

the only ones unhappy with the turn of events. Federal officials say the state ignored national rules requiring the negotiations to be open and transparent. "These were back-room deals in smoke-filled rooms" is how Wilson Tuckey, federal Minister for Conservation and Forestry, describes the process, which he says lays the groundwork for the "rape and pillage" of the northeast forests.

With the failure of science, conservationists have returned to pre-1995 tactics, complete with blockades and protesters chained to bulldozers on land where timber activity had been occurring despite the moratorium. It's the sort of confrontation, says Pugh, that C-Plan was supposed to make obsolete.

—ELIZABETH FINKEL

Elizabeth Finkel writes from Melbourne.

## 2000 CENSUS

### Supreme Court Gets Lesson in Enumeration

The bitter battle over how to conduct the 2000 census has finally landed at the Supreme Court. Last week the justices heard arguments over whether the Census Bureau may use statistical sampling techniques to estimate the U.S. population. The court may choose not to issue an opinion, a decision that would toss the question back to a deadlocked Congress. But if the court does try to undo the tough scientific, legal, and political knot, its ruling will likely decide how the count will be conducted, experts say.

The stage for the high-stakes hearing was set last summer, when the Clinton Administration appealed two U.S. District Court decisions that the bureau's plan for the once-a-decade count violates the Census Act. That plan would use sampling to estimate some 10% of the nation's population, an approach the bureau says will catch millions of people missed in a head count and save \$675 million. The scientific community has, for the most part, rallied to sampling's defense (*Science*, 6 February, p. 798). Statisticians "overwhelmingly support" sampling, says Paul Voss, a statistician at the University of Wisconsin, Madison.

But House Republicans and others are demanding a traditional person-by-person tally, arguing that the sampling procedure is subjective and would be prone to error and partisan tampering. It is also, they contend, unconstitutional. The political stakes are high: The numbers are used to divide House seats among the states, parcel out at least \$180 billion in federal funds, and carve up states into congressional districts.

The case before the court focuses on whether sampling numbers may be used to divvy up House seats among the states, a procedure called apportionment. The Census

Bureau estimates that sampling corrections applied to the 1990 census would have shifted one seat to California. Critics and defenders agree, however, that if sampling data had been used to redraw congressional district lines, it might have changed the electoral outcome in several seats.

Both sides found reason for optimism after the 90-minute court session. Sampling foes were buoyed by an exchange regarding the Constitution's call for an "actual enumeration" to divide up House seats. "Most people would think actual enumeration would mean a count—how do you get around that?" asked Justice Sandra Day O'Connor. Solicitor General Seth Waxman, arguing on behalf of the Census Bureau, replied that the founding fathers had meant a "good faith empirical effort." So, Justice Antonin Scalia asked, "What is excluded? Rolling the dice?"

Sampling supporters had reason to smile when Justice John Paul Stevens asked what the bureau should do if it knew an apartment was occupied but no one answered the door. Would the Constitution require census takers to put down zero? "Your honor, they can't guess," said attorney Maureen Mahoney, arguing for the House of Representatives. "Even if the lights go on and off in the evening?" asked Justice Stephen Breyer. At the end of the day, says Tom Hofeller, staff director for the Republican-led census subcommittee, "I don't think anybody could have walked out thinking it went either way."

Even if the court finds the bureau's plan unconstitutional for apportioning House seats, it might still be legal to use sampling to derive a second count for redistricting or divvying up federal funds. One Republican staffer says that redrawing congressional district lines according to sampling numbers in 1990 could have cost the party as many as 10 House seats. Census panel chair Dan Miller (R-FL) asserts that Democrats are keen on sampling only for the sake of such political gains. "That's the reason they want to change things," he says.

Proponents are ready to push the bureau to use sampling to provide more accurate numbers for redistricting and distributing federal dollars. "If we lose in court, we would definitely be moving toward a two-number census," Representative Carolyn Maloney (D-NY) told *Science*. But bureau director Kenneth Prewitt has reservations: "Once you have two numbers, why not three, four, five, six?" Compiling inaccurate tallies, he says, "is like giving up on the scientific underpinnings" of the endeavor. A ruling that sampling is constitutional, on the other hand,

would throw enormous weight behind the bureau's plan. "If that happens, the party's over," concedes one Republican staffer. "But I don't think it will."

Alternately, the Supreme Court may rule that the lower courts should have thrown the case out. Waxman argued that neither the House nor the other plaintiffs had been harmed by the bureau's plan and had no right to sue. If the Supreme Court accepts that argument, House members will have to



**Mystery job.** The bureau is hiring, but census plan is uncertain.

slug it out for themselves. The court is expected to rule by the end of June, but Congress may have to take up the matter sooner. Because of squabbling over the census plan last summer, the Census Bureau's authority to spend 1999 funds is set to expire on 15 June.

—DAVID KESTENBAUM

## ASTRONOMY

### Sky Survey Racks Up Record-Setting Quasars

**CHICAGO**—Just a few days into its 5 years of scanning the heavens, the Sloan Digital Sky Survey has already begun setting records. Within a narrow strip of sky along the celestial equator, the Sloan's 2.5-meter telescope has bagged three of the four most distant quasars ever seen, including a new record-holder. It also found another nine of these distant beacons, thought to be the cores of young galaxies set ablaze by mysterious central engines, at distances nearly as great. At that rate, the entire Sloan survey is likely to pick out 1000 quasars at distances close to the current record-holder, says Michael Turner, an astrophysicist at the University of Chicago and the Sloan's spokesperson.

"Anybody who had any doubt that the Sloan was going to completely revolutionize quasar studies probably has a lot fewer doubts," says an elated Turner. Patrick Osmer, a quasar hunter at Ohio State University in Columbus, says that the Sloan "is going to be as powerful as we all hoped in this