage of Budget increase for: 1991 - 8.7% (0% mill levy increase)
1992 - 15.8% (4.3% mill levy increase)

...Percentage of property tax within total budget: 33.7%

...Percentage of budget going to support Courts: 2.68%

...Percentage of Court budget funded by County: 76.9%

... Number of registered voters in Johnson County: 164,844

... Estimated cost of mail ballots: \$1.34 per ballot

I hope I responded to all of your questions, I did not write them down while I was at the podium and may have missed one. If so, or if you need further information or clarification on the above please let me know. I will be out of town until March 4, but will be pleased to provide anything you need after that.

Attachment 2-2 Senate Socal govt. March 3,1992