WASHINGTON (AP) — The nations unemployment rate increased for the third month in a row in August, edging up from 7.8 to 7.9 per cent, the highest level so far this year, the government said today.

At the same time, the Labor Department said the increase in the number of Americans with jobs slowed last month after sizeable gains earlier this year. Employment rose by 74,000 in August to 88 million out of a work force of 95.5 million, after a gain of 400,000 in July.

There were some bright spots in the job picture, including a 240,000 increase in non-farm re ne and improvement in the unemployment rate for adult men, usually the family bread-winner.

And the unemployment rate climbed at a slower pace than in June and July. After gradually falling since the spring of 1975, joblessness jumped a half a percentage point in June and July, followed by the one-tenth of a per cent hike in August.

In August, the number of people without work increased by about 80,000 to 7.5

million, the largest since 7.8 million couldn't find work last December.

The increase in joblessness has thrust unemployment onto center stage as a key issue in this fall's presidential election campaign.

The increases have raised new fears among economists over the path of the ecnomic recovery, and could create serious political problems for President Ford, who in campaigning for election, has adopted moderate economic policies to avoid a resurgence in inflation.

The Democrats and their presidential nominee, Jimmy Carter, have made jobs their No. 1 issue and are calling for new measures to reduce unemployment.

In addition, AFL-CIO President George Meany is blasting the Ford administration on the issue. In his Labor Day message, Meany said that "true unemployment — counting those perons who have given up looking for work or have accepted parttime work — is 10.3 per cent.

Since reaching its recession low in March, 1975, employment has grown by 3.9 million, or an average monthly increase over the 17-month span of nearly 230,000.

The unemployment rate is based on a nationwide survey of some 47,000 households. A more accurate but less extensive survey is made of the business establishments, which showed in August that non-farm payrolls were up by 240,000 to 79.4 million.

The government said employment increases occurred in about 60 per cent of 172 private non-farm industries surveyed. Manufacturing payrolls were up by 85,000 in August, in part due to settlement of several strikes.

Most of the increase in unemployment last month was among young females, aged 17 to 24. The teenage jobless rate, which had been declining gradually since the beginning of the year, jumped from 18.1 to 19.7 per cent.

Jobless rates for adult men declined from 6.1 per cent to 5.9 per cent. The rate of adult women was virtually unchanged at 7.7 per cent, while the rate for household heads dropped from 5.4 to 5.2 per cent.

Jobless rates for white and black workers, at 7.1 and 13.6 per cent, respectively, were about the same in July. However, the rate for black teenagers, which had dropped substantially in July, jumped in August from 34.1 to 40.2 per cent.