billion in losses and 86 fatalities. In 1998, a calm year according to experts, due to wind related storms there was more than $5.5 billion in damages, and at least 186 fatalities. The federal government invests $4 billion to develop and promote knowledge, practices, and policies that seek to reduce and where possible eliminate losses from wind related hazards. In 1999, the federal government invested nearly $100 million per year in reducing earthquake losses through the National Earthquake Hazards Reduction Program. The full impact of Wind Hazard Reduction will pay significant dividends in lives saved and decreased property damage.

The Wind Hazard Reduction Caucus or “Big Wind” will develop a program to reduce loss of life and property by 75% by 2010. Damage can be substantially reduced through the development and implementation of an effective National Wind Hazard Reduction Program. This program will address better: design and construction methods and practices; emergency response: use of modern technology for early-warning systems; building codes enforcement; and public education and involvement programs.

We are focused on increasing the awareness of Members of Congress about the public safety and economic loss issues associated with tornadoes, hurricanes, and high winds, and increasing the economic losses associated with tropical storms, thunderstorms, and tornadoes.

In my own hometown of Wichita, Kansas, a tornado rated F4 intensity, plowed through the suburb of Haysville on May 3, 1999. It was responsible for 6 deaths, 150 injuries and over $300 million dollars in damage.

Tornadoes are one of nature’s most violent storms. In an average year, 800 tornadoes are reported across the United States, resulting in 80 deaths, 1,500 injuries and over 1 billion dollars in damage. A 1999 tornado in Kansas was a violently rotating column of air extending from a thunderstorm to the ground. The most violent tornadoes are capable of tremendous destruction with wind speeds of 700 mph or more. Damage paths can be in excess of one mile wide and 50 miles long.

Through we still cannot control the weather, with this caucus we will at least be able to do something about it. Thank you for coming to the kick-off reception for the Congressional Wind Hazard Reduction Caucus.

We have taken the lead and created the bipartisan Wind Hazard Reduction Caucus of the U.S. House of Representatives. To support the Caucus, we are organizing and lead a Wind Hazard Reduction Coalition of related professional societies, research organizations, industry groups and individual Members of Congress to develop and implement effective National Wind Hazard Reduction Program.

REMARKS BY MR. JAMES E. DAVIS

Good evening, and welcome to the Inaugural Event of the Congressional Wind Hazard Reduction Caucus. I am Jim Davis, Executive Director of the American Society of Civil Engineers, one of the sponsors of tonight’s event. We are very pleased to be working with the many Members of Congress here tonight, on reducing the hazards associated with tornadoes, thunderstorms and hurricanes.

Representatives, Walter Jones Jr., of North Carolina and Dennis Moore of Kansas have taken the lead and created the bipartisan Wind Hazard Reduction Caucus of the U.S. House of Representatives. To support the Caucus we are organizing and lead a Wind Hazard Reduction Coalition of related professional societies, research organizations, industry groups and individual Members of Congress to develop and implement effective National Wind Hazard Reduction Program.

EMPOWERMENT ZONES/ENTERPRISE COMMUNITIES ENHANCEMENT ACT

HON. H. E. POMEROY
OF NORTH DAKOTA

IN THE HOUSE OF REPRESENTATIVES

Wednesday, November 3, 1999

Mr. POMEROY. Mr. Speaker, I rise today to indicate my intent to cosponsor H.R. 2170, the Empowerment Zones and Enterprise Communities Enhancement Act of 1999. The bill is an important step toward fulfilling the promise made to areas designated as Round II Empowerment Zones and Enterprise Communities.

I strongly support the concept of Empowerment Zones/Enterprise Communities. Empowerment Zones and Enterprise Communities are designed to reverse the downward economic trends in urban and rural areas alike. Through the utilization of tax credits and other economic revitalization initiatives, designated areas are able to undertake initiatives to spur long-term economic revitalization. In my state of North Dakota, the Griggs/Steele Empowerment Zone in eastern North Dakota was designated last year as a Round II Empowerment Zone. At that time, a commitment was made by the federal government to assist this area and others in creating jobs and economic opportunity.

However, Round II Empowerment Zones and Enterprise Communities have yet to be fully funded, and as a result, these designated areas have been unable to reach their fullest potential. I believe we have the responsibility to fulfill the commitment by fully funding Round II Empowerment Zones and Enterprise Communities. Even though I have concerns about the differences in funding levels between rural and urban Empowerment Zones, I believe we must move forward to provide these areas with the needed assistance to accomplish economic revitalization.

In the House of Representatives:

HON. ZOE LOFGREN
OF CALIFORNIA

IN THE HOUSE OF REPRESENTATIVES

Wednesday, November 3, 1999

Ms. LOFGREN. Mr. Speaker, while physicians and patients now pay attention to the lack of sleep can kill
adverse health impacts of poor nutrition and inadequate exercise, too few people pay attention to the harm that can result from inadequate sleep. Sleep scientists have linked such ailments as high blood pressure, cardiovascular disease, diabetes, and strokes to inadequate sleep. We are all aware that drivers who fall asleep at the wheel can kill; not enough of us realize that inadequate sleep can cause severe physical ailments. The article “Can’t Sleep,” published in the summer 1998 edition of Stanford Today outlines the severity of that threat. It should be read by every physician and patient in America.

[From Stanford Today, July/Aug. 1998]

In America.

Today, outlines the severity of that threat. It is estimated that one of every five adults suffers from a sleep disorder, and that the need for sleep research is virtually ignored.

The numbers are stunning. More than half of Americans have trouble falling asleep; 40 percent report being awake for at least an hour after bedtime; 20 percent have trouble staying asleep; and 10 percent have difficulty both falling asleep and staying asleep.

The adult population in the United States sleep fewer than the recommended 7 to 9 hours a night. A study by the National Sleep Foundation show that sleep deprivation contributes to one out of every ten car accidents. The cost of drowsy driving amounts to $12.4 million a year. The total cost of drowsy driving is estimated to be $41 billion a year.

The United States is not the only country where this problem is severe. In Japan, the government estimates that up to 10 percent of the workforce is chronically sleep-deprived. In 1997, the Japanese government passed a law that requires companies to allow their employees to take napping breaks.

Overturning such scientific and popular misconceptions is the paramount task for Dement, his colleagues and students since the start of the era of modern sleep research in 1935. In that year, Univer-
sity of Chicago psychologist Nathaniel Kleitman and graduate student Eugene Aserinsky discovered that the body and brain do not shut down during sleep. Instead, there is a cycle of brainwave activity and physical movement. Dement joined Kleitman’s lab shortly after and helped demonstrate that intense brain activity and dreaming accompanied the rapid eye movements (REM) phase of sleep. Completing his medical degree, Dement carried on his research at the Mount Sinai Medical Center in New York where he took the next step, demonstrating that everyone has REM sleep.

By the time Dement moved to Stanford in 1962, he was working on a seemingly rare condition called sleep apnea— that is, people who caused people to feel weak in the knees, collapse or fall instantly asleep when they laughed or got otherwise excited. These narcoleptic patients could themselves dream while awake, unable to tell which images were real and which were dreams. Dement had come across only five such patients, all New Yorkers. But when he placed an advertisement in the San Francisco Chronicle describing narcolepsy’s symptoms and asking for people to call if they fit that description, he found new patients.

In 1965, sleep apnea had been described in a few obese patients by French researchers, but Dement discovered it in other people ignored because no one realized that the disorder could be so severe, or that slender people could suffer from it. The disorder was called Pickwickian syndrome after “Joe, the fat boy,” a lad in Dickens’ Pickwick Papers who could fall asleep standing up.

Apnea occurs when the muscles relax during sleep, narrowing the throat where the back of the tongue is anchored. As air is pulled into the lungs, the suction collapses the throat and halts breathing. “When straws relax, trying to suck a milkshake through a wet straw,” Dement says, laughing about his antiquated illustration. “Students now have difficulty understanding it and they don’t know what I’m talking about.”

If the air passage is almost closed off, breathing results in loud snoring as the throat tissue vibrates. Loud snoring (i.e., easily heard through a wall or closed door) is a danger sign that someone has apnea or soon might get it. Apnea is especially debilitating because it deprives the sleeper of the most important phases of sleep—REM sleep and deep non-REM sleep—when the muscles are relaxed.

Although tracheostomy (a hole in the throat) used to be the only treatment for apnea, there are now a number of treatments, including surgery to remove the throat tissue, and machines that provide positive pressure in the airway to keep it open during sleep. A new technique has just received approval from the Food and Drug Administration: zapping the throat with a carefully calibrated dose of microwaves to painlessly shrink the tissue and open the airway.

A study by the National Sleep Foundation reveals that 64 percent of people in the United States struggle with insomnia. The survey also estimates that 80 percent of people in the United States have difficulty falling asleep; 20 percent have trouble staying asleep; and 10 percent have difficulty both falling asleep and staying asleep.

Dement has brought an unwavering message: “Sleep disorders are killing people, and yet they are tremendously under-diagnosed.”

In a report before the Subcommittee on Health and Environment last year, he declared that sleep disorders represent one of the nation’s most serious health problems, and that the need for sleep research is virtually ignored.

The clinic directors—Drs. William Dement and Christian Guilleminault—diagnosed the boy’s condition when they had only recently named: sleep apnea. As Raymond slept, he would literally stop breathing for anywhere between 30 and 60 seconds at a time. Despite this, the baby did not die; he only opened hundreds of times each night. When the boy stopped breathing, his brain would panic, interpreting his body’s action as suffocation. The result: His blood pressure shot up, his heart pounded, and he awoke just enough to begin breathing again, but still not enough to remember the incident in the morning. Hence his excruciating daytime drowsiness. Raymond was always sleepy because he was not getting any real sleep at night.

One of the pediatricians consulted would buy the sleep clinic’s diagnosis. Raymond’s condition grew worse. When the boy started showing signs of heart and kidney failure, his parents finally allowed the boy to see a clinic physician to cut a breathing hole in the boy’s throat. The difference was fast: The boy’s blood pressure dropped and his overall condition improved dramatically.

Dement would have counted this as a victory, except that the boy’s primary physicians refused to acknowledge the problem. After a few months, they wanted to close up the hole. “They still didn’t understand that the hole was saving his life,” Dement says. “I couldn’t believe it.”

Dement says. “So I hired people to read over 11,000 written patient records.” They found not one diagnosis of sleep problem.

Apnea is only one of many sleep problems that are unrecognized or ignored. Sleep specialists realize that only about 2 percent of all sleep disorders, and most people have basic misconceptions about the mechanics of their own sleep. Put it in another context and the danger is clear. “It’s almost as if no one had ever heard of diabetes,” Dement says. “What if we didn’t know that the blindness, nerve damage and other health problems in one part of the population were due to one treatable disease?”

Hundreds of sleep-disorders sufferers have testified in Congress for the National Com-
advisory Council on Sleep, which was established to find cure for the shambles made of their lives from apnea, narcolepsy (sudden attacks of sleep and paralysis), insomnia and restless legs syn-
drome, which interferes with plastic-wrapping syn-
drome in which people can’t fall asleep because they must constantly stretch their legs. Statistics from a study by the government’s National Transportation Safety Board show that sleep deprivation contributes to approximately 72,000 accidents on the roadsways each year. The total cost of drowsy driving is estimated to be $41 billion a year.

The study also established that sleep deprivation was a major cause of the grounding of the Exxon Valdez in Alaska.

Even without a diagnosis, many people are sleep deprived and never know it. Over millions of years, our bodies have evolved to awaken and to sleep with the rise and fall of the sun. But the invention of electric lights has given us an artificial sun and provided a basis for our busy 24-hour society. As a re-

result, people limit their sleep to about 8 to 10 percent less sleep than they did a century ago. No wonder we’re sleepy. A study by the National Sleep Foundation reveals that 64 percent of people in the United States do not get the recommended 8 hours a night, while 32 per-
cent sleep fewer than 6 hours a night. Not surprisingly, sleep deprivation is extremely high among medical students and residents. Society has been slow to recognize sleep disorders because of major misconceptions about what sleep exactly is. People tradi-
itionally considered sleep a time when the body and brain simply turned off. Physicians thought that nothing happened in sleep; that it could not be a source of health problems.

Overturning such scientific and popular misconceptions is the paramount task for Dement, his colleagues and students since the start of the era of modern sleep research in 1935. In that year, Univer-
sity of Chicago psychologist Nathaniel Kleitman and graduate student Eugene Aserinsky discovered that the body and brain do not shut down during sleep. Instead, there is a cycle of brainwave activity and physical movement. Dement joined Kleitman’s lab shortly after and helped demonstrate that intense brain activity and dreaming accompanied the rapid eye movements (REM) phase of sleep. Completing his medical degree, Dement carried on his research at the Mount Sinai Medical Center in New York where he took the next step, demonstrating that everyone has REM sleep.

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Mitty-like scenarios. My husband is Paul. In order to sleep, I create Walter night at a time."

Warn me. But for the first six months of our apnea.

There are 200,000 more doctors like him out doctors, although further in-town the chance to get a free sleep test there the chance to get a free sleep test worth $1,000. Of the five who accepted, three turned out to have apnea. Although surveys show that the public is more aware of sleep disorders, they are still tremendously under-diagnosed. Dement is currently studying how primary care doctors recognize and diagnose sleep problems—close to home. Dement tells of a time when he became so frustrated by the lack of referrals from Stanford doctors that he walked into a waiting room at the hospital and offered people sitting there the chance to get a free sleep test worth $1,000. Of the five who accepted, three turned out to have apnea.

The most recent data are even more shocking: 80 percent of those diagnosed with apnea in the survey town of Moscow, Idaho, have a history of spouse breathing in their sleep and threaten the supply of oxygen to their brain. A moderate case. My heart goes out to the apneac and spouse of a "serious" case. A series of doctors in New York recommended major surgery to further reduce his soft palate, but their predictions for success ranged from a high of 80 percent to a low of 30 percent. How can you decide what to do when your brain is sleep impaired? I wonder if "no rest for the weary" was coined by an apneac. I suggested that Victor try getting some uninterrupted sleep time with a CPAP machine. It uses continuous positive airway pressure (CPAP) to force air into your lungs through a face mask while you sleep. This was not the parapneac we had imagined being part of our lives. But sometimes the route to "good dreams" takes a surprising turn.

For me, the CPAP machine's loud hum was a lullaby compared to the usual snoring and gulping, but for my spouse, wearing the mask "is like standing up in a convertible with the mask "is like standing up in a convertible with the windows open." Exhausted from the apnea, he was able to fall asleep under the air assault, and it worked—for a while. The continuing blow hurt his sinuses and he would rip the mask off in his sleep. Clearly this was not a long-term solution for us.

So, at last, in our quest for deep sleep, we came to Stanford's renowned pioneer in sleep surgery, Dr. Nelson Powell. He spent two hours with us, conducted tests, asked and answered a wide range of questions. We learned that we had an unrecognized epi-demic. Powell thinks that sleep disorders may be the cause of depression, impotence and accidents for tens of thousands of people. And those are just the ones he's seen. He said motor response tests actually found the spouse worse off than the apneac. Friends of mine started sharing their nocturnal woes with me and they helped me set the stage for sweet dreams—we may finally be able to finish them!

We look at it this way: We spend one-third of our lives (eighty or twenty-four hours) sleeping or trying to. We hope to be married at least 45 years. That means 15 years of our future will be spent in bed together. We don't want to have to wait until we die to rest in peace.

How do we sleep? Believe it or not, the question remains an enigma. Part of the an-swer, somewhat, may be found at the School of Dobermans at Stanford University. These dogs are generally energetic and friendly, but if they get excited about special food or a new toy they flop to the ground, completely paralyzed. They suffer from narcolepsy. Their narcoleptic attacks last just minutes, and then they rise as if nothing had happened. A "normal dog can eat a dish of food in a few minutes, but it might take a narcoleptic dog an hour because he keeps collapsing," says Dr. Thomas Roth, director of the Henry Ford Hospital in Detroit, revealed that even dogs are not hurt or suffering, merely afflicted by cataplexy, a paralysis or muscle weakness that occurs at the moment of the attack. The dogs can fall asleep briefly during this cataplectic attack, or they can remain conscious but unable to move.

Narcolepsy is the only sleeping disorder known to arise from a glitch in a primary sleep mechanism. By looking at the disorder in dogs, scientists hope to discover how the brain puts itself to sleep and what sleep does for the body in humans with narcolepsy. Recently, Mignot isolated the gene for narcolepsy—canac–1— in the dogs and found that it is a variant of a normal immunoglobin gene. Immunoglobins are proteins that the immune system creates to scavenge invading microbes. At this point, researchers don't know why an immune gene causes sleep attacks. Mignot and colleagues speculate that narcolepsy may be an autoimmune disorder, like lupus or multiple myeloma. They also speculate that narcoleptic dogs and people lack other signs that usually accompany autoimmune disorders.

A more tantalizing possibility is that normal sleep is somehow related to the operation of the immune system. Mignot and his colleagues are now using their work with the dogs and other research to search for a human gene for narcolepsy. Mignot feels he will have it soon, in six months to two years, and hopes that the discovery will clarify what causes narcolepsy and suggest a possible cure.

NOISY IS THE NIGHT  
(By Lisa Sonne)

Hi, my name is Lisa, and I am married to an apneac.

Don't think I'm unhappy. Victor is a great guy—a Stanford man, smart, funny, kind, a wonderful husband and friend ... and he did warn me that the first six months of our marriage, we have been taking life "one night at a time."

Every evening, we settle in as newlyweds for our nightly battle. But then the sleep comes. In order to sleep, I create Walter Mitty-like scenarios. My husband is Paul Bunyan—with a power saw—and he's turning already-leafed trees into boards for Habitat for Humanity, or my husband is a dentist with an intermittent drill helping the mouths of two children. I fall asleep with a smile on my face.

Then, his snoring stops with an eerie, breath-defying bolt awake emergency mode with adrenaline pumping. I watch helplessly as he begins his nightly ritual of raspy gasping and groaning for air with his whole chest. I'm ready to shake him to make him breathe, he inhales a huge gulp of air and goes back to snoring. I lie there awake, waiting for the next frightening event.

Apneacs usually don't wake up enough to be cognizant of their body's betrayal, but those sleeping next to them often do. And both have been snatched away from deep rest and finished dreams. I took Dr. Dement's "Sleep and Dreams" class years ago and remember the dangers of sleep deprivation and REM robbery. In the battle against exhaustion, naps have become acts of survival for us, not lazy indulgences or luxuriant escapes.

Fortunately, my apneac is not in denial. He is tired of being tired, and says he's "willing to do anything to be better in bed." His terminology is probably his most famous contribution to public awareness of sleep disorders. "Gentlemen," he declared during the "Sleep and Dreams" class years ago and received our applause and our heartfelt thanks.

But for our allies.

And fiber supply not only for the United States, but for raisins overseas when the agriculture industry is given the opportunity to introduce California raisins overseas when the agriculture industry is given the opportunity to introduce California

HOUS. GEORGE RADANOVICH  
OF CALIFORNIA

INE THE HOUSE OF REPRESENTATIVES  
Wednesday, November 3, 1999
Mr. RADANOVICH, Mr. Speaker, I rise today to pay tribute to the Raisin Administrative Committee, RAC, for 50 years of service. The California raisin industry members remember trying times after World War II. During the war, the raisin industry had been given the opportunity to introduce California raisins overseas when the agriculture industry was called upon to produce a plentiful food and fiber supply not only for the United States, but for our allies.

50TH ANNIVERSARY OF RAC