



THE PERSISTENCE EFFECT OF UNEMPLOYMENT IN TURKEY: AN ANALYSIS OF THE 1980-2010 PERIOD

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KEYWORDS

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ABSTRACT

The study aims to investigate the unemployment generating effects of economic crises in detail for the 1980-2010 period in Turkey. While investigating the unemployment generating effects of crisis, the important effects of persistence of unemployment should not be ignored; where these effects become stronger in emerging economies in addition to developed countries. In this context, hysteresis effect, which is mostly debated by the European side of New-Keynesian economics, will be analyzed within the framework of the persistence of unemployment. Accordingly, the study aims at investigating the unemployment generating effects of crisis in Turkish economy within the framework of hysteresis effect and persistence. The economic crises that occurred in Turkey during 1980-2010 are evaluated in terms of their effects on the persistence of unemployment. For this purpose, TURKSTAT's household labor force surveys for the period 1980-2000 were referred. For the 2000-2010 period, published TURKSTAT Household labor force surveys were evaluated in detail to investigate the persistence framework of the economic crisis. The data examined in the period is generated annually, summing to a total of 4.7 million survey data. In the empirical part of the study, the data acquired from surveys was subjected to factor analysis to identify the most significant factors. In the second stage, frequency tables and crosstabs were formed. The main findings of the study indicate that the significant effects of economic crises over hysteresis carry importance and the existence of such effects lead to increasing rates in unemployment for the examined period in Turkey.

1. INTRODUCTION

In studies in economic literature where hysteresis effect have been examined, the analyses not only, concentrate in the context of "duration theory" and "Insider-outsider theory" but also the concepts; the marginalization of human capital and efficiency wage theory are seem to be included in the models. Duration theory, starting from a long term unemployment for more than a year or more, focuses on the negative effects of unemployment over labor demand and labor supply. Indeed, long-term unemployment can lead to a decrease in the effective labor supply due to low motivation and marginalization of human capital. Under these conditions, unemployed may follow an revising attitude of looking for work by choosing to reduce reservation fees or increasing job search activities. In case of these conditions emerge, due to the shifting of previously unemployed people to employed, it increases labor force participation rate and this trend is called of "positive duration dependence". Through the emegrence of opposite of these conditions, the decrease in

labor force participation is called "negative duration dependence" which leads the individual to accept to remain unemployed for a longer period. (Flatau, Lewis and Rushton, 1991: 49-50). Individuals who prefer negative duration dependence do not choose to reduce reservation fees, since they know that some obstacles may arise (Greenwald and Stiglitz, 1987: 124 and Mankiw, 1990, 1657). In this context, a long trend of high levels of actual unemployment may be discussed, NAIRU rises due to the fact that, it follows the traces of the actual unemployment rate, which means a rise in natural unemployment rate so hysteresis in unemployment takes effect.

The second part of the study, the structure of unemployment in Turkey during 1980-2010 will be examined. The third section consists of data and analysis results.

2. THE STRUCTURE OF UNEMPLOYMENT BETWEEN 1980-2010

When the factors increasing unemployment examined; rapid population growth, internal and external migration, the structure of technological advances, duality of interregional differences in development, urbanization and rural-urban differences in the context of productivity differences between regions and the wage differentials due to low rural marginal product of labor, educational policy problems, political and economic instability, lack of investment in public and private sectors, the insufficiency of labor quality to satisfy the needs of industry, labor quality, decrease in production caused by increase in production costs due to high interest rates, inadequacy in capacity utilization rates, the deficiencies of production due to inadequacy of training, credit and organization facilities that entrepreneurs should be provided for, usv, can be listed. (ParasızveBildirici, 2002). Advanced technology, reveals a status of non-compliance between labor supply labor demand by qualitative and quantitative changes in the demand for labor, this also leads to structural unemployment. Unemployment, arising due to not affording of employment opportunities close to rapid population growth, which is a problem at emerging and developing countries, combined other problems, further aggravates the unemployment problem.

Especially while labor potential in cities is constantly increasing due to the effects of rapid population growth and migration from rural to urban areas; labor participation rate is decreasing continuously due to inter agricultural modern sector migration and misformation of new employment opportunities (Lewis, 1954; Lewis, 1979; Harris and Todaro, 1970). On the other hand, the often financial crises from the effect of globalization, reveal significant effects on unemployment. The aforementioned factors plays a role in persistence of unemployment.

Between 1980 and 2010 working-age population in Turkey increased by about 27 million, whereas only 6.5 million jobs were created in this period. In this case we can find the employment rate is around 40%. This rate is among the lowest levels in the world. EU-15 average of this ratio is 65%. Population is 72 million 606 thousand people at the end of 2006, the active population increased by 12% to 51 million 668 thousand from 46 million 211, out of, this increase in population and active population, has not been reflected at the same rate over labor and employment. Approximately labor force has showed a 7.5% increase, employment increased by only 3.5%. The number of unemployed has increased from 1 million 497 thousand in 2000 to 2 million 446 thousand in 2006, increased by 63% within seven years. Similarly, out-of labor force has increased by 16%; from 23 million 133 thousand 892 thousand to 26 million. In these circumstances it is clear that the unemployment rate is far from TURKSTAT rates. Unemployment rate is far from reflecting the reality while population increases and the labor force participation rate declines. A complete structural change can be examined based on the 2000s, except for labor force participation rate decline. Dissolving of agricultural sector, partial transition from labor intensive

production to capital intensive production at manufacturing sector plays had been effective in the persistence of unemployment.

When past 1990 period is investigated; the hidden unemployment is at a high level since the employment rates in the agricultural sector are still examined so high. Turkey is the second of the world in terms of the weight of employment in the agricultural sector.

While 3.1% of total employment in the EU is in agricultural sector, this rate is 41.4% in Turkey. Of the total employment in 2000, 34.5% agriculture, 24.6% industry, 40.9% is in services. In 2006, 47.3% of total employment is in the services sector, 27.3% is in the agricultural sector, 25.4% are employed in the industrial sector. In 2010, 54.9% of the total employed is in the services sector, while 19.9% of it is employed in the industrial sector 25.15% was employed in the agricultural sector. (Based on TURKSTAT data and HHIA)

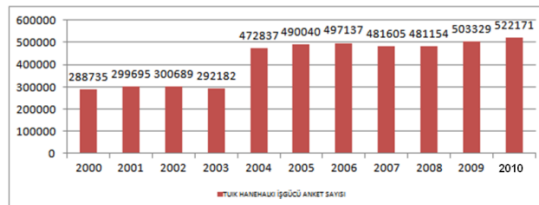
In 2010, Non-agricultural unemployment rate in Turkey stood at 13.3 per cent, 1.3 percentage point increase over the same period the previous year. When, non-agricultural sectors are examined, the majority of unemployment is in non-agricultural sector takes attention. As such, self-employment and wide implementation of unpaid family workers in Turkey is important.

3. EMPIRICAL FINDINGS

3.1. Data Set

In this study, separately published TURKSTAT Household Labour Force Survey for the period 2000-2010 compiled, by using data sets generated, it is aimed to investigate the persistence of labor force structure over time. The data set consists approximately 300 000 surveys for the year 2000, the number of observations shows a rise over the years, in 2010, reaching about 500 000 observations. Total numbers of TURKSTAT Household Labor Force survey dataset between the years 2000-2010 are below The number of observations are based on a total number of 4 million 629 thousand 574 surveys.

Figure 1: TURKSTAT Household Labor Force Data Set



Source: TURKSTAT Household Labor Force statistics, 2000-2010

3.2. The Causes of Unemployment in Turkey

Causes of unemployment in Turkey are grouped under three headings; unemployment due to the temporary employment; unemployment due to being dismissed and/or business closing and bankruptcy reasons is expressed as casual unemployment and the frictional unemployment. Temporary employment is comprised of university graduates employed during a project or probationary period, besides seasonal workers. Disaggregated in terms of the causes of unemployment in the total unemployment rates for men are given in Figure 2.a 's, and the values calculated for the ladies are in Figure 2.b., total unemployment rates for the causes of

unemployment are included in the Figure 2.c'. In the figures, while the years of economic crisis are stated red, the years after the crisis where the effects of the crisis felt are indicated by gray. Women's labor force participation rate of the population is 28%. For this reason, the male labor force characteristics will be investigated as a proxy, whereas the differences will be highlighted in terms of women when examined.

Figure 2a: The Reasons of Unemployment among the Male Population

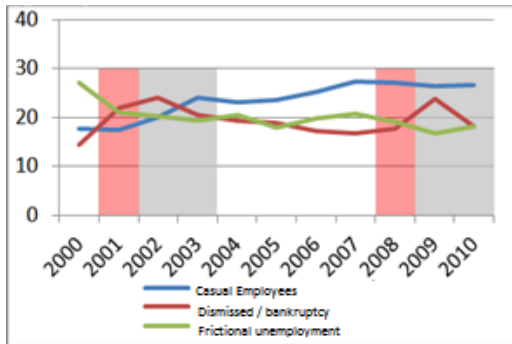
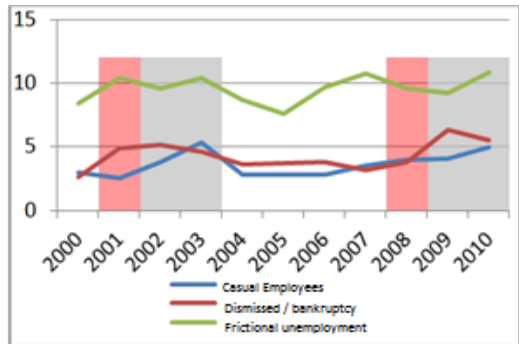


Figure 2b: The Reasons of Unemployment among the Female Population



Source: Household Labor Force Statistics 2000 – 2010, Turkish Statistical Institute

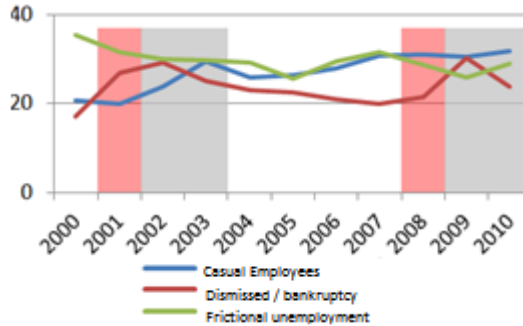
In 2010, unemployment due to temporary employment for men creates the first reason for being unemployed, second reason is for being dismissed, frictional unemployment is the third reason. Indeed, the first cause being unemployed is frictional unemployment in 2000. Over time unemployment of men due to temporary employment, which indicates short term employment, is seem to be an important phenomenon. Rate of unemployment due to dismissal during the economic crisis of 2001 has increased to 16% from 9% in the year 2000 level. Men's frictional unemployment of total unemployment has increased from of 14% in 2000 to 22% in 2001 crisis, rising to 24% in 2002, after the crisis; indicating the increased negative effects of the crisis on the labor market and continued to a lagged increase. Following the 2001 crisis, and the structural unemployment, due to structural transformation of the economy, fell from 27% in 2000 to 2001 crisis level of 21%, and fell to 20% in 2002. In 2000, while total of 18% of the men were examining the cyclical unemployment, this rate remained roughly the value in 2001, by the effect of the crisis, it has increased to 20% in 2002, 24% in 2003. Indeed, a dismissal rate of 15% between 2000-2004 period indicates persistence. On the other hand, the high rate of temporary employment and to be at 18% between 2000-2002 and showing a significant rise to 26% through the investigation period is important.

When the actual causes of male unemployment investigated, the effects of frictional unemployment, where only the short-term effects should be seen, is to spread over years after crisis, so employment decisions of firms emerge as lengthening of working hours. On the other hand, in the period following the 2001 crisis which lasted until 2007, the raw unemployment, representing unemployed people due to dismissal, unemployment due to bankruptcy and business closure, declined to 11%, but the rate jumped to 17% in 2009, following 2008 crisis, even pre-crisis rates have not reached. The rate of cyclically unemployed men in total unemployed fell to only 23% in 2004, 18%, the value prior to 2001, has not been caught, gradually rising to 25% until 2007, it increased to 27% with the 2008 crisis, in the first year following the crisis declined only down by 1% to 26%, reaching the highest level of 27% in 2010 and remained steady. The rate of frictionally unemployed men in total unemployed showed the effects of two years after the 2001

crisis, it showed a gradual decline between two crises. Although this proportion declined to 16% in 2007, rose to 17% in 2008 crisis, in the years following crisis it gradually increased and reached 24% in 2009.

The remarkable persistence of frictional unemployment following crisis, that it in fact should shows employer worker mismatch occurring as a result of short-term disharmony between employment and skill, attracts attention in the context of hysteresis.

Figure 2c: The Reasons of Unemployment in the Total Population

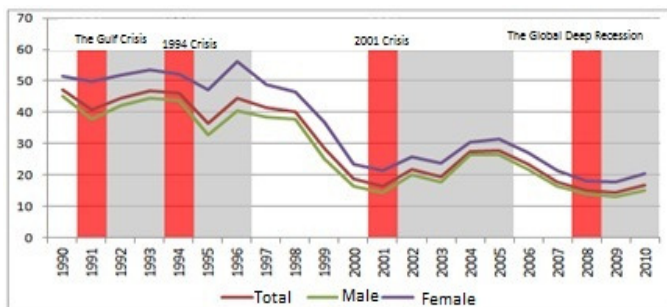


Source: Household Labor Force Statistics 2000 – 2010, Turkish Statistical Institute

The share of frictional unemployment in total unemployment is 35.5% in 2000. During 2001 crisis, dismissals and business bankruptcies increased rapidly summing a total share of 17% in 2000, increased to 26.8% in 2001 crisis and never returned back to the in the pre-crisis levels afterwards. While, being unemployed due to dismissals and business bankruptcies declined to 23.7%, it was horizontal 2006, when remained at 19.8% in 2007 (pre crisis values uncached) with the realization of the 2008 crisis, it has risen 25.9% in 2009.

In 2002, the total frictional unemployment, which is the main cause of unemployment reasons, is 31.5%. By 2002, the share of frictional unemployment in total unemployment has fallen rapidly, decreased up to 26% in 2005 as a minimum, but the pre-crisis levels not achieved. Frictional unemployment had risen to 30% before the 2008 crisis, in the two years following the crisis it declined 28.6% and 23.5% in 2010. In this context, the examination of the causes of unemployment reasons, indicates a significant hysteresis effect of persistence.

Figure 3: Long-Term Unemployment and Economic Crisis, 1990-2010 Period



Source: Household Labor Force Statistics , Turkish Statistical Institute

3.3.Unemployment by Duration of Job Search in Turkey, 1990-2010 Period

While analyzing the persistence of unemployment the need to pay attention on the length of unemployment between short-term and long-term differences. The long-term unemployment, refers to the number of people with continuous periods of unemployment extending for a year or longer, expressed as a percentage of the total unemployed, is important in terms of persistence in unemployment. Figure 3 gives information about the persistence of long-term unemployment.

In 1990, The share of long-term unemployed in total unemployed was approximately 47.1% and, generally decreased over time with a volatile track, the rate in 2000 declined by 21%. This rate was rather low from the average of 1990 - 2000 which was 41.7%. While Turkey's long-term unemployment rates were watching a flat course since the crisis years of 1990's and following years, the unemployment rates showed decline after three and four years from crisis. Unemployment rates were increasing again during the crisis and then that increase is observed as horizontally in the following years of crisis. The long-term unemployment rate was about 47% in 1990, and due to the negative affects of the Gulf Crisis that decline in the unemployment rate stopped and started to rise again. Looking at the gender distribution in 1990 that created the long-term unemployed that 45% of unemployed men and, 51.5% of unemployed women were long-term unemployed. In 1991 the year of crisis, the long-term unemployment fell to 37.9% for men and, 49.9% for women. The long-term unemployment rate was could not reduced in 1992 and 1993, the years following the 1991 crisis, that rate was increase from 40.9% to 44.6% in total, from 37.9% to 42% for men and, from 49% to 51% for women. A decline seen that may be termed a relatively horizontal in the long-term unemployment rates in the crisis of 1994. The long-term unemployment rates had a rapid rise due to the crisis year of 1994 and in the following years. The long-term unemployment rate was 36.6% in total, 32.6% for men and, 47.2% for women. That rate increased to 44.4% in total. In the same year that rate increased to 40.5% for men and, reached its highest level with 56.1 % for women.

1991 and 1994 crises and in the follow-up years, as a result of unemployment was examined in terms of maturity seen that after years of crisis increased were permanence for long-term unemployment and unemployment rate. That is remarkable that the permanence was more powerful on women.

Long-term unemployment followed a decreasing path between 1997 and 2000. Reached by the year 2000, the long-term unemployment rate was 16.5% for men, 23.2% for women and, 18.8% in total. Long-term decline path in unemployment rates were broken to upward by 2001 crisis and then rates were increasing rapidly. Persistence was higher in the following years of the crisis. The increasing trend, continued until the years 2005-2006, were noteworthy. By 2007 the long-term unemployment rate was reduced, but decreasing trend was stopped by the 2008 crisis and, entered the increase path again, especially for women. The average of long-term unemployment rate was 19% between 2000 and 2003. Following the crisis period 2004 - 2005 the average was around 27.5%, it declined to 17.8% and 15.1% in 2007 and 2008. It dropped to 14.3% in followed the year 2008. This ratio increased again and reached 17% in 2010. On the other hand, the ratio increased from 12.9% to 15% for men in the following years of the crisis which means that persistence unemployment for men. In 2009 that ratio was 17.7% for women and reached 20% in 2010. This indicate that hysteresis effects play an important role especially in the employment structure for women in Turkey women. As noted previously in the other issue is that the lack of female labor force participation is important on the structure of unemployment. In the following context, the structures of job search in labor market will be examined by gender.

3.4. Gender and Unemployment in Turkey, 2000-2010 Period

Although figure 3 gave detailed information about the persistence of unemployment rates were also calculated to verify that the rates of job seekers. Figure 4a gives the 2000 - 2010 period the percentage of job seekers in Turkey by gender and, in figure 4b gives percentages of the job seekers by genders in their own population. Compared to active job seekers in the labor market in Turkey, the percentage of job searching of men has been more than twice as percentage of job searching of women. Between 2000 and 2003 the total female population of women seeking employment rate ranged from 32% to 29%. This rate was 26% in 2004 and this was the minimum level for between 2000 and 2010 years. With the effect of 2008 crisis, women's labor force participation rate increased and job search percentage of women increased that was 33% in 2009 and has risen up to 38% in 2010.

Figure 4a: The Job Seekers in Turkey by Gender

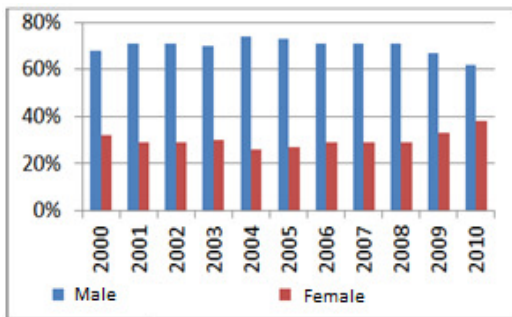
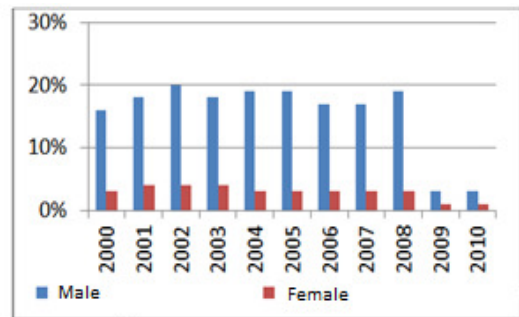


Figure 4b: The Job Seekers by Genders in Their Own Population



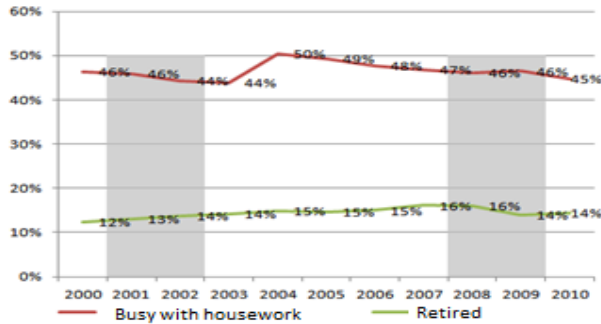
Source: Household Labor Force Statistics 2000 - 2010, Turkish Statistical Institute

Looking at the percentage of job search within the genders, the rate of labor force participation is higher for men than women. The percentage of job search of men ranged from 16% to 19% between 2000 and 2008 and that fell down to 3% in 2009 and 2010. During the period the percentage of job search ranged from 1% to 4% in females. Importantly, the survey respondents to the question about 2/3 reputation was that of women. In this context, low female labor force participation rates caused by decreasing unemployment rates of women. As an example we evaluated the year 2000, women were 138.756 people in 201.229 total survey population.

3.5. Active Labor Market Exclusions

When assessing the persistence of unemployment, another point which should be evaluated is the ratio of remaining outside the active labor force. Women are excluded from the labor market because of their housework and care of their children. At the same time, retirement at an early age is very high percentages of both men and women. Figure 5 shows that rate of staying out of active labor force. About 40% of women has remained out of the labor force since 2000.

Figure 5: The Reasons for Staying Out of Active Labor Force



Source: Household Labor Force Statistics 2000 - 2010, Turkish Statistical Institute

When analyzing the characteristics of the individuals, who stays outside of the labor force, reached the important findings. 46 percent of outside the labor force in 2009, had worked previously. Outside the labor force and those individuals who were employed before 20.1% of individuals who were employed in agriculture and 11.8% in industry, 3.5% of the construction sector, 19.9% are individuals who worked in the services sector. 44.7% of these individuals were unemployed for less than 8 years. 12 million people had been working in a job before, remained outside the labor force during this period. These individuals answered, the question that *why don't you join the labor force ?*, as 9.9% retirement, 10.5% due to seasonal reasons, 6.8% for health reasons, 4% due to marriage, 5.1% of total layoff / due to closure the place of business, 3.3% dissatisfaction with job. Other reasons have 16%. In 2009, the informal employment rate decreased 0.7 percentage points compared to 2008, decreased to 41.3%. Compared to the previous year, informality in the agricultural sector decreased 87.8% to 84.4% in 2009 and, in non-agricultural sectors that ratio decreased 29% to 28.7%.

Figure 6a: The Reasons of not Seeking a Job: Males

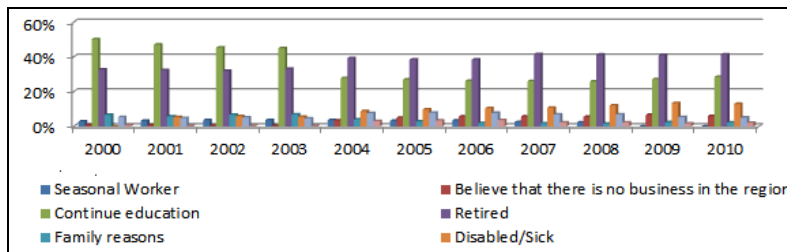


Figure 6b: The Reasons of not Seeking a Job: Females

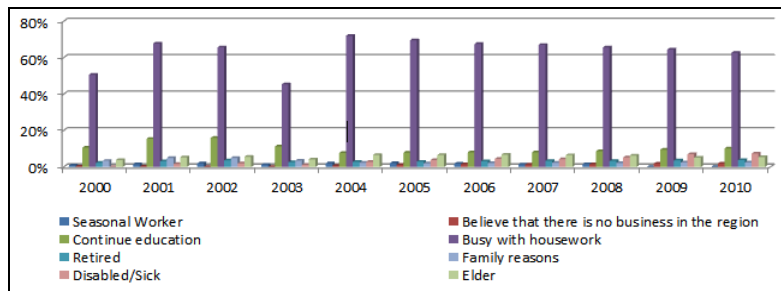
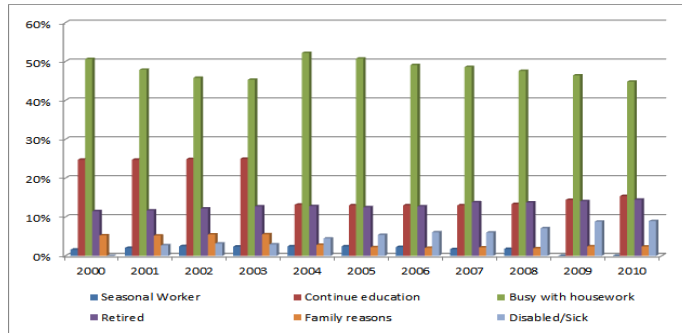


Figure 6c: The Reasons for not Seeking a Job over the Years: Whole Population



Source: Household Labor Force Statistics 2000 - 2010, Turkish Statistical Institute

Figure 6a shows that men's reasons for not seeking job over the years. To continue education is the most important factor for not searching job for men. 50% of the male population answer that not seek work because of to continue their education in 2000. This rate decreased to 27% over the years, between 2007 and 2010. The second factor is retirement. Due to retirement, not look for a job reached 44% and 42% in 2000 and 2007. In this context, a large part of men indicated that they did not search for a job because of retired or were in school. 10% of men not looking for a job due to disability and sickness. It seen that there is a significant health problem. Not work due to family reasons was 7% in 2000. It decreased to 1% in 2009. Seasonal workers, waiting to be called old work and, believe that there is no business in the region are indicate that the structural unemployment.

Figure 6b shows that women's reasons for not seeking job over the years. The main reason for not searching job for women is that to be busy with household tasks and, the second reason is to continue their education. Women not looking for work due to being busy with household tasks, corresponding 51% of the total female population. This rate increased to 68% in 2001. Considering these rates, an expansion and prosperity can be mentioned for the period before the crisis of 2001. Also, women entered the labor force market with higher rates in 2000 than 2001. This cannot be said for the 2008 crisis. The relevant statistics evaluated for the total, not looking for a job due to household tasks has high levels in women, retirement for men is the most important and to continue education is the first reason in general.

Figure 7a: Types of Job Searched: Male Population

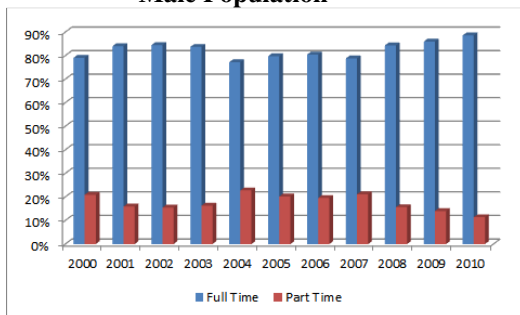
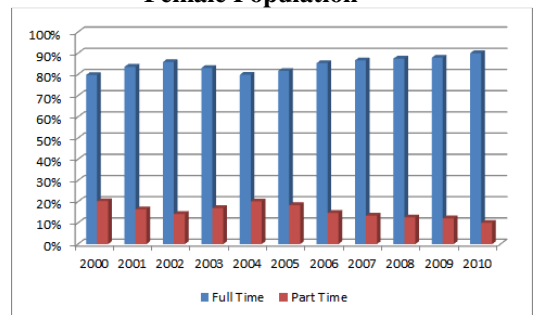


Figure 7b: Types of Job Searched: Female Population



Source: Household Labor Force Statistics 2000 - 2010, Turkish Statistical Institute

Figure 8a: Types of Job Searched by Males in the Total Population

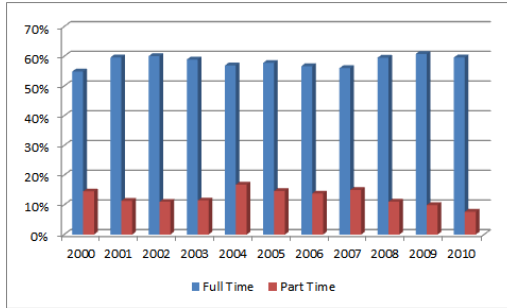


Figure 8b: Types of Job Searched by Females in the Total Population

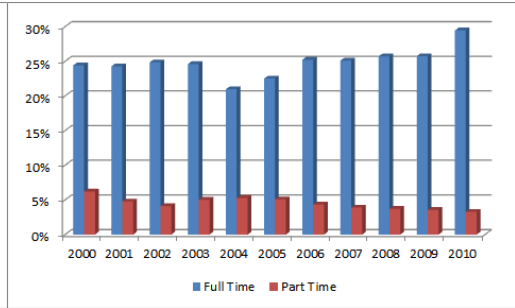
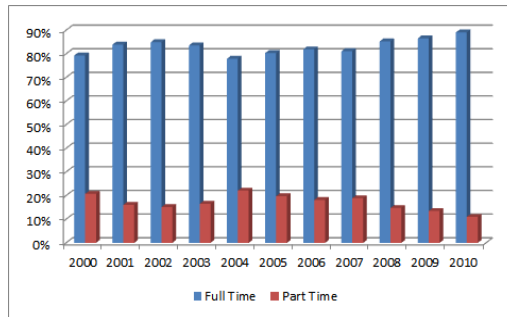


Figure 8c: Types of Jobs Searched Over the Years: Whole Population



Source: Household Labor Force Statistics 2000 - 2010, Turkish Statistical Institute

Men looking for full-time job in first place in job types. 79 % of male were looking for full-time job in 2000 and, this ratio was increased to 84% after the 2001 crisis. In this case, thought that impact of layoffs during the crisis to be high. Part-time job search rates decreased from 4% to 1% with the effects of the 2001 crisis, that rates took place 1% during 2005 and 2006 and was recorded as about zero in 2007.

Figure 8a shows that the annual distribution of types of jobs which are searched by men over the years. Women’s and total populations’ annual distribution tables are seen seriatim in 8b and 8c. Full or part-time job-seekers ratio peaked with 23% in 2004 and, it decreased to 10% in 2010. In this context, in addition to full-time trend of unemployed job search increases in crisis’ years and, part-time or full-time job search rates increases in economy’s narrowing terms.

When examined the type of work which is searched by women, observed that a similar trend in men. Full-time jobs are mostly seen. Women in full-time job seekers were 80% in 2000. This has risen to 84% after the 2001 crisis. It was 86% in 2002 and decreased to 82% in 2004. In 2007, 2008 and, 2009 full time job seekers rate increased to 88% - 89% and, reached 90% in 2010. With the lights of findings, these are important that impact of layoffs is higher during the crisis and effects of persistence in the labor market is high after years of crisis. With the impact of labor force participation are low, especially in the context of women differ in the structure of unemployment is remarkable in Turkey.

4. CONCLUSION

The study aimed to investigate the unemployment generating effects of economic crises for the 1980-2010 period in Turkey. In this context, hysteresis effect and persistence deserves special attention in Turkey. The economic crises that occurred in Turkey during 1980-2010 is aimed to study in order to investigate the effect on the persistence of unemployment. For this purpose, TURKSTAT's household labor force surveys for the period 1980-2000 were analyzed and further, for the period 2000-2010, published TURKSTAT Household labor force surveys were analyzed in great detail to evaluate the persistence of unemployment within the framework of the economic crisis. The data acquired from surveys was analyzed with factor analysis to select the most significant factors. The findings of the study are collected in the following. i. The significant effects of economic crises over hysteresis effect carry importance. ii. The persistence in the labor market is higher in Turkey between the years 2000-2010 and increases especially following the economic crises. Accordingly, reduction of persistence of unemployment is even more difficult in these periods so that the other problems of labor market become more coherent. The policies aiming at reducing the unemployment rate require active labor market interventions to be applied in conjunction with monetary and fiscal policies. Without making the labor market more flexible, the effectiveness of monetary and fiscal policies significantly deteriorates. Therefore, applications of monetary and fiscal policies aiming at economic growth fail to achieve reductions in the unemployment rates.

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