

ECONOMICS, LABOR & BUSINESS

women and supports their dual role as workers and mothers through generous maternity legislation and child-care programs. Thus, 85 per cent of all Soviet females between the ages of 20 and 55 are employed, almost all of them full time. (In the U.S., 41.3 per cent of the women between 20 and 55 are employed full time.)

Nevertheless, sizeable inequalities exist in the Soviet Union. Occupations with large numbers of low-status, clerical personnel are dominated by women (e.g., workers in the credit and state-insurance fields are 81 per cent female; in government and economic administration it is 63 per cent). Eighty-five per cent of all medical personnel are women, but men hold half the top jobs (chief physicians and executives of medical institutions). Only one-fourth of the junior scientific workers and assistants, and two per cent of the university professors and members of scientific academies are women. Lapidus reaches the obvious conclusion: "Economic participation does not, in and of itself, guarantee equality of status and authority for women."

A Home Is Not a House

"Mobile Homes: High Cost Housing in the Low Income Market" by Philip Weitzman, in the *Journal of Economic Issues* (Sept. 1976), 509-J Business Administration Building, Pennsylvania State University, University Park, Pa. 16802.

More than 9 million Americans now live in mobile homes (once known as "house trailers"), mostly on permanent sites. With no significant help from the federal government, mobile homes have captured a major share of the housing market (22 per cent of total housing starts and 33 per cent of single-family home starts in 1973). Weitzman, an economist at the City University of New York, argues that mobile homes are not the bonanza for low-income families that they appear to be.

High annual finance charges of 11 to 14 per cent on an installment purchase contract, rapid depreciation (15 years of useful life as a primary residence), and little or no built-up equity make the \$7,000 mobile home (average 1972 price) no bargain for the home buyer who can scrape together the \$2,905 down payment for an FHA-insured \$27,600 house (1972 prices).

Mobile-home purchasers (usually young married couples or the elderly) benefit from lower move-in costs (down payment, closing costs and furniture costs average \$1,675 for the mobile home and \$6,525 for the small house). But they get no chance to build up an equity in an asset that tends to appreciate in value.

The mobile-home boom, Weitzman notes, has done little to ease the housing problems of the very poor and minorities confined to central cities. Yet by offering blue-collar workers cheap housing in mobile-

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home parks, these dwellings relieve the pressure on government agencies to compel economic and racial desegregation of the suburbs. They also indirectly benefit the middle-class home buyer by diverting demand for housing credit from the real-estate mortgage market to commercial lending institutions which finance mobile-home purchases.

To give families with annual incomes below \$6,500 a better housing break, Weitzman urges federal intervention in the mortgage market to help reduce down payments for conventional low-cost homes and revives the controversial suggestion of the President's Commission on Urban Housing (1968) that the federal government acquire land for lease for subsidized housing unencumbered by local building codes and zoning ordinances.

RESOURCES & ENVIRONMENT

Energy by the Acre

"The Long-Range Prospects for Solar-Derived Fuels" by William G. Pollard, in *American Scientist* (Sept.-Oct. 1976), 345 Whitney Ave., New Haven, Conn. 06511.

The long-range prospects for unlocking the solar energy in plant life to produce solid, liquid, and gaseous fuels look promising. So writes Pollard, a physicist and retired executive director of Oak Ridge Associated Universities.

He predicts that methanol and ethanol, made from plant material, will become competitive with gasoline when and if prices for crude oil reach \$50 per barrel, or \$8 per million Btu, in 1975 dollars. The basic method for producing both solid fuels and methanol from biomass is pyrolysis, a process in which wood, leaves, grass, or similar materials (e.g., the organic component of municipal solid wastes) are heated in a closed container by partial burning of the feedstock with air or oxygen introduced in a controlled manner.

The products are a low-Btu gas, volatile vapors, and a solid carboniferous char (a low-ash, sulfur-free fuel with a heat value equal to that of Eastern bituminous coal). The vapors, when condensed, can be mixed with the ground char to form a free-flowing powder, or "char oil." Typically, 450 pounds of char oil are obtained from each ton of undried raw feedstock having a moisture content of 50 per cent.

Liquid alcohol fuels for cars and trucks can be produced by pyrolysis (operating at higher temperatures), by enzymatic hydrolysis, or fermentation (5 million barrels of ethanol can be produced from 3 million tons of cellulose from municipal or agricultural wastes). Methane gas can also be generated from agricultural and animal wastes by anaerobic digestion which has advantages over char-oil production because