



The Newsletter of The North Texas Skeptics

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# The Third Eye

## News and Commentary from the Weird World of the Media

By Pat Reeder

I'm a bit swamped, so this column will have to be a short one. To begin with, some good news: Jonathan Frakes ("Riker" on Star Trek: The Next Generation) has been selected to direct, as well as star in, the next "Star Trek" movie! Why is this such good news? Because directing is a very time-consuming job, so for the next few months at least, Mr. Frakes should be far too busy to host any more abominable TV shows like Alien Autopsy or a more recent "psychic connections" monstrosity whose exact title has mercifully fled my memory. With any luck, this will lead to a prestigious directing career, which will make Mr. Frakes so well-respected behind the camera, he will be too embarrassed to show his face on any more of these pseudoscience schlockfests. Of course, there will always be celebrities willing to take the gig. But somehow, I don't think viewers would be as likely to swallow any of it if it were hosted by Kato Kaelin.

The Texas Supreme Court recently threw out a childhood sexual abuse lawsuit filed by a 20-year-old Dallas woman against her father. The father denied the charges, and the daughter had no evidence of any abuse, but she had suddenly "recalled" some "repressed memories," and that was good enough to warrant suing her dad for \$10 million in damages. The court voted 8-1 to dismiss the case for lack of evidence. Naturally, the plaintiff's lawyer urged the court to reconsider, saying that requiring people to have actual evidence of being damaged before they can collect \$10 million "shows a real lack of understanding of these issues." It also shows a callous disregard for personal injury lawyers who have payments due on their Mercedes Benzes.

If only our high government officials could put aside their darned ol' Western linear rationalism and get in touch with the metaphysical, like the leaders of Orange County, California, did! Officials there were stunned last month when Matthew Raabe, the top assistant to former Orange County Treasurer Robert L. Citron, informed them that Citron had been basing the county's financial investment strategy on advice he was getting from an astrologer and a mail-order psychic. You might recall that under Citron's stewardship, one of the richest counties in America lost \$1.64 billion on risky investments in derivatives and ended up in bankruptcy. Citron pleaded guilty to fraud and misappropriation

charges, but has yet to be sentenced.

Citron denied that he used the psychics and astrologers to make financial decisions for the county, and claimed that he only used them for personal advice (I assume this means he now has \$1.64 billion in personal debts). Still, he has no reason to worry. He says one of the psychics assured him that he will not have to serve any jail time. Don't be surprised if he's sentenced to 1.64 billion years.

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There seems to be a lot of news from outer space this month. Hard Copy brought us a report on Scott Mandelker, Ph.D., author of a book called *From Elsewhere*, who claims he came to Earth from another planet 25,000 years ago as a formless light being, entered a human fetus, and is now a human with an alien in control of his soul (sounds like Ross Perot to me). Lest you think he is a lone loony, his book is filled with stories from other people who also think they are aliens, although they are physically human in every way, owing to the fact that they have been stuck in human bodies ever since they were fetuses. In fact, Mandelker says there are as many as 100 million aliens on earth, many of whom don't even know that they are aliens (I'll bet I could spot 'em!). One says he's an ambassador for the aliens, who can't simply arrive in spaceships because we'd think we were being invaded. And sometimes, when I watch Hard Copy, I think we are.

A recent Associated Press wire story informs us that Richard C. Hoagland, the man who claims NASA tried to hush up news of a giant face on Mars, is back on the lecture circuit with a new claim: that the Apollo astronauts took photos of a "glass dome" and a number of other structures on the moon. Somehow, this is all tied in with the face on Mars, Stonehenge, and something he calls "hyperdimensional dynamics." Alan Bean, who actually landed on the moon in Apollo 12, said it would've been wonderful to find evidence of an ancient civilization, but there was absolutely nothing there.

This obviously phony denial does not deter Hoagland, who offers proof in the form of several fuzzy NASA photos, which he claims show "a Grecian temple," looping cables, a large blob of glass, and a 1 1/2-mile high formation that he dubs a "shard." As the AP reporter noted, "To the unschooled observer, the objects looked like magnified blobs of dirt on the window through which the photos were taken" (they obviously need to be examined by a Ph.D., like, say, Scott Mandelker). A NASA spokesman said they had not investigated Hoagland's latest claims, explaining, "It seems to us kind of a waste of time." The conspiracy continues . . .

Britain's News of the World tabloid reports that on February 28, two Harrier GR7 jets were scrambled after locals reported seeing a mysterious, circular light hovering over Queen Elizabeth's castle in Balmoral, Scotland. Witnesses said it resembled a scene from a science fiction movie, as the jets and the light circled around in what appeared to be a dogfight, then the light suddenly vanished, and the jets flew off. I see two possible explanations: either the witnesses had mad cow disease, or more likely, the entire royal family is really just a bunch of space aliens.

Finally, yet another British UFO scare, this time in Manchester, where John Travolta's movie, *Broken Arrow*, was having its European premiere. The theater had rented a bank of rotating laser searchlights to beam into the sky, which prompted a rash of reports of UFO sightings. A spokesman for the local police said, "People honestly thought the sinister lights in the sky were part of an alien invasion."

And even more people will think so, after the story appears on *Unsolved Mysteries*.

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## Healthy Skepticism

By Tim Gorski, M.D.

**Papnet(R) Aimed At Netting Profits**

Falsely negative pap smears were behind the U.S. Congress acting to impose stringent and wholesale regulation of all medical laboratories in 1988. Not long ago, yet another case in which someone was found to have cervical cancer following a negative pap smear received widespread local media attention.

Yet Pap smears are a screening test only. That is to say, they don't diagnose anything. But precancerous and cancerous lesions of the uterine cervix, the part of a woman's womb which can be seen at the top of the vagina, do shed cells which can be picked up on a glass slide. When stained and examined microscopically, these cells look different from normal cells. The process is fairly subjective, though. Cells that are simply physically distorted, cells that are reacting to benign inflammatory conditions, and cells that are piled up on top of each other, to mention just a few factors, are very common conditions that can interfere with the reading. And even when this happens, there are still plenty of other cells that are visible and easily examined.

As a consequence of these considerations, an abnormal Pap smear is naturally much more reliable than a normal Pap. Yet it turns out also that Pap smears are even better at picking up precancers than cancers. In addition, it is thought to typically take years for early precancers to progress into more severe lesions and, finally, to true cancer. What this all means is that a positive Pap smear is more reliable than a negative one. It also means that the number of cervical cancer cases would be expected to vary in inverse proportion to the frequency of obtaining Pap smears. Here in the United States, for example, cervical cancers are very rare among the population of women who are being screened annually. Most women who are diagnosed with cervical cancer had not been getting regular Pap smears, whether or not they had gotten one in the previous year.

Nevertheless, and despite the fact that no test, and especially not a screening test, can be 100% accurate, there have been concerns about Pap smear testing. Some of these concerns have been legitimate. Some labs, for example, had been allowing cytotechnologists to take Pap slides home. Cytotechnologists are the people who do much of the examination of Pap smears and usually sign off on those they believe are negative. Other techs had been reading enormous numbers of slides, calling into question how thorough they could have been in looking at each one. Congressional legislation put an end to these practices.

Congress also mandated specific quality control measures. But since reading Pap smears consists of people physically looking at slides, and interpretation has continued to be to some degree subjective, there were few ideas on what sort of quality control measures would be best. The federal government wound up asking for bids on how Pap smear reports could be checked for accuracy. And, for awhile, no one took them up on it. Labs, meanwhile, simply stepped up their practice of re-reading a portion of all negative Pap smears. Predictably, there were always some smears reported out as normal that, when re-examined, were felt to be abnormal.

It finally occurred to someone that artificial intelligence might have something to offer in addressing the problem and two companies independently came up with computer-assisted methods of scanning the cells on Pap smear slides. They called their systems Papnet(R) and Autopap. Use of these semi-automated systems - humans still wind up looking at the cells that the computer identifies as questionable - do, just like the manual rescreening methods, result in the identification of abnormalities on specimens that were previously read out as normal. Perhaps it will turn out that use of the computer systems offer a better way of rescreening negative Pap smears for errors. And perhaps artificial intelligence can eventually replace the cytotechnologist altogether. But at this point it has not yet been shown that Papnet(R) or Autopap do a better job than manual rescreening methods.

## **Smear Campaign**

Nonetheless, the company that developed Papnet(R), Neuromedical Systems, Inc., based in Suffern, New York, has already launched an expensive marketing campaign of direct mail and multipage glossy ads in medical journals. The company says that its system is "a complement to traditional manual screening" which "broadens the spectrum of abnormalities that can be detected." The company states that "false negative rates for conventional Pap smear screening have often been reported in the range of 10-40%" and tells physicians that its method "provide[s] each of your patients with a new level of confidence in the analysis of her Pap smear." Moreover, says a promotional letter sent out by the company early this year, "PAPNET(R) testing has been clinically validated in multicenter, controlled studies" and "was shown to provide a 30% increase in the detection of abnormalities over and above manual screening and quality control

procedures." It is "available immediately from leading quality laboratories nationwide."

But Neuromedical System's Medical Director, Dr. Laurie Mango, has admitted that, in fact, no data exist comparing its testing directly against traditional manual rescreening methods. Nor is there any clinical evidence that the general use of Papnet(R) results in fewer cases of cervical cancer. In addition, the majority of the 4.8% of abnormalities missed (among all negative smears) by manual methods in the major study on which the company is relying were minor abnormalities. Only about 6% (29 of 464 "false negative" smears out of 9666 total) were serious abnormalities. So is anyone arguing that Papnet(R) should be a new standard of care? "Not yet," said Dr. Mango, who denied that the company intended to suggest that all negative pap smears be rescreened using its test. Pressed to say whose smears should be tested, she offered that "perhaps high risk patients' smears" would be appropriate.

Dr. Raheela Ashfaq, Director of Cytopathology at the University of Texas Southwestern, a participant in the studies cited by Neuromedical Systems and a member of the FDA committee which has been involved in evaluating the Neuromedical Systems' new testing method, is more forthright on the subject of Papnet(R) and the current advertising blitz for it. She called the promotion "a clear misrepresentation of what the test is all about."

Papnet(R), she said, is in the process of being studied as an alternative to current manual rescreening methods for cytopathology labs. "The computer doesn't even diagnose abnormalities," she noted, "It just puts the cells up on a screen for humans to look at." And while the test has been approved by the FDA for the use of cytopathology labs, it has not even been authorized as a substitute for the labs' mandatory manual rescreening, which must still be done on a portion of all negative smears. "It's a quality assurance issue for the laboratories," said Dr. Ashfaq, and has not been approved for either general use or promotion to practitioners or the public. As for high risk situations, she remarked, the federal government already requires that all negative smears on these patients be rescreened by manual methods, which detect as many false negatives as does Papnet(R).

But by far the most serious problem concerning this matter is, as Dr. Ashfaq points out, that Neuromedical Systems is clearly "trying to force a change in practice standards to benefit itself financially" before the method has been adequately evaluated. "A company that comes out with a new technology should not be involved in setting new practice standards," she said. "That is the job of the academic centers and the clinicians studying the test . . . any new lab test has to be studied and compared to existing methods before anyone can know whether it's valid or should replace existing technologies." Yet Dr. Ashfaq acknowledged that commercial labs, when they begin receiving the many requests for Papnet(R) that the company's energetic promotional campaign will surely generate, will feel great pressure to send smears to Neuromedical Systems. If the company has its way, the cost and turnaround time for negative pap smears will increase, with as yet questionable benefits to women.

*This information is provided by the Dallas/Fort Worth Council Against Health Fraud. For further information, or to report instances of suspected quackery and health fraud, please contact the Council's President, Tim Gorski, M.D., at (817) 792-2000 or write P.O.B. 202577, Arlington, TX 76006.*

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## NBC's mysterious science

by John Blanton

"**The Mysterious Origins of Man,**" which aired on NBC in February, had a lot not to like about it. Besides giving a very good impression of an attack on science, it exhibited on the part of its producers and major players an appalling ignorance of some basic facts of the universe. In this cynical world, where, it would seem, half the population is trying to manipulate the other half, there is a temptation to find wonder in such innocence and naiveté. Would that the enemies of this country were such babes in the wilderness.

If you did, you should not have missed it. Besides Charlton Heston (more famous as Moses and Ben Hur), there were our own local creationists Don Patton and Carl Baugh, come to explain how the scientific establishment continues to ignore their evidence and to promulgate the myth of evolution. Those even faintly acquainted with Patton and Baugh

will be struck with one glaring irony in the program. The luster of national exposure for their young-Earth agenda was more than slightly dimmed by the show's continual reference to fossils millions of years old. Maybe that's why at the MIOS meeting the following week, Don showed considerable modesty when making reference to his appearance. I further noted that many of the creationists at the meeting had not seen the program. It aired when many of them were at church.

Naturally, the program has its detractors. I will not dwell on their remarks. I have a video of the program. Watch it, and you can supply your own comments. The producers have responded to their critics, however, and they have graciously allowed us to reprint the text. To me these thoughts, spilled out on paper, make my case completely (John Blanton):

## **PRODUCERS' RESPONSE TO THE CRITICS**

**By Bill Cote, Carol Cote and John Cheshire**

**(Reprinted with permission)**

As we expected, the response to our show has been heated. We've been accused of pseudo-science and setting back the course of education in America. But our goal was simply to present the public with evidence which suggests an alternative view to some of our most accepted theories. After all, the theory of evolution is still a theory, not a fact, and therefore alternative views should be welcomed, not banned.

Probably the most common criticism is that the show gave no opposing view from the academic community. The producers' position is that the accepted view has been so frequently presented to the public that only a brief summary by the host was necessary. It was more valuable to focus on the documented anomalous evidence.

For example, if man evolved from the apes around 5 million years ago, then how does the scientific community explain tools of modern man found in rock strata dating to 55 million years old? (J.D Whitney, California State Geologist, Table Mt. Mine) Those artifacts currently reside in a museum in Berkeley, California. When we applied for permission to film them, we were denied by the museum.

Another criticism is that the information in our show is presented by experts who do not hold degrees in their fields of expertise and therefore their opinions are not endorsed by the scientific community. But Dr. Virginia Steen McIntyre holds a Ph.D. in Geology and was a fellow with the USGS when she did her field work in Mexico. Her conclusions about the age of the spear points she dated (250,000 years BP) were backed by two other USGS members, yet because of their implications, the findings were ignored and her career was ruined.

In the case of the Paluxy River man tracks, to our knowledge, no accredited archaeologist has ever proven the prints to be fake. Furthermore, many scientists have referred us to an article written by Kuban and Hastings who seem to be the experts on this site. They categorically deny that there is any validity to the prints and that the case has been solved.

It is interesting to note that the scientific community refers to this report as if it is definitive proof, when in fact neither gentleman is an accredited archaeologist, anthropologist or paleontologist. If this is to be a fair discussion let's all play by the same rules.

Many of our critics are using very strong language, calling us morons, liars, and subversive creationists. These are emotional responses, not logical arguments. To set the record straight, we are not creationists or affiliated with any group whatsoever. We are being attacked on a personal level, because we are questioning issues that have been deemed too fundamental to be questioned.

We are fully aware that the information presented is highly controversial. This was re-iterated by Charlton Heston in the show, "We've seen a broad range of evidence, some of it highly speculative. But there are enough well documented cases to call for a closer look at the conventional explanation of man's origins."

We never take the stance that we know the answers or in any way suggest that we will provide them. We are merely offering an alternative hypothesis. In this way, we feel that the American public is fully capable of making up its own mind. Bill Cote, Carol Cote and John Cheshire Producers of The Mysterious Origins of Man. To follow the controversy on our World Wide Web site:

<http://www.bcvideo.com/bcvideo>

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## Last meals a hazard says food watchdog group

By Pat Reeder

*Editor's note: The following press release is a **parody** written by Pat Reeder for his radio comedy service. It was inspired by the questionable claims of the panic mongers at the Center for Science in the Public Interest, which he considers to be a political lobbying group masquerading as an unbiased research lab. He wrote this to satirize the CSPI's seemingly endless quest to suck all the joy out of living. He wants it made clear that it is entirely fictional and is **not a genuine press release**. He strongly advises against your removing this disclaimer and mailing it to the newspaper, faxing it to your friends, and posting on the Internet. And if you do, he is in no way responsible.*

Dateline: March 13, 1997

WASHINGTON-Walking may be good for your heart, but walking that last mile could be a killer, according to the Center for Science in the Public Interest.

The Washington-based health watchdog group has already denounced poultry, deli sandwiches, seafood, Grand Slam breakfasts, movie popcorn, and Mexican, Chinese and Italian food. But they say their latest study has uncovered the unhealthiest dining experience of them all: Last Meals.

Traditionally, Death Row prisoners facing execution have been allowed to order anything they want as a last meal, but a CSPI study has discovered that most inmates tend to choose from a very narrow range of dishes, many dangerously high in fat and calories.

According to CSPI spokeswoman Banne DeFrommage, "The typical 'last meal' consists of a huge steak, loaded with saturated fat and cholesterol, made even worse when prisoners order it 'chicken-fried' or 'smothered in mushrooms.' This is often accompanied by such artery-clogging side dishes as mashed potatoes or corn-on-the-cob swimming in butter, washed down with a sugary soft drink or milk shake, and topped with pie. This type of 'last meal' is nothing less than an execution on a plate."

She noted, "A handful of the more refined condemned killers will choose lobster over red meat. Unfortunately, while shellfish is lower in fat, this benefit is offset by dipping it in melted butter. Plus, shellfish can be packed with mercury. And 'surf and turf' is the worst of all. It's no wonder they call anyone who orders a last meal like that a 'dead man walking!'"

CSPI urged prisoners to consider healthier, lower fat alternatives. Their suggestion for the perfect last meal: 3 to 4 ounces of grilled, soy-based, chicken-shaped textured vegetable protein; sprouts sprinkled with wheat germ; and steamed squash or spinach (no cheese or butter sauce). Prisoners with low blood cholesterol can indulge themselves with either a cup of miso soup or a dessert of one-half cup nonfat, unsweetened yogurt (but not both!).

"With a last meal like that," Ms DeFrommage added, "you'll feel so light, healthy and energetic, you'll practically skip to the electric chair. And you'll rest in peace knowing that even if you slaughtered the entire Osmond family, at least you won't have to feel guilty about eating that fatty last meal."

# A zero-sum game

## Population Predictions

*Editor's note: NTS Director Emeritus R.A. Dousette's article, "Apocalypse Someday" appeared in the July-August 1995 issue of Contingencies magazine, a publication for actuaries and insurance professionals around the world. In it, he criticized the dire predictions of organization such as Zero Population Growth for the future of the planet, especially in the area of population growth figures, pointing out the very poor record of accuracy such predictions have had when checked against actual population figures. ZPG received a copy of the article, and responded with a letter to the editor of the magazine. Here, we present their response and Tony's rebuttal to the ZPG letter.*

### To the editor:

In an attempt to dispute scientist Paul Ehrlich's views regarding the effects of population growth, R. A. Dousette ("Apocalypse Someday," Contingencies, July/August 1995) distorts the contents of Ehrlich's books and lifts passages out of context in order to support his own faulty arguments. While some of Ehrlich's predictions have not materialized, the fundamental truth behind his arguments cannot be disputed. There is a clear link between rapid population growth, environmental degradation, and human suffering . . . and sooner or later we will pay the price if we ignore this reality.

Claiming that Ehrlich's conclusions are inaccurate due to a lack of factual evidence, Dousette discounts the views and work of reputable organizations such as the Union of Concerned Scientists, the Worldwatch Institute, the United Nations, and Zero Population Growth (ZPG). The Union of Concerned Scientists recently issued a "Warning to Humanity" signed by more than 1,500 prominent scientists throughout the world, who contend that "pressures resulting from unrestrained population growth put demands on the natural world that can overwhelm any efforts to achieve a sustainable future. If we are to halt the destruction of our environment, we must accept limits to that growth."

In Dousette's opinion, there has yet to occur a catastrophic tragedy as a result of population growth. This "so far, so good" attitude is short-sighted and fails to recognize the many disastrous consequences of exponential population growth on the security and quality of life for all of the world's inhabitants.

Ozone depletion, air and water pollution, acid rain, soil erosion, deforestation, endangered species, water shortages, overflowing garbage dumps, poverty hunger, crime, unemployment - citizens around the globe face the effects of these and other environmental and social problems in their communities and are doing their best to find solutions. But there is one fundamental obstacle that exacerbates all other problems - unrestrained population growth.

A finite world simply cannot accommodate an infinite number of people. Global population now stands at about 5.7 billion and could double by 2050. At current rates of growth, the planet must accommodate another Mexico every year. It is true that the Earth could theoretically support more people before reaching its full and final carrying capacity. But what will be the quality of life for these billions upon billions of people? And at what cost to the environment? Here Dousette remains silent.

If we want to provide a decent standard of living for ourselves and future generations, we must act today to curb our exploding population. This conclusion was endorsed by the thousands of individuals, non-governmental organizations and national delegations at the 1994 International Conference on Population and Development in Cairo. In recognition of the need to curb population growth in order to secure human rights and sustainable development, 182 countries signed the Programme of Action, a blueprint for population and development policies for the coming decade. This milestone document aims to solve the internationally recognized problems that Dousette depreciates.

The United States, which is itself set to nearly double in size to 500 million by 2050, played a significant role in the Cairo discussions and has a particularly crucial role to fill in the years ahead. Americans comprise only 5% of the

world's population but use 25% of the world's energy. We spend an annual \$5 billion on diet aids while more than a billion people in the world go hungry. Only half of America's original wetlands and 1% of old-growth forests remain. As one of the richest nations in the world, the United States has a special obligation to reduce wasteful consumption and encourage sustainable development practices. We will have little moral authority to preach to the rest of the world if we are unable or unwilling to address ways that we contribute to the problems in our own back yards.

Scientists like Ehrlich and organizations such as ZPG are working to help bring this message to the American people. ZPG advocates a variety of measures to reduce population pressures, including access to safe and affordable contraceptives, reproductive choice, school-based sexuality education and health care services, international support for basic education and voluntary family planning programs, green technologies and recycling programs, and the adoption of a national population policy.

It is not too late. We know what needs to be done. It is now simply a question of will. With a combination of both personal and political action, we can take the steps necessary to slow population growth and create a healthy and sustainable society. If enough people choose to create this vision, then perhaps there will one day be cause for Mr. Dousette's optimism.

**Sharon Pickett**  
*Zero Population Growth*  
Washington, D.C.

## **To the Editor:**

Not all of my friends appreciated your decision to publish my article "Apocalypse Someday" in the July-August issue of Contingencies. One of my co-workers, in fact, objected very much to it. I suggested the obvious alternative to indigestion, i.e., an angry letter to the editor. When he hesitated, I even offered to write it for him. He declined both my suggestion (I suspect he wasn't sure what to say) and my offer (he suspected I'd set him up for this, my rebuttal). My `steamed colleague' therefore derived great, vicarious pleasure from Sharon Pickett's response to my article in the January-February 1996 issue, despite the lack of vitriol, invective and scurrilous attack that would've been in his letter, if only he'd let me write it for him.

I also enjoyed her letter. It was warming to know that someone had read my article, and was moved to respond, without any encouragement from me. This warming was doubly appreciated, considering that it arrived on an unusually cold day in Dallas, despite all of the rumors of imminent global warming. Her letter is well-written and expresses her points well. Its greatest virtue, at least from my perspective, is that she supports the very point that I wished to make, that ZPG and many other environmental groups exaggerate the consequences of population growth.

Pickett's statement that "The United States, which is itself set to nearly double in size to 500 million by 2050 . . ." is, I suggest, a high estimate. The U. S. Census Bureau's middle series projection of 2050 population is 392 million, with a range from 286 million (lowest series) to 522 million (highest series). The highest series projection assumes an ultimate fertility rate of 2.622, a level higher than seen in this country in the past 25 years. It also assumes high net immigration, and an increase in life expectancy to 87.5 years. These assumptions may be realized, but it seems unlikely.

Population projections should be seen as illustrations rather than predictions of the future. If the assumptions are realized, then population will emerge in accordance with the projections. But an examination of past projections reveals widespread inaccuracy. Population projections made in the `30s and early `40s understated population growth. The lowest projection showed a U. S. population increase for a few decades, followed by a decline to about 130 million people at the end of the century. The highest projection resulted in an increasing population of 180 million Americans at the end of this century. Recent figures from the U. S. Census Bureau project a U. S. population of 275 million to 300 million Americans at the end of this century.

Population projections a few decades later erred in the other direction. In the late `60s the United Nations predicted that the world's population at the end of this century would be 7.5 billion. The most recent projection that I have found indicates that the population will be about 6.2 billion.

Are there any accurate projections? I have found one, in the March 1973 issue of Scientific American. Tomas Frejka, in *The Prospects For A Stationary World Population*, projects (mid range) a world population of six billion people at the end of this century. This is probably nothing more than luck, with errors in fertility, immigration, and mortality assumptions canceling one another. But it is interesting to note that the projection, if continued, ends with a stable population of 8.4 billion people at the end of the 21st century.

Pickett lists many of the disastrous consequences of population growth. At least one is conspicuous by its absence. Any list in the `70s would have included escalating petroleum prices. Many economists today believe that the increase in energy costs in the `70s were the result of the Nixon Administration's experiment with wage and price controls. The energy crisis began in 1973 shortly after those controls were imposed, and ended in 1981 when those controls were lifted. Perhaps this is why Pickett leaves it out.

There were 949,000 American scientists and engineers involved in R&D in 1989. When Ms. Pickett states that "The Union of Concerned Scientists recently issued a 'Warning to Humanity' signed by more than 1,500 prominent scientists . . ." she is, I suggest, conceding that at least 947,500 scientists and engineers haven't signed it. I suspect that many of them are also prominent.

How many of Ms. Pickett's crises as a consequence of population growth are either exaggerated, imaginary, or unrelated to population? It's impossible to address them in one letter, but I will point out that there is more debate than she acknowledges. Perhaps the best rebuttal is to point out that the doomsayers are unwilling to back up their predictions with their money. In 1980, economist Julian Simon bet Paul Ehrlich that the prices of raw materials would decline indefinitely into the future. Paul Ehrlich accepted the bet, and it was formalized as a futures contract. If prices rose, as a consequence of the shortages predicted by Ehrlich, then Dr. Simon would lose based on the amount of the increase. In fact, Ehrlich lost the bet and had to pay Dr. Simon \$576 when the prices actually fell by over 50%. Dr. Simon has offered to renew the bet, but Mr. Ehrlich has declined. Dr. Simon has also challenged Lester Brown of the Worldwatch Institute by offering to bet \$100,000 that the predictions in the Worldwatch Institute's annual "State of the World" report will be wrong. Mr. Brown can pick any indicator of material human welfare, and professor Simon argues that it will improve instead of decline. The offer was made in late 1995; as of February 1996 it has not been accepted.

*Tony Dousette is a professional insurance actuary working in the health care industry. He is a former editor of The Skeptic and lives in Richardson, Texas.*