economy tests and is hoping that, when data from the on-road experience with 1979 and 1980 model cars are available, the shortfall will be found to have been somewhat reduced. The use by the manufacturers of the unrealistic gear-shifting schedules was only one of a number of loopholes the agency has plugged. For example, in the case of 1979 model cars EPA readjusted its formula for determining the effect on fuel economy from changes in the weight-size relationship in cars; less credit is now given for weight reductions that do not involve a reduction in aerodynamic drag.

Indeed, the Ford Motor Company and General Motors now claim that many of the changes EPA has made are contrary to the 1975 law and impose a .6-mpg loss in fuel economy compared to results obtainable under the 1975 tests. Costle has not yet acted on the manufacturers' petitions to have this loss taken into account when their compliance with the mileage standards is determined, but the staff is expected to recommend denial. "The question I ask," Costle says, "is what was in the mind of Congress when it passed the law? Have we changed the rules of the game [as Congress understood them], or have the manufacturers tried to take advantage of the rules and we have caught them at it?"

What is of most concern to EPA and the other agencies is not to allow the gap between the EPA ratings and on-road fuel economy to widen from one model year to the next, as it has done at least through 1977, and not to exceed tolerable limits. Although a gap of 10 percent or so may be considered bearable, a gap of 20 percent or more certainly is not.

Committed as EPA and the auto manufacturers are to the present program of testing, the Carter Administration may choose not to go back to Congress anytime soon to seek authority to use testing assumptions that are more realistic than the ones in use today. A simpler recourse is for DOT to take existing and prospective shortfalls into account by raising fuel economy standards.

Margaret F. Fels and Frank von Hippel, energy policy analysts at the Center for Energy and Environment at Princeton University, have prepared a paper recommending that DOT next year propose that the 1985 standard of 27.5 mpg be raised. Von Hippel observes that E. M. Estes, president of General Motors, has indicated that GM may well be able to exceed this standard and that, considering the way consumers are shifting toward more fuel-efficient cars, the company now has a clear incentive (profit) to

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Radiation Compensation

The matter of compensation for alleged victims of radiation exposure from atom bomb testing continues to simmer. On 30 August lawyers filed a damage suit in a Utah federal district court on behalf of 442 alleged radiation victims and their survivors. Claims for the suit, which is being conducted by a group of lawyers including former Interior secretary Stewart L. Udall, could total millions of dollars. An additional 278 plaintiffs intend to go to court at the end of the 6-month waiting period required after filing claims against the government.

Meanwhile, a task force appointed by President Carter in July is cautiously nibbling its way around the question of what the government should do about claims for radiation injury. The task force, headed by William G. Schaffer of the Justice Department, is made up of representatives of the Department of Energy, the Defense Department, the Department of Health, Education, and Welfare, (HEW), the Justice Department, and the Veterans Administration. The group is supposed to set criteria for deciding claims, particularly those filed by civilians residing downwind from test sites, who, unlike veterans and workers exposed to radiation, have no other agency to turn to. Although the group is supposed to make recommendations by 1 October, Schaffer has reportedly decided that the matter is just too complicated and is apparently going to play it safe by submitting a list of options rather than tell the government what to do.

On a third front, several members of Congress are trying to finesse the problem of lack of scientific evidence by passing a new law. Representative K. Gunn McKay (D-Utah) introduced a bill precisely tailored to the needs of the Utah plaintiffs, which would compel the government to accept liability for damages resulting from Nevada bomb testing between 1951 and 1958, and on July 1962, when radioactivity was vented from an underground test. The bill covers citizens residing downwind from the test sites in Utah, Nevada, and California. In lieu of medical proof, it assumes that anyone in this area who has had leukemia, thyroid or bone cancer, or any other cancer that occurred more often than might be expected in the affected area (as determined by the secretary of HEW) qualifies for compensation under the Federal Tort Claims Act. A Senate bill to provide relief for the same population is currently being cooked up by Edward M. Kennedy (D-Mass.) and Orrin G. Hatch (R-Utah).

Unearthing New Einsteins

There seems to be a widely held belief that true genius cannot count on being recognized or adequately served through conventional channels of public support, and that institutions of higher learning can as often stifle creativity as nurture it.

One member of a good old American entrepreneurial family has decided to do something about this state of affairs. J Roderick MacArthur, son of the recently deceased billionaire insurance magnate John D. MacArthur, last year found himself in charge of a foundation with assets of some $750 million. Young MacArthur, 58, a millionaire in his own right, intends to use a hefty portion of the foundation's annual income—which will be somewhere between $20 million and $40 million—to support "fellowships" for creative geniuses in any field.

Although MacArthur is taking his cue from institutions such as the Guggenheim Foundation, he sees the role of the foundation as more along the lines of that of a Renaissance patron. He wants to free the fellows from all institutional fetters and accountability; there will be no applications, peer reviews, periodic evaluations, and the like. As he has said, "Our aim is to support individual genius and to free those people from the bureaucratic pettiness of academe."

It took some doing to get the idea past his board, which, when the foundation was set up in December 1978, was stocked by MacArthur senior's old business cronies. To implement his scheme, MacArthur persuaded the board to take on seven new members: Jonas Salk; Murray Gell-Mann of the California Institute of Technology; former treasury secretary William Simon; Jerome Wiesner of the Massachusetts Institute of Technolgy; former attorney general Edward H.

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Levi; John E. Corbally, president of the University of Illinois system; and ABC commentator Paul Harvey.

Scientists were the original target of the fellowship idea, but it has been expanded to cover artists and performers, "creative do-gooders and activists," and even creative businessmen, according to MacArthur aide Ken Hope.

Perhaps the most novel aspect of the program is to be the use of "talent scouts" to alert the board to deserving geniuses. There will be about 100 such persons "from all walks of life," according to Hope. Although awards will be made on an annual basis, the board as yet has only a vague idea of how the final selection of fellows will be made, and it is still trying to determine how much money to give them to spur creativity without creating complacency. Gell-Mann, for example, is reported to have said that if he had received a windfall as a young scientist he might have gone into real estate speculation. Board members are aware of how difficult it will be in this era of teamwork to select an individual scientist to back, which is one reason Corbally suggests that it might be better to start out looking for geniuses in the arts and humanities.

By the time the board has beaten the fellowship program into practical shape, it may look no different from already available formats. However, Salk, for one, is optimistic that with all that money to give away, the foundation will be free to take risks and rely on subjective judgement rather than the usual grantsmanship rigmarole.

At any rate, the John D. and Catherine T. MacArthur Foundation stands to gain a good deal of visibility in the future, as one of the half-dozen largest foundations in the country. In addition to the fellowship program, it will be funding a more conventional assortment of projects related to such matters as health, crime, public affairs, local government, alternative energy sources, animal welfare, and Chicago arts.

But the fellowships are clearly what have captured the imagination of MacArthur, who thinks the Japanese have the right idea in their designation of certain individuals as national treasures. Says one board member, "he has this notion that we might find another Leonardo or somebody like that and make him free."

Sex Change Operations of Dubious Value

Johns Hopkins Hospital, renowned over the past dozen years as a Mecca for persons seeking sex-change operations, has quietly phased out the procedure. Surgeons stopped doing the operations last spring, and the hospital has now dismantled its Gender Identity Committee, which screened applicants for the surgery.

The hospital made its decision in the face of increasing evidence that sex-change operations do not contribute any more to an individual's adjustment to life than does psychotherapy. A study on the subject was recently published by psychiatrist Jon K. Meyer, head of Johns Hopkins' Sexual Behaviors Consultation Unit. Meyer, who began collecting data on 100 individuals in 1971, was able to follow up 50 individuals, 15 of whom had a sex-change operation and 35 of whom had only counseling or therapy. Approximately 80 percent of both groups were men who wanted to be women. Meyer used four objective measurements of life adjustment: improvement in employment status; legal difficulties (arrests and incarceration); marriage and cohabitation (whether with the same or the opposite sex); and psychiatric consultations and hospitalization. He said that positive change along these lines was, if anything, greater among those who received therapy than among those who had the operation.

Johns Hopkins has been getting about 100 applications a year for sex-change operations. Of these, only 5 or 6 applicants have committed themselves to going ahead with the procedure. Now, says Meyer, he and others are increasingly skeptical that anyone at all would benefit. He says the majority of applicants are young and "I think what is happening is that there are a number of developmental stresses that occur in young adult life—leaving home, mating, settling down, asserting oneself in the world. These patients are extremely poorly equipped to do that." Thus, the desire for sex reassignment is an attempt to deal with the crisis or, as it is called in the trade, "compromise formation." He says there is another clearly identifiable group of people who seek sex changes in late middle age. These, too, are suffering developmental crisis, usually having to do with death, loss, retirement, or disability.

The new Hopkins policy is in tune with research findings to the effect that while abnormal hormonal events during the fetal stage produce behavioral as well as physical changes, a person's pyschological environment is the overwhelming factor in the creation of sexual identity. Meyer says, for example, that the adrenogenital syndrome in girls turns them into tomboys as children, and boys who have received doses of estrogen in utero are more passive and effeminate—but in neither case do these conditions cause confusion in gender identity.

Anke A. Ehrhardt, psychiatrist and sex researcher at Columbia University recently reported the results of a study of adolescent children whose mothers received female sex hormones during pregnancy. She said the hormones caused the boys to behave in "less stereotypically masculine" ways and made the girls even less "tomboyish." She concluded, however, that "we have no reasons to believe that homosexuality and bisexuality are determined by hormones." She added that even with hermaphroditic children, "the decisive variable for sexual orientation is their gender rearing."

Pharmacist to Head FDA

Jere Edwin Goyan, dean of the School of Pharmacy at the University of California in San Francisco (UCSF), has been named to succeed Donald Kennedy as head of the Food and Drug Administration. Goyan, 49, who pronounced himself "both pleased and terrified" about his new job, is reputed to have strong social concerns as well as administrative skills. He has helped reshape the way pharmacists are trained through the introduction of a "clerkship experience" in which students learn about the effects of drugs on people through direct participation in patient care. Goyan, a member of the Institute of Medicine, received his Ph.D. in pharmaceutical chemistry at UCSF in 1957. He became dean in 1967. He will report to work in mid-October.

Constance Holden