

**LABOR MARKET MOBILITY AND MARGINAL
ATTACHMENT IN TURKEY:
EVIDENCE FROM HLFS, 2000-2002**

by

Hayriye Özgül ÖZKAN

**A Thesis Submitted to the
Graduate School of Social Sciences & Humanities
in Partial Fulfillment of the Requirements for
the Degree of**

**Master of Arts
in
Economics**

Koç University

August, 2013

ABSTRACT

The adequacy of conventional analyses of labor market mobility based on the standard three state model is subject to debate. In this thesis I engage in this debate and propose a five state model. This choice is motivated by evidence from the Turkish Household Labor Force Survey (HLFS) 2000-2002, namely the fact that transition rates from non-participation to employment are considerable, and the numbers involved are higher than those between unemployment and employment. I subdivide non-participants further first by separating students, then by focusing on individuals who are not classified as unemployed because they did not search for a job within the three month window that preceded the survey. I extend the window to a year and call individuals who searched sometime between the three to twelve month period marginally attached. I then subject the five state model (student, marginally attached, unemployed, employed and a residual category I refer to as not attached) to further scrutiny, to determine if the finer distinctions are warranted. In deciding whether particular pairs of states can be pooled, I follow the Likelihood Ratio test methodology of Jones and Riddell (1999). Since the short panel component of HLFS suffers from attrition (initial response followed by non-response) and substitution (initial non-response followed by response), the transition rates obtained from the balanced panel are biased. To adjust them, I use the Rescaled Additively Non-Ignorable (RAN) model of attrition and substitution developed by Tunalı, Ekinci, and Yavuzoğlu (2012). This model is attractive because attrition and substitution probabilities are functions of the labor markets states in both periods, and the adjustments to the balanced panel cells yield marginals which are consistent with the official statistics published by TURKSTAT. Results for the balanced panel for working age (15 and over) individuals reveal that, those who show up as marginally attached, employed, and unemployed in either or both periods are underrepresented, whereas students and not

attached ones are overrepresented. I then calculate the adjusted forward transition rates and subject them to equivalency tests. The transition behavior of students is markedly different from the others. Notably the average quarterly transition rates to employment from marginal attachment and unemployment turn out to be statistically indistinguishable. As in Jones and Riddell, I conduct the pooling tests using both Multinomial (MNL) and Binary (BNL) Logit models. MNL results show that marginally attached individuals should be kept as a different labor market state. Additionally, tests based on BNL indicate that marginally attached and unemployed individuals present similar transition behavior to employment. I conclude that individuals who do not get classified as unemployed on the grounds that they ceased search warrant close attention, in that they remain attached to the labor market and transit into employment at rates close, if not equal to, those measured for the unemployed.

Keywords: Labor Market Mobility, Marginal Attachment, Unemployment, Multinomial Logit, Binomial Logit, Likelihood Ratio Test, HLFS, Attrition/Substitution, Rescaled AN Model, Turkey

ÖZET

İş gücü piyasası hareketliliğini 3 kategorili modelle ele alan geleneksel analizin uygunluğu tartışmaya açiktır. Bu tezde bu tartışma ile ilgileniyorum ve 5 kategorili model öneriyorum. Bu seçim 2000-2002 yıllarına ait Hanehalkı İşgücü Anketi (HİA)'deki bulgularla desteklenmektedir. Şöyle ki işgücüne katılmayanlar iş bulma oranları kayda değer düzeydedir ve geçiş yapan kişi sayısı iş bulan işsiz sayılarından daha yüksektir. İş gücüne katılmayanları ilk olarak öğrenciler, sonra ise anket öncesi son 3 aylık iş arama penceresinde iş aramadıkları için işsiz sayılmayanlar olarak tekrar böldüm. Bu iş arama penceresini 1 sene olarak genişlettim ve 3-12 ay arasında iş arayanları işgücüne marginal bağlı olanlar olarak adlandırdım. Daha detaylı ayrimın gerekli olup olmadığına karar vermek için 5 kategorili modele bağlı kaldım (öğrenciler, işgücüne marginal katılanlar, işsizler, çalışanlar ve kalan kategori olarak işgücüne bağlı olmayanlar). Belirli işgücü durumlarının birleştirip birleştirilmeyeceğine karar vermek için Jones & Riddell (1999)'in metodolojisini takip ettim. HİA'nın kısa panel özelliği kayıpranma (ilk cevaptan sonra cevap alamama) ve ikame (ilk cevap alamamadan sonra gelen karşılık) sorunların sahip olduğu için dengeli panelden elde edilen geçiş oranları yanlıştır. Bunu düzeltmek için Tunalı, Ekinci ve Yavuzoğlu (2012) tarafından geliştirilen, kayıpranma ve ikameyi gideren Rescaled Additively Non-Ignorable (RAN) modelini kullandım. Bu model ilgi çekicidir çünkü kayıpranma ve ikame olasılıkları her iki periyottaki işgücü durumunun bir fonksiyonudur ve dengeli paneldeki düzeltmeler TUİK tarafından açıklanan resmi istatistiklerle uyumlu marginaller vermektedir. Çalışma yaşındaki (15 yaş ve üstü) kişiler için sonuçlar göstermektedir ki her iki dönem ya da tek dönem işgücüne marginal bağlı olanlar, çalışanlar ve işsizler dengeli panelde aşağı yönlü temsil edilirken, öğrenciler, işgücüne bağlı olmayanlar yukarı yönlü temsil edilmektedir. Daha sonra düzeltilmiş ileri geçiş oranlarını hesapladım ve bunları eşitlik testine tabi tuttum.

Öğrencilerin geçiş özellikleri diğer gruplardan önemli derecede farklıdır. Özellikle işgücüne marginal katılanlar ve işsizlerin bir sonraki dönem çalışan olma ortalama oranları istatistiksel olarak ayırt edilemez. Jones & Riddell'de olduğu gibi Multinomial (MNL) ve Binary (BNL) Logit Modellerini baz alarak bir araya toplama testini yürüttüm. MNL sonuçları göstermektedir ki işgücüne marginal bağlı olanlar ayrı bir işgücü kategorisi olarak tutulmalıdır. Ek olarak BNL'ye bağlı testler belirtmektedir ki işgücüne marginal bağlı ve işsiz kişiler çalışan durumuna geçmede benzer davranışları göstermektedirler. Son olarak iş arama sürecinden dolayı işsiz olarak sayılmayan kişiler hala işgücüne bağlı durumdadırlar ve çalışan durumuna geçme oranları da işsizlere yakındır, eşit olmasa bile.

Anahtar Sözcükler: Marginal Attachment, İşsizlik, Multinomial Logit, Binomial Logit, Likelihood Ratio test, HIA, kayıpranma/ıkame, Rescaled AN Model, Türkiye

To my parents, Havva and Özer

ACKNOWLEDGEMENTS

I wish to thank, first and foremost, my exceptional advisor İnsan Tunalı who read various drafts of writings, and helped me remove my mistakes, then everytime took me one step further. He always taught me how to be a good researcher, and assistant since the days of my undergraduate study. Besides my advisor, I would also express my sincere gratitude to the rest of my thesis committee: Prof. Şule Alan, Prof. Fatoş Gökşen for their encouragement, insightful comments, and questions.

A good support system is essential to surviving in grad school. I owe so much thanks to my dear friend, Ayşe Damla Üzrek throughout my graduate study. Other two special thanks are reserved for my lovely roommates, one for the present, the other for the old one: Gökçe Çelik and Ayşe Nur Asaly. Their endless patient helped me to come this point. I am also grateful to Bengi Yanık İlhan who tirelessly supported me and whose friendship is so valuable for me.

My biggest thanks deserve to go to my family. I am so lucky to have them in my life. I would not have made it this far without their constant support and unconditional love. Knowing the endless patient and support of them always helps me get through the hardest part and takes me one step further.

Last but not the least, I am grateful to Vehbi Koç Foundation and TÜBİTAK for assisting me financially during my both undergraduate and graduate study.

CONTENTS

1 Introduction	11
2 Motivation	15
3 Literature Review	19
4 Data	25
5 In Search of Marginally Attached Individuals	27
6 Methodology	32
6.1 RAN Model	32
6.2 Estimation and Inference in the RAN model	37
6.3 Example	41
6.4 The Multinomial Logit Model and the Likelihood Ratio Test	46
7 Empirical Results	52
7.1 Hypothesis Tests	53
7.2 Reflation Factors (Weights)	54
7.3 Forward Transitions and Likelihood Ratio Tests	57
7.4 Discussion	65
8 Conclusion	67
9 References	70
10 Appendix A: Joint Probability Matrices, Weights (Reflation Factors), Forward Transition Matrices (Quarterly/Annual)	72
11 Appendix B: Analysis of Weights (Reflation Factors)	122
12 Appendix C: Multinomial Logit Estimates (Quarterly/Annual)	132

List of Figures

Figure 1: From Schooling, 2000-2002.....	27
Figure 2: Transition Rates to Employment Conditional on the Timing of the Last Job Search Activity, 2000-2002	30
Figure 3: Average Quarterly Transition Rates, for age 15+	59
Figure 4: Unemployment Rates, 2000-2002.....	66

List of Tables

Table 1: Quarterly Forward Transition Matrix obtained from the Adjusted Panel between 2002-Q1 and 2002-Q2	16
Table 2: Annual Forward Transition Matrix obtained from the Adjusted Panel between 2001-Q1 and 2002-Q1	17
Table 3: A 5x5 Linear RAN Model	39
Table 4: A 5x5 RAN Model - Parameter Estimates	42
Table 5: A 5x5 RAN Model - Reflation Factors	44
Table 6: A 5x5 RAN Model - Adjusted and [Unadjusted] Joint and Marginal Probabilities	45
Table 7: A 5x5 RAN Model - Adjusted and [Unadjusted] Forward Transition Probabilities	46
Table 8: Guide to Tables in Appendix A	53
Table 9: Guide to Tables in Appendix B	53
Table 10: Average Adjusted Quarterly Forward Transition Rates	57
Table 11: Probability Values for Likelihood Ratio Tests of Equivalence Based on MNL models -- Quarterly Transitions, full sample	61
Table 12: Probability Values for Likelihood Ratio Test of Equivalence Based on MNL models --Annual Transitions, full sample.....	62
Table 13: Probability Values for Likelihood Ratio Test of Equivalence Based on BNL models -- Quarterly Transitions, full sample	63
Table 14: Probability Values for Likelihood Ratio Test of Equivalence Based on BNL models -- Annual Transitions, full sample.....	64

1 Introduction

Arguably, the unemployment rate is the single most popularly used statistic for providing a snapshot of labor market conditions. Additionally, unemployment is indicative of the health of an economy in that it reflects private consumption, workers' earnings, and the level of production. A lower unemployment rate translates into more employed individuals with paychecks, which leads to higher consumer spending, economic growth and potential inflationary pressures. Conversely, high levels of unemployment are connected with lower incomes, lower spending, and economic stagnation.

At the same time, there is considerable controversy over the measurement of the unemployment rate. There is some evidence that some individuals who are not in the labor force display some level of attachment to the labor market. During economic downturns, individuals might be more likely to delay looking for a job. Economic fluctuations might push these individuals outside the labor force, even though they perceive themselves as being in the labor market. See for example, Jones and Riddell (1999), Brandolini (2006), Garrido (2004). These papers take the view that the official definition of unemployment may be too restrictive. To settle the matter, they search for individuals among the non-employed who emerge as best candidates to be counted as unemployed, above and beyond the official ones. The literature refers to these individuals as the marginally attached. In this thesis, we will also apply the same terminology.

Identifying these marginally attached individuals becomes more attractive in countries like Turkey where the market economy and labor market institutions are still

developing. In the absence of a nationwide network of employment agencies, clearly identified channels might not exist for the exchange of labor market information. Presence of large rural sectors exacerbates the difficulties. As a result the distinction between unemployed and non-employed becomes blurred. International Labor Organization (ILO, 1983) recommends the partial or full relaxation of the job search criteria for conditions “where the conventional means of seeking work are of limited scope, where labour absorption is, at the time, inadequate, or where the labour force is largely selfemployed...” (ILO, 1983, p. xi).

The main aim of this thesis is to assess whether our understanding of labor market dynamics can be enhanced by studying marginally attached individuals. We first examine subsets of non-participants that display elevated mobility into employment. Students emerge as a group worthy of distinction. We separate the marginally attached individuals after studying search behavior. We then examine the transition rates to between 5 different labor market states, namely being a student, marginal attachment, not attachment, employment, and unemployment. The substantive empirical question that we pose and answer is whether the marginally attached can be combined with the unemployed or not attached.

We use data from the Household Labor Force Survey (HLFS) collected by the Turkish Statistics Institute (TURKSTAT) for the period 2000-2002. We rely on the short panel component of HLFS which allows us to study transition dynamics. The balanced panel suffers from attrition and substitution, so we might obtain biased results. Indeed, Tunali (2009a, b) shows that attrition is detected in HLFS 2000-2002, and is dependent on the first period labor market status. As a remedy to this problem, we use the methodology developed by Tunali, Ekinci, Yavuzoglu (2012). The key feature of this model is to define attrition and substitution probability as a function of labor market

states in both periods. This model produces the weights (reflation factors) by exploiting restrictions on rows and columns imposed by the marginal obtained from official statistics published by TURKSTAT. We then use these weights to correct the joint probabilities taken from the balanced panel component of the individual level data. These weights tell us whether there is an attrition/substitution problem, and if so, the nature of the adjustment needed.

The dynamics that we are interested in are captured by the adjusted forward transition rates. As mentioned earlier, we distinguish between five different labor market states: being a student, marginal attachment, not attachment, employment, and unemployment. As in Jones and Riddell (1999), we focus on transitions into employment. We test in turn whether the marginally attached can be merged with the unemployed or with the not attached. In order to test the behavioral similarity of labor market states, we estimate Multinomial (MNL) and Binomial Logit (BNL) Models. For each hypothesis, we exploit 3 different models: 2 unrestricted models and 1 restricted (pooled) model. Next, we apply the likelihood ratio test. Based on the p-values of the test result, we decide whether transition behavior into employment is the same or not.

Our results based on the RAN model show that there are substantial differences between observed probabilities in the balanced panels and adjusted (weighted) panels. In the balanced panel, unemployed, employed and marginally attached individuals in two consecutive quarters are underrepresented whereas students and not attached ones are overrepresented. This result reflects the fact that individuals in the first three labor market states are more likely to leave the balanced panel as they respond to change their labor market state. Additionally, we find out that marginally attached and unemployed individuals display the same average quarterly transition rates to employment. As a conditional analysis, our likelihood ratio test based on MNL indicates that marginal

attachment and unemployment are not behaviorally similar states, but tests based on BNL give the opposite result particularly for transitions to employment. The test results based on both MNL and BNL reject the null hypothesis that marginally attached individuals can be combined with not attached individuals.

The rest of this thesis is organized as follows. In Section 2, we provide some motivation for relaxing the official unemployment definition by examining flow rates into employment in a traditional three state model. We continue with a selective review of the literature on marginal attachment in Section 3. In Section 4, we describe our data set, the Household Labor Force Survey (HLFS). We launch our empirical investigation in Section 5. We extract students and marginally attached individuals from individuals who are not in the labor force and justify our approach. Section 6 provides a detailed examination of our econometric methodology. We introduce the RAN model, apply it to our setting and set the stage for Multinomial and Binomial Logit regression, the Likelihood Ratio tests. Our empirical results are collected in Section 7. In Section 8, we present our discussion about 3 different unemployment rates. Lastly, we provide a summary of the key findings and their policy implications in Section 9.

2 Motivation

Determining who is unemployed is a vigorously debated issue, particularly in developing countries. The International Labour Organization (ILO, 2009) addressed the adequacy of the standard definition of unemployment and proposed three tests. To be counted as unemployed an individual must be: (1) without work, (2) currently available for work, and (3) seeking work. The first and second criteria are non-controversial. The third, however, is subject of debate. To satisfy the third criterion, the individual must take specific actions that qualify as “search” in a specified reference period. The ILO recognizes that the condition of “seeking work” may not be meaningful in countries where the labor market is largely unorganized, where job search can operate through non-standard channels, and where the self-employed constitute a large segment of the labor force.

This debate is relevant for Turkey where concerns about the announced unemployment rate routinely appear in the media. The Turkish Statistical Institute (TURKSTAT) utilizes the unemployment definition of ILO. The third criterion presently requires search activity in the last 3 months. Until 2000, the time window was 6 months. On the other hand, for most of the Household Labor Force Surveys supervised by the Statistical Office of the European Communities (EUROSTAT), this period of job search includes the last 4 weeks before the survey. In fact statistics EUROSTAT publishes for Turkey also use this shorted window.

Casual inspection suggests that as the frequency of interviews increases, the time window for search activity shrinks. On the other hand, the longer the time window for satisfying the search criterion is, the higher will the unemployment rate be. To illustrate this fact, we use the micro data from the Turkish Household Labor Survey (HLFS),

2000. If search duration is set to 6 months instead of 3 months, the stock of unemployed is seen to be 21% higher in the first quarter of 2000. This factor is 13% for the third quarter of the same year. Presumably, the reason for breaking the non-employed as unemployed and non-participant is to separate those who are eager to become employed from those who are not (see, for example, Clark and Summer, 1979; Jones and Riddell, 2006). If this is the case, what we need to examine is whether restricting the time window for active search improves our ability to draw the distinction.

One way of assessing the adequacy of the unemployment definition is to compare the transition rates from non-participation and unemployment to employment. The findings we report are from the HLFS for the period 2000-2002. If we find that a considerable number of non-participants flow into employment, we would conclude that it is worthwhile to identify subgroups that are responsible for these flows. Since the short panel component of HLFS suffers from attrition and substitution (see Tunalı, 2009), we corrected the estimates obtained from the balanced panel using the RAN model of Tunalı et al. (2012). After correction, the new panel is called adjusted panel. The methodology is described in detail in Section 6.

Table 1: Quarterly Forward Transition Matrix obtained from the Adjusted Panel between 2002-Q1 and 2002-Q2

First Period Margins	Labor Market States	1=NLF	2=EMP	3=U	Row Sum
0.5549	1=NLF	0.8360	0.1357	0.0283	1
0.3993	2=EMP	0.0716	0.8986	0.0298	1
0.0457	3=U	0.2503	0.3775	0.3722	1
	Second Period Margins	0.5777	0.3740	0.0483	

Source: HLFS, TURKSTAT; own calculation.

In Table 1, we report the forward transition probabilities of individuals aged 15 years or older who were seen in two consecutive quarters during the survey period as

well as the period specific marginals. We chose the period arbitrarily, for illustrative purposes. The numbers 1, 2 and 3 indicate the labor market states of these individuals (1= not in the labor force or non-participant, 2= employed, 3= unemployed) defined in the conventional manner. Conditional on not being in the labor force (NLF) in 2002-Q1, one quarter later 14% of the individuals in the panel become employed. Conditional on being unemployed (U) in 2002-Q1, one quarter later 38% of them become employed. Thus, an individual who is classified as unemployed is 2.7 times more likely to get employed than someone who is classified as non-participant. However, based on TURKSTAT marginals, in the first quarter the number of non-participants is 11 times higher than the number of unemployed individuals. Therefore, if we compare the number of individuals who started out in NLF and U in the first quarter, and then successfully became employed in the next quarter, we obtain the ratio $11*(13.57)/(37.75) \approx 4$. This factor indicates that for every unemployed individual who successfully got a job, there were four non-participants who also successfully made this transition. If we put it another way, for every five previously non-employed and newly employed individuals, only one of them was unemployed three months earlier, while four were non-participants.

Table 2: Annual Forward Transition Matrix obtained from the Adjusted Panel between 2001-Q1 and 2002-Q1

First Period Margins	Labor Market States	1=NLF	2=EMP	3=U	Row Sum
0.5778	1=NLF	0.8573	0.1102	0.0325	1
0.3902	2=EMP	0.1710	0.7720	0.0570	1
0.0320	3=U	0.3250	0.3917	0.2833	1
	Second Period Margins	0.5905	0.3640	0.0455	

Source: HLFS, TURKSTAT; own calculation.

Similarly, in Table 2, we report the annual forward transition probabilities of individuals aged 15 years or older for an arbitrary chosen period. To contribute to these

estimated probabilities, individuals who were seen in the first quarter of 2001 have to be seen in the next year's first quarter. We obtained the probabilities after correction by RAN model. Conditional on not being in the labor force (NLF) in 2002-Q1, one year later 11% of the individuals in the panel become employed. Conditional on being unemployed in 2002-Q1, one year later 39% of them become employed. TURKSTAT reports that the number of non-participants is almost 10 times higher than the number of unemployed individuals. As we did for the quarterly transition case, we will compare the number of non-participant and unemployed individuals who successfully become employed next year, and obtain the ratio $10*(11.02)/(39.12) \approx 3$. For the annual transition case, we conclude that out of every four previously non-employed and newly employed individuals, only one of them was classified as unemployed one year earlier.

We conclude then that there are significant flows from non-participation to employment. Casual observation suggests that some individuals in the not in the labor force category are there permanently. Women who never worked are the primary candidates of this group. According to TURKSTAT, between 2004 and 2012 on average 50% of non-participants are women without any work history. Others are there by virtue of the fact that they are students. They may remain there as long as they stay in school and join the labor force after completing their schooling. Last but not the least, individuals who stopped searching and got classified as non-participants may transit directly into employment. All these findings suggest that easily discernible segments of non-participants may deserve a closer look for proper understanding of labor market dynamics.

3 Literature Review

The adequacy of a three state labor market, namely non-participation, employment, and unemployment has been challenged in the literature. In an early paper that investigates this issue, Clark and Summers (1979) study gross flow data of the U.S. Bureau of Labor Statistics. Their main conclusion is that current definitions of labor market states might not be suitable for studying labor market dynamics properly. The evidence they rested their case on is the reentry of some individuals who previously withdrew from the labor force within a short period of time. They find that this group of individuals is made up of mostly teenagers and women. Even though these re-entrants are classified as non-participants, they are sensitive to job opportunities, and they are more likely to return to work compared to other non-participants.

Clark and Summers (1979) argue that if these re-entrants indeed return to the labor force after a short period of withdrawal it is hard to distinguish them from the unemployed. Even though the official statistics capture a brief spell outside the labor force, it might be more proper to represent the entire period of non-employment as a single lengthy spell of unemployment. In their view, the re-entrants should be called long-term unemployed instead of labor force drop outs, since they appear willing to return to work as much as unemployed individuals. In sum, Clark and Summers (1979) provide a convincing argument that for this particular subgroup of non-participants, not in the labor force and unemployment are not different labor market states.

The hypothesis that “unemployment” and “not in the labor force” are behaviorally indistinguishable states is explicitly tested for the first time by Flinn and Heckman (1983). They rely on parametric duration models to estimate the transition rates from unemployment to employment and not in the labor force to employment.

Their working sample contains white male high school graduates from the National Longitudinal Survey of Young Men. They follow 122 teenagers for 30 consecutive months. The working sample was formed to satisfy certain criteria in the applied stochastic process literature. However, it comes with some drawbacks. Flinn and Heckman (1983) could not estimate the parameters of hazard functions related to transitions from unemployment to not in the labor force and from not in the labor force to unemployment due to the small number of transitions. Using a three state model (not in the labor force, employment, unemployment), they are able to test the equality of transition rates from not in the labor force and unemployment to employment. The results of the likelihood ratio test indicated that distinction between the non-employment states is indeed necessary for white male high school graduates.

Gönül (1992) revisits the question and tests whether individuals outside the labor force are as successful in obtaining a job as the unemployed by using a different method to estimate the hazard rates. She claims that Flinn and Heckman (1983)'s result might be biased, since they left out individuals for whom information about the number of switches between labor market states was unavailable. She also selects her working sample from the young cohort of the National Longitudinal Surveys and utilizes the likelihood ratio test to obtain the equivalence of not in the labor force and unemployment states. In the end she finds out that the distinction between unemployment and not in the labor force is unnecessary for young males but necessary for young females.

As we argued earlier, not all non-participants are likely to be equally eager for reentry to the labor force. Thus it may be preferable to identify a proper subset of those not in the labor force and compare this subset to the unemployed. Individuals who satisfy some, but not all the requirements for being counted as unemployment are

primary candidates. In the literature, the label “marginally attached” is used to refer to these individuals. Since the requirements for determining who is unemployed can be relaxed in many ways, there are many different ways of defining marginally attached individuals.

The distinction between unemployed and not in the labor force is based primarily on taking specific steps in a specified reference period to seek employment. Jones and Riddell (1999) use Canadian data to divide the non-participants into subgroups called discouraged, marginally attached, and other individuals not in the labor force. The discouraged group includes individuals “who indicate that they want work but did not search because they believe no work is available” (Jones and Riddell, 1999, p.153), while their marginally attached group includes those “who are not searching work but state that they want work” (Jones and Riddell, 1999, p. 149). Therefore, these individuals satisfy many of the same conditions with the unemployed but they fail to meet the search criterion. The remainder of those not in the labor force are called “not attached to the labor force.” They view discouraged workers as a subset of the marginally attached individuals, since both groups are not seeking work, and discouraged workers additionally think that no work is available.

Jones and Riddell examine whether marginally attached individuals have similar labor force attachment when compared with unemployed workers. Formally speaking, Jones and Riddell test the hypothesis that marginally attached individuals have the same likelihood of becoming employed or not attached in the following period as unemployed workers. To investigate this issue, they estimate the transition probabilities for each labor market state in a Markov model context. These probabilities are expressed as functions of individual characteristics and period dummies. They also use multinomial logit models to test the equivalence of different labor market states. For

each equivalence test there are three estimated equations. The first two equations are estimated separately for distinct origin states. The third one is for the pooled origin state. The restriction is that all the coefficients across two origin states to each of the destination states are the same as the pooled values. When they perform this test, they conclude that marginal attachment and unemployment are distinct labor market states. They also reject the equivalence of discouragement and unemployment.

Another empirical application of the Jones and Riddell (1999) methodology is performed by Byrne and Strobl (2004). They use data from Trinidad and Tobago (T&T), a developing country. To be unemployed in T&T, an individual must be without work, available to work, and must have actively looked for work within the last 3 months. But Byrne and Strobl (2004) investigate whether the standard ILO unemployment definition, i.e. actively looking for work within last 4 weeks is more appropriate. To test this, they focus on individuals who did not have a job at the time of interview but still want to work and define marginally attached individuals as those who looked for work during the 3-month time period but not the last 4 weeks preceding the interview. Using the same test as in Jones and Riddell (1999), they conclude that T&T males who are classified as marginally attached should be included in the unemployed category. Therefore, the statistical agency is fine with the existing unemployment definition. However, for T&T females, marginal attachment and unemployment turn out to be distinct states. To rationalize the findings, Byrne and Strobl argue that some workers are more likely to give up search depending on seasonal factors, the high cost of job search, and in the case of females, availability of non market jobs for females.

The emphasis in Jones and Riddell (1999) and Byrne and Strobl (2004) is on the adequacy of the definition of unemployment. Similar investigations have been used to study dynamics in the EU labor markets. Brandolini, Cipollone, and Viviano (2006) use

data from several EU countries and study individuals who were not in the labor force but searched for employment between five and eight weeks before the survey. These individuals are called “out of labor force job seekers”. Brandolini et al. (2006) show that the transition probabilities of job seekers are different from those of the unemployed and other non-participants. They conclude that out of labor force job seeking represents a distinct labor market state.

Garrido and Toharia (2004) investigate the labor market attachment of “passive” job searchers in Spain. The difference between passive and active job searchers is in the method of search. The statistical agencies keep track of the particular methods which individuals use to search for a job. One option is to connect with a public employment office to renew administrative status. If an individual uses only this method to search for a job, he or she is called a “passive” job searcher. Garrido and Toharia find that passive job searchers are in an intermediate state between active job seekers and non-seekers.

Schweitzer (2003) studies data from the UK and focuses on individuals who are without work but want one and classifies them according to their primary non-labor market activity (student, looking after family, sick, etc.). He examines the labor market attachment of individuals found in these different subgroups of inactives. He concludes that students and individuals who are not available for work due to family issues can be included among the unemployed.

Given the diverse set of findings, the controversy about who is unemployed, which requirement should be used to identify them, and how we can decide which requirement is better, is not likely to end. However, one point remains valid: Some individuals among non-participants are more employable than others outside the labor force, and some of them might be even more employable than the average unemployed.

Thus, an empirical strategy designed to identify the proper subsets can help us in enhancing our understanding of labor market dynamics in a particular setting.

All these definitions strive to identify a marginally attached category which is distinct from not in the labor force and unemployment. In terms of behavior, the marginally attached are located somewhere between those not in the labor force and the unemployed. Marginally attached individuals have higher transition rates to employment than others not in the labor force, but this transition rate is lower than the transition rate from unemployment to employment.

To summarize, we argued that the flow rates from unemployment as well as not in the labor force to employment will be informative to get the right picture of labor market dynamics. To present sharper results, we also target some subsets of individuals who are not in the labor force. Then, we compare the flow rates from these subsets to employment with those from unemployment to employment.

4 Data

In this thesis, we use microdata from quarterly rounds of the Turkish Household Labor Force Survey (HLFS) for the period 2000-2002. In every period, HLFS includes about 70,000 individuals from 18-20,000 households drawn from the civilian noninstitutional population. HLFS relies on an address-based rotating sample frame which requires four visits to the same address over a period of six quarters. Based on this rotation plan, all household members living in a particular address need to be interviewed in two consecutive quarters, rested for the next two, and interviewed again in two consecutive quarters (TURKSTAT, 2001b). Therefore, we obtain a short panel with two quarterly and two annual components for each household member. This feature is useful for studying changes in the labor market states of these individuals over the 18 months period. On the other hand, given the address based rotation plan of HLFS, individuals might move and cannot be traced in a subsequent round, or may be absent initially but return to the sample later. Non-response followed by response is called attrition. Following Tunalı (2009a, b) we refer to response followed by non-response as substitution. Note that substitution behavior goes hand in hand with attrition, in that an attritor in one address has the potential to be a substitute in another. However, the addresses of all potential attritors and substitutes are not in the sample frame. Both attrition and substitution alter the representativeness of the sample. To remedy this problem, we employ the Rescaled AN (RAN) model proposed by Tunalı et al. (2012). The RAN model will be explained in the methodology section (Ch 6).

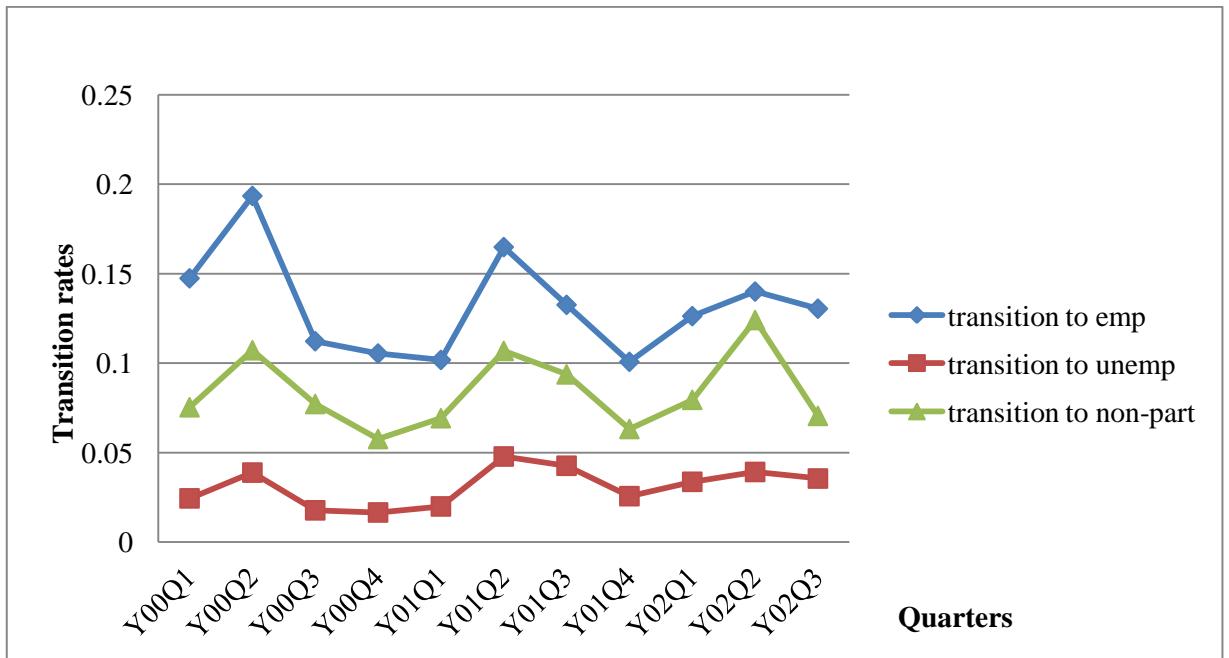
HLFS contains detailed information about labor market experiences of individuals. In addition to the basic demographic information (such as age, gender, education level), HLFS provides the classification of individuals based on the labor

market states (employed, unemployed, and not in the labor force) following the guidelines established by the ILO. According to the internationally standardized definition of ILO, to be employed working age individuals must engage in an economic activity for pay, profit or family gain during the reference period or they have to have a job even though they stopped working temporarily during the reference period for various reasons. Non-employed individuals are subjected to additional questions to determine who is unemployed. HLFS shows whether a non-employed individual looked for work, if so the last time he/she did this, and also whether she/he is ready to work within 15 days. To be counted as unemployed, individuals must have searched for a job in the last 3 months prior to the survey data. Finally, non-participants are asked questions to learn more about the reason behind their decision.

5 In Search of Marginally Attached Individuals

Our main task is to identify subsets of non-participants who are more employable than the average individual not in the labor force. Students seem like a good candidate. Compulsory primary education is completed around age 15 at which time a sizeable group leave school. Some of these enter the labor force. Those who stay in school face a similar transition decision later. After they graduate from high school, they either go to college or enter the labor market. Indeed, Turkey has a young population, so students are worthy of a careful examination. According to (TURKSTAT) between 2000 and 2002, on average 20% of the civilian non-institutional working age population was between the ages of 15 and 24, and more than 40% of these were in school.

Figure 1: From Schooling, 2000-2002



Source: HLFS, TURKSTAT; own calculation.

We prepared Figure 1 by using the balanced panel component of HLSF microdata from 2000 to 2002. For each quarter, we first identify students who are aged

15 or over, then we estimate what proportion of them get employed, become non-participant or unemployed in the subsequent quarter. The upper line represents the quarterly transition rates to employment, the middle one captures the flows into non-participation, and the lower one shows transitions to unemployment. For example, out of 100 students in the second quarter of year 2001 (Y01Q2), 16 of them find a job, 10 join the ranks of non-participants, and 5 of become unemployed 3 months later. Apparently, transition rates to employment, non-participation, and unemployment show the same cyclical pattern. They take the highest value between the second and third quarter in each year. This is what we expect. Students in Turkey commonly graduate from school in the second quarter, and they are most likely to enter the labor force in the third. Note that the transition rate to employment dropped significantly in Y00Q3 and it continued to decrease until Y01Q2 when new graduates entered the market. This attributable to the severe crisis that hit Turkey late in 2000, and got exacerbated in 2001. After two quarters of decline some mild recovery was recorded in 2002. We conclude that students emerge as a group worthy of separate analysis or tracking for the purposes of studying labor market dynamics.

Turning the notion of marginal attachment, the first candidate that comes to mind are discouraged workers. Some statistical agencies publish additional unemployment rates after including discouraged workers to the unemployed. Bureau of Labor Statistics (BLS, within the United States Department of Labor) uses the same unemployment definition with EUROSTAT and denotes it U3. It also publishes U4, which represents individuals who are either in U3 or are discouraged workers. To be counted in the discouraged worker category, BLS requires that individuals must stop looking for work because they believe that there is no available job for them.

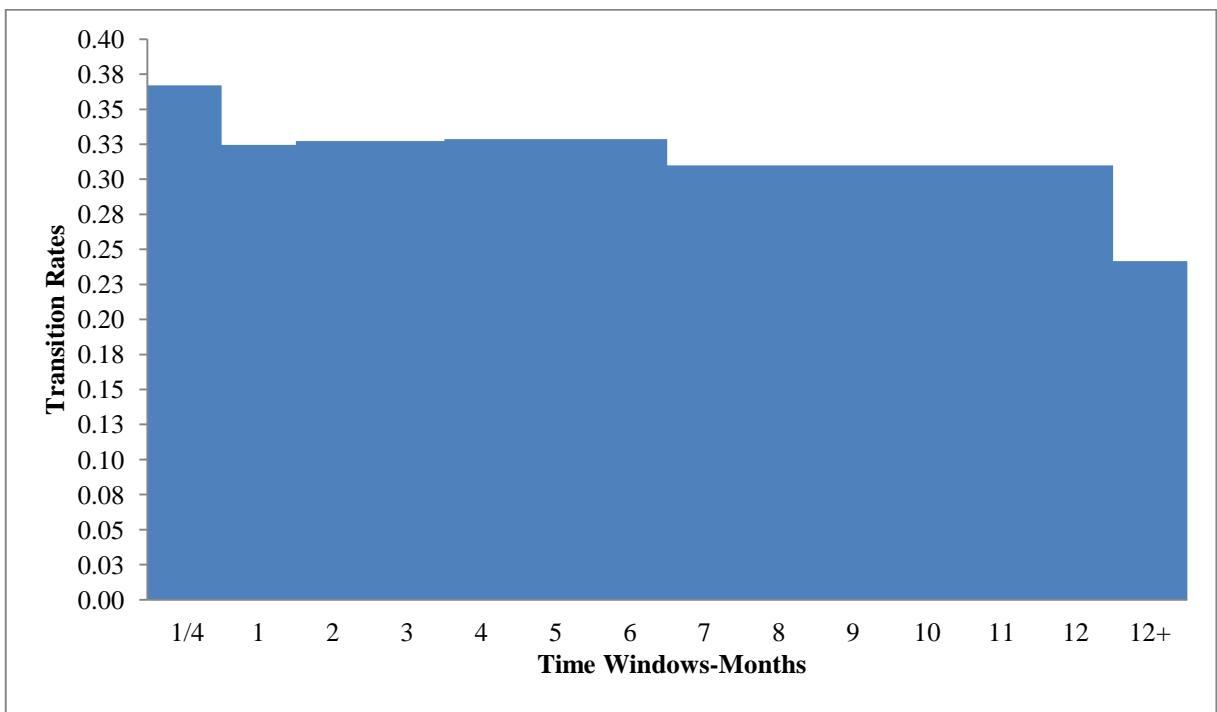
Furthermore, they also need to have looked for work within the past year in order to satisfy the U4 definition.

We can easily implement this for Turkey. According to the TURKSTAT (2000) definition, to be counted as a discouraged worker an individual must be: 1) without work, 2) available for work within 15 days, and 3) must not have searched for a job because of not knowing where to search, or belief that no job was available for him/her in the region. Since Turkey experienced a serious economic downturn after 2000, and discouragement is likely to occur in such periods, one might expect that discouraged workers account for a considerable amount of unemployed workers. This is not the case. TURKSTAT (2013) reports that the average fraction of discouraged workers was 5.4% of unemployed workers between 2000 and 2002. Consequently, average U4 for Turkey between 2000 and 2002 is 8.81% whereas average U3 is 8.41%. Thus, including discouraged workers leads to a very small increase in the unemployment rate. Indeed, this fact is also true for the United States during the same time period. Based on BLS, average U3 is 4.86% whereas average U4 is 5.01%. Even though discouraged workers may have high transition rates to employment, their share is too small to warrant a separate category.

We might also consider adapting the U5 definition of the BLS to Turkey. U5 includes individuals who are in U4 or "would like" and are able to work, but have not looked for work recently. These individuals clearly did not look for work during the last four weeks that preceded the survey. Otherwise, they would be counted as unemployed. BLS also requires that these individuals must have taken at least one step to look for work sometime within the past year. If we were to look for a similar group of individuals using the HLFS, we can identify them in the following way: They are non-employed, are available to start work in 15 days, searched for work during the past year

but not during the last 3 months. From now on, we call this group “marginally attached”. Based on TURKSTAT (2013), we calculate the average U5 for Turkey between 2000 and 2002 is 10%, whereas U3 is 8.41%. Infact, U5 is 19% higher than U3. Apparently, marginally attached individuals are large enough as a group and deserve more detailed study.

Figure 2: Transition Rates to Employment Conditional on the Timing of the Last Job Search Activity, 2000-2002



Source: HLFS, TURKSTAT; own calculation.

The key question is how the transition rate to employment varies with the timing of the most recent search activity. To obtain the transition rates shown in Figure 2, we use the balanced panel component of HLSF from 2000 to 2002. For each quarter, first we assign individuals to a time window based on the timing of last search activity, measured from the survey date. We then estimate their transition rates to employment. We repeat this process for 11 quarters and then we calculate the arithmetic average. On

the horizontal axis of Figure 2, we have the time windows which contain the last time an individual searched for a job. The upper limit does not exist for the last time in job search, so we censor at 12+ months, i.e. more than 12 months ago. On the vertical axis, the average probability of transition to employment is reported.

Individuals who searched for a job during the week prior to the survey have the highest transition rate to employment, 0.37. As the search window moves back in time, the transition rate to employment decreases. Individuals who stopped looking for a job more than 1 year ago have the lowest transition rate to employment, 0.24. Individuals who searched sometime in the last three months (the first three time periods in the figure are formally) are classified as unemployed. Notably, the transition rate for those who searched during the 4-12 month window is almost as high as this group. Clearly, this finding supports our claim that some non-participants are more employable than others. In fact some are as employable as the unemployed. Moreover, individuals located in the next group also have transition rates that are similar in magnitude. They are also possible candidates to be included in the marginally attached category. Thus, we will label individuals in the 4-12 month window as marginally attached.

To recapitulate, we proposed two subsets of non-participants as candidates for closer scrutiny. We took high average rates of transition to employment and unemployment as evidence of a subgroup's willingness to attach to the labor force. The first subset is students. The second subset consists of individuals who have search history which precedes the three month threshold. We define our marginally attached category as individuals who looked for work sometime within the past year, but did not get counted as unemployed.

6 Methodology

In the previous section, we provided some preliminary justification for the use of a five state model of the labor market: student, marginal attachment, not attachment, employment, and unemployment. In this section, we introduce the methodology we will rely on for deciding whether certain states can be combined with others. Towards that end we compare the transition rates to employment from non-employment states, in particular from unemployment, and marginal attachment. We also formally test in turn, whether unemployed and marginally attached individuals, not attached and marginally attached individuals are behaviorally different or not. We use micro data from the quarterly rounds of HLFS for the period 2000-2002. Our empirical methodology consists of three steps. First, we apply the RAN model developed by Tunali, Ekinci, Yavuzoglu (2012) and adjust the transition rates by taking attrition/substitution into account. Second, we obtain the Forward Transition matrices and conduct some preliminary comparisons based on averages. Third, we estimate Multinomial and Binary Logit models of transition behavior, and conduct Likelihood Ratio tests to find out whether marginally attached individuals can be pooled with those classified as unemployed or not attached.

6.1 RAN Model

As we pointed out in Section 4, when the short panel component of the HLFS is studied, two problems arise: non-response after initial response, called attrition, and response following non-response, called substitution. As a result, the balanced panel that spans two consecutive periods can yield biased joint probabilities, as well as transition rates. To address these problems, we will use the Rescaled Additively Non-Ignorable (RAN) model of attrition and substitution developed by Tunali, Ekinci, and Yavuzo\u0111lu (2012).

The RAN model is an extension of the Additively Non-Ignorable Model of Attrition proposed by Hirano, Imbens, Ridder, and Rubin (2001) for handling attrition in panel data. As an additional feature, the RAN model adjusts for substitution. Indeed, this extension makes the RAN model applicable to HLFS. The key feature of this model is to define the attrition and substitution probability as a function of labor market states in both periods. Tunali et al. (2012) study a version of the RAN model with 3 labor market states (employed, unemployed, not in the labor force). Here, we extend this to our 5 labor market states, student (1), marginally attached (2), not attached (3), employed (4), and unemployed (5).

We begin by introducing the AN model of Hirano et al. (2001) in the context of our problem so that the additional features of the RAN model can be highlighted. Let y_{ij} be the labor market status of individual i in period j , x_{ij} be the observed time-invariant characteristics of individual i , and define $D_i = 1$ if individual i is interviewed in both periods, $D_i = 0$ otherwise. For the sake of simplicity, we will omit the individual subscript. Our aim is to estimate the probability of occupying a particular labor market state in the second period given the labor market state and individual characteristics in the first period, $f(y_2|y_1, x)$. We can express it in the following way:

$$f(y_2|y_1, x) = \frac{f(y_1, y_2|x)}{f(y_1|x)} \quad (1)$$

where $f(y_1, y_2|x)$ denotes the joint probability distribution function and $f(y_1|x)$ is the first period marginal distribution function. Hirano et al. (2001) discuss a regular panel which has just been launched. Thus, the marginal distribution can be estimated by using the data obtained from the first period. Since there is no information about individuals

who left the balanced panel in the second period, it is not possible to obtain an unbiased estimate of $f(y_1, y_2|x)$ directly. Hirano et al. (2001) derive the following equation:

$$f(y_1, y_2|x) = \frac{f(y_1, y_2|x, D=1)P(D=1|x)}{P(D=1|y_1, y_2, x)} \quad (2)$$

which can be obtained using Bayes' Law. Here $f(y_1, y_2|x, D = 1)$ denotes the joint distribution of individuals included in the balanced panel, and $P(D = 1|x)$ is the probability that an individual is in the balanced panel given the time-invariant characteristics. These functions can be estimated from available data. The first one is what we see in the balanced panel; the second one is the marginal retention probability which is the complement of the attrition probability. The term in the denominator, $P(D = 1|y_1, y_2, x)$ denotes the probability of being in the balanced panel given labor market status in the two periods, and the individual time-invariant characteristics. This term captures possibly systematic the effect of attrition. It is unidentified because y_2 is not observed for attritions.

Hirano et al. (2001) review various approaches used in resolving the identification problem. If attrition is independent of (y_1, y_2) , then

$$P(D = 1|y_1, y_2, x) = P(D = 1|x) \quad (3)$$

When (3) holds, labor market status does not affect the probability of inclusion in the balanced panel. Researchers who use the balanced panel directly make this assumption. On the other hand, if attrition is independent of y_2 only, we have

$$P(D = 1|y_1, y_2, x) = P(D = 1|y_1, x) \quad (4)$$

Since equation (4) can be estimated from a regular panel, we can recover the joint distribution on the left hand side of (2). In fact Tunali (2009a, b) estimated (4) on the HLFS from 2000-2002, and established that the probability of attrition depends on y_1 . Hence (3) cannot be true. But (4) is arbitrary too. Attrition may depend on y_2 , just as it may be a function of y_1 . Thus a more general model is desirable, and the AN model of Hirano et al. (2001) emerges as an attractive option.

Hirano et al. (2001) study the case consisting of a two period panel, and the only potential problem is attrition in the second period. In addition, an independent data set collected in period two (so called refreshment sample) is available. They express $P(D = 1|y_1, y_2, x)$ as an additive parametric function of (y_1, y_2) , and establish that it is just-identified when restrictions on column and row sums of the joint probability of interest are used to estimate it. The restrictions can be summarized as:

$$\sum_{y_2} f(y_1, y_2|x) = f_1(y_1|x) \quad (5)$$

$$\sum_{y_1} f(y_1, y_2|x) = f_2(y_2|x) \quad (6)$$

Here $f_1(y_1|x)$ and $f_2(y_2|x)$ are identifiable marginal distributions. In the AN model, the original sample provides an unbiased estimate of $f_1(y_1|x)$, whereas an unbiased estimate for $f_2(y_2|x)$ is obtained from the refreshment sample.

The AN model is not fully applicable to our case, because the address based rotating sample frame of HLFS involves additional complications. The first one is that the balanced panel suffers not only from attrition, but also from substitution. Just as the term attrition captures the possibly detrimental effects of non-response after initial response, substitution captures similar concerns associated with response after initial non-response. Furthermore we no longer have a two period panel. As we explained in

Section 3, individuals are interviewed for two consecutive quarters, rested for next two, and finally interviewed again for the last two consecutive quarters. This rotation design exacerbates the incidence of substitution and attrition. The second complication is the difficulty of arriving at the full sample size, so that $P(D = 1|x)$ can be estimated. Tunali et al. (2012) propose a modification to obtain $f(y_1, y_2|x)$. They treat $P(D = 1|x)$ as a free parameter, and absorb it into the parametric form assumed for $P(D = 1|y_1, y_2, x)$. This modification gives us the Rescaled Additively Non-Ignorable (RAN) Model which replaces (2) by:

$$f(y_1, y_2|x) = f(y_1, y_2|x, D = 1)w(y_1, y_2|x) \quad (7)$$

Here $w(y_1, y_2|x)$ is a parametric reflation factor which adjusts the joint probability function obtained from the balanced panel to arrive at the joint probability distribution of interest.

Yet a third complication is the identification of the marginal probabilities, $f_1(y_1|x)$ and $f_2(y_2|x)$ which may correspond to arbitrary periods covered by the short panel. To implement the RAN model with HLFS, external data are used. The marginals are obtained from official statistics published by TURKSTAT. Each period, TURKSTAT relies on the full cross-section obtained from HLFS to arrive at these statistics. The raw data are re-weighted so that representativeness of the sample can be assured. Towards this end population projections are used. We use the published marginal distributions to render equations (5) - (6) operational.

We are ready to turn to our application and show how the RAN methodology is specialized to address our needs. The labor market states which are the subjects of this thesis are in school (1), marginally attached (2), not attached (3), employed (4), unemployed (5). Since there 5 different states, equations (5) and (6) provide 9

independent restrictions. Thus, we can estimate 9 parameters. We treat students in both periods ($y_1 = 1, y_2 = 1$) as the base category. For period (t=1, 2), the dummy variables for distinct labor market states are defined as:

$$z_{2t} = \begin{cases} 1, & \text{marginally attached } (y_t = 2) \\ 0, & \text{else} \end{cases},$$

$$z_{3t} = \begin{cases} 1, & \text{not attached } (y_t = 3) \\ 0, & \text{else} \end{cases},$$

$$z_{4t} = \begin{cases} 1, & \text{employed } (y_t = 4) \\ 0, & \text{else} \end{cases},$$

$$z_{5t} = \begin{cases} 1, & \text{unemployed } (y_t = 5) \\ 0, & \text{else} \end{cases}.$$

Let $\underline{z}' = (1, \underline{z}_1', \underline{z}_2') = [1, (z_{21}, z_{31}, z_{41}, z_{51}), (z_{22}, z_{32}, z_{42}, z_{52})]$, and define the parameter vector $\underline{\theta}' = [\theta_1, \theta_2, \theta_3, \theta_4, \theta_5, \theta_6, \theta_7, \theta_8, \theta_9]$, so that $w(y_1, y_2 | x) = w(\underline{\theta}' \underline{z} | x)$. The equation system of the 5x5 RAN model can be written as:

$$\sum_{y_2} f(y_1, y_2 | x, D = 1) w(\underline{\theta}' \underline{z} | x) = f_1(y_1 | x), y_1 = 1, 2, 3, 4, 5; \quad (8)$$

$$\sum_{y_1} f(y_1, y_2 | x, D = 1) w(\underline{\theta}' \underline{z} | x) = f_2(y_2 | x), y_2 = 1, 2, 3, 4, 5. \quad (9)$$

6.2 Estimation and Inference in the RAN model

As in the AN model, parametric assumptions are needed to estimate the reflation factors of the RAN model. To achieve this, we define a linear index function:

$$i(y_1, y_2) = i(\underline{\theta}' \underline{z} | x) \\ = \theta_1 + \theta_2 z_{21} + \theta_3 z_{31} + \theta_4 z_{41} + \theta_5 z_{51} + \theta_6 z_{22} + \theta_7 z_{23} + \theta_8 z_{24} + \theta_9 z_{25} \quad (10)$$

which gives the propensity of inclusion in the balanced panel as a function of labor market states (y_1, y_2) .

Note that (10) does not involve any interaction terms, only the main effects are included. Clearly other additive functions with at most 9 unknown terms can be used. Since it is not possible to distinguish between these, we follow Hirano et al. (2001) and rely on (10). To check the robustness of our parametric approach, we follow the footsteps of Tunali et al. (2012) and use three parametric forms:

$$\text{Linear: } w_L(y_1, y_2) = i(\underline{\theta}' \underline{z} | x) \quad (11)$$

$$\text{Convex: } w_X(y_1, y_2) = \exp \{ i(\underline{\theta}' \underline{z} | x) \} \quad (12)$$

$$\text{Concave: } w_E(y_1, y_2) = 2 - \exp \{ i(\underline{\theta}' \underline{z} | x) \} \quad (13)$$

In Table 3, we take the linear case to show how adjustments are done. There $p_{y_1 y_2} = f(y_2, y_1 | x, D = 1)$ are the fractions obtained from the balanced panel component of the HLFS, and $f_t(y_t), t = 1, 2$ are the marginal distributions obtained from external data (TURKSTAT). In each row and column of the table, adjusted joint probabilities obtained via (7) need to sum up the marginal probabilities as shown in (8) and (9).

Table 3: A 5x5 Linear RAN Model

	y ₂ =1	y ₂ =2	y ₂ =3	y ₂ =4	y ₂ =5	Row Sum
y ₁ =1	$\theta_1 p_{11}$	$(\theta_1 + \theta_6)p_{12}$	$(\theta_1 + \theta_7)p_{13}$	$(\theta_1 + \theta_8)p_{14}$	$(\theta_1 + \theta_9)p_{15}$	f ₁ (1)
y ₁ =2	$(\theta_1 + \theta_2)p_{21}$	$(\theta_1 + \theta_2 + \theta_6)p_{22}$	$(\theta_1 + \theta_2 + \theta_7)p_{23}$	$(\theta_1 + \theta_2 + \theta_8)p_{24}$	$(\theta_1 + \theta_2 + \theta_9)p_{25}$	f ₁ (2)
y ₁ =3	$(\theta_1 + \theta_3)p_{35}$	$(\theta_1 + \theta_3 + \theta_6)p_{32}$	$(\theta_1 + \theta_3 + \theta_7)p_{33}$	$(\theta_1 + \theta_3 + \theta_8)p_{34}$	$(\theta_1 + \theta_3 + \theta_9)p_{35}$	f ₁ (3)
y ₁ =4	$(\theta_1 + \theta_4)p_{45}$	$(\theta_1 + \theta_4 + \theta_6)p_{42}$	$(\theta_1 + \theta_4 + \theta_7)p_{43}$	$(\theta_1 + \theta_4 + \theta_8)p_{44}$	$(\theta_1 + \theta_4 + \theta_9)p_{45}$	f ₁ (4)
y ₁ =5	$(\theta_1 + \theta_5)p_{55}$	$(\theta_1 + \theta_5 + \theta_6)p_{52}$	$(\theta_1 + \theta_5 + \theta_7)p_{53}$	$(\theta_1 + \theta_5 + \theta_8)p_{54}$	$(\theta_1 + \theta_5 + \theta_9)p_{55}$	f ₁ (5)
Col. Sum	f ₂ (1)	f ₂ (2)	f ₂ (3)	f ₂ (4)	f ₂ (5)	1

Tunalı et al. (2012) prove that estimation of $\underline{\theta}$ in the linear RAN model can be achieved via matrix operations. Tunalı et al. (2012) show that one of the equations is redundant and the equation system has the same solution no matter which equation is excluded. The non-linear cases shown in (12) and (13) are more complicated because an iterative solution to the equation system (8) - (9) has to be found. In our empirical work we relied on MATLAB's predefined function fsolve(.). Let $\hat{\underline{\theta}}$ denote the parameter estimates. Given the parameter estimates, the reflation factors can be estimated from (10) by choosing the appropriate equation from (11) - (13). The adjusted joint probabilities (what we term weighted or adjusted panel) can then be obtained as a product of the unadjusted joint probabilities (balanced panel) and the reflation factors:

$$f(y_1, y_2 | x) = f(y_1, y_2 | x, D = 1) w(\underline{\theta}' z | x) \quad (14)$$

The first question we need to address is whether attrition/substitution are ignorable. This calls for hypothesis tests on $\underline{\theta}$. To handle joint inference, we need to obtain the covariance matrix for $\hat{\underline{\theta}}$. We utilize a Bootstrap method. We follow Tunalı et al. (2012) and draw three different independent bootstrap samples for each random data component $f(y_1, y_2 | x, D = 1)$, $f(y_1 | x)$, $f(y_2 | x)$ and use MATLAB to estimate a new $\hat{\underline{\theta}}$. Each bootstrap sample has the same sample size as in the raw data. Sample sizes can be found in last 3 rows of Table 4. We repeat the procedure 100 times; therefore, we get 100 different estimates of $\hat{\underline{\theta}}$, compute their bootstrap means, standard errors, and

covariance estimates. These estimates help us to test three well-known models of attrition nested under the AN/RAN models. The generic test may be expressed as:

$$H_0: R\theta = \underline{r} \quad \text{vs.} \quad H_1: R\theta \neq \underline{r}$$

To test the null hypothesis, we use the following Wald statistic:

$$W = N * (R\hat{\theta} - \underline{r})' (R\hat{V}R')^{-1} (R\hat{\theta} - \underline{r}) \quad (15)$$

where N is the number of replications, and \hat{V} is the variance-covariance matrix for $\hat{\theta}$.

Asymptotically, W has a χ^2 distribution with q degrees of freedom where q is the number of restrictions under the null hypothesis (Greene, 2003).

In the simplest model, attrition/substitution are ignored, i.e. inclusion in the balanced panel does not depend on any labor market state ($w(y_1, y_2) = 1$, for all y_1, y_2). This version is called Missing Completely at Random (MCAR) by Little and Rubin (1987). In this case the null hypothesis involves $q=9$ restrictions on θ . We have:

$$R = \begin{bmatrix} 1 & 0 & \dots & 0 & 0 \\ 0 & 1 & \ddots & \ddots & 0 \\ \vdots & \ddots & 1 & \ddots & \vdots \\ 0 & \ddots & \ddots & 1 & 0 \\ 0 & 0 & \dots & 0 & 1 \end{bmatrix}_{9 \times 9} \quad \underline{r} = \begin{bmatrix} 1 \\ 0 \\ \vdots \\ 0 \end{bmatrix}_{9 \times 1} \quad (16)$$

In the second model, the attrition/substitution are affected only by labor market states in the first period: $w(y_1, y_2) = w(y_1)$. This case is termed Missing at Random (MAR) by Little and Rubin (1987). If MAR is a valid assumption, then it is enough to adjust balanced panel results by using the first period labor market outcomes. The null hypothesis places $q=4$ restrictions on θ : $\theta_6 = \theta_7 = \theta_8 = \theta_9 = 0$.

$$R = \begin{bmatrix} 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 \end{bmatrix}_{4 \times 9} \quad \underline{r} = \begin{bmatrix} 0 \\ 0 \\ 0 \\ 0 \end{bmatrix}_{4 \times 1} \quad (17)$$

In the third and last model, we reverse the set-up of the second case and allow attrition/substitution to be affected by labor market states in the second period: $w(y_1, y_2) = w(y_2)$. This case is termed Hausman and Wise (HW) model by Hirano et al. (2001). The null hypothesis places q=4 restrictions on $\underline{\theta}$: $\theta_2 = \theta_3 = \theta_4 = \theta_5 = 0$.

$$R = \begin{bmatrix} 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 \end{bmatrix}_{4 \times 9} \quad \underline{r} = \begin{bmatrix} 0 \\ 0 \\ 0 \\ 0 \end{bmatrix}_{4 \times 1} \quad (18)$$

6.3 Example

In this subsection, we present an example to show how the RAN model is utilized. For our illustrations, we choose the annual transition from the first quarter of 2001 to the first quarter of 2002. To give a general perspective, we took x as the entire working age population, ages 15 and over. Table 4 provides a full set of parameter estimates for a 5x5 RAN model associated with the sample, together with bootstrap means and standard errors based on 100 replications.

Table 4: A 5x5 RAN Model - Parameter Estimates

Annual Transitions Between 2001-Q1 and 2002-Q1, x= age 15 and over

Parameter	θ_1	θ_2	θ_3	θ_4	θ_5	θ_6	θ_7	θ_8	θ_9
(i) w(.) linear:									
Estimate	1.0566	0.1548	0.2268	0.2926	0.4290	-0.1398	-0.4035	-0.2232	-0.1347
Bootstrap Mean	1.0614	0.1495	0.2215	0.2857	0.4192	-0.1251	-0.4024	-0.2225	-0.1307
Bootstrap Std. Error	0.0350	0.1087	0.0611	0.0650	0.0833	0.1191	0.0646	0.0696	0.0821
(ii) w(.) convex:									
Estimate	0.0440	0.1585	0.2293	0.2941	0.4087	-0.1449	-0.4011	-0.2189	-0.1419
Bootstrap Mean	0.0480	0.1499	0.2240	0.2871	0.3988	-0.1347	-0.3991	-0.2173	-0.1382
Bootstrap Std. Error	0.0333	0.1147	0.0653	0.0685	0.0795	0.1046	0.0618	0.0661	0.0751
(iii) w(.) concave:									
Estimate	0.0699	0.1479	0.2211	0.2886	0.4564	-0.1290	-0.4047	-0.2246	-0.1207
Bootstrap Mean	0.0758	0.1452	0.2157	0.2816	0.4477	-0.1049	-0.4045	-0.2249	-0.1155
Bootstrap Std. Error	0.0390	0.1028	0.0554	0.0603	0.0930	0.1432	0.0666	0.0724	0.0918
Sample Sizes:									
Balanced Panel							21,731		
1 st Period Cross-section							52,389		
2 nd Period Cross-section							53,810		

Next, we present the Wald statistics to test the MCAR, MAR and HW restrictions, (16)-(18). The \hat{V} matrix associated with the estimates reported in Table 4 is included at the end of this subsection. To illustrate the severity of the attrition/substitution problem as reflected in the balanced panel, we present some Wald statistics. First in order to test the MCAR restriction, we compute the Wald statistics as 161780 for quarterly transitions from 2001-Q1 to 2001-Q2, and as 101358 for annual transition from 2001-Q1 to 2002-Q1. Clearly, their p-values are almost 0. Therefore, we reject the null hypothesis that attrition/substitution are ignorable.

We then test the MAR restriction. For this case, the Wald statistics for quarterly transitions from 2001-Q1 to 2001-Q2 is computed as 18719, and for annual transition

from 2001-Q1 to 2002-Q1, it is 14748. As in the MCAR case, their p-values are very close to 0. These findings reveal that it is adequate to express the attrition/substitution process as a function of the labor market states in the first period only. Turning to the last model, the HW restriction assumes that the attrition/substitution process is not affected by the second period labor market states only. The Wald statistics for quarterly transitions from 2001-Q1 to 2001-Q2 is 11036, and for annual transition from 2001-Q1 to 2002-Q1 it is 21716. Their p-values are also very close to 0. Therefore, we rejected all three (MCAR, MAR, and HW) restrictions, and conclude that labor market states in both first and second period contain valuable information for the purpose of adjusting the balanced panel.

To demonstrate how the correction via RAN model is utilized, we present Table 5. Single entries outside the braces are obtained from the balanced panel component of HLFS. Entries inside braces correspond to the estimated reflation factors, respectively under linear, convex, and concave functional form assumptions. The results show that the estimated reflation factors are robust to the choice of functional form. If reflation factor is bigger than 1, then the corresponding cell is underrepresented in the balanced panel. The converse implies an overrepresented cell. The values of the marginal probabilities in the last column and row of the table are excluded for brevity¹. Adjusted joint probabilities satisfy the equations (8) and (9).

¹ These can be found in Table 6.

Table 5: A 5x5 RAN Model - Reflation Factors

Annual Transitions Between 2001-Q1 and 2002-Q1, x= age 15 and over

	y ₂ =1(S)	y ₂ =2(MA)	y ₂ =3(NA)	y ₂ =4(E)	y ₂ =5(U)	
y ₁ =1	0.0474 {1.0566 2.7183 1.0675}	0.0009 {0.9168 0.9040 0.9392}	0.0125 {0.6530 0.6997 0.6024}	0.0058 {0.8334 0.8396 0.8328}	0.0038 {0.9219 0.9068 0.9480}	f ₁ (1)
y ₁ =2	0.0002 {1.2114 1.2244 1.1958}	0.0005 {1.0716 1.0592 1.0851}	0.0030 {0.8079 0.8199 0.7946}	0.0039 {0.9882 0.9837 0.9933}	0.0027 {1.0767 1.0625 1.0926}	f ₁ (2)
y ₁ =3	0.0073 {1.2834 1.3143 1.2525}	0.0029 {1.1436 1.1370 1.1496}	0.4309 {0.8798 0.8800 0.8797}	0.0481 {1.0601 1.0559 1.0643}	0.0104 {1.1486 1.1404 1.1567}	f ₁ (3)
y ₁ =4	0.0042 {1.3492 1.4022 1.3013}	0.0042 {1.2094 1.2130 1.2051}	0.0662 {0.9457 0.9389 0.9527}	0.2952 {1.1260 1.1266 1.1254}	0.0203 {1.2145 1.2167 1.2117}	f ₁ (4)
y ₁ =5	0.0012 {1.4856 1.5726 1.4092}	0.0015 {1.3457 1.3605 1.3279}	0.0087 {1.0820 1.0530 1.1146}	0.0122 {1.2623 1.2635 1.2605}	0.0085 {1.3508 1.3646 1.3335}	f ₁ (5)
	f ₂ (1)	f ₂ (2)	f ₂ (3)	f ₂ (4)	f ₂ (5)	

Since findings are robust to the choice of functional form, we proceed with the linear version. In Table 6, we present both the unadjusted and adjusted joint probabilities along with the associated marginals in each period. The unadjusted ones are shown in brackets. This table helps us to gauge the discrepancy between the biased joint probabilities obtained from the balanced panel and the adjusted ones obtained by using our RAN model.

Table 6: A 5x5 RAN Model - Adjusted and [Unadjusted] Joint and Marginal Probabilities

Annual Transitions Between 2001-Q1 and 2002-Q1, x= age 15 and over

	$y_2=1(S)$	$y_2=2(MA)$	$y_2=3(NA)$	$y_2=4(E)$	$y_2=5(U)$	Row Sum
$y_1=1$	0.0501 [0.0474]	0.0008 [0.0009]	0.0082 [0.0125]	0.0048 [0.0058]	0.0035 [0.0038]	0.0674 [0.0704]
$y_1=2$	0.0003 [0.0002]	0.0005 [0.0005]	0.0024 [0.0030]	0.0027 [0.0027]	0.0015 [0.0014]	0.0075 [0.0079]
$y_1=3$	0.0093 [0.0073]	0.0034 [0.0029]	0.3791 [0.4309]	0.0510 [0.0481]	0.0119 [0.0104]	0.4547 [0.4996]
$y_1=4$	0.0057 [0.0042]	0.0051 [0.0042]	0.0626 [0.0662]	0.3324 [0.2952]	0.0247 [0.0203]	0.4305 [0.3902]
$y_1=5$	0.0063 [0.0012]	0.0020 [0.0015]	0.0094 [0.0087]	0.0154 [0.0122]	0.0114 [0.0085]	0.0445 [0.0320]
Col. Sum	0.0671 [0.0603]	0.0118 [0.0100]	0.4617 [0.5213]	0.4063 [0.3640]	0.0530 [0.0444]	1

Finally, Table 7 depicts the quantities which are of main interest, the adjusted forward transition probabilities obtained by equation (1). Similar to the previous table, we report the unadjusted ones inside brackets to eyeball the differences. Whether the differences are large enough to warrant our effort can be debated, but it makes sense to use probabilities which are fully consistent with the cross-section estimates of TURKSTAT.

Table 7: A 5x5 RAN Model - Adjusted and [Unadjusted] Forward Transition Probabilities

Annual Transitions Between 2001-Q1 and 2002-Q1, x= age 15 and over

	y ₂ =1(S)	y ₂ =2(MA)	y ₂ =3(NA)	y ₂ =4(E)	y ₂ =5(U)	Row Sum
y ₁ =1	0.7434 [0.6736]	0.0119 [0.0124]	0.1213 [0.1779]	0.0717 [0.0824]	0.0516 [0.0536]	1 [1]
y ₁ =2	0.0374 [0.0292]	0.0727 [0.0643]	0.3241 [0.3801]	0.3598 [0.3450]	0.2060 [0.1813]	1 [1]
y ₁ =3	0.0205 [0.0146]	0.0074 [0.0059]	0.8337 [0.8625]	0.1122 [0.0963]	0.0262 [0.0207]	1 [1]
y ₁ =4	0.0133 [0.0109]	0.0118 [0.0107]	0.1455 [0.1697]	0.7721 [0.7566]	0.0574 [0.0521]	1 [1]
y ₁ =5	0.1413 [0.0360]	0.0445 [0.0460]	0.2114 [0.2719]	0.3458 [0.3813]	0.2570 [0.2647]	1 [1]

For the annual transition from 2001-Q1 to 2002-Q1, the estimated variance-covariance matrix is as follows:

$$\hat{V} = \begin{bmatrix} 0.00123 & -0.00048 & -0.00034 & -0.00046 & -0.00015 & -0.00078 & -0.00095 & -0.00084 & -0.00113 \\ -0.00048 & 0.01108 & 0.00419 & 0.00441 & 0.00431 & -0.00446 & -0.00356 & -0.00403 & -0.00464 \\ -0.00034 & 0.00419 & 0.00373 & 0.00357 & 0.00374 & -0.00348 & -0.00324 & -0.00332 & -0.00301 \\ -0.00046 & 0.00441 & 0.00357 & 0.00422 & 0.00390 & -0.00382 & -0.00302 & -0.00378 & -0.00318 \\ -0.00015 & 0.00431 & 0.00374 & 0.00391 & 0.00694 & -0.00307 & -0.00350 & -0.00396 & -0.00424 \\ -0.00078 & -0.00446 & -0.00348 & -0.00382 & -0.00307 & 0.01420 & 0.00421 & 0.00447 & 0.00388 \\ -0.00095 & -0.00356 & -0.00324 & -0.00302 & -0.00350 & 0.00421 & 0.00417 & 0.00408 & 0.00399 \\ -0.00084 & -0.00403 & -0.00332 & -0.00378 & -0.00396 & 0.00447 & 0.00408 & 0.00484 & 0.00445 \\ -0.00113 & -0.00464 & -0.00301 & -0.00318 & -0.00424 & 0.00388 & 0.00399 & 0.00445 & 0.00674 \end{bmatrix}_{9 \times 9}$$

6.4 The Multinomial Logit Model and the Likelihood Ratio Test

In this step, we quantify the effects of determinants on the adjusted forward transition probabilities by using the Multinomial Logit (MNL) model. This will set the stage for conducting likelihood ratio tests of equivalence between states. Let Y_{n1} and Y_{n2} denote the labor market states occupied by individual n in periods 1 and 2. For any given state i, the probability of transition from state i to j (where i,j=1,2,3,4,5) between periods 1 and 2 is given by:

$$P(Y_{n2} = j | Y_{n1} = i) = \frac{\exp(\underline{x}'_n \underline{\beta}^j)}{\sum_{k=1}^5 \exp(\underline{x}'_n \underline{\beta}^k)} \quad (19)$$

where \underline{x}_n contains the explanatory variables of individual n . The estimated equations give a set of probabilities of being in a particular labor market state among 5 different choices. However, the model is unidentified since there is more than one set of $\underline{\beta}^k$'s, $k=1, 2, \dots, 5$ which gives the same set of conditional probabilities. As suggested in Greene (2003, p. 843), we can identify the model if we arbitrarily set one of the $\underline{\beta}^k$'s to $\underline{0}$ and consider the associated outcome as the reference. In our case, we take individuals who do not change their labor market state as the reference category. If, we denote this state by i and set $\underline{\beta}^i = \underline{0}$, then $\underline{\beta}^k$, $k \neq i$, capture changes in the parameters relative to these for state i . Thus (19) becomes:

$$P(Y_{n2} = j | Y_{n1} = i) = \frac{\exp(\underline{x}'_n \underline{\beta}^j)}{1 + \sum_{k \neq i} \exp(\underline{x}'_n \underline{\beta}^k)} \quad j \neq i, \quad (20)$$

$$P(Y_{n2} = i | Y_{n1} = i) = \frac{1}{1 + \sum_{k \neq i} \exp(\underline{x}'_n \underline{\beta}^k)}. \quad (21)$$

We estimate the determinants of labor market choices based full samples (age 15 and over) drawn from 11 quarterly and 8 annual rounds of the HLFS for three years, 2000, 2001, and 2000. To utilize MNL in the adjusted panel, we use the estimated RAN model reflation factors probability weights.² To assess the sensitivity of test results to proper handling of attrition/substitution, we also apply MNL to the balanced panel, without the probability weights.

To find out whether marginally attachment and unemployment are identical states or not, we will follow the methodology first applied by Jones and Riddell (1999).

² We exploit the Stata command [pweight=weight] to obtain the estimation results.

Based on Markov model of transitions, our labor market dynamic are represented by a 5x5 transition matrix P where each element P_{ij} gives the probability of an individual in state j in the next period given that the individual is in state i in this period. To clarify the states, we use letters rather than numbers, and express P as,

$$P = \begin{bmatrix} P_{SS} & P_{SMA} & P_{SNA} & P_{SE} & P_{SU} \\ P_{MAS} & P_{MAMA} & P_{MANA} & P_{MAE} & P_{MAU} \\ P_{NAS} & P_{NAMA} & P_{NANA} & P_{NAE} & P_{NAU} \\ P_{ES} & P_{EMA} & P_{ENA} & P_{EE} & P_{EU} \\ P_{US} & P_{UMA} & P_{UNA} & P_{UE} & P_{UU} \end{bmatrix}_{5 \times 5} \quad (22)$$

where S=Student, MA=Marginally Attached, NA=Not Attached, E=Employed, U=Unemployed.

As explained in Jones and Riddell (1999), necessary and sufficient conditions for individuals in MA and U to be behaviorally equal states are that the probability of transiting from MA to S equals that of transiting from U to S, the probability of transiting from MA to NA equals that of from U to NA, and the probability of transiting from MA to E is identical that of from U to E. That is,

$$\begin{aligned} P_{MAS} &= P_{US} \\ P_{MANA} &= P_{UNA} \\ P_{MAE} &= P_{UE} \end{aligned} \quad (23)$$

If these conditions jointly hold, then the unemployment definition used by TURKSTAT is not appropriate for understanding labor market dynamics in the sense that there are other individuals who share similar transition behavior with unemployed individuals.

On the other hand, it might be also the case that marginally attached ones are not distinguishable from not attached individuals. To test this hypothesis, we need to conduct the following tests:

$$\begin{aligned} P_{MAS} &= P_{NAS} \\ P_{MAE} &= P_{NAE} \\ P_{MAU} &= P_{NAU} \end{aligned} \tag{24}$$

If these conditions hold, then the conventional measures of labor market dynamics are suitable. The timing of last job search activity exploited by TURKSTAT is appropriate to detect unemployed individuals.

Based on our preliminary investigation in Section 5, marginally attachment might be a state in between unemployment and not attachment. Thus if we reject (23) and/or (24), we might expect to see that

$$\begin{aligned} P_{UE} &> P_{MAE} > P_{NAE} \\ P_{UU} &> P_{MAU} > P_{NAU} \\ P_{NANA} &> P_{MANA} > P_{UNA} \end{aligned} \tag{25}$$

If this is the case, it is still better for TURKSTAT to recognize marginal attachment as a separate labor market state.

In order to test the restrictions (23) and (24), we exploit Multinomial Logit regressions and conduct Likelihood Ratio tests. Following Jones and Riddell (1999), we estimate 3 sets of equations (2 unrestricted and 1 restricted) to detect whether we can pool marginal attachment with another state (respectively unemployment and not

attachment). All estimated equations control for location, gender, education, age, and marital status. For example, to test the restrictions in (23), we identify how observables affect the second period labor market state conditional on being marginally attached or unemployed in the first period. The unrestricted models yields different intercepts and slopes on the observables and capture the different transition behaviors of marginally attached and unemployed ones. In the restricted model, we pool the individuals in the marginal attachment and unemployment states and run another MNL regression on the reduced choice set. It contains the restriction that all coefficients are equal across two origin states into each destination state. The likelihood ratio test statistic for hypothesis (23) is computed from:

$$LR = -2[LL_{pooled} - (LL_{MA} + LL_U)] \quad (26)$$

where LL_{pooled} is the log-likelihood of the pooled (restricted) model, LL_{MA} and LL_U are the log-likelihoods of the unrestricted models.

Let k denote the number of explanatory variables. In each unrestricted and restricted model, there are five states and $4(k+1)$ distinct parameters are estimated. Thus the number of restrictions implied by (23) equal to $2*4(k+1)-4(k+1)=4(k+1)$. The LR-statistic in (26) has a χ^2 distribution with degrees of freedom parameter $4(k+1)$. The test of hypotheses captured (24) will be implemented in a similar way. One of the problems with utilizing the Multinomial Logit model is its underlying assumption of independence of irrelevant alternatives (IIA). Our inclusion of student as a separate state is another source of fragility. As a robustness check, we test the pooling restrictions using Binary Logit models, where each regression model sorts individuals into one of two categories. That is, we lump states other than the one we focus on together. In this case, the LR-statistics given in (26) is χ^2 distributed with $(k+1)$ degrees of freedom. To

test the equivalency of marginal attachment and unemployment, we estimate two unrestricted models (marginal attachment vs. other, unemployment vs. other) and one restricted model (marginally attachment and unemployment combined vs. other)

7 Empirical Results

In this section we present our results following the order in the methodology section. First, we discuss the results from hypothesis tests that shed light on the nature of the attrition/substitution process. We then turn to the reflation factors which capture the magnitudes of the adjustments performed on the balanced panel probabilities. Finally, we use the adjusted forward transition matrices to present the likelihood ratio tests based on the Multinomial and Binomial Logit models³. We studied both quarterly and annual transitions. In the interest of space and time, our discussions are based on quarterly transitions, but any discrepancy between annual and quarterly transitions will be highlighted. Additionally, since the results from the non-linear versions do not alter the conclusions, we only report the results from the linear RAN model.

The full set of tables can be found in Appendices A&B. We provide Tables 8, and 9 to explain the organization of the appendices. Table 8 is the guide for Appendix A. It includes matrices for balanced panel joint probabilities (BP), forward transitions (FT), reflation factors (RF), adjusted panel joint probabilities (AP), and adjusted forward transitions (AFT). We also categorize these matrices for all working age individuals (All), female (F), male (M), rural (R), and urban (U). Each cell in Table 8 identifies a table in Appendix A. For example, Table 4e in Appendix A includes the quarterly adjusted forward transition matrices for females. Table 9 describes Appendix B which depicts the reflation factor (weight) analysis for both annual and quarterly transitions. The categorization for gender and residential area is the same as that in Appendix A.

³ Observe that in some cases standard errors for the BP version are huge. This is due to small cell sizes, which in turn is a consequence of attrition/substitution. In the adjusted panel, this problem is solved, thanks to weighting by reflation factors.

Table 8: Guide to Tables in Appendix A

	Quarterly					Annual				
	BP	FT	RF	AP	AFT	BP	FT	RF	AP	AFT
All	1a	1b	1c	1d	1e	6a	6b	6c	6d	6e
F	2a	2b	2c	2d	2e	7a	7b	7c	7d	7e
M	3a	3b	3c	3d	3e	8a	8b	8c	8d	8e
R	4a	4b	4c	4d	4e	9a	9b	9c	9d	9e
U	5a	5b	5c	5d	5e	10a	10b	10c	10d	10e

Table 9: Guide to Tables in Appendix B

	Quarterly		Annual	
	Reflation Factor			
All	1		6	
F	2		7	
M	3		8	
R	4		9	
U	5		10	

7.1 Hypothesis Tests

In section 6.3, we provided some examples of joint tests, MCAR, MAR, HW. We reject the hypothesis that attrition/substitution does not depend on the first and/or second labor market state. Therefore attrition/substitution is non-ignorable and labor market states in both periods matter. This result implies that the joint probabilities obtained from the balanced panel are biased and have to be fixed. The RAN model yields the reflation factors needed for obtaining the adjusted joint probabilities. In the following section, we discuss the reflation factors.

7.2 Reflation Factors (Weights)

The reflation factors (weights) tell us how joint probabilities obtained from the balanced panel need to be adjusted in order to obtain the unbiased joint probabilities. The magnitudes inform us about the impact of the attrition/substitution problem on individual in a particular cell, and also whether the direction of bias is, upward or downward. Put differently, the weights tell us whether individuals who occupy particular labor market state combinations are overrepresented or underrepresented in the balanced panel. Therefore, it is important to present a detailed analysis of the reflation factors in order to understand the substantive implications of attrition/substitution.

The estimated weights may be found in tables collected in Appendix A with suffix (c). Here we focus on the direction and magnitude of the biases. For this purpose, we prepared the figures collected in Appendix B which depict the reflation factors graphically for each quarterly/annual transition. We present our results in the form of a 5x5 matrix. Rows correspond to the labor market state in the first period, whereas columns show the second period state. To capture the magnitude and sign of the bias, we subtract each reflation factor from 1. If a reflation factor (w) is less than 1, individuals in the corresponding cell are overrepresented in the balanced panel, $1-w>0$; that is, bias is upward. On the other hand, when the state combination is underrepresented in the BP, $1-w<0$. In this case, the bias is downward. Therefore, the sign of $1-w$ informs us how the attrition/substitution process distorts the true joint distribution. In the case of quarterly reflation factors, each dot plot shows how $1-w$ differs from 0 for 11 different quarterly transitions. For annual reflation factors, we have a similar presentation but only 8 different annual transitions.

We start our discussion with the reflation factors for quarterly transitions of all individuals aged 15 or over, given in Table 1. In what follows we call individuals who did not change their labor market states stayers in the consecutive quarters. If an individual is not a stayer, then she is called a mover. There exists a consistent pattern for individuals who are placed in the diagonals. Based on diagonal cells in Table 1 in Appendix B, stayer students and not attached individuals are always overrepresented in the balanced panel, whereas stayer employed and unemployed individuals are underrepresented. For stayer marginally attached individuals, we have mixed results. During 3 quarterly transitions, they are overrepresented, but for 8 quarterly transitions they have to be inflated in the balanced panel.

Turning to movers, we start with individuals who are students in the first period, and change their labor market status in the second. For almost all quarterly transitions, student movers are overrepresented in the balanced panel. It appears that student perform active/passive job search activity where they complete their schooling. Since this is their first encounter with labor market activity, they are more likely to start searching where they know better. On the other hand, from the first column of Table 1 we see that individuals who become students in the second period are generally underrepresented regardless of their state in the first period. The findings suggest that individuals who become students in the second period are likely to move to start their education in another place, so we should inflate them in the balanced panel. On the other hand, the opposite is true for individuals who cease to be students in the second period. Probably, one of the best examples that fits this pattern is an individual in the rural area who moves to another place for schooling. Upon increasing her human capital, she is more likely to stay.

Next, we examine movers among marginally attached and unemployed individuals in the first period. Their reflation factors display similar patterns. With the exception of movers to the not attachment state in the consecutive quarters, these individuals are underrepresented in the balanced panel. This finding is also attributable to the mobility that accompanies the transitions. While those that transit into the not attached state remain out, many of the others move to another place and drop out from sample. Moreover, reflation factors individuals who are marginally attached and unemployed in the second period also show similar consistencies except individuals coming from not attachment.

Individuals who are not attached in the first period, but then move to another labor market state are underrepresented except when they move to marginal attachment. However, individuals who move to not attachment from another state are overrepresented. Arguably, while moving from not attachment implies moving to another place, becoming not attached does not require moving.

Finally, we discuss movers who are employed either in the first or second period. Individuals who transit into/out of employment are underrepresented except students become employed in the second period and employed individuals who become not attached in the second period. As we argued previously, students are likely to search for a job in places they know best, so they are more likely to get employed where they complete their schooling. Other than that, both moving in and out employment could be a sign of movement to other places to search for a better job opportunities, or schooling options. Those who are not attached in the second period have neither objective, so they remain put.

7.3 Forward Transitions and Likelihood Ratio Tests

Both annual and quarterly forward transitions are estimated. While the annual forward transition tables contain 8 transition matrices for the period 2000 and 2002, the quarterly forward transition tables have 11 transition matrices for the same time period. To be clear, we report both the unadjusted and adjusted forward transition probabilities in Appendix A with suffixes (b), (e), respectively. Before presenting the test results, we compare the average quarterly forward transition rates. First, we do this analysis for the full sample (aged 15 or over). We then divide our sample in terms of gender and residential area.

Table 10: Average Adjusted Quarterly Forward Transition Rates

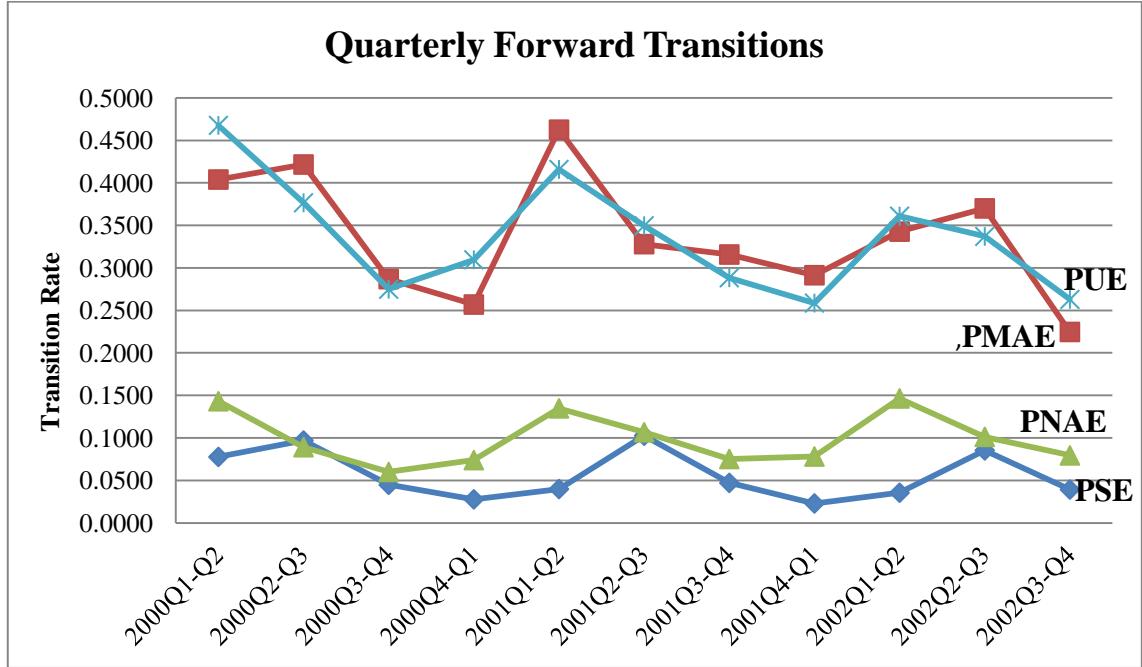
	ALL	FEMALE	MALE	RURAL	URBAN
P_{UE}	0.337	0.177	0.388	0.343	0.316
P_{MAE}	0.337	0.146	0.407	0.394	0.303
P_{NAE}	0.099	0.075	0.188	0.206	0.061
P_{SE}	0.056	0.038	0.063	0.101	0.042
P_{MAU}	0.243	0.221	0.258	0.199	0.263
P_{NAU}	0.021	0.013	0.046	0.013	0.024
P_{SU}	0.026	0.023	0.026	0.025	0.028
P_{UNA}	0.186	0.365	0.119	0.139	0.197
P_{MANA}	0.247	0.450	0.161	0.204	0.260
P_{SNA}	0.070	0.102	0.041	0.076	0.068
P_{MAS}	0.029	0.043	0.026	0.033	0.033
P_{US}	0.087	0.075	0.090	0.147	0.075

In Table 10, we present the average forward transition rates for the various samples. These were computed by exploiting adjusted transition rates in Appendix A. The subscripts in the first column follow the notation introduced in Section 6.4. Noticeably, P_{UE} and P_{MAE} are the same in the full sample. When we break down the sample in terms of gender, for males P_{MAE} exceeds P_{UE} by about 1.9 percentage points. For females the opposite is true: P_{UE} exceeds P_{MAE} by 3.1 percentage points. For location breakdown, P_{MAE} for individuals in rural areas is greater than P_{UE} , whereas this

situation gets reversed in urban areas. The gap is larger in rural areas (5.1 vs. 1.3 percentage points). On the other hand, average transition rates originating from marginal attachment to not attachment are always higher than those from unemployment to not attachment. Thus MA and U are not equivalent states in terms of flow rates into not attachment.

Next, we compare the magnitudes of the transitions originating from not attachment and marginal attachment. In the full sample, P_{MAE} is noticeably higher than P_{NAE} by 23.8 percentage points. Thus, it is clear that the subset of non-participants we identified as marginally attached is distinct from the residual. Same conclusion applies to transitions to unemployment from marginal and not attachment. Evidently, marginal attached individuals have a significantly strong labor force attachment compared to not attached ones. Even though the differences in magnitudes are subject to change in different subsamples, the ordering does not change. In all subsamples, the average forward transition rates to employment or unemployment are higher for marginally attached individuals in the first period compared to not attached ones. All in all, Table 10 unveils that the behavior of marginally attached individuals resembles unemployed individuals rather than not attached ones.

Figure 3: Average Quarterly Transition Rates, for age 15+



Arguably the transition to employment is the most important one for the purposes of assessing the adequacy of the conventional three state model vs. our five state version. To capture the fluctuations, we plot all four adjusted forward transition rates to employment for each quarterly transition in Figure 3. The graphical display reveals that there are at least two groups that need to be distinguished according to their labor force attachment. In the upper segment, we find the unemployed and the marginally attached. Notably the likelihood of becoming employed for marginally attached and unemployed individuals move together. The lower segment is represented by students and not attached ones. They have considerably weaker labor force attachment compared to the first group. The seasonal pattern is there, but students lag behind the not attached by one quarter

The evidence presented in Table 10 and Figure 3 shows that marginally attached individuals are very similar to unemployed individuals, and are easily distinguishable from not attached ones. Put differently, the standards used for determining who is

unemployed appear to be arbitrary. For the purpose of international comparisons a given search threshold may have to be adopted. However, if there is any reason to separate the marginally attached from the unemployed, there are better reasons for not combining them together with not attached individuals.

We should be careful about the conclusions drawn from comparison of the adjusted forward transitions. These are unconditional results, and our criticism is directed to official statistics. To capture the behavioral differences we need to condition on observables. Since the distinction between the unemployed and the marginally attached rests on differences in search behavior, it would be useful how the standard determinants of search behavior influence the transition outcomes. Following Jones and Riddell (1999), we estimate Multinomial Logit Models to determine the influence of observables on the allocation of individuals to our five labor market states. We then perform the Likelihood Ratio tests to see whether marginally attached individuals are behaviorally similar to (that is, can be pooled with) unemployed or not attached individuals. The details were explained in the methodology section 6.4. The LR-statistic is χ^2 distributed with $4(k+1)$ degrees of freedom. The p-values associated with this test are reported separately for 11 quarterly and 8 annual transitions in Tables 11 and 12, respectively.

Table 11: Probability Values for Likelihood Ratio Tests of Equivalence Based on MNL models -- Quarterly Transitions, full sample

SAMPLE	PMAE=PUE	PMAE=PNAE
	PMANA=PUNA	PMAU=PNAU
	PMAS=PUS	PMAS=PNAS
2000Q1-Q2	0.000	0.000
2000Q2-Q3	0.000	0.000
2000Q3-Q4	0.002	0.000
2000Q4-Q1	0.197	0.000
2001Q1-Q2	0.000	0.000
2001Q2-Q3	0.000	0.000
2001Q3-Q4	0.000	0.000
2001Q4-Q1	0.000	0.000
2002Q1-Q2	0.000	0.000
2002Q2-Q3	0.000	0.000
2002Q3-Q4	0.159	0.000

We reject the null hypothesis of equivalence in all but 2 quarterly transitions and 1 annual transition at the 5% significance level. If we take 1% as our standard of significance, equivalence is established in one more annual sample. When the same procedure is applied to test the equivalence of marginal and not attachment groups, we firmly reject the null hypothesis for all transitions. Clearly, marginally attachment conveys substantial information about labor force attachment. Even though individuals in this group stopped to search for a job before the official cut off period of 3 months, they are still interested in a job and are employable. This finding implies that

TURKSTAT could provide useful service by tracking the marginally attached individuals.

Table 12: Probability Values for Likelihood Ratio Test of Equivalence Based on MNL models --Annual Transitions, full sample

SAMPLE	PMAE=PUE PMANA=PUNA PMAS=PUS	PMAE=PNAE PMAU=PNAU PMAS=PNAS
2000Q1-2001Q1	0.000	0.000
2000Q2-2001Q2	0.000	0.000
2000Q3-2001Q3	0.000	0.000
2000Q4-2001Q4	0.049	0.000
2001Q1-2002Q1	0.002	0.000
2001Q2-2002Q2	0.000	0.000
2001Q3-2002Q3	0.001	0.000
2001Q4-2002Q4	0.024	0.000

As we discussed in the methodology section, IIA is a strong assumption. We follow Jones and Riddell (1999) and perform some robustness checks on our test results. At this point, we utilize the Binary Logit model and repeat the likelihood ratio test. The p-values are reported in Tables 13 and 14, respectively for quarterly and annual transitions. Surprisingly, we cannot reject the null hypothesis that marginally attached and unemployed individuals behave similarly in finding employment in the next period (except for 1 quarterly transition at the 5% level of significance and 1 annual transition at the 10% level).

Table 13: Probability Values for Likelihood Ratio Test of Equivalence Based on BNL models -- Quarterly Transitions, full sample

SAMPLE	PMAE=PUE	PMANA=PUNA	PMAU=PNAU
2000Q1-Q2	0.0330	0.0857	0.000
2000Q2-Q3	0.9314	0.0294	0.000
2000Q3-Q4	0.2886	0.1234	0.000
2000Q4-Q1	0.5075	0.1802	0.000
2001Q1-Q2	0.6175	0.0026	0.000
2001Q2-Q3	0.1511	0.0013	0.000
2001Q3-Q4	0.1624	0.0004	0.000
2001Q4-Q1	0.8966	0.2249	0.000
2002Q1-Q2	0.4173	0.5688	0.000
2002Q2-Q3	0.1192	0.2610	0.000
2002Q3-Q4	0.2296	0.4995	0.000

The next step is to compare the likelihood of being not attached in the next period conditional on being marginally attached or unemployed in the first period. The associated p-values can be found in the third columns of Tables 13 and 14. In the second columns we see some additional evidence of behavioral equivalence between marginally attached and unemployed individuals in terms of transitions to non-attachment in the next period. The null hypothesis of equivalence is rejected in 4 out of 11 quarterly transitions at the 5% level of significance. However for annual transitions, the number of rejections is 6 out of 8 (this number is only 1 at the 1% of level of significance). Evidently marginally attached and unemployed individuals represent some degree of behavioral equivalence in becoming not attached, but this similarity might is not as strong as that displayed in becoming employed. Lastly, we test the

behavioral equivalence of marginally and not attached groups. Due to data limitations (i.e. small cell sizes) we can perform the likelihood ratio tests based on BNL models only for transitions to unemployment. The p-values are reported in the last columns of Tables 13 and 14. We firmly reject that marginally and not attached individuals behave similarly in moving to active job search, i.e. in becoming unemployed, for both quarterly and annual transitions.

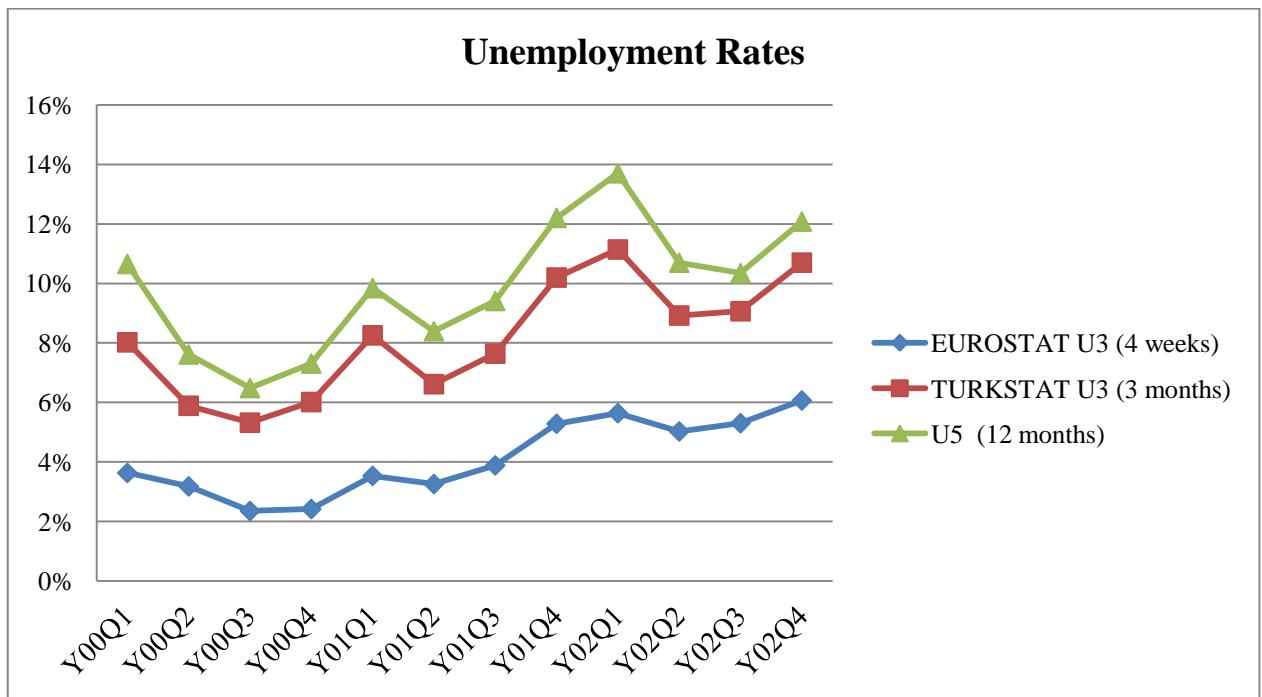
Table 14: Probability Values for Likelihood Ratio Test of Equivalence Based on BNL models -- Annual Transitions, full sample

SAMPLE	PMAE=PUE	PMANA=PUNA	PMAU=PNAU
2000Q1-2001Q1	0.1019	0.0334	0.000
2000Q2-2001Q2	0.2394	0.0399	0.000
2000Q3-2001Q3	0.0574	0.0056	0.000
2000Q4-2001Q4	0.7173	0.8876	0.000
2001Q1-2002Q1	0.2552	0.0293	0.000
2001Q2-2002Q2	0.5153	0.0219	0.000
2001Q3-2002Q3	0.3281	0.0278	0.000
2001Q4-2002Q4	0.5696	0.3054	0.000

7.4 Discussion

We begin this subsection, by reporting three different unemployment rates computed by using three time intervals for last job search. Figure 4 shows movements of these rates for the period between 2000 and 2002. The lower line (EUROSTAT U3) includes individuals who searched for a job within the last 4 weeks (1 month) prior to the survey. Indeed, this corresponds to the unemployment definition of EUROSTAT for Turkey. The middle line (TURKSTAT U3) is the current unemployment definition of TURKSTAT which includes individuals who looked for a job in the last 3 months. Finally, the upper line (U5) indicates the unemployment rate if we also label our marginally attached as unemployed. Their movements are together, so they either increase or decrease at the same time. The impact of 2001 crisis is so obvious especially after the third quarter of 2001. Noticeably, when the official unemployment rate (TURKSTAT U3) increases, the increase in the broadest definition (U5) is more than the increase in the EUROSTAT U3 definition. Clearly, when times are not good, searching for a job is less fruitful and individuals quit searching. In line with this finding, better times come with a larger decrease in the broader rates. All in all, reporting only one unemployment rate might not be sufficient for grasping how economic fluctuations impact the labor market.

Figure 4: Unemployment Rates, 2000-2002



8 Conclusion

This thesis was motivated by the fact that sufficiently large numbers of individuals classified as non-participants by TURKSTAT in the period 2000-2002 were employable within three months or a year, and questioned the adequacy of the official definition of unemployment for tracking labor market conditions. Closer inspection revealed that two distinct subgroups of non-participants were candidates for displaying above average degrees of labor market attachment: students, and another group we refer to as the marginally attached. We justified separating students (i.e. treating being in school as a different labor market state) on the grounds that many of them are observed to display labor market attachment after they graduate. We then followed the ILO recommendation for developing countries, and focused on the relaxation of the unemployment definition. The official definition of TURKSTAT requires evidence of job search in the 3 month period before the survey. In this thesis, we defined a new group of individuals who were not counted as unemployed but searched for a job sometime within the last (3 to) 12 months, and called them marginally attached.

In our analysis, we utilized the short panel component of the HLFS. Since the sample frame of the HLFS is based on an address based rotation plan, the short panel component is subject to attrition/substitution. To deal with this problem, we relied on the Rescaled AN model of Tunali et al. (2012). In this model, they proposed adjusting the balanced panel cell probabilities by weights (reflation factors) expressed as an additive function of labor market states occupied in two consecutive periods. We implemented the RAN model adjustments in a five state model of the labor market: student, marginal attachment, non-attachment, employment, unemployment. Based on hypothesis tests, we ruled out simpler models and concluded that attrition/substitution

was non-ignorable. In other words, we discovered systematic relationships between labor market outcomes and attrition/substitution behavior. Our results indicated that students and not attached individuals are overrepresented, whereas marginally attached, employed, unemployed ones are underrepresented in the balanced panel. We used these reflation factors to re-weight the balanced panel distribution, and obtained the adjusted forward transition rates. Predictably, students presented a different transition behavior from the others. Marginally attached and unemployed individuals shared the same average quarterly transition rate to employment. Additionally, the average transition rates to employment or unemployment from marginal attachment were always greater than transition rates from not attachment to these states.

We estimated Multinomial Logit (MNL) and Binary Logit (BNL) models of transition behavior by following Jones and Riddell (1999) to find out whether marginally attached and unemployed individuals are behaviorally similar or not, in the sense that individuals with the same observed traits display equal likelihood of transiting to particular states. The same analysis was also conducted for marginally and not attached ones. The likelihood ratio tests based on MNL indicated that marginally attached individuals should be kept as a different state. Since the existence of students as a separate labor market state increased the number of restrictions and MNL has a very powerful assumption (IIA), we performed a robustness check by using the BNL model. In this case, we discovered that marginally attached and unemployed individuals show a similar transition behavior to employment. The behavioral similarity was also detected for transition to not attachment. Both MNL and BNL results rejected the equivalency of marginal and not attachment labor market states.

We conclude that the conventional conceptualization of the labor market via three states, namely non-participation, employed and unemployed may not be adequate

for grasping employment dynamics in Turkey. Since the unemployment rate constitutes a very important statistic for the purposes of assessing the health of the economy, our conclusion has implications for the measurement of unemployment. Since it has to deal with frequent public criticisms, it may be advisable for TURKSTAT to publish three different rates, distinguished by the length of the time window for search. The first of these is the rate that EURSTAT uses, whereby search is limited to the last four weeks before the survey. The second is the current official rate. The last one is equivalent to counting our marginally attached group as unemployed, by increasing the search window to the previous year. When we compare the various rates, we see that they move together, but the gap between them narrows and widens with economic fluctuations. Notably the size of the gap is negatively correlated with output. Thus by following all three rates, one can have a better sense of how economic conditions are reflected on the labor market.

9 References

- Brandolini A., Cipollene P., and Viviano E. (2006) "Does The ILO Definition Capture All Unemployment?" *Journal of the European Economic Association*, Vol. 4, No. 1, pp. 153-179.
- Byrne, D., and Strobl, E. (2004) "Defining unemployment in developing countries: Evidence from Trinidad and Tobago," *Journal of Development Economics*, Vol. 73, No.1, pp. 465-476.
- Clark, K. and Summers, L. (1979), "Labor Market Dynamics and Unemployment: A Reconsideration," *Brookings Papers on Economic Activity*, Vol. 10, No. 1, pp. 13-72.
- Flinn, C. and Heckman, J. (1983), "Are Unemployment and Out of the Labor Force Behaviorally Distinct Labor Force States?" *Journal of Labor Economics*, Vol. 1, No. 1, pp. 28-42.
- Garrido, L., and Toharia, L. (2004), "What does it take to be (counted as) unemployed? The case of Spain, *Labour Economics*, Vol. 11, No. 4, pp. 507-523.
- Gönül, F. (1992), "New Evidence on Whether Unemployment and out of the Labor Force are Distinct States," *Journal of Human Resources*, Vol. 27, No. 2, pp. 329-361.
- Greene, W. H. (2003) *Econometric Analysis*. New Jersey: Prentice-Hall.
- Hirano, K., Imbens, G.W., Ridder, G., Rubin D.B. (2001) "Combining Panel Data Sets with Attrition and Refreshment Samples," *Econometrica*, Vol. 69, No. 2, pp. 1645-1659.
- Jones, S. R. G., and Riddell, W. C. (1999) "The Measurement of Unemployment: An Empirical Approach," *Econometrica*, Vol. 67, No. 1, pp. 147-161.
- Jones, S. R. G., and Riddell, W. C. (2006) "Unemployment and Nonemployment: Heterogeneities in Labor Market States," *The Review of Economics and Statistics*, Vol. 88, No. 2, pp. 314-323.
- Little, R. J. A., and Rubin D. (1987) *Statistical Analysis with Missing Data*. New York: Wiley.
- Schweitzer M. E. (2003) "Ready, Willing, and Able? Measuring Labour Availability in the UK," Bank of England Working Paper No. 186; FRB of Cleveland Working Paper No. 03-03.
- Tunalı, I. (2009a) "Analysis of Attrition Patterns in the Turkish Household Labor Force Survey, 2000-2002." Ch. 6 in *Labor Markets and Economic Development*, edited by R. Kanbur and J. Svejnar, 110-136. London and New York: Routledge.

Tunalı, I. (2009b) "Analysis of Attrition Patterns in the Turkish Household Labor Force Survey, 2000-2002," *METU Studies in Development*, 36:1, 217- 252, Ankara, Turkey, METU.

Tunalı, I., Ekinci E., and Yavuzoglu B. (2012), "Rescaled Additively Non-Ignorable Model of Attrition: A Convenient Semi-Parametric Bias Correction Framework for Data with a Short Panel Component," Mimeo.

TURKSTAT (Turkish Statistical Institute) (2001b) "Household Labor Force Survey: Concepts and Methods," September 2001, Ankara: State Institute of Statistics.

TURKSTAT (2012) Labor Force Survey, Dynamic Search Engine. Ankara: Turkish Statistical Institute. Accessed as: <http://www.tuik.gov.tr/isgucuapp/isgucu.zul>

Table 4a: 5x5 Quarterly Balanced Panel Joint Probability Matrices: For Age 15+, R
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		2000					2001						2002						
		1	2	3	4	5	M	1	2	3	4	5	M	1	2	3	4	5	M
Q1 - Q2	1	0.0382	0.0003	0.0038	0.0086	0.0002	0.0510	0.0406	0.0002	0.0025	0.0037	0.0007	0.0477	0.0370	0.0002	0.0042	0.0038	0.0008	0.0459
	2	0.0002	0.0031	0.0015	0.0056	0.0009	0.0113	0.0002	0.0003	0.0003	0.0046	0.0002	0.0056	0.0002	0.0016	0.0011	0.0030	0.0013	0.0072
	3	0.0031	0.0029	0.3135	0.1311	0.0005	0.4511	0.0034	0.0022	0.3277	0.1075	0.0035	0.4443	0.0019	0.0026	0.3054	0.1344	0.0037	0.4479
	4	0.0014	0.0010	0.0435	0.4097	0.0041	0.4596	0.0020	0.0029	0.0493	0.4149	0.0068	0.4759	0.0013	0.0008	0.0502	0.4110	0.0064	0.4697
	5	0.0002	0.0033	0.0029	0.0142	0.0065	0.0270	0.0007	0.0019	0.0047	0.0137	0.0056	0.0265	0.0002	0.0018	0.0043	0.0146	0.0085	0.0293
	M	0.0430	0.0106	0.3652	0.5691	0.0121	1.0000	0.0468	0.0074	0.3847	0.5444	0.0167	1.0000	0.0405	0.0069	0.3652	0.5668	0.0206	1.0000
Q2 - Q3	1	0.0288	0.0005	0.0036	0.0071	0.0012	0.0412	0.0332	0.0005	0.0036	0.0109	0.0022	0.0504	0.0275	0.0002	0.0057	0.0082	0.0011	0.0427
	2	0.0002	0.0007	0.0010	0.0025	0.0002	0.0046	0.0002	0.0009	0.0016	0.0009	0.0013	0.0049	0.0002	0.0008	0.0011	0.0032	0.0008	0.0060
	3	0.0024	0.0003	0.3061	0.0596	0.0036	0.3720	0.0033	0.0021	0.2778	0.0695	0.0035	0.3561	0.0028	0.0003	0.2923	0.0777	0.0036	0.3768
	4	0.0036	0.0007	0.0518	0.5061	0.0039	0.5661	0.0032	0.0011	0.0547	0.5055	0.0079	0.5723	0.0022	0.0005	0.0549	0.4844	0.0090	0.5510
	5	0.0003	0.0012	0.0029	0.0078	0.0041	0.0163	0.0006	0.0013	0.0027	0.0066	0.0051	0.0163	0.0003	0.0011	0.0038	0.0103	0.0079	0.0234
	M	0.0352	0.0034	0.3653	0.5832	0.0129	1.0000	0.0404	0.0058	0.3403	0.5935	0.0199	1.0000	0.0331	0.0028	0.3578	0.5838	0.0225	1.0000
Q3 - Q4	1	0.0349	0.0002	0.0032	0.0011	0.0007	0.0401	0.0219	0.0003	0.0044	0.0025	0.0008	0.0299	0.0243	0.0002	0.0023	0.0018	0.0008	0.0295
	2	0.0002	0.0022	0.0005	0.0013	0.0005	0.0047	0.0002	0.0006	0.0019	0.0017	0.0013	0.0056	0.0002	0.0003	0.0010	0.0008	0.0005	0.0028
	3	0.0027	0.0009	0.3157	0.0444	0.0025	0.3662	0.0028	0.0013	0.2752	0.0570	0.0072	0.3435	0.0028	0.0007	0.2847	0.0562	0.0062	0.3507
	4	0.0081	0.0018	0.0874	0.4694	0.0061	0.5728	0.0077	0.0019	0.1305	0.4414	0.0183	0.5998	0.0077	0.0010	0.0912	0.4809	0.0126	0.5934
	5	0.0002	0.0020	0.0032	0.0058	0.0050	0.0162	0.0005	0.0014	0.0042	0.0069	0.0081	0.0211	0.0005	0.0020	0.0052	0.0074	0.0085	0.0236
	M	0.0460	0.0070	0.4101	0.5219	0.0149	1.0000	0.0331	0.0055	0.4162	0.5096	0.0357	1.0000	0.0355	0.0042	0.3845	0.5472	0.0286	1.0000
Q4 - Q1	1	0.0385	0.0002	0.0033	0.0021	0.0002	0.0443	0.0315	0.0002	0.0018	0.0010	0.0002	0.0347	0.0002	0.0009	0.0009	0.0008	0.0295	
	2	0.0002	0.0009	0.0009	0.0005	0.0019	0.0044	0.0002	0.0010	0.0020	0.0020	0.0017	0.0068	0.0002	0.0012	0.0012	0.0008	0.0028	
	3	0.0032	0.0009	0.3500	0.0606	0.0044	0.4191	0.0040	0.0037	0.3306	0.0674	0.0070	0.4126	0.0028	0.0007	0.2847	0.0562	0.0062	0.3507
	4	0.0028	0.0016	0.1116	0.3864	0.0105	0.5129	0.0042	0.0048	0.1127	0.3814	0.0138	0.5169	0.0077	0.0010	0.0912	0.4809	0.0126	0.5934
	5	0.0002	0.0012	0.0037	0.0056	0.0086	0.0193	0.0008	0.0032	0.0066	0.0085	0.0100	0.0291	0.0005	0.0020	0.0052	0.0074	0.0085	0.0236
	M	0.0448	0.0047	0.4695	0.4553	0.0257	1.0000	0.0407	0.0128	0.4538	0.4602	0.0325	1.0000						

Table 5a: 5x5 Quarterly Balanced Panel Joint Probability Matrices: For Age 15+, U
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		2000					2001						2002						
		1	2	3	4	5	M	1	2	3	4	5	M	1	2	3	4	5	M
Q1 - Q2	1	0.0728	0.0003	0.0062	0.0047	0.0020	0.0861	0.0818	0.0003	0.0065	0.0028	0.0018	0.0933	0.0743	0.0001	0.0068	0.0032	0.0027	0.0871
	2	0.0003	0.0029	0.0034	0.0042	0.0021	0.0129	0.0001	0.0008	0.0024	0.0024	0.0019	0.0077	0.0003	0.0014	0.0025	0.0028	0.0026	0.0096
	3	0.0051	0.0024	0.4455	0.0367	0.0105	0.5002	0.0045	0.0024	0.4581	0.0317	0.0081	0.5048	0.0051	0.0032	0.4605	0.0345	0.0124	0.5157
	4	0.0018	0.0016	0.0244	0.3219	0.0110	0.3607	0.0030	0.0022	0.0225	0.3089	0.0150	0.3516	0.0022	0.0015	0.0213	0.2968	0.0130	0.3349
	5	0.0015	0.0030	0.0082	0.0172	0.0103	0.0402	0.0012	0.0035	0.0096	0.0154	0.0130	0.0426	0.0010	0.0039	0.0110	0.0169	0.0199	0.0527
	M	0.0815	0.0102	0.4877	0.3846	0.0360	1.0000	0.0906	0.0092	0.4992	0.3612	0.0399	1.0000	0.0830	0.0101	0.5022	0.3543	0.0506	1.0000
Q2 - Q3	1	0.0623	0.0004	0.0095	0.0071	0.0027	0.0819	0.0630	0.0003	0.0097	0.0046	0.0036	0.0812	0.0649	0.0002	0.0104	0.0043	0.0031	0.0828
	2	0.0004	0.0010	0.0029	0.0034	0.0014	0.0091	0.0001	0.0019	0.0025	0.0032	0.0019	0.0097	0.0003	0.0010	0.0024	0.0027	0.0023	0.0087
	3	0.0060	0.0017	0.4470	0.0278	0.0065	0.4890	0.0055	0.0028	0.4531	0.0307	0.0082	0.5004	0.0052	0.0029	0.4473	0.0247	0.0113	0.4914
	4	0.0036	0.0018	0.0311	0.3391	0.0103	0.3860	0.0022	0.0019	0.0279	0.3232	0.0149	0.3700	0.0029	0.0014	0.0287	0.3162	0.0139	0.3631
	5	0.0013	0.0027	0.0080	0.0133	0.0087	0.0339	0.0011	0.0031	0.0082	0.0132	0.0130	0.0387	0.0013	0.0033	0.0128	0.0174	0.0191	0.0540
	M	0.0736	0.0075	0.4986	0.3907	0.0296	1.0000	0.0720	0.0100	0.5014	0.3750	0.0416	1.0000	0.0747	0.0088	0.5016	0.3652	0.0497	1.0000
Q3 - Q4	1	0.0706	0.0002	0.0062	0.0041	0.0010	0.0822	0.0632	0.0002	0.0067	0.0039	0.0030	0.0770	0.0626	0.0001	0.0050	0.0027	0.0018	0.0722
	2	0.0002	0.0006	0.0023	0.0020	0.0013	0.0063	0.0002	0.0017	0.0026	0.0032	0.0021	0.0098	0.0005	0.0009	0.0022	0.0019	0.0030	0.0086
	3	0.0066	0.0016	0.4578	0.0250	0.0066	0.4975	0.0069	0.0026	0.4534	0.0295	0.0120	0.5043	0.0073	0.0021	0.4507	0.0268	0.0126	0.4995
	4	0.0044	0.0012	0.0332	0.3329	0.0112	0.3829	0.0030	0.0030	0.0320	0.3046	0.0193	0.3619	0.0050	0.0014	0.0300	0.3096	0.0186	0.3644
	5	0.0015	0.0021	0.0070	0.0103	0.0101	0.0311	0.0017	0.0040	0.0101	0.0151	0.0160	0.0469	0.0022	0.0031	0.0136	0.0159	0.0204	0.0553
	M	0.0833	0.0058	0.5064	0.3742	0.0303	1.0000	0.0750	0.0115	0.5048	0.3562	0.0525	1.0000	0.0776	0.0077	0.5015	0.3568	0.0564	1.0000
Q4 - Q1	1	0.0748	0.0005	0.0040	0.0028	0.0012	0.0833	0.0713	0.0002	0.0049	0.0025	0.0013	0.0803						
	2	0.0003	0.0011	0.0016	0.0019	0.0020	0.0068	0.0002	0.0013	0.0029	0.0029	0.0029	0.0102						
	3	0.0044	0.0027	0.4704	0.0233	0.0105	0.5113	0.0042	0.0031	0.4569	0.0238	0.0102	0.4981						
	4	0.0024	0.0017	0.0268	0.3208	0.0158	0.3675	0.0025	0.0025	0.0345	0.3022	0.0185	0.3602						
	5	0.0010	0.0026	0.0068	0.0104	0.0105	0.0312	0.0011	0.0035	0.0134	0.0138	0.0195	0.0513						
	M	0.0829	0.0086	0.5096	0.3591	0.0399	1.0000	0.0794	0.0106	0.5126	0.3452	0.0523	1.0000						

Table 1b: 5x5 Quarterly Forward Transition Matrices: For Age 15+
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		2000						2001						2002					
		1	2	3	4	5	M	1	2	3	4	5	M	1	2	3	4	5	M
Q1-Q2	1	0.8303	0.0038	0.0727	0.0727	0.0205	1.0000	0.8738	0.0031	0.0675	0.0373	0.0184	1.0000	0.8463	0.0005	0.0801	0.0441	0.0289	1.0000
	2	0.0234	0.2341	0.2341	0.3645	0.1438	1.0000	0.0117	0.0994	0.2690	0.4094	0.2105	1.0000	0.0278	0.1620	0.2407	0.3194	0.2500	1.0000
	3	0.0095	0.0051	0.8466	0.1223	0.0165	1.0000	0.0086	0.0048	0.8693	0.1030	0.0143	1.0000	0.0085	0.0061	0.8436	0.1215	0.0203	1.0000
	4	0.0043	0.0038	0.0754	0.8921	0.0243	1.0000	0.0071	0.0062	0.0763	0.8765	0.0338	1.0000	0.0054	0.0035	0.0780	0.8826	0.0306	1.0000
	5	0.0316	0.0835	0.1874	0.4447	0.2528	1.0000	0.0282	0.0791	0.2167	0.3868	0.2893	1.0000	0.0170	0.0723	0.1982	0.3500	0.3625	1.0000
Q2-Q3	1	0.7514	0.0056	0.1116	0.0992	0.0322	1.0000	0.7546	0.0046	0.1103	0.0862	0.0443	1.0000	0.7614	0.0018	0.1267	0.0740	0.0361	1.0000
	2	0.0337	0.1180	0.3090	0.4045	0.1348	1.0000	0.0101	0.1960	0.2714	0.3116	0.2111	1.0000	0.0321	0.1230	0.2567	0.3529	0.2353	1.0000
	3	0.0111	0.0029	0.8948	0.0787	0.0125	1.0000	0.0106	0.0056	0.8798	0.0888	0.0151	1.0000	0.0100	0.0047	0.8806	0.0846	0.0201	1.0000
	4	0.0084	0.0035	0.0844	0.8838	0.0200	1.0000	0.0057	0.0040	0.0826	0.8770	0.0307	1.0000	0.0066	0.0028	0.0864	0.8738	0.0304	1.0000
	5	0.0346	0.0783	0.2274	0.4036	0.2560	1.0000	0.0308	0.0808	0.2064	0.3500	0.3321	1.0000	0.0233	0.0596	0.2272	0.3389	0.3510	1.0000
Q3-Q4	1	0.8613	0.0025	0.0765	0.0466	0.0131	1.0000	0.8100	0.0033	0.0943	0.0547	0.0377	1.0000	0.8614	0.0021	0.0700	0.0407	0.0257	1.0000
	2	0.0303	0.1667	0.3106	0.3030	0.1894	1.0000	0.0145	0.1643	0.2802	0.3237	0.2174	1.0000	0.0556	0.1111	0.2716	0.2284	0.3333	1.0000
	3	0.0121	0.0031	0.9087	0.0640	0.0121	1.0000	0.0125	0.0049	0.8795	0.0799	0.0232	1.0000	0.0134	0.0038	0.8844	0.0748	0.0237	1.0000
	4	0.0123	0.0032	0.1084	0.8529	0.0231	1.0000	0.0099	0.0063	0.1371	0.8018	0.0448	1.0000	0.0134	0.0030	0.1083	0.8352	0.0401	1.0000
	5	0.0408	0.0767	0.2219	0.3361	0.3246	1.0000	0.0346	0.0827	0.2136	0.3215	0.3476	1.0000	0.0380	0.0603	0.2430	0.2904	0.3683	1.0000
Q4-Q1	1	0.8943	0.0058	0.0520	0.0352	0.0127	1.0000	0.8916	0.0030	0.0602	0.0307	0.0145	1.0000	0.0179	0.1295	0.2857	0.2902	0.2768	1.0000
	2	0.0347	0.1667	0.2292	0.2500	0.3194	1.0000	0.0087	0.0068	0.8921	0.0728	0.0197	1.0000	0.0074	0.0077	0.1353	0.8062	0.0434	1.0000
	3	0.0084	0.0046	0.9024	0.0662	0.0185	1.0000	0.0218	0.0744	0.2568	0.2731	0.3739	1.0000	0.0256	0.0798	0.2139	0.3268	0.3539	1.0000
	4	0.0062	0.0041	0.1176	0.8360	0.0361	1.0000	0.0179	0.1295	0.2857	0.2902	0.2768	1.0000	0.0134	0.0030	0.1083	0.8352	0.0401	1.0000
	5	0.0256	0.0798	0.2139	0.3268	0.3539	1.0000	0.0179	0.1295	0.2857	0.2902	0.2768	1.0000	0.0134	0.0030	0.1083	0.8352	0.0401	1.0000

Table 2b: 5x5 Quarterly Forward Transition Matrices: For Age 15+, F
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		2000						2001						2002					
		1	2	3	4	5	M	1	2	3	4	5	M	1	2	3	4	5	M
Q1-Q2	1	0.8314	0.0026	0.1120	0.0329	0.0211	1.0000	0.8712	0.0049	0.0851	0.0207	0.0182	1.0000	0.8397	0.0013	0.1046	0.0212	0.0331	1.0000
	2	0.0238	0.3095	0.3810	0.1190	0.1667	1.0000	0.0208	0.0833	0.5000	0.2500	0.1458	1.0000	0.0741	0.1296	0.3704	0.1667	0.2593	1.0000
	3	0.0076	0.0035	0.8931	0.0840	0.0119	1.0000	0.0073	0.0018	0.9081	0.0729	0.0099	1.0000	0.0055	0.0037	0.8945	0.0849	0.0114	1.0000
	4	0.0029	0.0014	0.1676	0.8073	0.0208	1.0000	0.0066	0.0051	0.1684	0.8059	0.0142	1.0000	0.0071	0.0013	0.1581	0.8188	0.0147	1.0000
	5	0.0498	0.0995	0.3756	0.1946	0.2805	1.0000	0.0332	0.0664	0.4274	0.1411	0.3320	1.0000	0.0271	0.0581	0.4302	0.1550	0.3295	1.0000
Q2-Q3	1	0.7442	0.0062	0.1550	0.0620	0.0326	1.0000	0.7552	0.0028	0.1572	0.0515	0.0334	1.0000	0.7464	0.0029	0.1696	0.0478	0.0333	1.0000
	2	0.0351	0.1228	0.5088	0.1404	0.1930	1.0000	0.0233	0.1628	0.5116	0.0698	0.2326	1.0000	0.0556	0.1296	0.4815	0.1296	0.2037	1.0000
	3	0.0090	0.0015	0.9255	0.0560	0.0081	1.0000	0.0083	0.0028	0.9161	0.0641	0.0088	1.0000	0.0070	0.0032	0.9098	0.0671	0.0129	1.0000
	4	0.0082	0.0016	0.1911	0.7904	0.0086	1.0000	0.0050	0.0011	0.1803	0.7953	0.0183	1.0000	0.0056	0.0026	0.1760	0.7963	0.0195	1.0000
	5	0.0529	0.0899	0.4233	0.1534	0.2804	1.0000	0.0303	0.0779	0.3939	0.1602	0.3377	1.0000	0.0429	0.0396	0.4158	0.1947	0.3069	1.0000
Q3-Q4	1	0.8623	0.0029	0.0957	0.0290	0.0101	1.0000	0.7924	0.0015	0.1485	0.0318	0.0258	1.0000	0.8619	0.0016	0.0841	0.0270	0.0254	1.0000
	2	0.0286	0.1143	0.5143	0.1429	0.2000	1.0000	0.0455	0.2273	0.5455	0.0758	0.1061	1.0000	0.0682	0.1136	0.4091	0.1136	0.2955	1.0000
	3	0.0092	0.0018	0.9412	0.0393	0.0085	1.0000	0.0094	0.0036	0.9130	0.0576	0.0164	1.0000	0.0087	0.0026	0.9187	0.0547	0.0153	1.0000
	4	0.0116	0.0013	0.2523	0.7249	0.0099	1.0000	0.0077	0.0029	0.3061	0.6637	0.0195	1.0000	0.0098	0.0015	0.2176	0.7501	0.0211	1.0000
	5	0.0663	0.0867	0.3571	0.1684	0.3214	1.0000	0.0516	0.0556	0.3135	0.2024	0.3770	1.0000	0.0465	0.0332	0.4452	0.1528	0.3223	1.0000
Q4-Q1	1	0.8976	0.0069	0.0650	0.0207	0.0097	1.0000	0.8632	0.0042	0.1001	0.0197	0.0127	1.0000						
	2	0.0196	0.2745	0.3137	0.0588	0.3333	1.0000	0.0351	0.0175	0.6140	0.1228	0.2105	1.0000						
	3	0.0059	0.0025	0.9331	0.0459	0.0125	1.0000	0.0075	0.0039	0.9236	0.0517	0.0132	1.0000						
	4	0.0057	0.0014	0.2475	0.7228	0.0225	1.0000	0.0066	0.0042	0.2592	0.7092	0.0208	1.0000						
	5	0.0342	0.1301	0.3973	0.1096	0.3288	1.0000	0.0379	0.0483	0.4345	0.1276	0.3517	1.0000						

Table 3b: 5x5 Quarterly Forward Transition Matrices: For Age 15+, M
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		2000						2001						2002					
		1	2	3	4	5	M	1	2	3	4	5	M	1	2	3	4	5	M
Q1-Q2	1	0.8337	0.0039	0.0443	0.1014	0.0167	1.0000	0.8892	0.0019	0.0488	0.0441	0.0160	1.0000	0.8626	0.0010	0.0536	0.0575	0.0253	1.0000
	2	0.0194	0.2087	0.1650	0.4709	0.1359	1.0000	0.0165	0.1074	0.1653	0.4711	0.2397	1.0000	0.0127	0.1783	0.1783	0.3758	0.2548	1.0000
	3	0.0142	0.0102	0.6888	0.2547	0.0321	1.0000	0.0078	0.0153	0.7432	0.2049	0.0289	1.0000	0.0128	0.0139	0.7001	0.2261	0.0471	1.0000
	4	0.0034	0.0044	0.0442	0.9228	0.0252	1.0000	0.0064	0.0066	0.0471	0.9003	0.0396	1.0000	0.0037	0.0042	0.0456	0.9113	0.0353	1.0000
	5	0.0229	0.0793	0.1204	0.5320	0.2454	1.0000	0.0240	0.0826	0.1396	0.4760	0.2778	1.0000	0.0131	0.0788	0.1241	0.4105	0.3735	1.0000
Q2-Q3	1	0.7587	0.0055	0.0797	0.1255	0.0306	1.0000	0.7630	0.0052	0.0720	0.1075	0.0522	1.0000	0.7778	0.0011	0.0889	0.0921	0.0402	1.0000
	2	0.0252	0.1092	0.2185	0.5378	0.1092	1.0000	0.0132	0.2119	0.1987	0.3709	0.2053	1.0000	0.0242	0.1210	0.1452	0.4597	0.2500	1.0000
	3	0.0179	0.0085	0.7827	0.1616	0.0293	1.0000	0.0142	0.0165	0.7660	0.1677	0.0356	1.0000	0.0149	0.0096	0.7959	0.1367	0.0429	1.0000
	4	0.0082	0.0041	0.0460	0.9182	0.0235	1.0000	0.0059	0.0048	0.0427	0.9118	0.0348	1.0000	0.0067	0.0029	0.0490	0.9068	0.0346	1.0000
	5	0.0258	0.0751	0.1438	0.5043	0.2511	1.0000	0.0301	0.0808	0.1241	0.4323	0.3327	1.0000	0.0120	0.0652	0.1489	0.3989	0.3750	1.0000
Q3-Q4	1	0.8641	0.0023	0.0599	0.0588	0.0150	1.0000	0.8298	0.0048	0.0476	0.0702	0.0476	1.0000	0.8752	0.0027	0.0521	0.0480	0.0219	1.0000
	2	0.0323	0.1935	0.2043	0.3763	0.1935	1.0000	0.0071	0.1348	0.1560	0.4397	0.2624	1.0000	0.0526	0.1140	0.1930	0.2807	0.3596	1.0000
	3	0.0191	0.0083	0.7956	0.1505	0.0265	1.0000	0.0173	0.0089	0.7771	0.1504	0.0463	1.0000	0.0238	0.0075	0.7861	0.1316	0.0511	1.0000
	4	0.0116	0.0037	0.0596	0.8975	0.0275	1.0000	0.0097	0.0074	0.0710	0.8576	0.0542	1.0000	0.0130	0.0037	0.0616	0.8748	0.0469	1.0000
	5	0.0222	0.0716	0.1506	0.4272	0.3284	1.0000	0.0267	0.0950	0.1691	0.3650	0.3442	1.0000	0.0324	0.0716	0.1554	0.3486	0.3919	1.0000
Q4-Q1	1	0.8979	0.0053	0.0394	0.0457	0.0117	1.0000	0.9204	0.0022	0.0277	0.0354	0.0144	1.0000	0.0124	0.1739	0.1801	0.3354	0.2981	1.0000
	2	0.0440	0.1099	0.1868	0.3407	0.3187	1.0000	0.0108	0.0165	0.7944	0.1369	0.0414	1.0000	0.0061	0.0089	0.0895	0.8445	0.0509	1.0000
	3	0.0151	0.0116	0.7947	0.1381	0.0406	1.0000	0.0139	0.0845	0.1866	0.3317	0.3834	1.0000	0.0139	0.0788	0.1241	0.4105	0.3735	1.0000
	4	0.0065	0.0047	0.0793	0.8699	0.0396	1.0000												
	5	0.0238	0.0653	0.1525	0.3921	0.3663	1.0000												

Table 4b: 5x5 Quarterly Forward Transition Matrices: For Age 15+, R
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		2000						2001						2002					
		1	2	3	4	5	M	1	2	3	4	5	M	1	2	3	4	5	M
Q1-Q2	1	0.7483	0.0067	0.0738	0.1678	0.0034	1.0000	0.8511	0.0035	0.0532	0.0780	0.0142	1.0000	0.8049	0.0035	0.0906	0.0836	0.0174	1.0000
	2	0.0152	0.2727	0.1364	0.5000	0.0758	1.0000	0.0303	0.0606	0.0606	0.8182	0.0303	1.0000	0.0222	0.2222	0.1556	0.4222	0.1778	1.0000
	3	0.0068	0.0064	0.6950	0.2906	0.0011	1.0000	0.0076	0.0049	0.7375	0.2419	0.0080	1.0000	0.0043	0.0057	0.6818	0.3000	0.0082	1.0000
	4	0.0030	0.0022	0.0946	0.8913	0.0089	1.0000	0.0043	0.0060	0.1037	0.8718	0.0142	1.0000	0.0027	0.0017	0.1069	0.8750	0.0136	1.0000
	5	0.0063	0.1203	0.1076	0.5253	0.2405	1.0000	0.0255	0.0701	0.1783	0.5159	0.2102	1.0000	0.0055	0.0601	0.1475	0.4973	0.2896	1.0000
Q2-Q3	1	0.6996	0.0123	0.0864	0.1728	0.0288	1.0000	0.6583	0.0094	0.0721	0.2163	0.0439	1.0000	0.6444	0.0037	0.1333	0.1926	0.0259	1.0000
	2	0.0370	0.1481	0.2222	0.5556	0.0370	1.0000	0.0323	0.1935	0.3226	0.1935	0.2581	1.0000	0.0263	0.1316	0.1842	0.5263	0.1316	1.0000
	3	0.0064	0.0009	0.8229	0.1603	0.0096	1.0000	0.0093	0.0058	0.7799	0.1952	0.0098	1.0000	0.0076	0.0008	0.7757	0.2062	0.0097	1.0000
	4	0.0063	0.0012	0.0916	0.8941	0.0069	1.0000	0.0055	0.0019	0.0955	0.8832	0.0138	1.0000	0.0040	0.0009	0.0997	0.8791	0.0164	1.0000
	5	0.0208	0.0729	0.1771	0.4792	0.2500	1.0000	0.0388	0.0777	0.1650	0.4078	0.3107	1.0000	0.0135	0.0473	0.1622	0.4392	0.3378	1.0000
Q3-Q4	1	0.8700	0.0045	0.0807	0.0269	0.0179	1.0000	0.7330	0.0105	0.1466	0.0838	0.0262	1.0000	0.8239	0.0057	0.0795	0.0625	0.0284	1.0000
	2	0.0385	0.4615	0.1154	0.2692	0.1154	1.0000	0.0278	0.1111	0.3333	0.3056	0.2222	1.0000	0.0588	0.1176	0.3529	0.2941	0.1765	1.0000
	3	0.0074	0.0025	0.8621	0.1213	0.0069	1.0000	0.0082	0.0036	0.8012	0.1660	0.0210	1.0000	0.0081	0.0019	0.8119	0.1604	0.0177	1.0000
	4	0.0141	0.0031	0.1525	0.8195	0.0107	1.0000	0.0128	0.0031	0.2176	0.7360	0.0306	1.0000	0.0130	0.0017	0.1537	0.8104	0.0212	1.0000
	5	0.0111	0.1222	0.2000	0.3556	0.3111	1.0000	0.0222	0.0667	0.2000	0.3259	0.3852	1.0000	0.0213	0.0851	0.2199	0.3121	0.3617	1.0000
Q4-Q1	1	0.8690	0.0040	0.0754	0.0476	0.0040	1.0000	0.9091	0.0048	0.0526	0.0287	0.0048	1.0000						
	2	0.0400	0.2000	0.2000	0.1200	0.4400	1.0000	0.0244	0.1463	0.2927	0.2927	0.2439	1.0000						
	3	0.0076	0.0021	0.8352	0.1447	0.0105	1.0000	0.0097	0.0089	0.8012	0.1634	0.0169	1.0000						
	4	0.0055	0.0031	0.2176	0.7533	0.0206	1.0000	0.0080	0.0093	0.2181	0.7379	0.0267	1.0000						
	5	0.0091	0.0636	0.1909	0.2909	0.4455	1.0000	0.0286	0.1086	0.2286	0.2914	0.3429	1.0000						

Table 5b: 5x5 Quarterly Forward Transition Matrices: For Age 15+, U
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		2000						2001						2002					
		1	2	3	4	5	M	1	2	3	4	5	M	1	2	3	4	5	M
Q1-Q2	1	0.8460	0.0032	0.0725	0.0546	0.0237	1.0000	0.8776	0.0030	0.0699	0.0304	0.0191	1.0000	0.8535	0.0006	0.0781	0.0368	0.0310	1.0000
	2	0.0258	0.2232	0.2618	0.3262	0.1631	1.0000	0.0072	0.1087	0.3188	0.3116	0.2536	1.0000	0.0292	0.1462	0.2632	0.2924	0.2690	1.0000
	3	0.0103	0.0047	0.8907	0.0733	0.0210	1.0000	0.0089	0.0047	0.9075	0.0627	0.0161	1.0000	0.0098	0.0062	0.8930	0.0670	0.0240	1.0000
	4	0.0049	0.0044	0.0675	0.8925	0.0306	1.0000	0.0084	0.0063	0.0641	0.8785	0.0426	1.0000	0.0067	0.0044	0.0637	0.8863	0.0390	1.0000
	5	0.0371	0.0755	0.2047	0.4272	0.2555	1.0000	0.0287	0.0809	0.2245	0.3603	0.3055	1.0000	0.0192	0.0747	0.2081	0.3212	0.3767	1.0000
Q2-Q3	1	0.7606	0.0044	0.1161	0.0861	0.0328	1.0000	0.7762	0.0035	0.1189	0.0570	0.0443	1.0000	0.7831	0.0021	0.1254	0.0514	0.0380	1.0000
	2	0.0395	0.1118	0.3224	0.3750	0.1513	1.0000	0.0118	0.1953	0.2604	0.3314	0.2012	1.0000	0.0336	0.1208	0.2752	0.3087	0.2617	1.0000
	3	0.0123	0.0034	0.9141	0.0568	0.0133	1.0000	0.0110	0.0056	0.9056	0.0614	0.0164	1.0000	0.0107	0.0058	0.9103	0.0502	0.0230	1.0000
	4	0.0094	0.0046	0.0807	0.8785	0.0268	1.0000	0.0059	0.0051	0.0754	0.8735	0.0402	1.0000	0.0080	0.0039	0.0790	0.8708	0.0382	1.0000
	5	0.0370	0.0792	0.2359	0.3908	0.2570	1.0000	0.0295	0.0812	0.2127	0.3412	0.3353	1.0000	0.0248	0.0616	0.2376	0.3229	0.3531	1.0000
Q3-Q4	1	0.8593	0.0029	0.0758	0.0498	0.0123	1.0000	0.8210	0.0022	0.0869	0.0505	0.0394	1.0000	0.8668	0.0016	0.0686	0.0376	0.0253	1.0000
	2	0.0374	0.0935	0.3551	0.3084	0.2056	1.0000	0.0174	0.1744	0.2674	0.3256	0.2151	1.0000	0.0616	0.1096	0.2603	0.2192	0.3493	1.0000
	3	0.0132	0.0032	0.9201	0.0502	0.0133	1.0000	0.0136	0.0052	0.8990	0.0584	0.0237	1.0000	0.0146	0.0043	0.9023	0.0536	0.0252	1.0000
	4	0.0115	0.0033	0.0867	0.8693	0.0293	1.0000	0.0082	0.0082	0.0884	0.8417	0.0535	1.0000	0.0136	0.0037	0.0822	0.8494	0.0510	1.0000
	5	0.0477	0.0687	0.2252	0.3321	0.3263	1.0000	0.0366	0.0854	0.2159	0.3207	0.3415	1.0000	0.0406	0.0566	0.2465	0.2871	0.3693	1.0000
Q4-Q1	1	0.8986	0.0061	0.0480	0.0331	0.0142	1.0000	0.8890	0.0028	0.0613	0.0310	0.0159	1.0000						
	2	0.0417	0.1583	0.2333	0.2750	0.2917	1.0000	0.0217	0.1250	0.2826	0.2880	0.2826	1.0000						
	3	0.0086	0.0053	0.9200	0.0455	0.0206	1.0000	0.0084	0.0062	0.9172	0.0477	0.0204	1.0000						
	4	0.0066	0.0046	0.0729	0.8729	0.0430	1.0000	0.0071	0.0069	0.0957	0.8389	0.0514	1.0000						
	5	0.0306	0.0829	0.2180	0.3333	0.3351	1.0000	0.0205	0.0680	0.2621	0.2697	0.3797	1.0000						

Table 1c: 5x5 Quarterly Reflation Factors (Weights): For Age 15+
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		2000					2001					2002				
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Q1-Q2	1	0.8220	0.6326	0.6858	0.8697	0.8140	0.8427	0.7417	0.5538	0.8797	0.7197	0.9331	0.4874	0.4817	0.7074	0.6606
	2	1.0554	0.8660	0.9191	1.1030	1.0473	1.1397	1.0388	0.8508	1.1768	1.0168	1.6293	1.1835	1.1778	1.4036	1.3567
	3	1.0377	0.8483	0.9014	1.0853	1.0297	1.1779	1.0770	0.8890	1.2150	1.0550	1.3435	0.8978	0.8921	1.1178	1.0710
	4	1.0936	0.9042	0.9574	1.1413	1.0856	1.1202	1.0192	0.8313	1.1572	0.9972	1.3426	0.8969	0.8912	1.1170	1.0701
	5	1.0747	0.8853	0.9384	1.1223	1.0667	1.1249	1.0240	0.8360	1.1620	1.0020	1.4377	0.9920	0.9863	1.2120	1.1652
Q2-Q3	1	0.8818	0.6922	0.7036	0.8380	0.9064	0.9223	1.0864	0.9337	1.1364	1.1841	0.9583	0.9696	0.9236	1.1251	1.2173
	2	1.2233	1.0337	1.0451	1.1795	1.2479	0.9221	1.0862	0.9335	1.1363	1.1839	1.0134	1.0247	0.9787	1.1802	1.2724
	3	1.0648	0.8752	0.8866	1.0210	1.0893	0.8631	1.0272	0.8745	1.0772	1.1249	0.9126	0.9239	0.8779	1.0794	1.1717
	4	1.1739	0.9844	0.9957	1.1302	1.1985	0.9179	1.0820	0.9293	1.1321	1.1797	0.9576	0.9689	0.9229	1.1244	1.2166
	5	1.1439	0.9543	0.9657	1.1001	1.1685	0.8642	1.0284	0.8757	1.0784	1.1261	0.8894	0.9007	0.8548	1.0562	1.1485
Q3-Q4	1	0.8116	0.8391	0.8427	0.7831	0.9222	0.9246	0.7687	0.8343	0.7799	0.8296	0.9994	0.9656	0.8912	0.9572	1.0469
	2	1.0042	1.0316	1.0353	0.9756	1.1147	1.1961	1.0402	1.1058	1.0514	1.1011	0.9762	0.9424	0.8680	0.9340	1.0237
	3	0.8638	0.8913	0.8949	0.8353	0.9744	0.9689	0.8131	0.8786	0.8242	0.8739	0.9843	0.9505	0.8761	0.9420	1.0317
	4	1.1625	1.1900	1.1936	1.1340	1.2731	1.2790	1.1231	1.1887	1.1343	1.1840	1.1634	1.1296	1.0552	1.1211	1.2108
	5	1.0191	1.0466	1.0502	0.9906	1.1297	1.1444	0.9886	1.0541	0.9997	1.0494	1.0893	1.0555	0.9811	1.0470	1.1367
Q4-Q1	1	0.8745	0.5919	0.5454	0.6663	0.6807	0.9176	0.6612	0.5807	0.6616	0.7124					
	2	1.2583	0.9757	0.9291	1.0500	1.0644	1.3119	1.0555	0.9750	1.0559	1.1066					
	3	1.2293	0.9467	0.9002	1.0211	1.0354	1.2534	0.9969	0.9164	0.9973	1.0481					
	4	1.3488	1.0662	1.0197	1.1406	1.1549	1.3546	1.0982	1.0177	1.0986	1.1494					
	5	1.2988	1.0162	0.9697	1.0906	1.1049	1.3595	1.1030	1.0225	1.1034	1.1542					

Table 2c: 5x5 Quarterly Reflation Factors (Weights): For Age 15+, F
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		2000					2001					2002				
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Q1-Q2	1	0.7961	0.5700	0.8091	0.9985	0.7166	0.8023	0.8507	0.7079	1.1257	0.8081	0.9011	0.6085	0.5489	0.8042	0.7364
	2	0.9804	0.7544	0.9934	1.1828	0.9009	1.0721	1.1205	0.9778	1.3956	1.0780	1.4056	1.1130	1.0533	1.3086	1.2409
	3	0.9150	0.6889	0.9280	1.1174	0.8354	1.0070	1.0554	0.9127	1.3305	1.0129	1.2844	0.9918	0.9321	1.1874	1.1197
	4	1.1651	0.9390	1.1781	1.3675	1.0856	1.0939	1.1423	0.9996	1.4174	1.0998	1.3314	1.0388	0.9791	1.2345	1.1667
	5	1.0256	0.7995	1.0386	1.2280	0.9461	0.9410	0.9894	0.8467	1.2645	0.9469	1.3954	1.1028	1.0432	1.2985	1.2307
Q2-Q3	1	0.8610	0.5699	0.7931	1.0176	0.8983	0.8795	1.2094	0.9710	1.3375	1.1135	0.9482	0.7928	0.8943	1.1664	1.1574
	2	1.0907	0.7997	1.0229	1.2473	1.1281	1.0237	1.3536	1.1152	1.4817	1.2577	1.0797	0.9244	1.0259	1.2980	1.2890
	3	0.9868	0.6958	0.9190	1.1434	1.0242	0.8206	1.1505	0.9121	1.2786	1.0546	0.9736	0.8182	0.9197	1.1919	1.1828
	4	1.1464	0.8553	1.0785	1.3030	1.1837	0.8440	1.1739	0.9355	1.3021	1.0780	1.0306	0.8752	0.9767	1.2489	1.2398
	5	1.1204	0.8294	1.0526	1.2770	1.1578	0.7274	1.0573	0.8189	1.1854	0.9614	0.8747	0.7193	0.8208	1.0930	1.0839
Q3-Q4	1	0.7483	0.8063	0.7885	0.7542	0.7301	0.8745	0.5868	0.7318	0.7520	0.6802	0.9231	0.8645	0.6663	0.7831	0.8850
	2	0.9332	0.9913	0.9734	0.9392	0.9151	1.1204	0.8327	0.9777	0.9979	0.9261	1.1401	1.0815	0.8833	1.0002	1.1020
	3	0.8896	0.9476	0.9297	0.8955	0.8714	1.0584	0.7707	0.9157	0.9359	0.8641	1.1728	1.1142	0.9160	1.0329	1.1347
	4	1.3232	1.3812	1.3634	1.3291	1.3050	1.4337	1.1461	1.2910	1.3112	1.2395	1.3873	1.3287	1.1305	1.2474	1.3492
	5	0.9286	0.9866	0.9688	0.9345	0.9105	1.1429	0.8553	1.0003	1.0205	0.9487	1.2379	1.1792	0.9811	1.0979	1.1998
Q4-Q1	1	0.8502	0.3180	0.4297	0.7230	0.4280	0.8697	0.6763	0.6251	0.7672	0.6797					
	2	1.2611	0.7289	0.8406	1.1340	0.8389	1.2328	1.0394	0.9882	1.1303	1.0428					
	3	1.3514	0.8192	0.9309	1.2243	0.9292	1.1884	0.9951	0.9438	1.0859	0.9984					
	4	1.4959	0.9638	1.0755	1.3688	1.0737	1.3552	1.1618	1.1106	1.2526	1.1652					
	5	1.5345	1.0023	1.1140	1.4074	1.1123	1.2223	1.0289	0.9777	1.1198	1.0323					

Table 3c: 5x5 Quarterly Reflation Factors (Weights): For Age 15+, M
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		2000					2001					2002				
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Q1-Q2	1	0.8906	0.6353	0.5069	0.7684	0.8334	0.9014	0.5963	0.3454	0.6789	0.5857	0.9782	0.3090	0.3007	0.5495	0.5293
	2	1.2086	0.9533	0.8249	1.0864	1.1514	1.2949	0.9897	0.7388	1.0723	0.9792	1.8468	1.1776	1.1693	1.4181	1.3978
	3	1.2255	0.9702	0.8418	1.1034	1.1683	1.4017	1.0965	0.8456	1.1791	1.0859	1.4867	0.8175	0.8092	1.0580	1.0377
	4	1.1745	0.9192	0.7908	1.0524	1.1173	1.2831	0.9780	0.7271	1.0606	0.9674	1.4823	0.8131	0.8048	1.0536	1.0333
	5	1.1805	0.9252	0.7968	1.0583	1.1233	1.3388	1.0336	0.7827	1.1162	1.0231	1.5927	0.9235	0.9152	1.1641	1.1438
Q2-Q3	1	0.9230	0.7224	0.6194	0.7493	0.8996	0.9764	1.0575	0.9387	1.0483	1.2168	0.9909	1.0710	0.9242	1.1020	1.2384
	2	1.3314	1.1308	1.0279	1.1577	1.3080	0.9403	1.0214	0.9026	1.0122	1.1807	1.0493	1.1294	0.9826	1.1604	1.2968
	3	1.1072	0.9066	0.8037	0.9335	1.0838	0.8309	0.9121	0.7933	0.9029	1.0713	0.8669	0.9469	0.8001	0.9779	1.1143
	4	1.2298	1.0291	0.9262	1.0560	1.2063	0.9769	1.0580	0.9392	1.0488	1.2173	0.9389	1.0189	0.8721	1.0499	1.1863
	5	1.2018	1.0012	0.8982	1.0280	1.1783	0.9528	1.0339	0.9151	1.0247	1.1931	0.9047	0.9848	0.8380	1.0158	1.1522
Q3-Q4	1	0.8882	0.8452	0.7977	0.8004	0.9932	0.9778	0.8332	0.8401	0.7778	0.8740	1.0855	1.0345	1.0024	1.0472	1.1523
	2	1.0981	1.0551	1.0075	1.0102	1.2031	1.2425	1.0979	1.1049	1.0425	1.1387	0.9230	0.8719	0.8398	0.8846	0.9898
	3	0.9088	0.8659	0.8183	0.8210	1.0139	0.9487	0.8041	0.8111	0.7487	0.8449	0.8950	0.8439	0.8118	0.8566	0.9618
	4	1.1391	1.0962	1.0486	1.0513	1.2442	1.2479	1.1033	1.1102	1.0479	1.1441	1.0799	1.0289	0.9968	1.0416	1.1468
	5	1.1153	1.0723	1.0247	1.0274	1.2203	1.1894	1.0447	1.0517	0.9894	1.0856	1.0587	1.0077	0.9755	1.0204	1.1255
Q4-Q1	1	0.9268	0.8097	0.6402	0.7088	0.8313	0.9706	0.5017	0.4036	0.4757	0.5826	1.5154	1.0464	0.9484	1.0205	1.1274
	2	1.2778	1.1607	0.9912	1.0598	1.1823	1.4519	0.9829	0.8849	0.9570	1.0639	1.5187	1.0498	0.9517	1.0239	1.1308
	3	1.1231	1.0060	0.8365	0.9051	1.0276	1.5691	1.1002	1.0022	1.0743	1.1812	1.2701	1.1530	0.9835	1.0521	1.1746
	4	1.2701	1.1530	0.9835	1.0521	1.1746	1.5691	1.1002	1.0022	1.0743	1.1812	1.2701	1.1530	0.9835	1.0521	1.1746
	5	1.2052	1.0881	0.9186	0.9872	1.1097	1.5691	1.1002	1.0022	1.0743	1.1812	1.2701	1.1530	0.9835	1.0521	1.1746

Table 4c: 5x5 Quarterly Reflation Factors (Weights): For Age 15+, R
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		2000					2001					2002				
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Q1-Q2	1	0.7465	0.1666	0.5909	0.5665	1.0198	0.8698	0.6266	0.6112	0.8912	0.7629	1.0099	0.3405	0.4914	0.5253	0.7022
	2	1.3254	0.7455	1.1698	1.1454	1.5987	0.9493	0.7060	0.6907	0.9707	0.8424	2.1713	1.5020	1.6529	1.6868	1.8637
	3	1.1050	0.5251	0.9494	0.9250	1.3783	1.1431	0.8999	0.8846	1.1645	1.0363	1.4817	0.8124	0.9632	0.9972	1.1741
	4	1.2579	0.6781	1.1024	1.0780	1.5313	1.0613	0.8181	0.8028	1.0827	0.9545	1.4863	0.8170	0.9678	1.0017	1.1786
	5	1.2003	0.6204	1.0447	1.0203	1.4736	1.1921	0.9489	0.9336	1.2135	1.0852	1.7483	1.0789	1.2298	1.2637	1.4406
Q2-Q3	1	0.8331	0.9090	0.7517	0.7862	1.1181	0.7654	0.9665	0.8421	0.9801	1.2044	0.9988	1.0438	0.9481	1.0002	1.2561
	2	1.4643	1.5402	1.3829	1.4173	1.7493	1.0955	1.2966	1.1722	1.3102	1.5345	1.1477	1.1926	1.0969	1.1490	1.4050
	3	1.0197	1.0956	0.9383	0.9728	1.3047	0.8354	1.0366	0.9121	1.0501	1.2744	0.9707	1.0157	0.9200	0.9721	1.2280
	4	1.0872	1.1632	1.0059	1.0403	1.3723	0.8429	1.0440	0.9195	1.0576	1.2819	1.0362	1.0812	0.9855	1.0376	1.2935
	5	1.0745	1.1504	0.9931	1.0276	1.3595	0.7826	0.9838	0.8593	0.9973	1.2216	1.0723	1.1173	1.0216	1.0737	1.3296
Q3-Q4	1	0.7301	0.7169	0.9978	0.9450	1.4481	1.0228	1.3435	1.1471	1.0843	1.1485	1.1212	1.1961	1.0563	1.0971	1.4056
	2	0.6963	0.6831	0.9640	0.9112	1.4143	0.9783	1.2990	1.1026	1.0398	1.1040	1.0890	1.1638	1.0241	1.0648	1.3733
	3	0.6837	0.6705	0.9514	0.8986	1.4017	0.7913	1.1120	0.9156	0.8528	0.9170	1.0024	1.0773	0.9375	0.9783	1.2868
	4	0.8259	0.8127	1.0935	1.0408	1.5439	0.9668	1.2875	1.0910	1.0282	1.0924	1.0363	1.1111	0.9714	1.0122	1.3207
	5	0.7073	0.6940	0.9749	0.9221	1.4252	1.0835	1.4042	1.2078	1.1450	1.2092	1.1481	1.2230	1.0832	1.1240	1.4325
Q4-Q1	1	0.8274	0.5235	0.3167	0.5427	0.5699	0.9666	0.6073	0.6880	0.7639	0.8125	1.2634	0.9042	0.9849	1.0607	1.1094
	2	1.4571	1.1532	0.9464	1.1724	1.1996	1.2474	0.8882	0.9689	1.0448	1.0934	1.2140	0.8547	0.9355	1.0113	1.0600
	3	1.4323	1.1284	0.9216	1.1475	1.1748	1.5486	1.1893	1.2700	1.3459	1.3945	1.5486	1.1893	1.2700	1.3459	1.3945
	4	1.3767	1.0729	0.8661	1.0920	1.1193										
	5	1.4493	1.1455	0.9387	1.1646	1.1919										

Table 5c: 5x5 Quarterly Reflation Factors (Weights): For Age 15+, U
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		2000					2001					2002				
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Q1-Q2	1	0.9625	0.9117	0.8362	0.9483	1.0063	0.9373	0.8316	0.6567	0.7111	0.8056	1.0169	0.5441	0.5260	0.6610	0.7484
	2	1.0218	0.9710	0.8955	1.0076	1.0656	1.3661	1.2604	1.0855	1.1399	1.2344	1.5734	1.1006	1.0825	1.2174	1.3048
	3	1.0566	1.0057	0.9303	1.0424	1.1004	1.2111	1.1054	0.9305	0.9849	1.0794	1.3975	0.9247	0.9066	1.0415	1.1289
	4	1.0951	1.0443	0.9688	1.0809	1.1389	1.3192	1.2136	1.0387	1.0930	1.1875	1.4490	0.9762	0.9581	1.0931	1.1805
	5	1.1581	1.1072	1.0317	1.1438	1.2018	1.2865	1.1808	1.0059	1.0603	1.1548	1.5431	1.0703	1.0522	1.1872	1.2746
2-Q3	1	1.0140	0.7434	0.7686	0.8562	1.0168	1.0677	1.2041	1.0444	1.1387	1.3066	1.0564	1.0709	0.9752	1.1510	1.3381
	2	1.3201	1.0495	1.0747	1.1623	1.3229	1.0167	1.1530	0.9933	1.0876	1.2555	1.0894	1.1039	1.0082	1.1840	1.3711
	3	1.1641	0.8935	0.9187	1.0063	1.1669	0.9439	1.0802	0.9206	1.0148	1.1827	0.9902	1.0047	0.9090	1.0847	1.2718
	4	1.2333	0.9627	0.9879	1.0755	1.2361	0.9830	1.1194	0.9597	1.0540	1.2219	0.9764	0.9909	0.8952	1.0709	1.2580
	5	1.3412	1.0706	1.0958	1.1834	1.3440	1.0641	1.2005	1.0408	1.1350	1.3029	1.0006	1.0151	0.9194	1.0952	1.2823
Q3-Q4	1	0.9476	1.0127	0.8553	0.8312	0.9636	1.0274	0.7418	0.7592	0.8049	0.8691	1.0993	1.0131	0.9270	0.9866	1.1058
	2	1.2315	1.2966	1.1392	1.1151	1.2474	1.3890	1.1034	1.1208	1.1665	1.2307	1.1192	1.0331	0.9469	1.0065	1.1258
	3	1.0162	1.0813	0.9239	0.8998	1.0322	1.1815	0.8959	0.9133	0.9590	1.0233	1.0759	0.9897	0.9036	0.9632	1.0824
	4	1.2012	1.2663	1.1089	1.0848	1.2172	1.3150	1.0295	1.0468	1.0925	1.1568	1.1871	1.1009	1.0148	1.0744	1.1936
	5	1.2303	1.2953	1.1379	1.1139	1.2462	1.3143	1.0288	1.0461	1.0918	1.1561	1.2286	1.1424	1.0563	1.1159	1.2351
Q4-Q1	1	0.9967	0.7785	0.7249	0.7502	0.8795	1.0221	0.7929	0.6883	0.7495	0.8950					
	2	1.2486	1.0304	0.9768	1.0021	1.1314	1.3739	1.1446	1.0401	1.1012	1.2468					
	3	1.1950	0.9768	0.9232	0.9485	1.0778	1.2591	1.0299	0.9253	0.9865	1.1320					
	4	1.3313	1.1131	1.0595	1.0848	1.2141	1.3359	1.1066	1.0021	1.0632	1.2088					
	5	1.3427	1.1246	1.0710	1.0963	1.2255	1.3636	1.1343	1.0298	1.0909	1.2365					

Table 3d: 5x5 Quarterly Adjusted Panel Joint Probability Matrices: For Age 15+, M
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

2000							
	1	2	3	4	5	M	
Q1-Q2	1	0.0664	0.0002	0.0020	0.0070	0.0012	0.0768
	2	0.0004	0.0036	0.0025	0.0093	0.0028	0.0186
	3	0.0038	0.0021	0.1254	0.0608	0.0081	0.2002
	4	0.0025	0.0025	0.0216	0.6007	0.0174	0.6447
	5	0.0025	0.0042	0.0055	0.0325	0.0159	0.0607
	M	0.0755	0.0127	0.1570	0.7102	0.0455	1.0000

2001						
	1	2	3	4	5	M
Q1-Q2	0.0755	0.0001	0.0016	0.0028	0.0009	0.0809
	0.0002	0.0011	0.0013	0.0054	0.0025	0.0106
	0.0024	0.0036	0.1349	0.0519	0.0067	0.1995
	0.0051	0.0040	0.0213	0.5934	0.0238	0.6476
	0.0053	0.0050	0.0064	0.0313	0.0167	0.0649
	0.0886	0.0138	0.1656	0.6848	0.0507	1.0000

2002						
	1	2	3	4	5	M
Q1-Q2	0.0765	0.0000	0.0015	0.0029	0.0012	0.0821
	0.0003	0.0029	0.0029	0.0074	0.0049	0.0185
	0.0047	0.0028	0.1403	0.0593	0.0121	0.2193
	0.0031	0.0019	0.0210	0.5508	0.0209	0.5979
	0.0034	0.0054	0.0084	0.0354	0.0316	0.0842
	0.0881	0.0131	0.1742	0.6557	0.0708	1.0000

2003						
	1	2	3	4	5	M
Q2-Q3	0.0638	0.0005	0.0058	0.0097	0.0054	0.0851
	0.0002	0.0029	0.0024	0.0051	0.0033	0.0138
	0.0024	0.0030	0.1221	0.0304	0.0077	0.1656
	0.0038	0.0033	0.0262	0.6239	0.0276	0.6848
	0.0037	0.0040	0.0054	0.0211	0.0189	0.0530
	0.0737	0.0137	0.1619	0.6901	0.0629	1.0000

2004						
	1	2	3	4	5	M
Q3-Q4	0.0609	0.0003	0.0030	0.0041	0.0031	0.0714
	0.0001	0.0019	0.0022	0.0058	0.0038	0.0137
	0.0033	0.0014	0.1267	0.0226	0.0079	0.1619
	0.0079	0.0053	0.0513	0.5852	0.0404	0.6901
	0.0075	0.0060	0.0107	0.0218	0.0225	0.0685
	0.0798	0.0149	0.1939	0.6394	0.0777	1.0000

2005						
	1	2	3	4	5	M
Q4-Q1	0.0648	0.0002	0.0036	0.0034	0.0017	0.0737
	0.0005	0.0011	0.0017	0.0026	0.0038	0.0098
	0.0045	0.0013	0.1357	0.0240	0.0104	0.1760
	0.0090	0.0024	0.0393	0.5824	0.0343	0.6674
	0.0088	0.0050	0.0105	0.0246	0.0306	0.0795
	0.0877	0.0100	0.1908	0.6371	0.0809	1.0000

2006						
	1	2	3	4	5	M
Q4-Q1	0.0712	0.0001	0.0009	0.0013	0.0007	0.0742
	0.0003	0.0026	0.0024	0.0049	0.0048	0.0149
	0.0033	0.0035	0.1498	0.0279	0.0094	0.1939
	0.0058	0.0058	0.0531	0.5388	0.0359	0.6394
	0.0059	0.0065	0.0131	0.0249	0.0317	0.0821
	0.0865	0.0185	0.2193	0.5979	0.0824	1.0000

Table 4d: 5x5 Quarterly Adjusted Panel Joint Probability Matrices: For Age 15+, R
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

2000							2001							2002						
	1	2	3	4	5	M	1	2	3	4	5	M	1	2	3	4	5	M		
Q1-Q2	1	0.0285	0.0001	0.0022	0.0048	0.0002	0.0358	0.0353	0.0001	0.0015	0.0033	0.0005	0.0408	0.0373	0.0001	0.0020	0.0020	0.0006	0.0420	
	2	0.0002	0.0023	0.0018	0.0065	0.0014	0.0122	0.0002	0.0002	0.0002	0.0044	0.0001	0.0052	0.0003	0.0024	0.0019	0.0051	0.0024	0.0121	
	3	0.0034	0.0015	0.2976	0.1212	0.0007	0.4245	0.0039	0.0020	0.2899	0.1252	0.0037	0.4246	0.0028	0.0021	0.2942	0.1340	0.0043	0.4374	
	4	0.0017	0.0007	0.0479	0.4416	0.0063	0.4982	0.0022	0.0024	0.0396	0.4492	0.0065	0.4998	0.0019	0.0007	0.0486	0.4117	0.0075	0.4704	
	5	0.0016	0.0020	0.0030	0.0145	0.0096	0.0308	0.0024	0.0018	0.0044	0.0166	0.0061	0.0313	0.0022	0.0019	0.0053	0.0184	0.0122	0.0401	
	M	0.0355	0.0066	0.3526	0.5886	0.0181	1.0000	0.0439	0.0064	0.3357	0.5988	0.0168	1.0000	0.0447	0.0071	0.3520	0.5712	0.0270	1.0000	
Q2-Q3	1	0.0240	0.0005	0.0027	0.0056	0.0013	0.0340	0.0254	0.0005	0.0031	0.0107	0.0027	0.0423	0.0275	0.0002	0.0054	0.0082	0.0014	0.0427	
	2	0.0002	0.0010	0.0014	0.0036	0.0003	0.0066	0.0002	0.0012	0.0019	0.0012	0.0019	0.0064	0.0002	0.0009	0.0012	0.0036	0.0011	0.0071	
	3	0.0024	0.0004	0.2872	0.0580	0.0046	0.3526	0.0028	0.0021	0.2534	0.0730	0.0044	0.3357	0.0028	0.0003	0.2689	0.0755	0.0045	0.3520	
	4	0.0039	0.0008	0.0521	0.5265	0.0053	0.5886	0.0027	0.0012	0.0503	0.5346	0.0101	0.5988	0.0023	0.0005	0.0541	0.5026	0.0117	0.5712	
	5	0.0038	0.0014	0.0029	0.0080	0.0055	0.0216	0.0025	0.0012	0.0023	0.0066	0.0062	0.0188	0.0024	0.0012	0.0039	0.0110	0.0105	0.0291	
	M	0.0343	0.0040	0.3462	0.6017	0.0171	1.0000	0.0335	0.0062	0.3108	0.6261	0.0253	1.0000	0.0351	0.0032	0.3335	0.6011	0.0292	1.0000	
Q3-Q4	1	0.0255	0.0001	0.0032	0.0010	0.0010	0.0309	0.0224	0.0004	0.0050	0.0027	0.0009	0.0315	0.0272	0.0002	0.0025	0.0020	0.0012	0.0331	
	2	0.0001	0.0015	0.0005	0.0011	0.0008	0.0040	0.0002	0.0008	0.0021	0.0018	0.0014	0.0062	0.0002	0.0004	0.0010	0.0009	0.0007	0.0032	
	3	0.0018	0.0006	0.3004	0.0399	0.0035	0.3462	0.0022	0.0014	0.2520	0.0486	0.0066	0.3108	0.0029	0.0007	0.2669	0.0550	0.0080	0.3335	
	4	0.0067	0.0015	0.0956	0.4886	0.0094	0.6017	0.0074	0.0024	0.1424	0.4539	0.0200	0.6261	0.0080	0.0011	0.0886	0.4868	0.0166	0.6011	
	5	0.0057	0.0014	0.0032	0.0053	0.0072	0.0227	0.0083	0.0020	0.0051	0.0079	0.0098	0.0331	0.0088	0.0025	0.0056	0.0083	0.0122	0.0374	
	M	0.0398	0.0050	0.4028	0.5360	0.0219	1.0000	0.0406	0.0070	0.4066	0.5149	0.0388	1.0000	0.0471	0.0049	0.3647	0.5530	0.0386	1.0000	
Q4-Q1	1	0.0319	0.0001	0.0011	0.0011	0.0001	0.0342	0.0305	0.0001	0.0013	0.0008	0.0001	0.0327	0.0272	0.0002	0.0025	0.0020	0.0012	0.0331	
	2	0.0003	0.0010	0.0008	0.0006	0.0023	0.0050	0.0002	0.0009	0.0020	0.0021	0.0018	0.0070	0.0002	0.0004	0.0010	0.0009	0.0007	0.0032	
	3	0.0045	0.0010	0.3225	0.0696	0.0052	0.4028	0.0050	0.0032	0.3203	0.0704	0.0076	0.4066	0.0050	0.0007	0.2669	0.0550	0.0080	0.3335	
	4	0.0039	0.0017	0.0967	0.4219	0.0118	0.5360	0.0050	0.0041	0.1055	0.3857	0.0146	0.5149	0.0064	0.0038	0.0084	0.0114	0.0139	0.0439	
	5	0.0041	0.0014	0.0035	0.0066	0.0103	0.0258	0.0071	0.0121	0.4374	0.4704	0.0381	1.0000	0.0471	0.0049	0.3647	0.5530	0.0386	1.0000	
	M	0.0446	0.0052	0.4246	0.4998	0.0297	1.0000	0.0471	0.0121	0.4374	0.4704	0.0381	1.0000	0.0471	0.0049	0.3647	0.5530	0.0386	1.0000	

Table 5d: 5x5 Quarterly Adjusted Panel Joint Probability Matrices: For Age 15+, U
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

2000							
	1	2	3	4	5	M	
Q1-Q2	1	0.0701	0.0003	0.0052	0.0045	0.0021	0.0820
	2	0.0003	0.0028	0.0030	0.0042	0.0022	0.0126
	3	0.0054	0.0024	0.4144	0.0382	0.0115	0.4720
	4	0.0019	0.0017	0.0236	0.3479	0.0126	0.3877
	5	0.0020	0.0034	0.0085	0.0196	0.0123	0.0459
	M	0.0798	0.0105	0.4548	0.4145	0.0408	1.0000
2001							
	1	2	3	4	5	M	
Q2-Q3	0.0767	0.0002	0.0043	0.0020	0.0014	0.0847	
	0.0001	0.0011	0.0027	0.0027	0.0024	0.0089	
	0.0055	0.0026	0.4263	0.0312	0.0088	0.4744	
	0.0039	0.0027	0.0234	0.3376	0.0178	0.3854	
	0.0038	0.0041	0.0096	0.0163	0.0150	0.0488	
	0.0899	0.0107	0.4663	0.3898	0.0454	1.0000	
	M	0.0899	0.0102	0.4558	0.3860	0.0601	1.0000
2002							
	1	2	3	4	5	M	
Q3-Q4	0.0756	0.0000	0.0036	0.0021	0.0020	0.0834	
	0.0004	0.0015	0.0027	0.0034	0.0034	0.0115	
	0.0071	0.0030	0.4175	0.0360	0.0140	0.4775	
	0.0033	0.0014	0.0204	0.3244	0.0154	0.3649	
	0.0035	0.0042	0.0115	0.0201	0.0253	0.0646	
	M	0.0899	0.0090	0.4566	0.3925	0.0636	1.0000
2003							
	1	2	3	4	5	M	
Q4-Q1	0.0685	0.0002	0.0101	0.0049	0.0042	0.0879	
	0.0003	0.0012	0.0024	0.0032	0.0031	0.0102	
	0.0052	0.0029	0.4066	0.0268	0.0144	0.4558	
	0.0028	0.0014	0.0257	0.3386	0.0175	0.3860	
	0.0029	0.0034	0.0118	0.0191	0.0245	0.0616	
	M	0.0798	0.0090	0.4566	0.3925	0.0636	1.0000
2004							
	1	2	3	4	5	M	
Q1-Q2	0.0650	0.0001	0.0051	0.0031	0.0026	0.0760	
	0.0002	0.0019	0.0030	0.0037	0.0026	0.0114	
	0.0081	0.0024	0.4141	0.0283	0.0122	0.4651	
	0.0039	0.0031	0.0335	0.3328	0.0224	0.3956	
	0.0039	0.0041	0.0106	0.0164	0.0185	0.0536	
	M	0.0812	0.0116	0.4662	0.3843	0.0584	1.0000
2005							
	1	2	3	4	5	M	
Q2-Q3	0.0688	0.0001	0.0046	0.0027	0.0020	0.0782	
	0.0006	0.0010	0.0021	0.0019	0.0034	0.0090	
	0.0079	0.0021	0.4072	0.0258	0.0136	0.4566	
	0.0059	0.0015	0.0304	0.3326	0.0222	0.3925	
	0.0061	0.0036	0.0144	0.0177	0.0252	0.0670	
	M	0.0892	0.0083	0.4588	0.3807	0.0664	1.0000

Table 5e: 5x5 Quarterly Adjusted Forward Transition Matrices: For Age 15+, U
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		2000						2001						2002					
		1	2	3	4	5	M	1	2	3	4	5	M	1	2	3	4	5	M
Q1-Q2	1	0.8540	0.0031	0.0636	0.0543	0.0251	1.0000	0.9060	0.0027	0.0505	0.0238	0.0169	1.0000	0.9070	0.0004	0.0429	0.0254	0.0242	1.0000
	2	0.0269	0.2211	0.2393	0.3354	0.1774	1.0000	0.0085	0.1180	0.2980	0.3059	0.2696	1.0000	0.0384	0.1342	0.2376	0.2970	0.2928	1.0000
	3	0.0115	0.0051	0.8780	0.0810	0.0245	1.0000	0.0115	0.0056	0.8986	0.0658	0.0185	1.0000	0.0148	0.0062	0.8744	0.0753	0.0293	1.0000
	4	0.0050	0.0043	0.0609	0.8974	0.0324	1.0000	0.0101	0.0070	0.0608	0.8760	0.0461	1.0000	0.0089	0.0039	0.0560	0.8890	0.0422	1.0000
	5	0.0446	0.0733	0.1850	0.4281	0.2690	1.0000	0.0777	0.0835	0.1972	0.3336	0.3080	1.0000	0.0537	0.0652	0.1786	0.3110	0.3915	1.0000
Q2-Q3	1	0.7944	0.0034	0.0919	0.0760	0.0344	1.0000	0.7673	0.0039	0.1150	0.0601	0.0536	1.0000	0.7791	0.0021	0.1151	0.0557	0.0479	1.0000
	2	0.0452	0.1019	0.3007	0.3784	0.1738	1.0000	0.0109	0.2031	0.2333	0.3250	0.2278	1.0000	0.0312	0.1138	0.2368	0.3119	0.3063	1.0000
	3	0.0155	0.0033	0.9030	0.0615	0.0167	1.0000	0.0111	0.0065	0.8946	0.0669	0.0209	1.0000	0.0114	0.0063	0.8920	0.0587	0.0316	1.0000
	4	0.0108	0.0042	0.0742	0.8799	0.0308	1.0000	0.0055	0.0054	0.0687	0.8739	0.0466	1.0000	0.0074	0.0036	0.0665	0.8772	0.0452	1.0000
	5	0.1112	0.0655	0.1996	0.3571	0.2667	1.0000	0.0497	0.0811	0.1841	0.3220	0.3632	1.0000	0.0473	0.0547	0.1914	0.3098	0.3967	1.0000
Q3-Q4	1	0.8707	0.0031	0.0693	0.0442	0.0126	1.0000	0.8554	0.0017	0.0669	0.0412	0.0347	1.0000	0.8797	0.0015	0.0587	0.0342	0.0259	1.0000
	2	0.0393	0.1034	0.3451	0.2934	0.2188	1.0000	0.0209	0.1658	0.2582	0.3271	0.2280	1.0000	0.0662	0.1086	0.2364	0.2116	0.3772	1.0000
	3	0.0145	0.0038	0.9181	0.0487	0.0149	1.0000	0.0174	0.0051	0.8904	0.0608	0.0263	1.0000	0.0172	0.0046	0.8919	0.0565	0.0298	1.0000
	4	0.0126	0.0038	0.0880	0.8631	0.0326	1.0000	0.0099	0.0077	0.0847	0.8411	0.0566	1.0000	0.0150	0.0038	0.0775	0.8472	0.0565	1.0000
	5	0.1341	0.0687	0.1978	0.2855	0.3139	1.0000	0.0730	0.0769	0.1977	0.3067	0.3457	1.0000	0.0909	0.0533	0.2149	0.2644	0.3764	1.0000
Q4-Q1	1	0.9210	0.0049	0.0358	0.0255	0.0128	1.0000	0.9174	0.0022	0.0426	0.0235	0.0143	1.0000	0.0263	0.1259	0.2586	0.2791	0.3100	1.0000
	2	0.0496	0.1556	0.2173	0.2628	0.3147	1.0000	0.0114	0.0068	0.9068	0.0503	0.0247	1.0000	0.0088	0.0072	0.0898	0.8359	0.0583	1.0000
	3	0.0110	0.0055	0.9131	0.0464	0.0238	1.0000	0.0574	0.0654	0.2291	0.2497	0.3984	1.0000	0.0574	0.0654	0.2291	0.2497	0.3984	1.0000
	4	0.0080	0.0047	0.0708	0.8686	0.0479	1.0000	0.0574	0.0654	0.2291	0.2497	0.3984	1.0000	0.0574	0.0654	0.2291	0.2497	0.3984	1.0000
	5	0.0862	0.0772	0.1935	0.3028	0.3403	1.0000	0.0574	0.0654	0.2291	0.2497	0.3984	1.0000	0.0574	0.0654	0.2291	0.2497	0.3984	1.0000

Table 6a: 5x5 Annual Balanced Panel Joint Probability Matrices: For Age 15+
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		Q1-Q1								Q1-Q1					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.0509	0.0006	0.0098	0.0073	0.0025	0.0711	2001-2002	0.0474	0.0009	0.0125	0.0058	0.0038	0.0704	
	2	0.0002	0.0008	0.0041	0.0039	0.0020	0.0111		0.0002	0.0005	0.0030	0.0027	0.0014	0.0079	
	3	0.0093	0.0022	0.4197	0.0568	0.0074	0.4955		0.0073	0.0029	0.4309	0.0481	0.0104	0.4996	
	4	0.0046	0.0026	0.0669	0.2995	0.0132	0.3868		0.0042	0.0042	0.0662	0.2952	0.0203	0.3902	
	5	0.0004	0.0000	0.0021	0.0160	0.0170	0.0355		0.0012	0.0015	0.0087	0.0122	0.0085	0.0320	
	M	0.0654	0.0063	0.5026	0.3835	0.0421	1.0000		0.0603	0.0100	0.5213	0.3640	0.0444	1.0000	
		Q2-Q2								Q2-Q2					
		1	2	3	4	5	M	2001-2002	1	2	3	4	5	M	
2000-2001	1	0.0504	0.0006	0.0100	0.0066	0.0024	0.0700		0.0499	0.0004	0.0126	0.0068	0.0034	0.0732	
	2	0.0006	0.0001	0.0033	0.0031	0.0013	0.0085		0.0002	0.0009	0.0025	0.0028	0.0021	0.0084	
	3	0.0082	0.0021	0.3943	0.0510	0.0091	0.4646		0.0075	0.0020	0.4003	0.0508	0.0098	0.4705	
	4	0.0062	0.0039	0.0593	0.3430	0.0155	0.4278		0.0043	0.0037	0.0545	0.3346	0.0195	0.4167	
	5	0.0010	0.0015	0.0090	0.0120	0.0055	0.0291		0.0014	0.0014	0.0077	0.0133	0.0075	0.0313	
	M	0.0665	0.0083	0.4758	0.4157	0.0337	1.0000		0.0634	0.0085	0.4775	0.4084	0.0423	1.0000	
		Q3-Q3								Q3-Q3					
		1	2	3	4	5	M	2001-2002	1	2	3	4	5	M	
2000-2001	1	0.0403	0.0004	0.0114	0.0072	0.0047	0.0640		0.0358	0.0001	0.0124	0.0073	0.0037	0.0594	
	2	0.0003	0.0003	0.0020	0.0030	0.0008	0.0062		0.0002	0.0004	0.0034	0.0037	0.0018	0.0095	
	3	0.0086	0.0022	0.4011	0.0540	0.0084	0.4744		0.0080	0.0013	0.3899	0.0493	0.0114	0.4598	
	4	0.0055	0.0034	0.0534	0.3500	0.0171	0.4294		0.0049	0.0027	0.0594	0.3499	0.0174	0.4343	
	5	0.0014	0.0016	0.0068	0.0107	0.0055	0.0260		0.0015	0.0013	0.0099	0.0159	0.0083	0.0370	
	M	0.0562	0.0079	0.4746	0.4249	0.0364	1.0000		0.0505	0.0058	0.4750	0.4262	0.0426	1.0000	
		Q4-Q4								Q4-Q4					
		1	2	3	4	5	M	2001-2002	1	2	3	4	5	M	
2000-2001	1	0.0422	0.0009	0.0118	0.0072	0.0040	0.0661		0.0427	0.0003	0.0109	0.0063	0.0024	0.0626	
	2	0.0001	0.0004	0.0016	0.0019	0.0010	0.0051		0.0003	0.0004	0.0024	0.0035	0.0022	0.0088	
	3	0.0086	0.0027	0.4124	0.0557	0.0111	0.4905		0.0085	0.0020	0.4058	0.0520	0.0123	0.4805	
	4	0.0051	0.0037	0.0612	0.3193	0.0225	0.4117		0.0046	0.0022	0.0570	0.3228	0.0168	0.4034	
	5	0.0008	0.0010	0.0079	0.0099	0.0070	0.0266		0.0019	0.0017	0.0115	0.0187	0.0110	0.0448	
	M	0.0568	0.0087	0.4950	0.3940	0.0456	1.0000		0.0579	0.0066	0.4875	0.4033	0.0447	1.0000	

Table 7a: 5x5 Annual Balanced Panel Joint Probability Matrices: For Age 15+, F
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		Q1-Q1							Q1-Q1						
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.0406	0.0004	0.0094	0.0020	0.0013	0.0536	2001-2002	0.0378	0.0006	0.0135	0.0031	0.0029	0.0579	
	2	0.0002	0.0007	0.0029	0.0012	0.0010	0.0061		0.0002	0.0001	0.0029	0.0010	0.0005	0.0047	
	3	0.0084	0.0027	0.6937	0.0503	0.0060	0.7610		0.0074	0.0028	0.6885	0.0493	0.0096	0.7577	
	4	0.0018	0.0005	0.0591	0.0973	0.0031	0.1617		0.0012	0.0005	0.0535	0.1076	0.0038	0.1666	
	5	0.0001	0.0001	0.0001	0.0036	0.0137	0.0176		0.0005	0.0004	0.0058	0.0027	0.0037	0.0131	
	M	0.0510	0.0044	0.7652	0.1543	0.0250	1.0000		0.0471	0.0045	0.7642	0.1638	0.0204	1.0000	
		Q2-Q2							Q2-Q2						
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.0426	0.0002	0.0096	0.0025	0.0019	0.0568	2001-2002	0.0388	0.0003	0.0129	0.0031	0.0025	0.0576	
	2	0.0003	0.0001	0.0030	0.0005	0.0009	0.0047		0.0001	0.0003	0.0018	0.0008	0.0004	0.0034	
	3	0.0076	0.0017	0.6470	0.0565	0.0092	0.7221		0.0054	0.0021	0.6440	0.0566	0.0098	0.7179	
	4	0.0025	0.0011	0.0545	0.1356	0.0046	0.1982		0.0018	0.0008	0.0496	0.1482	0.0047	0.2051	
	5	0.0007	0.0010	0.0087	0.0035	0.0042	0.0182		0.0005	0.0003	0.0061	0.0053	0.0037	0.0160	
	M	0.0537	0.0041	0.7229	0.1986	0.0207	1.0000		0.0466	0.0038	0.7144	0.2139	0.0212	1.0000	
		Q3-Q3							Q3-Q3						
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.0315	0.0004	0.0134	0.0032	0.0034	0.0518	2001-2002	0.0301	0.0001	0.0125	0.0032	0.0027	0.0486	
	2	0.0001	0.0001	0.0016	0.0010	0.0003	0.0031		0.0001	0.0003	0.0028	0.0011	0.0003	0.0046	
	3	0.0093	0.0018	0.6509	0.0594	0.0079	0.7293		0.0071	0.0010	0.6223	0.0553	0.0131	0.6989	
	4	0.0026	0.0013	0.0486	0.1438	0.0031	0.1995		0.0016	0.0005	0.0581	0.1635	0.0045	0.2282	
	5	0.0012	0.0008	0.0070	0.0037	0.0036	0.0162		0.0012	0.0007	0.0087	0.0048	0.0042	0.0197	
	M	0.0448	0.0043	0.7215	0.2111	0.0183	1.0000		0.0400	0.0026	0.7045	0.2280	0.0248	1.0000	
		Q4-Q4							Q4-Q4						
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.0347	0.0006	0.0125	0.0036	0.0034	0.0549	2001-2002	0.0354	0.0002	0.0111	0.0038	0.0024	0.0528	
	2	0.0001	0.0002	0.0010	0.0005	0.0006	0.0023		0.0002	0.0001	0.0025	0.0009	0.0007	0.0043	
	3	0.0089	0.0030	0.6710	0.0582	0.0120	0.7531		0.0089	0.0019	0.6426	0.0572	0.0121	0.7226	
	4	0.0015	0.0006	0.0498	0.1212	0.0037	0.1769		0.0021	0.0007	0.0489	0.1409	0.0053	0.1978	
	5	0.0003	0.0003	0.0067	0.0026	0.0030	0.0128		0.0011	0.0006	0.0098	0.0056	0.0055	0.0225	
	M	0.0455	0.0047	0.7411	0.1861	0.0226	1.0000		0.0477	0.0034	0.7148	0.2083	0.0258	1.0000	

Table 8a: 5x5 Annual Balanced Panel Joint Probability Matrices: For Age 15+, M
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		Q1-Q1							Q1-Q1					
		1	2	3	4	5	M		1	2	3	4	5	M
2000-2001	1	0.0608	0.0006	0.0071	0.0111	0.0032	0.0827	2001-2002	0.0560	0.0010	0.0091	0.0077	0.0044	0.0783
	2	0.0003	0.0010	0.0041	0.0067	0.0033	0.0153		0.0002	0.0010	0.0026	0.0046	0.0025	0.0109
	3	0.0057	0.0011	0.1543	0.0521	0.0075	0.2208		0.0030	0.0025	0.1692	0.0408	0.0104	0.2259
	4	0.0051	0.0050	0.0604	0.5346	0.0236	0.6288		0.0052	0.0084	0.0706	0.5100	0.0392	0.6334
	5	0.0001	0.0001	0.0004	0.0297	0.0221	0.0523		0.0012	0.0027	0.0108	0.0226	0.0141	0.0515
	M	0.0720	0.0078	0.2262	0.6343	0.0597	1.0000		0.0656	0.0156	0.2624	0.5857	0.0706	1.0000
		Q2-Q2							Q2-Q2					
		1	2	3	4	5	M		1	2	3	4	5	M
2000-2001	1	0.0581	0.0010	0.0077	0.0102	0.0026	0.0795	2001-2002	0.0604	0.0005	0.0102	0.0096	0.0046	0.0853
	2	0.0006	0.0002	0.0034	0.0060	0.0018	0.0120		0.0003	0.0015	0.0024	0.0048	0.0039	0.0129
	3	0.0045	0.0021	0.1411	0.0363	0.0073	0.1913		0.0048	0.0012	0.1544	0.0358	0.0092	0.2054
	4	0.0071	0.0068	0.0518	0.5852	0.0272	0.6781		0.0053	0.0071	0.0487	0.5528	0.0364	0.6504
	5	0.0012	0.0022	0.0073	0.0210	0.0074	0.0391		0.0020	0.0027	0.0066	0.0229	0.0119	0.0461
	M	0.0715	0.0122	0.2112	0.6588	0.0462	1.0000		0.0728	0.0130	0.2224	0.6258	0.0660	1.0000
		Q3-Q3							Q3-Q3					
		1	2	3	4	5	M		1	2	3	4	5	M
2000-2001	1	0.0488	0.0004	0.0068	0.0107	0.0055	0.0722	2001-2002	0.0413	0.0003	0.0103	0.0109	0.0047	0.0674
	2	0.0005	0.0005	0.0018	0.0048	0.0013	0.0089		0.0002	0.0006	0.0033	0.0065	0.0035	0.0140
	3	0.0047	0.0020	0.1459	0.0404	0.0077	0.2007		0.0040	0.0014	0.1542	0.0359	0.0077	0.2032
	4	0.0065	0.0059	0.0478	0.5906	0.0322	0.6829		0.0064	0.0047	0.0505	0.5675	0.0322	0.6613
	5	0.0009	0.0026	0.0058	0.0184	0.0075	0.0352		0.0014	0.0020	0.0090	0.0282	0.0133	0.0540
	M	0.0615	0.0114	0.2081	0.6648	0.0543	1.0000		0.0534	0.0090	0.2273	0.6489	0.0614	1.0000
		Q4-Q4							Q4-Q4					
		1	2	3	4	5	M		1	2	3	4	5	M
2000-2001	1	0.0497	0.0010	0.0089	0.0101	0.0044	0.0741	2001-2002	0.0500	0.0004	0.0086	0.0073	0.0024	0.0686
	2	0.0001	0.0007	0.0017	0.0038	0.0013	0.0076		0.0004	0.0007	0.0017	0.0062	0.0039	0.0130
	3	0.0043	0.0021	0.1491	0.0440	0.0093	0.2088		0.0046	0.0015	0.1635	0.0383	0.0111	0.2188
	4	0.0071	0.0072	0.0612	0.5509	0.0431	0.6695		0.0048	0.0038	0.0569	0.5403	0.0291	0.6348
	5	0.0010	0.0019	0.0078	0.0178	0.0114	0.0399		0.0018	0.0030	0.0100	0.0326	0.0173	0.0647
	M	0.0621	0.0130	0.2288	0.6266	0.0694	1.0000		0.0615	0.0093	0.2407	0.6247	0.0638	1.0000

Table 9a: 5x5 Annual Balanced Panel Joint Probability Matrices: For Age 15+, R
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		Q1-Q1							Q1-Q1						
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.0288	0.0004	0.0079	0.0058	0.0019	0.0447	2001-2002	0.0251	0.0007	0.0065	0.0045	0.0021	0.0389	
	2	0.0004	0.0009	0.0045	0.0058	0.0019	0.0135		0.0002	0.0004	0.0017	0.0013	0.0007	0.0043	
	3	0.0067	0.0015	0.3456	0.0956	0.0039	0.4534		0.0064	0.0037	0.3380	0.0821	0.0058	0.4360	
	4	0.0041	0.0024	0.1138	0.3344	0.0099	0.4646		0.0049	0.0030	0.1203	0.3548	0.0133	0.4963	
	5	0.0004	0.0002	0.0017	0.0110	0.0105	0.0238		0.0015	0.0011	0.0065	0.0077	0.0077	0.0245	
	M	0.0404	0.0054	0.4734	0.4527	0.0281	1.0000		0.0380	0.0090	0.4731	0.4504	0.0296	1.0000	
		Q2-Q2							Q2-Q2						
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.0302	0.0004	0.0031	0.0055	0.0009	0.0401	2001-2002	0.0271	0.0002	0.0082	0.0065	0.0010	0.0429	
	2	0.0004	0.0002	0.0022	0.0041	0.0004	0.0072		0.0002	0.0010	0.0016	0.0016	0.0011	0.0056	
	3	0.0059	0.0018	0.2855	0.0825	0.0041	0.3798		0.0042	0.0010	0.2880	0.0730	0.0051	0.3712	
	4	0.0066	0.0033	0.0832	0.4591	0.0077	0.5600		0.0042	0.0049	0.0883	0.4533	0.0114	0.5622	
	5	0.0007	0.0006	0.0037	0.0066	0.0013	0.0129		0.0008	0.0008	0.0047	0.0075	0.0042	0.0181	
	M	0.0438	0.0063	0.3778	0.5578	0.0144	1.0000		0.0366	0.0078	0.3908	0.5420	0.0229	1.0000	
		Q3-Q3							Q3-Q3						
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.0233	0.0002	0.0060	0.0064	0.0020	0.0379	2001-2002	0.0144	0.0002	0.0079	0.0050	0.0021	0.0295	
	2	0.0002	0.0002	0.0009	0.0020	0.0002	0.0035		0.0002	0.0008	0.0016	0.0022	0.0013	0.0060	
	3	0.0066	0.0015	0.2794	0.0858	0.0027	0.3759		0.0028	0.0003	0.2541	0.0730	0.0054	0.3356	
	4	0.0051	0.0015	0.0747	0.4730	0.0138	0.5680		0.0054	0.0005	0.0983	0.4954	0.0106	0.6101	
	5	0.0002	0.0007	0.0044	0.0073	0.0022	0.0148		0.0011	0.0003	0.0055	0.0079	0.0039	0.0188	
	M	0.0353	0.0040	0.3653	0.5744	0.0209	1.0000		0.0238	0.0021	0.3674	0.5836	0.0232	1.0000	
		Q4-Q4							Q4-Q4						
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.0191	0.0004	0.0086	0.0069	0.0019	0.0370	2001-2002	0.0195	0.0002	0.0057	0.0045	0.0016	0.0315	
	2	0.0002	0.0006	0.0013	0.0021	0.0008	0.0050		0.0002	0.0006	0.0011	0.0022	0.0012	0.0053	
	3	0.0063	0.0011	0.3045	0.0936	0.0050	0.4106		0.0047	0.0009	0.3012	0.0915	0.0090	0.4073	
	4	0.0044	0.0027	0.1099	0.3916	0.0216	0.5303		0.0050	0.0012	0.0876	0.4193	0.0135	0.5266	
	5	0.0002	0.0004	0.0063	0.0067	0.0036	0.0172		0.0006	0.0008	0.0081	0.0135	0.0064	0.0293	
	M	0.0303	0.0052	0.4307	0.5010	0.0329	1.0000		0.0299	0.0037	0.4038	0.5309	0.0316	1.0000	

Table 10a: 5x5 Annual Balanced Panel Joint Probability Matrices: For Age 15+, U
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		Q1-Q1							Q1-Q1						
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.0580	0.0007	0.0104	0.0078	0.0027	0.0796	2001-2002	0.0547	0.0009	0.0145	0.0062	0.0043	0.0806	
	2	0.0002	0.0008	0.0040	0.0033	0.0020	0.0103		0.0002	0.0005	0.0034	0.0032	0.0016	0.0090	
	3	0.0102	0.0025	0.4435	0.0443	0.0086	0.5090		0.0076	0.0027	0.4612	0.0370	0.0118	0.5204	
	4	0.0047	0.0027	0.0518	0.2883	0.0143	0.3617		0.0040	0.0046	0.0486	0.2757	0.0226	0.3556	
	5	0.0004	0.0001	0.0022	0.0176	0.0190	0.0394		0.0010	0.0016	0.0094	0.0137	0.0087	0.0344	
	M	0.0735	0.0067	0.5120	0.3613	0.0466	1.0000		0.0676	0.0103	0.5371	0.3359	0.0492	1.0000	
		Q2-Q2							Q2-Q2						
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.0570	0.0007	0.0122	0.0070	0.0028	0.0798	2001-2002	0.0441	0.0001	0.0141	0.0082	0.0043	0.0709	
	2	0.0007	0.0002	0.0037	0.0028	0.0016	0.0090		0.0002	0.0002	0.0041	0.0043	0.0020	0.0109	
	3	0.0089	0.0022	0.4299	0.0406	0.0107	0.4924		0.0099	0.0016	0.4423	0.0402	0.0137	0.5078	
	4	0.0060	0.0041	0.0514	0.3049	0.0180	0.3844		0.0048	0.0035	0.0444	0.2937	0.0200	0.3664	
	5	0.0011	0.0019	0.0107	0.0138	0.0069	0.0344		0.0017	0.0017	0.0116	0.0190	0.0100	0.0440	
	M	0.0739	0.0091	0.5079	0.3691	0.0401	1.0000		0.0608	0.0073	0.5166	0.3654	0.0500	1.0000	
		Q3-Q3							Q3-Q3						
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.0464	0.0005	0.0133	0.0075	0.0056	0.0732	2001-2002	0.0413	0.0003	0.0103	0.0109	0.0047	0.0674	
	2	0.0003	0.0004	0.0023	0.0033	0.0010	0.0073		0.0002	0.0006	0.0033	0.0065	0.0035	0.0140	
	3	0.0094	0.0025	0.4442	0.0428	0.0104	0.5092		0.0040	0.0014	0.1542	0.0359	0.0077	0.2032	
	4	0.0057	0.0041	0.0459	0.3064	0.0182	0.3803		0.0064	0.0047	0.0505	0.5675	0.0322	0.6613	
	5	0.0019	0.0019	0.0076	0.0119	0.0066	0.0301		0.0014	0.0020	0.0090	0.0282	0.0133	0.0540	
	M	0.0637	0.0094	0.5133	0.3719	0.0419	1.0000		0.0534	0.0090	0.2273	0.6489	0.0614	1.0000	
		Q4-Q4							Q4-Q4						
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.0495	0.0010	0.0129	0.0073	0.0047	0.0754	2001-2002	0.0511	0.0004	0.0127	0.0069	0.0028	0.0739	
	2	0.0002	0.0004	0.0017	0.0019	0.0010	0.0052		0.0003	0.0003	0.0028	0.0040	0.0025	0.0100	
	3	0.0093	0.0032	0.4469	0.0435	0.0131	0.5160		0.0099	0.0024	0.4439	0.0376	0.0135	0.5072	
	4	0.0053	0.0040	0.0456	0.2961	0.0228	0.3737		0.0044	0.0025	0.0459	0.2876	0.0180	0.3584	
	5	0.0010	0.0012	0.0085	0.0109	0.0080	0.0296		0.0023	0.0020	0.0127	0.0206	0.0127	0.0504	
	M	0.0654	0.0098	0.5155	0.3597	0.0496	1.0000		0.0681	0.0076	0.5181	0.3568	0.0495	1.0000	

Table 6b: 5x5 Annual Forward Transition Matrices: For Age 15+
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		Q1-Q1								Q1-Q1					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.7156	0.0090	0.1377	0.1025	0.0352	1.0000	2001-2002	0.6736	0.0124	0.1779	0.0824	0.0536	1.0000	
	2	0.0206	0.0741	0.3704	0.3539	0.1811	1.0000		0.0292	0.0643	0.3801	0.3450	0.1813	1.0000	
	3	0.0189	0.0045	0.8471	0.1146	0.0150	1.0000		0.0146	0.0059	0.8625	0.0963	0.0207	1.0000	
	4	0.0118	0.0067	0.1730	0.7744	0.0342	1.0000		0.0109	0.0107	0.1697	0.7566	0.0521	1.0000	
	5	0.0115	0.0013	0.0590	0.4513	0.4769	1.0000		0.0360	0.0460	0.2719	0.3813	0.2647	1.0000	
2000-2001		Q2-Q2						2001-2002	Q2-Q2						
		1	2	3	4	5	M		1	2	3	4	5	M	
		1	0.7201	0.0091	0.1422	0.0948	0.0338	1.0000	0.6825	0.0053	0.1718	0.0936	0.0468	1.0000	
		2	0.0749	0.0160	0.3904	0.3690	0.1497	1.0000	0.0207	0.1036	0.2953	0.3316	0.2487	1.0000	
		3	0.0176	0.0045	0.8486	0.1097	0.0196	1.0000	0.0159	0.0043	0.8509	0.1080	0.0208	1.0000	
2000-2001	4	0.0145	0.0091	0.1386	0.8017	0.0361	1.0000	2001-2002	0.0104	0.0089	0.1307	0.8031	0.0468	1.0000	
	5	0.0359	0.0531	0.3078	0.4125	0.1906	1.0000		0.0456	0.0456	0.2448	0.4260	0.2379	1.0000	
2000-2001		Q3-Q3						2001-2002	Q3-Q3						
		1	2	3	4	5	M		1	2	3	4	5	M	
		1	0.6307	0.0060	0.1780	0.1124	0.0730	1.0000	0.6037	0.0022	0.2089	0.1230	0.0622	1.0000	
		2	0.0458	0.0458	0.3130	0.4733	0.1221	1.0000	0.0230	0.0415	0.3548	0.3917	0.1889	1.0000	
		3	0.0182	0.0046	0.8456	0.1139	0.0178	1.0000	0.0173	0.0028	0.8479	0.1073	0.0248	1.0000	
2000-2001	4	0.0129	0.0080	0.1243	0.8151	0.0397	1.0000	2001-2002	0.0113	0.0062	0.1369	0.8056	0.0400	1.0000	
	5	0.0549	0.0623	0.2601	0.4121	0.2106	1.0000		0.0416	0.0357	0.2675	0.4304	0.2247	1.0000	
2000-2001		Q4-Q4						2001-2002	Q4-Q4						
		1	2	3	4	5	M		1	2	3	4	5	M	
		1	0.6383	0.0133	0.1791	0.1088	0.0604	1.0000	0.6819	0.0053	0.1736	0.1001	0.0391	1.0000	
		2	0.0273	0.0818	0.3182	0.3818	0.1909	1.0000	0.0332	0.0474	0.2701	0.4028	0.2464	1.0000	
		3	0.0175	0.0055	0.8408	0.1135	0.0227	1.0000	0.0176	0.0041	0.8445	0.1082	0.0256	1.0000	
2000-2001	4	0.0124	0.0089	0.1486	0.7754	0.0547	1.0000	2001-2002	0.0113	0.0053	0.1414	0.8003	0.0416	1.0000	
	5	0.0297	0.0384	0.2984	0.3717	0.2618	1.0000		0.0417	0.0371	0.2567	0.4180	0.2465	1.0000	

Table 7b: 5x5 Annual Forward Transition Matrices: For Age 15+, F
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		Q1-Q1								Q1-Q1					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.7569	0.0069	0.1753	0.0365	0.0243	1.0000	2001-2002	0.6524	0.0111	0.2322	0.0537	0.0506	1.0000	
	2	0.0308	0.1231	0.4769	0.2000	0.1692	1.0000		0.0392	0.0196	0.6275	0.2157	0.0980	1.0000	
	3	0.0110	0.0035	0.9116	0.0661	0.0078	1.0000		0.0098	0.0037	0.9087	0.0651	0.0127	1.0000	
	4	0.0109	0.0029	0.3656	0.6016	0.0190	1.0000		0.0071	0.0033	0.3214	0.6456	0.0225	1.0000	
	5	0.0053	0.0053	0.0053	0.2063	0.7778	1.0000		0.0420	0.0280	0.4406	0.2098	0.2797	1.0000	
		Q2-Q2								Q2-Q2					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.7500	0.0032	0.1699	0.0433	0.0337	1.0000	2001-2002	0.6732	0.0060	0.2234	0.0540	0.0435	1.0000	
	2	0.0577	0.0192	0.6346	0.0962	0.1923	1.0000		0.0256	0.0769	0.5385	0.2308	0.1282	1.0000	
	3	0.0106	0.0024	0.8960	0.0783	0.0127	1.0000		0.0076	0.0029	0.8970	0.0788	0.0137	1.0000	
	4	0.0124	0.0055	0.2750	0.6841	0.0230	1.0000		0.0088	0.0038	0.2417	0.7225	0.0232	1.0000	
	5	0.0400	0.0550	0.4800	0.1950	0.2300	1.0000		0.0324	0.0216	0.3838	0.3297	0.2324	1.0000	
		Q3-Q3								Q3-Q3					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.6073	0.0073	0.2582	0.0618	0.0655	1.0000	2001-2002	0.6187	0.0018	0.2572	0.0665	0.0558	1.0000	
	2	0.0303	0.0303	0.5152	0.3333	0.0909	1.0000		0.0189	0.0566	0.6038	0.2453	0.0755	1.0000	
	3	0.0128	0.0025	0.8925	0.0814	0.0109	1.0000		0.0101	0.0015	0.8904	0.0792	0.0188	1.0000	
	4	0.0132	0.0066	0.2437	0.7208	0.0156	1.0000		0.0069	0.0023	0.2548	0.7165	0.0195	1.0000	
	5	0.0756	0.0465	0.4302	0.2267	0.2209	1.0000		0.0622	0.0356	0.4444	0.2444	0.2133	1.0000	
		Q4-Q4								Q4-Q4					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.6330	0.0118	0.2273	0.0657	0.0623	1.0000	2001-2002	0.6708	0.0031	0.2096	0.0714	0.0450	1.0000	
	2	0.0400	0.0800	0.4400	0.2000	0.2400	1.0000		0.0385	0.0192	0.5769	0.2115	0.1538	1.0000	
	3	0.0118	0.0039	0.8910	0.0773	0.0160	1.0000		0.0124	0.0026	0.8892	0.0791	0.0167	1.0000	
	4	0.0084	0.0037	0.2816	0.6855	0.0209	1.0000		0.0108	0.0033	0.2472	0.7122	0.0265	1.0000	
	5	0.0216	0.0216	0.5252	0.2014	0.2302	1.0000		0.0474	0.0255	0.4343	0.2482	0.2445	1.0000	

Table 8b: 5x5 Annual Forward Transition Matrices: For Age 15+, M
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		Q1-Q1								Q1-Q1					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.7344	0.0072	0.0861	0.1340	0.0383	1.0000	2001-2002	0.7157	0.0128	0.1165	0.0986	0.0563	1.0000	
	2	0.0194	0.0645	0.2645	0.4387	0.2129	1.0000		0.0183	0.0917	0.2385	0.4220	0.2294	1.0000	
	3	0.0260	0.0049	0.6988	0.2362	0.0341	1.0000		0.0133	0.0111	0.7489	0.1806	0.0461	1.0000	
	4	0.0082	0.0080	0.0960	0.8502	0.0376	1.0000		0.0082	0.0133	0.1115	0.8051	0.0619	1.0000	
	5	0.0019	0.0019	0.0076	0.5671	0.4216	1.0000		0.0233	0.0525	0.2101	0.4397	0.2743	1.0000	
		Q2-Q2								Q2-Q2					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.7304	0.0124	0.0969	0.1280	0.0323	1.0000	2001-2002	0.7086	0.0056	0.1201	0.1123	0.0534	1.0000	
	2	0.0496	0.0165	0.2810	0.5041	0.1488	1.0000		0.0221	0.1176	0.1838	0.3750	0.3015	1.0000	
	3	0.0237	0.0108	0.7372	0.1900	0.0382	1.0000		0.0235	0.0060	0.7516	0.1741	0.0448	1.0000	
	4	0.0105	0.0101	0.0763	0.8631	0.0401	1.0000		0.0082	0.0109	0.0749	0.8500	0.0560	1.0000	
	5	0.0303	0.0556	0.1869	0.5379	0.1894	1.0000		0.0432	0.0576	0.1440	0.4959	0.2593	1.0000	
		Q3-Q3								Q3-Q3					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.6758	0.0058	0.0941	0.1476	0.0767	1.0000	2001-2002	0.6120	0.0043	0.1526	0.1612	0.0699	1.0000	
	2	0.0588	0.0588	0.2000	0.5412	0.1412	1.0000		0.0137	0.0411	0.2329	0.4658	0.2466	1.0000	
	3	0.0234	0.0099	0.7271	0.2010	0.0385	1.0000		0.0199	0.0071	0.7586	0.1765	0.0379	1.0000	
	4	0.0095	0.0086	0.0700	0.8648	0.0472	1.0000		0.0097	0.0071	0.0764	0.8581	0.0487	1.0000	
	5	0.0267	0.0742	0.1632	0.5223	0.2136	1.0000		0.0267	0.0374	0.1676	0.5223	0.2460	1.0000	
		Q4-Q4								Q4-Q4					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.6703	0.0137	0.1204	0.1368	0.0588	1.0000	2001-2002	0.7280	0.0053	0.1253	0.1067	0.0347	1.0000	
	2	0.0133	0.0933	0.2267	0.4933	0.1733	1.0000		0.0282	0.0563	0.1338	0.4789	0.3028	1.0000	
	3	0.0204	0.0102	0.7141	0.2107	0.0447	1.0000		0.0209	0.0067	0.7470	0.1748	0.0506	1.0000	
	4	0.0106	0.0108	0.0915	0.8228	0.0644	1.0000		0.0075	0.0059	0.0897	0.8511	0.0458	1.0000	
	5	0.0254	0.0482	0.1954	0.4467	0.2843	1.0000		0.0283	0.0467	0.1542	0.5035	0.2673	1.0000	

Table 9b: 5x5 Annual Forward Transition Matrices: For Age 15+, R
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		Q1-Q1								Q1-Q1					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.6444	0.0084	0.1757	0.1297	0.0418	1.0000	2001-2002	1	0.6442	0.0192	0.1683	0.1154	0.0529	1.0000
	2	0.0278	0.0694	0.3333	0.4306	0.1389	1.0000		2	0.0435	0.0870	0.3913	0.3043	0.1739	1.0000
	3	0.0149	0.0033	0.7623	0.2109	0.0087	1.0000		3	0.0146	0.0086	0.7752	0.1883	0.0133	1.0000
	4	0.0089	0.0052	0.2449	0.7197	0.0213	1.0000		4	0.0098	0.0060	0.2424	0.7150	0.0268	1.0000
	5	0.0157	0.0079	0.0709	0.4646	0.4409	1.0000		5	0.0611	0.0458	0.2672	0.3130	0.3130	1.0000
		Q2-Q2								Q2-Q2					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.7523	0.0092	0.0780	0.1376	0.0229	1.0000	2001-2002	1	0.6312	0.0038	0.1901	0.1521	0.0228	1.0000
	2	0.0513	0.0256	0.3077	0.5641	0.0513	1.0000		2	0.0294	0.1765	0.2941	0.2941	0.2059	1.0000
	3	0.0155	0.0048	0.7518	0.2172	0.0107	1.0000		3	0.0114	0.0026	0.7757	0.1966	0.0136	1.0000
	4	0.0118	0.0059	0.1486	0.8199	0.0138	1.0000		4	0.0075	0.0087	0.1571	0.8063	0.0203	1.0000
	5	0.0571	0.0429	0.2857	0.5143	0.1000	1.0000		5	0.0450	0.0450	0.2613	0.4144	0.2342	1.0000
		Q3-Q3								Q3-Q3					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.6154	0.0048	0.1587	0.1683	0.0529	1.0000	2001-2002	1	0.4866	0.0053	0.2674	0.1711	0.0695	1.0000
	2	0.0526	0.0526	0.2632	0.5789	0.0526	1.0000		2	0.0263	0.1316	0.2632	0.3684	0.2105	1.0000
	3	0.0174	0.0039	0.7432	0.2282	0.0073	1.0000		3	0.0085	0.0009	0.7570	0.2176	0.0160	1.0000
	4	0.0090	0.0026	0.1315	0.8326	0.0244	1.0000		4	0.0088	0.0008	0.1611	0.8120	0.0173	1.0000
	5	0.0123	0.0494	0.2963	0.4938	0.1481	1.0000		5	0.0588	0.0168	0.2941	0.4202	0.2101	1.0000
		Q4-Q4								Q4-Q4					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.5181	0.0104	0.2332	0.1865	0.0518	1.0000	2001-2002	1	0.6207	0.0049	0.1823	0.1429	0.0493	1.0000
	2	0.0385	0.1154	0.2692	0.4231	0.1538	1.0000		2	0.0294	0.1176	0.2059	0.4118	0.2353	1.0000
	3	0.0154	0.0028	0.7416	0.2281	0.0121	1.0000		3	0.0114	0.0023	0.7395	0.2247	0.0221	1.0000
	4	0.0083	0.0051	0.2073	0.7385	0.0408	1.0000		4	0.0094	0.0024	0.1664	0.7962	0.0256	1.0000
	5	0.0111	0.0222	0.3667	0.3889	0.2111	1.0000		5	0.0212	0.0265	0.2751	0.4603	0.2169	1.0000

Table 10b: 5x5 Annual Forward Transition Matrices: For Age 15+, U
(1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		Q1-Q1								Q1-Q1					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.7284	0.0091	0.1309	0.0976	0.0340	1.0000	2001-2002	1	0.6783	0.0114	0.1794	0.0772	0.0537	1.0000
	2	0.0175	0.0760	0.3860	0.3216	0.1988	1.0000		2	0.0270	0.0608	0.3784	0.3514	0.1824	1.0000
	3	0.0200	0.0049	0.8714	0.0870	0.0168	1.0000		3	0.0145	0.0052	0.8863	0.0712	0.0228	1.0000
	4	0.0130	0.0073	0.1432	0.7970	0.0395	1.0000		4	0.0113	0.0129	0.1366	0.7755	0.0637	1.0000
	5	0.0107	0.0015	0.0566	0.4480	0.4832	1.0000		5	0.0301	0.0461	0.2730	0.3972	0.2535	1.0000
		Q2-Q2								Q2-Q2					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.7148	0.0091	0.1528	0.0877	0.0356	1.0000	2001-2002	1	0.6225	0.0017	0.1995	0.1152	0.0610	1.0000
	2	0.0805	0.0201	0.4094	0.3154	0.1745	1.0000		2	0.0223	0.0223	0.3743	0.3966	0.1844	1.0000
	3	0.0181	0.0044	0.8731	0.0825	0.0218	1.0000		3	0.0196	0.0032	0.8711	0.0791	0.0270	1.0000
	4	0.0157	0.0107	0.1338	0.7931	0.0468	1.0000		4	0.0130	0.0096	0.1213	0.8015	0.0546	1.0000
	5	0.0333	0.0544	0.3105	0.4000	0.2018	1.0000		5	0.0388	0.0388	0.2632	0.4321	0.2271	1.0000
		Q3-Q3								Q3-Q3					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.6335	0.0062	0.1815	0.1022	0.0767	1.0000	2001-2002	1	0.6120	0.0043	0.1526	0.1612	0.0699	1.0000
	2	0.0442	0.0531	0.3186	0.4513	0.1327	1.0000		2	0.0137	0.0411	0.2329	0.4658	0.2466	1.0000
	3	0.0184	0.0048	0.8723	0.0840	0.0205	1.0000		3	0.0199	0.0071	0.7586	0.1765	0.0379	1.0000
	4	0.0149	0.0109	0.1206	0.8058	0.0478	1.0000		4	0.0097	0.0071	0.0764	0.8581	0.0487	1.0000
	5	0.0644	0.0644	0.2532	0.3970	0.2210	1.0000		5	0.0267	0.0374	0.1676	0.5223	0.2460	1.0000
		Q4-Q4								Q4-Q4					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.6572	0.0138	0.1706	0.0967	0.0617	1.0000	2001-2002	1	0.6914	0.0054	0.1723	0.0934	0.0375	1.0000
	2	0.0353	0.0706	0.3294	0.3647	0.2000	1.0000		2	0.0339	0.0339	0.2825	0.4011	0.2486	1.0000
	3	0.0180	0.0062	0.8660	0.0844	0.0254	1.0000		3	0.0194	0.0047	0.8752	0.0741	0.0266	1.0000
	4	0.0143	0.0107	0.1219	0.7922	0.0610	1.0000		4	0.0123	0.0070	0.1280	0.8025	0.0502	1.0000
	5	0.0351	0.0413	0.2851	0.3678	0.2707	1.0000		5	0.0461	0.0393	0.2528	0.4090	0.2528	1.0000

Table 6c: 5x5 Annual Reflation Factors (Weights): For Age 15+
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		Q1-Q1							Q1-Q1				
		1	2	3	4	5			1	2	3	4	5
2000-2001	1	0.9645	0.8822	0.6435	0.7768	0.6059	2001-2002	1	1.0566	0.9168	0.6530	0.8334	0.9219
	2	1.3786	1.2963	1.0576	1.1910	1.0201		2	1.2114	1.0716	0.8079	0.9882	1.0767
	3	1.2126	1.1303	0.8916	1.0249	0.8541		3	1.2834	1.1436	0.8798	1.0601	1.1486
	4	1.3329	1.2506	1.0119	1.1452	0.9744		4	1.3492	1.2094	0.9457	1.1260	1.2145
	5	1.3703	1.2880	1.0493	1.1826	1.0117		5	1.4856	1.3457	1.0820	1.2623	1.3508
		Q2-Q2							Q2-Q2				
		1	2	3	4	5			1	2	3	4	5
2000-2001	1	0.9632	0.7310	0.5615	0.7422	0.6586	2001-2002	1	1.0546	0.7825	0.6625	0.8058	0.8450
	2	1.3345	1.1023	0.9328	1.1135	1.0299		2	1.3563	1.0842	0.9643	1.1076	1.1467
	3	1.2620	1.0297	0.8602	1.0409	0.9574		3	1.2471	0.9750	0.8550	0.9984	1.0375
	4	1.3797	1.1475	0.9780	1.1587	1.0751		4	1.3976	1.1255	1.0056	1.1489	1.1881
	5	1.3714	1.1392	0.9697	1.1504	1.0668		5	1.3526	1.0805	0.9605	1.1038	1.1430
		Q3-Q3							Q3-Q3				
		1	2	3	4	5			1	2	3	4	5
2000-2001	1	0.9781	0.9630	0.6835	0.8924	0.9296	2001-2002	1	1.1300	0.8892	0.6624	0.8195	0.9340
	2	1.1114	1.0963	0.8168	1.0258	1.0629		2	1.3148	1.0740	0.8472	1.0043	1.1188
	3	1.1340	1.1189	0.8394	1.0483	1.0854		3	1.3131	1.0723	0.8455	1.0026	1.1171
	4	1.2544	1.2393	0.9598	1.1688	1.2059		4	1.4457	1.2049	0.9782	1.1352	1.2497
	5	1.2311	1.2160	0.9365	1.1455	1.1826		5	1.4295	1.1887	0.9620	1.1190	1.2335
		Q4-Q4							Q4-Q4				
		1	2	3	4	5			1	2	3	4	5
2000-2001	1	1.0230	0.9196	0.7271	0.8752	0.8972	2001-2002	1	1.0935	0.7880	0.5887	0.8445	0.9740
	2	1.4114	1.3080	1.1155	1.2636	1.2856		2	1.3971	1.0916	0.8922	1.1480	1.2775
	3	1.1797	1.0763	0.8839	1.0319	1.0540		3	1.3787	1.0732	0.8739	1.1297	1.2592
	4	1.2698	1.1663	0.9739	1.1219	1.1440		4	1.3581	1.0527	0.8533	1.1091	1.2386
	5	1.3180	1.2146	1.0221	1.1702	1.1922		5	1.4056	1.1001	0.9008	1.1566	1.2861

Table 7c: 5x5 Annual Reflation Factors (Weights): For Age 15+, F
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		Q1-Q1							Q1-Q1				
		1	2	3	4	5			1	2	3	4	5
2000-2001	1	1.0026	0.7355	0.6858	0.9855	0.2834	2001-2002	1.0480	0.8602	0.6301	0.9243	0.8468	
	2	1.3593	1.0922	1.0424	1.3421	0.6401		1.2476	1.0598	0.8297	1.1239	1.0464	
	3	1.2172	0.9501	0.9004	1.2001	0.4980		1.3227	1.1349	0.9048	1.1991	1.1216	
	4	1.5304	1.2633	1.2136	1.5133	0.8113		1.5213	1.3335	1.1034	1.3977	1.3202	
	5	1.6176	1.3505	1.3007	1.6004	0.8984		1.7062	1.5184	1.2883	1.5825	1.5051	
		Q2-Q2							Q2-Q2				
		1	2	3	4	5			1	2	3	4	5
2000-2001	1	0.9295	0.6250	0.5444	0.8097	0.4692	2001-2002	1.1010	0.9170	0.5715	0.7251	0.7512	
	2	1.4412	1.1367	1.0561	1.3214	0.9809		1.6958	1.5118	1.1663	1.3199	1.3461	
	3	1.2822	0.9777	0.8971	1.1625	0.8219		1.4286	1.2445	0.8990	1.0527	1.0788	
	4	1.5314	1.2270	1.1463	1.4117	1.0712		1.6952	1.5111	1.1657	1.3193	1.3454	
	5	1.3164	1.0120	0.9313	1.1967	0.8562		1.5266	1.3426	0.9971	1.1507	1.1769	
		Q3-Q3							Q3-Q3				
		1	2	3	4	5			1	2	3	4	5
2000-2001	1	0.9368	0.9239	0.6679	1.0106	0.9046	2001-2002	1.1025	1.0659	0.5833	0.7869	0.7974	
	2	1.0534	1.0405	0.7845	1.1271	1.0211		1.5120	1.4754	0.9929	1.1965	1.2070	
	3	1.1483	1.1354	0.8794	1.2220	1.1161		1.4110	1.3744	0.8918	1.0955	1.1060	
	4	1.3632	1.3503	1.0943	1.4369	1.3309		1.6263	1.5897	1.1071	1.3107	1.3212	
	5	1.0972	1.0843	0.8282	1.1709	1.0649		1.3985	1.3619	0.8793	1.0830	1.0934	
		Q4-Q4							Q4-Q4				
		1	2	3	4	5			1	2	3	4	5
2000-2001	1	0.9868	0.7233	0.6532	0.8868	0.7837	2001-2002	1.0354	0.8109	0.5364	0.8655	0.8465	
	2	1.7672	1.5037	1.4336	1.6672	1.5641		1.4640	1.2395	0.9650	1.2940	1.2750	
	3	1.2521	0.9886	0.9185	1.1521	1.0490		1.4121	1.1876	0.9131	1.2422	1.2232	
	4	1.4327	1.1693	1.0992	1.3327	1.2296		1.4424	1.2179	0.9434	1.2724	1.2534	
	5	1.3290	1.0655	0.9954	1.2290	1.1259		1.3796	1.1551	0.8806	1.2097	1.1907	

Table 8c: 5x5 Annual Reflation Factors (Weights): For Age 15+, M
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		Q1-Q1							Q1-Q1				
		1	2	3	4	5			1	2	3	4	5
2000-2001	1	1.0597	0.9338	0.5022	0.5858	0.5663	2001-2002	1	1.1956	0.8228	0.5011	0.6543	0.8002
	2	1.6816	1.5558	1.1241	1.2077	1.1883		1	1.4892	1.1164	0.7947	0.9479	1.0939
	3	1.4257	1.2998	0.8682	0.9518	0.9323		1	1.5233	1.1505	0.8288	0.9820	1.1280
	4	1.5012	1.3754	0.9437	1.0273	1.0078		1	1.5650	1.1923	0.8705	1.0237	1.1697
	5	1.6222	1.4964	1.0648	1.1484	1.1289		1	1.7047	1.3319	1.0101	1.1633	1.3093
		Q2-Q2						Q2-Q2					
2000-2001	1	1.1011	0.6658	0.3724	0.5436	0.6187	2001-2002	1	1.1354	0.6884	0.5617	0.7254	0.7735
	2	1.6276	1.1923	0.8989	1.0701	1.1452		1	1.4946	1.0475	0.9208	1.0846	1.1326
	3	1.4870	1.0517	0.7583	0.9295	1.0047		1	1.3275	0.8804	0.7538	0.9175	0.9655
	4	1.6078	1.1725	0.8791	1.0503	1.1254		1	1.4696	1.0225	0.8958	1.0596	1.1076
	5	1.7151	1.2798	0.9864	1.1576	1.2327		1	1.5050	1.0579	0.9312	1.0950	1.1430
		Q3-Q3						Q3-Q3					
2000-2001	1	1.1127	0.9219	0.6065	0.7532	0.9021	2001-2002	1	1.3110	0.7496	0.5381	0.6894	0.8719
	2	1.3800	1.1893	0.8738	1.0206	1.1695		1	1.5759	1.0146	0.8031	0.9543	1.1368
	3	1.2410	1.0502	0.7347	0.8815	1.0304		1	1.5132	0.9518	0.7403	0.8916	1.0741
	4	1.4098	1.2190	0.9036	1.0503	1.1992		1	1.6613	1.0999	0.8884	1.0396	1.2221
	5	1.5155	1.3247	1.0093	1.1560	1.3049		1	1.7485	1.1871	0.9756	1.1269	1.3093
		Q4-Q4						Q4-Q4					
2000-2001	1	1.1525	0.9277	0.6904	0.7982	0.8944	2001-2002	1	1.2544	0.7068	0.4625	0.6942	0.9110
	2	1.5356	1.3107	1.0734	1.1812	1.2775		1	1.6557	1.1082	0.8638	1.0955	1.3123
	3	1.2763	1.0514	0.8141	0.9219	1.0182		1	1.5964	1.0488	0.8045	1.0362	1.2530
	4	1.3813	1.1565	0.9192	1.0270	1.1232		1	1.5740	1.0264	0.7821	1.0138	1.2306
	5	1.5069	1.2820	1.0448	1.1526	1.2488		1	1.7216	1.1740	0.9297	1.1614	1.3782

Table 9c: 5x5 Annual Reflation Factors (Weights): For Age 15+, R
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

Q1-Q1						Q1-Q1					
2000-2001	1	2	3	4	5	2001-2002	1	2	3	4	5
	1	0.9013	0.6185	0.5380	0.7173	0.6386	1.0829	1.2813	0.8626	1.0055	1.2158
	2	1.1591	0.8762	0.7957	0.9750	0.8963	1.2790	1.4774	1.0587	1.2016	1.4119
	3	1.2552	0.9724	0.8919	1.0712	0.9925	1.1556	1.3540	0.9353	1.0782	1.2885
	4	1.3008	1.0179	0.9374	1.1167	1.0380	1.1111	1.3095	0.8908	1.0337	1.2440
	5	1.4637	1.1808	1.1003	1.2797	1.2010	1.2425	1.4409	1.0222	1.1651	1.3754
Q2-Q2						Q2-Q2					
2000-2001	1	2	3	4	5	2001-2002	1	2	3	4	5
	1	0.8781	0.7509	0.6325	0.8061	0.8957	1.1127	0.6564	0.7143	0.8002	0.9713
	2	1.0370	0.9098	0.7914	0.9650	1.0546	1.4783	1.0220	1.0799	1.1658	1.3370
	3	1.1291	1.0020	0.8835	1.0572	1.1468	1.2779	0.8217	0.8795	0.9655	1.1366
	4	1.1471	1.0200	0.9015	1.0752	1.1648	1.3864	0.9302	0.9880	1.0740	1.2451
	5	1.5170	1.3899	1.2714	1.4450	1.5347	1.2167	0.7604	0.8183	0.9042	1.0754
Q3-Q3						Q3-Q3					
2000-2001	1	2	3	4	5	2001-2002	1	2	3	4	5
	1	0.8194	1.3298	0.6406	0.8879	1.0145	1.3110	1.3888	0.7575	0.8534	1.0637
	2	1.1345	1.6449	0.9557	1.2030	1.3296	1.3930	1.4708	0.8394	0.9354	1.1457
	3	1.0350	1.5453	0.8562	1.1035	1.2301	1.4486	1.5264	0.8951	0.9910	1.2013
	4	1.0197	1.5301	0.8409	1.0882	1.2148	1.4912	1.5690	0.9377	1.0336	1.2439
	5	1.1266	1.6370	0.9478	1.1951	1.3217	1.7557	1.8334	1.2021	1.2980	1.5083
Q4-Q4						Q4-Q4					
2000-2001	1	2	3	4	5	2001-2002	1	2	3	4	5
	1	1.0149	1.1874	0.7604	0.8567	0.9907	1.2105	1.0011	0.6326	0.8509	0.9497
	2	1.1314	1.3039	0.8769	0.9732	1.1072	1.6857	1.4762	1.1078	1.3261	1.4249
	3	1.2058	1.3782	0.9512	1.0476	1.1815	1.5125	1.3031	0.9346	1.1529	1.2517
	4	1.1804	1.3529	0.9259	1.0223	1.1562	1.3674	1.1580	0.7896	1.0078	1.1067
	5	1.4294	1.6019	1.1749	1.2713	1.4052	1.7088	1.4994	1.1309	1.3492	1.4480

Table 10c: 5x5 Annual Reflation Factors (Weights): For Age 15+, U
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

Q1-Q1						Q1-Q1						
	1	2	3	4	5		1	2	3	4	5	
2000-2001	1	1.1147	1.1365	0.7796	0.8327	0.7298		1.1848	0.8522	0.6686	0.8181	1.0006
	2	1.5194	1.5412	1.1843	1.2373	1.1345		1.3658	1.0331	0.8495	0.9991	1.1815
	3	1.2503	1.2721	0.9151	0.9682	0.8653		1.4013	1.0686	0.8850	1.0346	1.2170
	4	1.3598	1.3817	1.0247	1.0778	0.9749		1.4548	1.1222	0.9386	1.0881	1.2706
	5	1.4883	1.5101	1.1532	1.2063	1.1034		1.7030	1.3704	1.1868	1.3363	1.5188
Q2-Q2						Q2-Q2						
	1	2	3	4	5		1	2	3	4	5	
2000-2001	1	1.1158	0.8546	0.6560	0.7061	0.8073		1.1569	0.9258	0.6988	0.8385	0.9822
	2	1.5403	1.2791	1.0805	1.1306	1.2318		1.4504	1.2192	0.9923	1.1319	1.2756
	3	1.3668	1.1056	0.9069	0.9570	1.0582		1.3518	1.1207	0.8937	1.0334	1.1771
	4	1.4820	1.2208	1.0221	1.0722	1.1734		1.3920	1.1608	0.9339	1.0735	1.2172
	5	1.5682	1.3070	1.1083	1.1584	1.2596		1.5577	1.3266	1.0996	1.2393	1.3830
Q3-Q3						Q3-Q3						
	1	2	3	4	5		1	2	3	4	5	
2000-2001	1	1.1499	1.0248	0.8113	0.8423	1.0634		1.3110	0.7496	0.5381	0.6894	0.8719
	2	1.2849	1.1598	0.9463	0.9773	1.1984		1.5759	1.0146	0.8031	0.9543	1.1368
	3	1.2283	1.1032	0.8897	0.9207	1.1418		1.5132	0.9518	0.7403	0.8916	1.0741
	4	1.3945	1.2694	1.0559	1.0869	1.3080		1.6613	1.0999	0.8884	1.0396	1.2221
	5	1.4550	1.3299	1.1164	1.1474	1.3685		1.7485	1.1871	0.9756	1.1269	1.3093
Q4-Q4						Q4-Q4						
	1	2	3	4	5		1	2	3	4	5	
2000-2001	1	1.1799	1.0220	0.7881	0.9037	1.0132		1.2061	0.8607	0.6794	0.8318	1.1130
	2	1.6341	1.4762	1.2423	1.3579	1.4674		1.4879	1.1425	0.9612	1.1135	1.3947
	3	1.2895	1.1316	0.8977	1.0133	1.1227		1.4119	1.0665	0.8852	1.0376	1.3187
	4	1.3504	1.1926	0.9586	1.0742	1.1837		1.4473	1.1019	0.9206	1.0730	1.3541
	5	1.4698	1.3119	1.0780	1.1936	1.3031		1.4820	1.1366	0.9553	1.1077	1.3889

Table 7d: 5x5 Annual Adjusted Panel Joint Probability Matrices: For Age 15+, F
(1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		Q1-Q1								Q1-Q1					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.0407	0.0003	0.0064	0.0019	0.0004	0.0497	2001-2002	0.0396	0.0006	0.0085	0.0029	0.0025	0.0540	
	2	0.0003	0.0008	0.0030	0.0016	0.0007	0.0064		0.0002	0.0001	0.0024	0.0011	0.0005	0.0044	
	3	0.0102	0.0026	0.6246	0.0603	0.0030	0.7007		0.0098	0.0032	0.6230	0.0592	0.0108	0.7059	
	4	0.0027	0.0006	0.0717	0.1472	0.0025	0.2247		0.0018	0.0007	0.0591	0.1503	0.0050	0.2169	
	5	0.0029	0.0001	0.0001	0.0058	0.0123	0.0212		0.0020	0.0006	0.0074	0.0043	0.0055	0.0199	
	M	0.0567	0.0044	0.7059	0.2169	0.0188	1.0000		0.0535	0.0052	0.7004	0.2178	0.0242	1.0000	
	Q2-Q2						Q2-Q2								
	1	0.0396	0.0001	0.0053	0.0020	0.0009	0.0478		0.0427	0.0003	0.0074	0.0023	0.0019	0.0545	
	2	0.0004	0.0001	0.0032	0.0006	0.0009	0.0052		0.0001	0.0004	0.0021	0.0010	0.0006	0.0043	
	3	0.0098	0.0017	0.5805	0.0657	0.0076	0.6652		0.0078	0.0026	0.5790	0.0595	0.0106	0.6595	
	4	0.0038	0.0013	0.0625	0.1914	0.0049	0.2639		0.0031	0.0012	0.0578	0.1955	0.0064	0.2639	
	5	0.0032	0.0010	0.0081	0.0042	0.0036	0.0202		0.0028	0.0005	0.0061	0.0061	0.0044	0.0198	
	M	0.0568	0.0043	0.6595	0.2639	0.0178	1.0000		0.0565	0.0049	0.6523	0.2644	0.0238	1.0000	
2000-2001		Q3-Q3						Q3-Q3							
		1	0.0295	0.0003	0.0089	0.0032	0.0031	0.0451	2001-2002	0.0332	0.0001	0.0073	0.0025	0.0022	0.0453
		2	0.0001	0.0001	0.0013	0.0012	0.0003	0.0029		0.0001	0.0004	0.0028	0.0014	0.0004	0.0051
		3	0.0107	0.0020	0.5724	0.0726	0.0088	0.6665		0.0100	0.0014	0.5550	0.0606	0.0145	0.6415
		4	0.0036	0.0018	0.0532	0.2067	0.0041	0.2694		0.0026	0.0008	0.0644	0.2143	0.0059	0.2880
		5	0.0029	0.0008	0.0058	0.0043	0.0038	0.0176		0.0022	0.0010	0.0077	0.0052	0.0046	0.0206
		M	0.0468	0.0051	0.6415	0.2880	0.0201	1.0000		0.0480	0.0037	0.6371	0.2841	0.0276	1.0000
		Q4-Q4						Q4-Q4							
		1	0.0343	0.0005	0.0081	0.0032	0.0027	0.0488	2001-2002	0.0367	0.0001	0.0059	0.0033	0.0020	0.0480
		2	0.0002	0.0003	0.0015	0.0008	0.0009	0.0035		0.0002	0.0001	0.0024	0.0012	0.0008	0.0047
		3	0.0111	0.0029	0.6163	0.0671	0.0126	0.7100		0.0126	0.0022	0.5868	0.0710	0.0148	0.6874
		4	0.0021	0.0008	0.0548	0.1616	0.0045	0.2238		0.0031	0.0008	0.0461	0.1792	0.0066	0.2358
		5	0.0020	0.0003	0.0067	0.0032	0.0033	0.0155		0.0029	0.0007	0.0086	0.0067	0.0065	0.0255
		M	0.0496	0.0047	0.6874	0.2358	0.0240	1.0000		0.0556	0.0039	0.6498	0.2614	0.0307	1.0000

Table 8d: 5x5 Annual Adjusted Panel Joint Probability Matrices: For Age 15+, M
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

Q1-Q1							Q1-Q1							
	1	2	3	4	5	M		1	2	3	4	5	M	
2000-2001	1	0.0644	0.0006	0.0036	0.0065	0.0018	0.0768	2001-2002	0.0670	0.0008	0.0046	0.0050	0.0035	0.0809
	2	0.0005	0.0015	0.0046	0.0081	0.0039	0.0186		0.0003	0.0011	0.0021	0.0044	0.0027	0.0106
	3	0.0082	0.0014	0.1339	0.0496	0.0070	0.2002		0.0046	0.0029	0.1402	0.0401	0.0118	0.1995
	4	0.0077	0.0069	0.0570	0.5492	0.0238	0.6447		0.0082	0.0100	0.0615	0.5220	0.0458	0.6476
	5	0.0083	0.0001	0.0004	0.0341	0.0249	0.0679		0.0089	0.0036	0.0109	0.0263	0.0185	0.0683
	M	0.0891	0.0106	0.1995	0.6476	0.0614	1.0000		0.0889	0.0185	0.2193	0.5979	0.0824	1.0000
Q2-Q2							Q2-Q2							
	1	2	3	4	5	M		1	2	3	4	5	M	
2000-2001	1	0.0639	0.0007	0.0029	0.0055	0.0016	0.0746	2001-2002	0.0686	0.0003	0.0058	0.0069	0.0035	0.0851
	2	0.0010	0.0002	0.0030	0.0064	0.0020	0.0127		0.0004	0.0016	0.0022	0.0052	0.0044	0.0138
	3	0.0068	0.0022	0.1070	0.0338	0.0073	0.1570		0.0064	0.0011	0.1164	0.0328	0.0089	0.1656
	4	0.0114	0.0080	0.0455	0.6147	0.0306	0.7102		0.0078	0.0073	0.0437	0.5857	0.0403	0.6848
	5	0.0122	0.0028	0.0072	0.0244	0.0091	0.0557		0.0080	0.0028	0.0062	0.0250	0.0137	0.0557
	M	0.0953	0.0138	0.1656	0.6848	0.0507	1.0000		0.0912	0.0131	0.1742	0.6557	0.0708	1.0000
Q3-Q3							Q3-Q3							
	1	2	3	4	5	M		1	2	3	4	5	M	
2000-2001	1	0.0543	0.0004	0.0041	0.0080	0.0050	0.0719	2001-2002	0.0541	0.0002	0.0055	0.0075	0.0041	0.0714
	2	0.0007	0.0006	0.0016	0.0049	0.0015	0.0093		0.0003	0.0006	0.0026	0.0062	0.0039	0.0137
	3	0.0058	0.0021	0.1072	0.0356	0.0080	0.1587		0.0061	0.0014	0.1141	0.0320	0.0083	0.1619
	4	0.0091	0.0071	0.0432	0.6203	0.0386	0.7184		0.0107	0.0052	0.0449	0.5900	0.0394	0.6901
	5	0.0098	0.0035	0.0058	0.0213	0.0098	0.0502		0.0113	0.0024	0.0088	0.0318	0.0174	0.0716
	M	0.0798	0.0137	0.1619	0.6901	0.0629	1.0000		0.0825	0.0098	0.1760	0.6674	0.0731	1.0000
Q4-Q4							Q4-Q4							
	1	2	3	4	5	M		1	2	3	4	5	M	
2000-2001	1	0.0573	0.0009	0.0062	0.0081	0.0039	0.0763	2001-2002	0.0627	0.0003	0.0040	0.0051	0.0022	0.0742
	2	0.0002	0.0009	0.0019	0.0044	0.0017	0.0091		0.0006	0.0008	0.0015	0.0068	0.0052	0.0149
	3	0.0054	0.0022	0.1214	0.0406	0.0095	0.1791		0.0073	0.0015	0.1315	0.0396	0.0139	0.1939
	4	0.0098	0.0083	0.0563	0.5658	0.0484	0.6886		0.0075	0.0039	0.0445	0.5477	0.0358	0.6394
	5	0.0107	0.0025	0.0082	0.0206	0.0142	0.0561		0.0082	0.0035	0.0093	0.0378	0.0238	0.0827
	M	0.0833	0.0149	0.1939	0.6394	0.0777	1.0000		0.0863	0.0100	0.1908	0.6371	0.0809	1.0000

Table 9d: 5x5 Annual Adjusted Panel Joint Probability Matrices: For Age 15+, R
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

Q1-Q1							Q1-Q1						
2000-2001	1	2	3	4	5	M	2001-2002	1	2	3	4	5	M
	1	0.0260	0.0002	0.0042	0.0042	0.0012	0.0358	0.0271	0.0010	0.0056	0.0045	0.0025	0.0408
	2	0.0004	0.0008	0.0036	0.0057	0.0017	0.0122	0.0002	0.0006	0.0018	0.0016	0.0011	0.0052
	3	0.0085	0.0015	0.3083	0.1024	0.0039	0.4245	0.0073	0.0051	0.3161	0.0885	0.0075	0.4246
	4	0.0054	0.0025	0.1067	0.3734	0.0103	0.4982	0.0054	0.0039	0.1071	0.3668	0.0165	0.4998
	5	0.0060	0.0002	0.0019	0.0141	0.0126	0.0348	0.0060	0.0016	0.0067	0.0089	0.0105	0.0338
	M	0.0462	0.0052	0.4246	0.4998	0.0297	1.0000	0.0462	0.0121	0.4374	0.4704	0.0381	1.0000
Q2-Q2							Q2-Q2						
2000-2001	1	2	3	4	5	M	2001-2002	1	2	3	4	5	M
	1	0.0265	0.0003	0.0020	0.0045	0.0008	0.0340	0.0302	0.0001	0.0058	0.0052	0.0010	0.0423
	2	0.0004	0.0002	0.0017	0.0039	0.0004	0.0066	0.0002	0.0010	0.0018	0.0019	0.0015	0.0064
	3	0.0067	0.0018	0.2523	0.0872	0.0046	0.3526	0.0054	0.0008	0.2533	0.0704	0.0058	0.3357
	4	0.0076	0.0034	0.0750	0.4936	0.0090	0.5886	0.0059	0.0046	0.0873	0.4868	0.0142	0.5988
	5	0.0101	0.0008	0.0047	0.0096	0.0020	0.0271	0.0052	0.0006	0.0039	0.0068	0.0046	0.0210
	M	0.0512	0.0064	0.3357	0.5988	0.0168	1.0000	0.0469	0.0071	0.3520	0.5712	0.0270	1.0000
Q3-Q3							Q3-Q3						
2000-2001	1	2	3	4	5	M	2001-2002	1	2	3	4	5	M
	1	0.0191	0.0002	0.0039	0.0057	0.0020	0.0309	0.0188	0.0002	0.0060	0.0043	0.0022	0.0315
	2	0.0002	0.0003	0.0009	0.0024	0.0002	0.0040	0.0002	0.0012	0.0013	0.0021	0.0014	0.0062
	3	0.0068	0.0023	0.2392	0.0947	0.0034	0.3462	0.0041	0.0005	0.2274	0.0724	0.0064	0.3108
	4	0.0052	0.0022	0.0628	0.5147	0.0168	0.6017	0.0080	0.0007	0.0921	0.5121	0.0131	0.6261
	5	0.0057	0.0012	0.0041	0.0087	0.0029	0.0227	0.0094	0.0006	0.0066	0.0102	0.0059	0.0328
	M	0.0370	0.0062	0.3108	0.6261	0.0253	1.0000	0.0406	0.0032	0.3335	0.6011	0.0292	1.0000
Q4-Q4							Q4-Q4						
2000-2001	1	2	3	4	5	M	2001-2002	1	2	3	4	5	M
	1	0.0194	0.0005	0.0066	0.0059	0.0019	0.0342	0.0237	0.0002	0.0036	0.0038	0.0015	0.0327
	2	0.0002	0.0007	0.0012	0.0021	0.0008	0.0050	0.0003	0.0009	0.0012	0.0029	0.0018	0.0070
	3	0.0076	0.0016	0.2896	0.0981	0.0059	0.4028	0.0070	0.0012	0.2815	0.1055	0.0113	0.4066
	4	0.0052	0.0036	0.1018	0.4003	0.0250	0.5360	0.0068	0.0014	0.0692	0.4226	0.0149	0.5149
	5	0.0063	0.0006	0.0074	0.0085	0.0051	0.0280	0.0085	0.0012	0.0091	0.0182	0.0092	0.0462
	M	0.0388	0.0070	0.4066	0.5149	0.0388	1.0000	0.0462	0.0049	0.3647	0.5530	0.0386	1.0000

Table 10d: 5x5 Annual Adjusted Panel Joint Probability Matrices: For Age 15+, U
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

Q1-Q1							Q1-Q1						
2000-2001	1	2	3	4	5	M	1	2	3	4	5	M	
	1	0.0647	0.0008	0.0081	0.0065	0.0020	0.0820	0.0648	0.0008	0.0097	0.0051	0.0043	0.0847
	2	0.0003	0.0012	0.0047	0.0041	0.0023	0.0126	0.0003	0.0006	0.0029	0.0032	0.0019	0.0089
	3	0.0127	0.0031	0.4059	0.0429	0.0074	0.4720	0.0106	0.0029	0.4082	0.0383	0.0144	0.4744
	4	0.0064	0.0037	0.0531	0.3107	0.0139	0.3877	0.0059	0.0051	0.0456	0.3000	0.0288	0.3854
	5	0.0070	0.0001	0.0026	0.0213	0.0210	0.0519	0.0069	0.0022	0.0112	0.0183	0.0133	0.0517
	M	0.0910	0.0089	0.4744	0.3854	0.0466	1.0000	0.0884	0.0115	0.4775	0.3649	0.0627	1.0000
Q2-Q2							Q2-Q2						
2000-2001	1	2	3	4	5	M	1	2	3	4	5	M	
	1	0.0636	0.0006	0.0080	0.0049	0.0023	0.0795	0.0543	0.0001	0.0099	0.0070	0.0046	0.0760
	2	0.0011	0.0002	0.0040	0.0032	0.0019	0.0105	0.0003	0.0003	0.0037	0.0046	0.0025	0.0114
	3	0.0122	0.0024	0.3899	0.0389	0.0114	0.4548	0.0140	0.0020	0.3903	0.0417	0.0171	0.4651
	4	0.0089	0.0050	0.0526	0.3269	0.0211	0.4145	0.0069	0.0044	0.0411	0.3174	0.0258	0.3956
	5	0.0095	0.0024	0.0118	0.0159	0.0087	0.0484	0.0073	0.0022	0.0116	0.0219	0.0136	0.0566
	M	0.0954	0.0107	0.4663	0.3898	0.0454	1.0000	0.0829	0.0090	0.4566	0.3925	0.0636	1.0000
Q3-Q3							Q3-Q3						
2000-2001	1	2	3	4	5	M	1	2	3	4	5	M	
	1	0.0533	0.0005	0.0108	0.0063	0.0060	0.0768	0.0541	0.0002	0.0055	0.0075	0.0041	0.0714
	2	0.0004	0.0004	0.0022	0.0032	0.0012	0.0074	0.0003	0.0006	0.0026	0.0062	0.0039	0.0137
	3	0.0115	0.0027	0.3952	0.0394	0.0119	0.4607	0.0061	0.0014	0.1141	0.0320	0.0083	0.1619
	4	0.0079	0.0052	0.0484	0.3330	0.0238	0.4184	0.0107	0.0052	0.0449	0.5900	0.0394	0.6901
	5	0.0083	0.0026	0.0085	0.0137	0.0091	0.0421	0.0113	0.0024	0.0088	0.0318	0.0174	0.0716
	M	0.0814	0.0114	0.4651	0.3956	0.0519	1.0000	0.0825	0.0098	0.1760	0.6674	0.0731	1.0000
Q4-Q4							Q4-Q4						
2000-2001	1	2	3	4	5	M	1	2	3	4	5	M	
	1	0.0585	0.0011	0.0101	0.0066	0.0047	0.0810	0.0617	0.0003	0.0087	0.0057	0.0031	0.0795
	2	0.0003	0.0005	0.0021	0.0026	0.0015	0.0071	0.0005	0.0004	0.0027	0.0045	0.0035	0.0116
	3	0.0120	0.0036	0.4011	0.0441	0.0147	0.4756	0.0139	0.0025	0.3930	0.0390	0.0178	0.4662
	4	0.0072	0.0047	0.0437	0.3180	0.0270	0.4006	0.0064	0.0027	0.0422	0.3086	0.0244	0.3843
	5	0.0078	0.0016	0.0091	0.0130	0.0105	0.0420	0.0065	0.0023	0.0122	0.0228	0.0177	0.0615
	M	0.0858	0.0116	0.4662	0.3843	0.0584	1.0000	0.0890	0.0083	0.4588	0.3807	0.0664	1.0000

Table 6e: 5x5 Annual Adjusted Forward Transition Matrices: For Age 15+
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		Q1-Q1								Q1-Q1					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.7775	0.0089	0.0998	0.0897	0.0241	1.0000	2001-2002	1	0.7434	0.0119	0.1213	0.0717	0.0516	1.0000
	2	0.0253	0.0856	0.3490	0.3756	0.1646	1.0000		2	0.0374	0.0727	0.3241	0.3598	0.2060	1.0000
	3	0.0250	0.0056	0.8268	0.1286	0.0140	1.0000		3	0.0205	0.0074	0.8337	0.1122	0.0262	1.0000
	4	0.0140	0.0075	0.1564	0.7924	0.0297	1.0000		4	0.0133	0.0118	0.1455	0.7721	0.0574	1.0000
	5	0.1399	0.0013	0.0493	0.4251	0.3844	1.0000		5	0.1413	0.0445	0.2114	0.3458	0.2570	1.0000
	Q2-Q2						Q2-Q2								
2000-2001	1	0.7948	0.0076	0.0915	0.0806	0.0255	1.0000	2001-2002	1	0.7555	0.0044	0.1195	0.0792	0.0415	1.0000
	2	0.0954	0.0169	0.3479	0.3925	0.1473	1.0000		2	0.0261	0.1043	0.2642	0.3408	0.2646	1.0000
	3	0.0250	0.0052	0.8205	0.1283	0.0211	1.0000		3	0.0226	0.0048	0.8258	0.1223	0.0245	1.0000
	4	0.0176	0.0092	0.1195	0.8194	0.0343	1.0000		4	0.0128	0.0089	0.1159	0.8134	0.0490	1.0000
	5	0.2194	0.0456	0.2247	0.3572	0.1531	1.0000		5	0.1541	0.0406	0.1937	0.3874	0.2240	1.0000
	Q3-Q3						Q3-Q3								
2000-2001	1	0.6761	0.0063	0.1333	0.1100	0.0743	1.0000	2001-2002	1	0.6951	0.0020	0.1410	0.1027	0.0592	1.0000
	2	0.0524	0.0517	0.2630	0.4994	0.1335	1.0000		2	0.0309	0.0454	0.3067	0.4013	0.2156	1.0000
	3	0.0236	0.0059	0.8119	0.1366	0.0221	1.0000		3	0.0259	0.0034	0.8167	0.1225	0.0315	1.0000
	4	0.0141	0.0086	0.1042	0.8313	0.0418	1.0000		4	0.0146	0.0066	0.1193	0.8150	0.0445	1.0000
	5	0.2009	0.0582	0.1871	0.3626	0.1913	1.0000		5	0.1524	0.0339	0.2061	0.3856	0.2219	1.0000
	Q4-Q4						Q4-Q4								
2000-2001	1	0.6911	0.0130	0.1378	0.1008	0.0573	1.0000	2001-2002	1	0.7651	0.0043	0.1049	0.0867	0.0391	1.0000
	2	0.0313	0.0871	0.2890	0.3928	0.1998	1.0000		2	0.0415	0.0463	0.2159	0.4142	0.2820	1.0000
	3	0.0227	0.0065	0.8159	0.1286	0.0263	1.0000		3	0.0264	0.0048	0.8011	0.1328	0.0349	1.0000
	4	0.0143	0.0094	0.1311	0.7885	0.0567	1.0000		4	0.0142	0.0052	0.1116	0.8212	0.0477	1.0000
	5	0.1872	0.0345	0.2257	0.3218	0.2309	1.0000		5	0.1179	0.0335	0.1902	0.3976	0.2608	1.0000

Table 7e: 5x5 Annual Adjusted Forward Transition Matrices: For Age 15+,F
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

Q1-Q1							Q1-Q1						
2000-2001	1	2	3	4	5	M	2001-2002	1	2	3	4	5	M
	1	0.8186	0.0055	0.1297	0.0388	0.0074		0.7336	0.0102	0.1570	0.0533	0.0459	1.0000
	2	0.0398	0.1280	0.4734	0.2556	0.1032		0.0523	0.0222	0.5566	0.2592	0.1097	1.0000
	3	0.0146	0.0037	0.8915	0.0861	0.0042		0.0139	0.0046	0.8825	0.0838	0.0153	1.0000
	4	0.0120	0.0026	0.3192	0.6550	0.0111		0.0083	0.0034	0.2724	0.6930	0.0228	1.0000
	5	0.1349	0.0059	0.0057	0.2739	0.5796		0.1022	0.0280	0.3739	0.2187	0.2773	1.0000
Q2-Q2							Q2-Q2						
2000-2001	1	2	3	4	5	M	2001-2002	1	2	3	4	5	M
	1	0.8275	0.0024	0.1098	0.0416	0.0187		0.7834	0.0058	0.1349	0.0414	0.0345	1.0000
	2	0.0762	0.0200	0.6144	0.1165	0.1729		0.0344	0.0919	0.4965	0.2408	0.1364	1.0000
	3	0.0147	0.0025	0.8726	0.0988	0.0114		0.0118	0.0039	0.8779	0.0903	0.0161	1.0000
	4	0.0143	0.0051	0.2368	0.7254	0.0185		0.0116	0.0045	0.2189	0.7408	0.0242	1.0000
	5	0.1600	0.0501	0.4025	0.2101	0.1773		0.1400	0.0234	0.3091	0.3065	0.2210	1.0000
Q3-Q3							Q3-Q3						
2000-2001	1	2	3	4	5	M	2001-2002	1	2	3	4	5	M
	1	0.6541	0.0077	0.1983	0.0718	0.0681		0.7328	0.0021	0.1612	0.0563	0.0478	1.0000
	2	0.0341	0.0337	0.4317	0.4014	0.0992		0.0260	0.0762	0.5469	0.2678	0.0831	1.0000
	3	0.0161	0.0031	0.8587	0.1089	0.0133		0.0156	0.0022	0.8651	0.0945	0.0226	1.0000
	4	0.0134	0.0066	0.1975	0.7671	0.0154		0.0089	0.0029	0.2235	0.7442	0.0205	1.0000
	5	0.1644	0.0464	0.3281	0.2444	0.2166		0.1066	0.0462	0.3725	0.2523	0.2224	1.0000
Q4-Q4							Q4-Q4						
2000-2001	1	2	3	4	5	M	2001-2002	1	2	3	4	5	M
	1	0.7029	0.0096	0.1671	0.0655	0.0549		0.7637	0.0028	0.1236	0.0680	0.0419	1.0000
	2	0.0462	0.0786	0.4121	0.2178	0.2452		0.0509	0.0215	0.5030	0.2473	0.1772	1.0000
	3	0.0156	0.0041	0.8680	0.0945	0.0177		0.0184	0.0033	0.8536	0.1033	0.0215	1.0000
	4	0.0095	0.0034	0.2447	0.7222	0.0203		0.0130	0.0034	0.1956	0.7601	0.0279	1.0000
	5	0.1269	0.0191	0.4337	0.2054	0.2150		0.1154	0.0260	0.3372	0.2647	0.2567	1.0000

Table 9e: 5x5 Annual Adjusted Forward Transition Matrices: For Age 15+, R
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

		Q1-Q1								Q1-Q1					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.7257	0.0065	0.1181	0.1163	0.0334	1.0000	2001-2002	0.6658	0.0235	0.1385	0.1107	0.0614	1.0000	
	2	0.0357	0.0674	0.2939	0.4651	0.1379	1.0000		0.0460	0.1062	0.3425	0.3023	0.2030	1.0000	
	3	0.0199	0.0034	0.7262	0.2413	0.0092	1.0000		0.0173	0.0119	0.7446	0.2085	0.0176	1.0000	
	4	0.0107	0.0050	0.2141	0.7495	0.0207	1.0000		0.0108	0.0078	0.2144	0.7339	0.0331	1.0000	
	5	0.1731	0.0063	0.0532	0.4058	0.3615	1.0000		0.1786	0.0478	0.1978	0.2641	0.3117	1.0000	
		Q2-Q2								Q2-Q2					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.7787	0.0081	0.0581	0.1308	0.0242	1.0000	2001-2002	0.7134	0.0025	0.1379	0.1236	0.0225	1.0000	
	2	0.0579	0.0254	0.2651	0.5927	0.0589	1.0000		0.0375	0.1555	0.2739	0.2957	0.2374	1.0000	
	3	0.0189	0.0052	0.7155	0.2473	0.0132	1.0000		0.0162	0.0024	0.7545	0.2099	0.0171	1.0000	
	4	0.0129	0.0057	0.1274	0.8386	0.0153	1.0000		0.0098	0.0076	0.1457	0.8131	0.0238	1.0000	
	5	0.3716	0.0284	0.1730	0.3540	0.0731	1.0000		0.2458	0.0295	0.1844	0.3231	0.2172	1.0000	
		Q3-Q3								Q3-Q3					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.6185	0.0078	0.1247	0.1832	0.0658	1.0000	2001-2002	0.5974	0.0070	0.1896	0.1367	0.0692	1.0000	
	2	0.0513	0.0744	0.2160	0.5982	0.0601	1.0000		0.0354	0.1866	0.2130	0.3324	0.2326	1.0000	
	3	0.0196	0.0065	0.6908	0.2734	0.0097	1.0000		0.0132	0.0015	0.7317	0.2328	0.0207	1.0000	
	4	0.0086	0.0037	0.1044	0.8554	0.0279	1.0000		0.0128	0.0012	0.1472	0.8179	0.0210	1.0000	
	5	0.2534	0.0526	0.1827	0.3840	0.1274	1.0000		0.2869	0.0176	0.2022	0.3120	0.1813	1.0000	
		Q4-Q4								Q4-Q4					
		1	2	3	4	5	M			1	2	3	4	5	M
2000-2001	1	0.5675	0.0133	0.1913	0.1725	0.0554	1.0000	2001-2002	0.7225	0.0047	0.1109	0.1169	0.0450	1.0000	
	2	0.0430	0.1486	0.2333	0.4068	0.1683	1.0000		0.0372	0.1303	0.1711	0.4097	0.2516	1.0000	
	3	0.0189	0.0039	0.7190	0.2435	0.0146	1.0000		0.0173	0.0030	0.6925	0.2595	0.0277	1.0000	
	4	0.0097	0.0068	0.1899	0.7470	0.0467	1.0000		0.0132	0.0028	0.1344	0.8206	0.0290	1.0000	
	5	0.2251	0.0219	0.2655	0.3047	0.1828	1.0000		0.1837	0.0252	0.1975	0.3942	0.1994	1.0000	

11 Appendix B: Analysis of Weights (Reflation Factors)

Table 1: Weight Analysis for For Age 15--- Quarterly Transitions
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

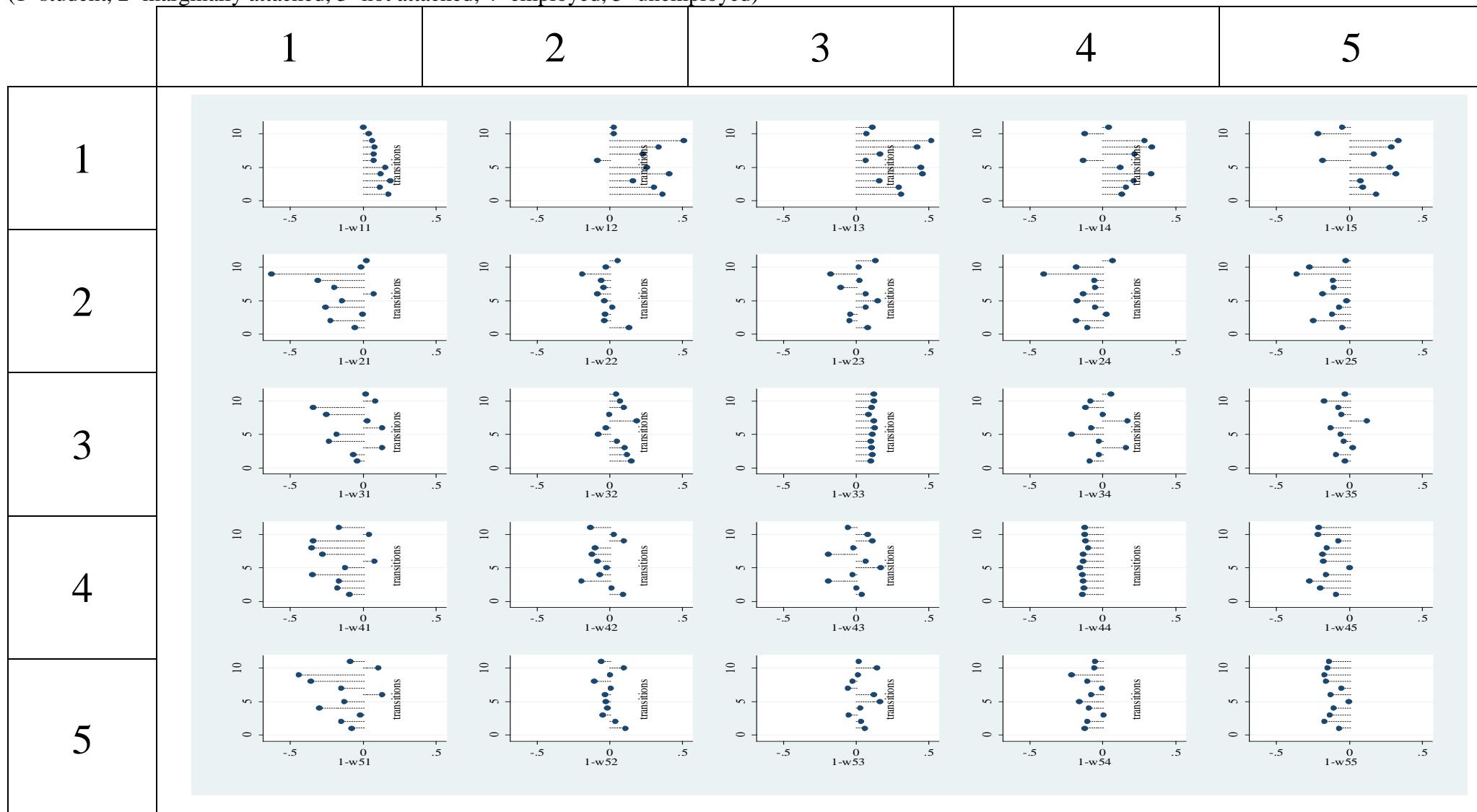


Table 2: Weight Analysis for Age 15+, F -- Quarterly Transitions
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

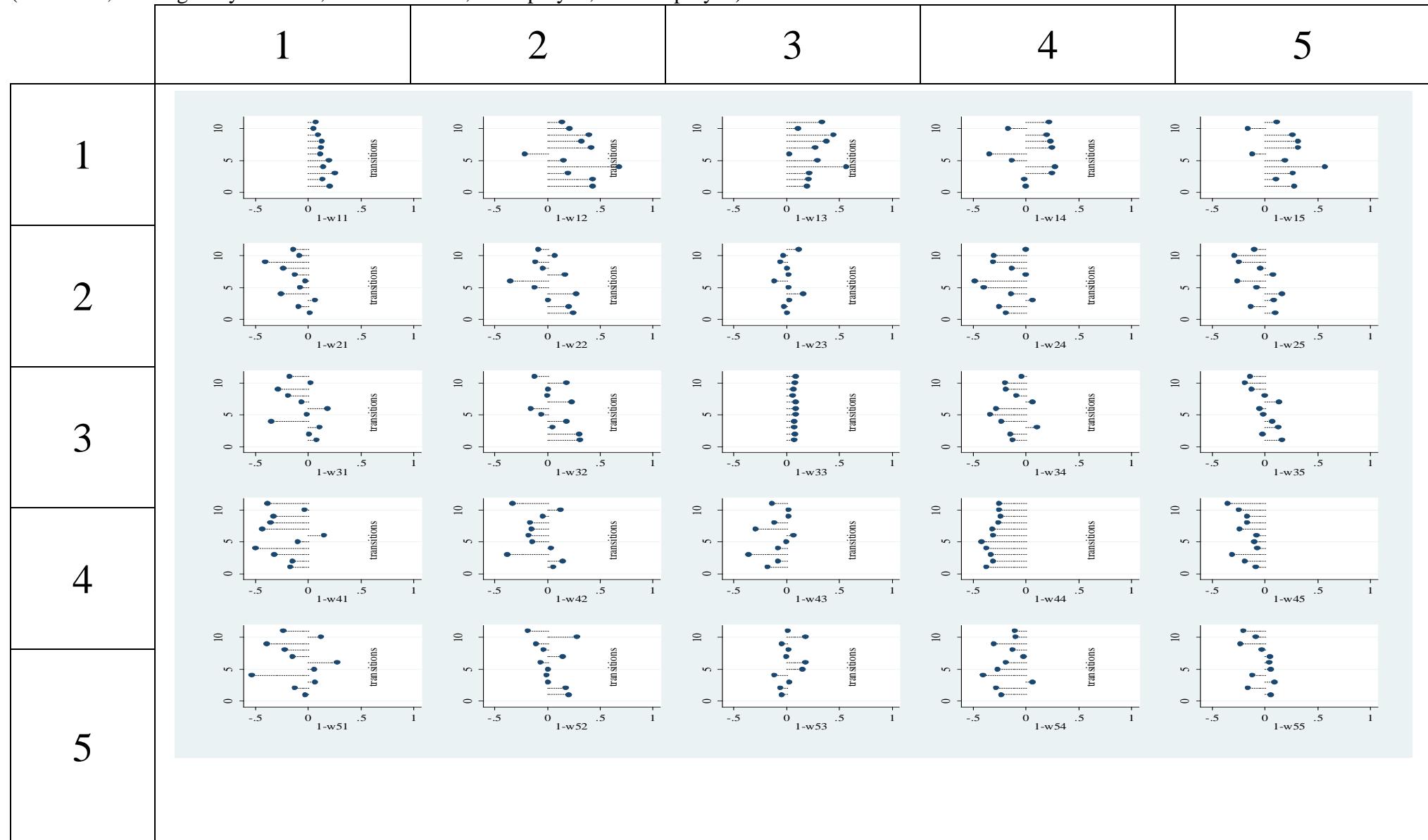


Table 3: Weight Analysis for Age 15+, M -- Quarterly Transitions
 (1=student, 2=marginal attachment, 3=not attached, 4=employed, 5=unemployed)

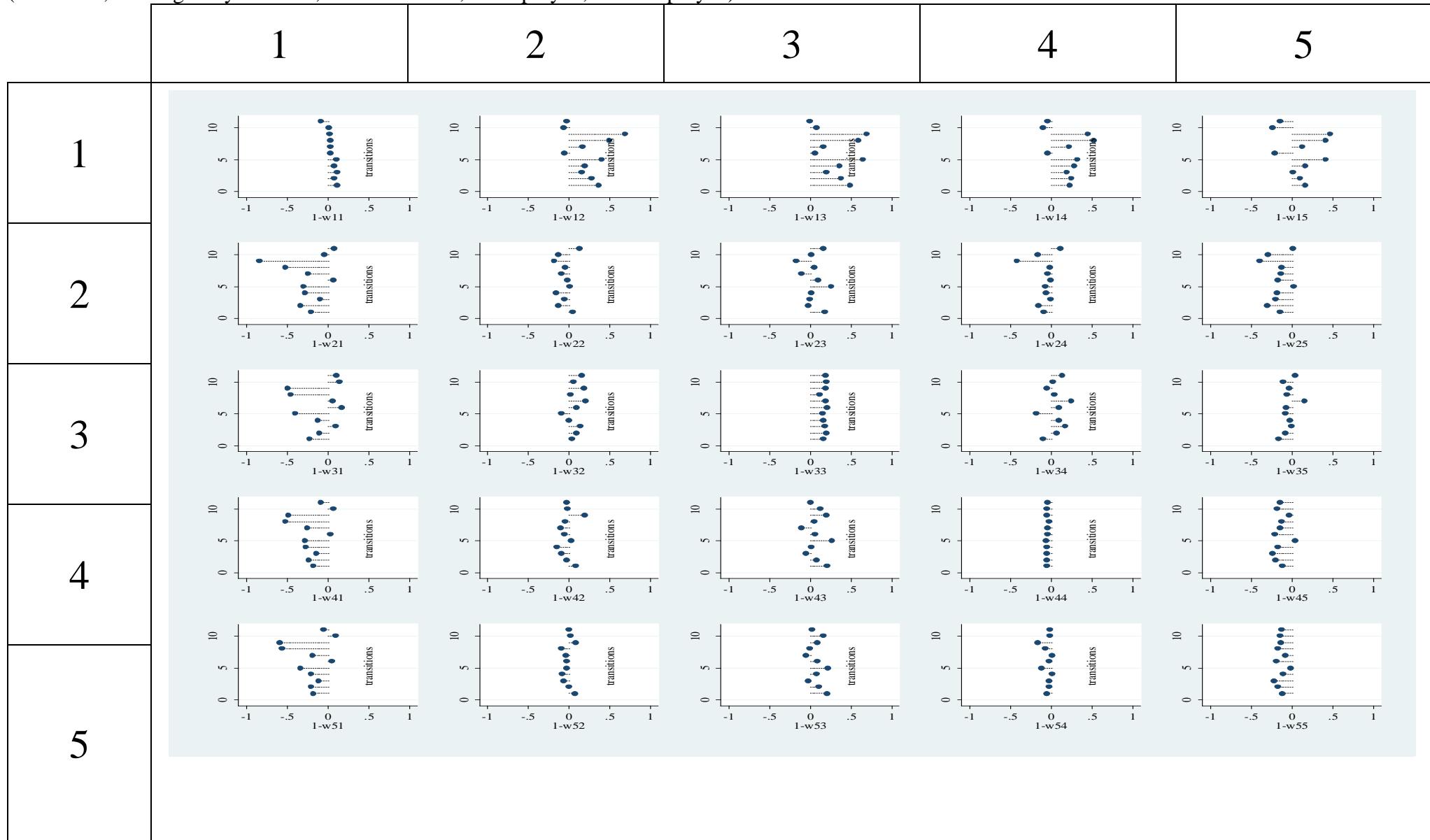


Table 4: Weight Analysis for Age 15+, R -- Quarterly Transitions
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

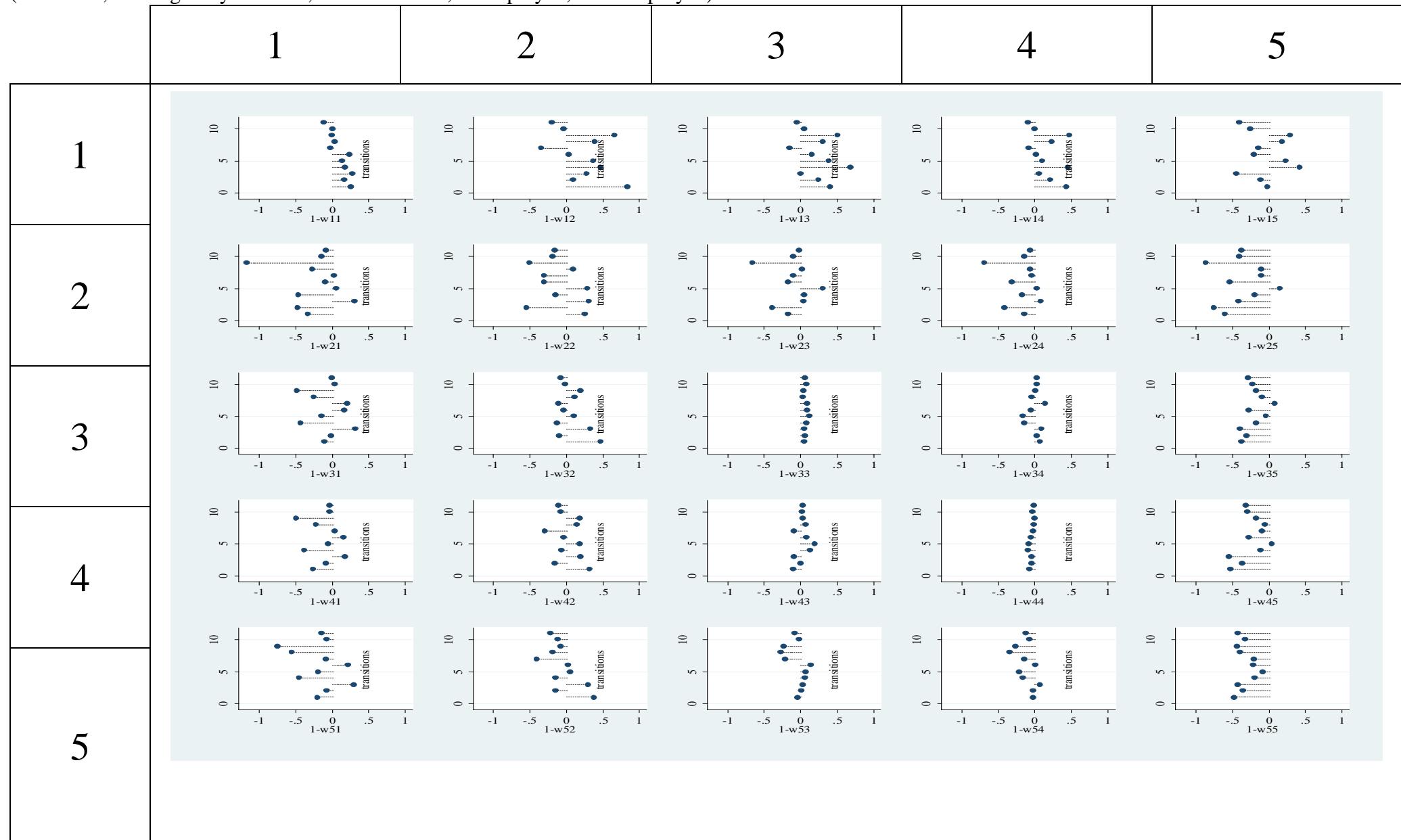


Table 5: Weight Analysis for Age 15+, U -- Quarterly Transitions
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

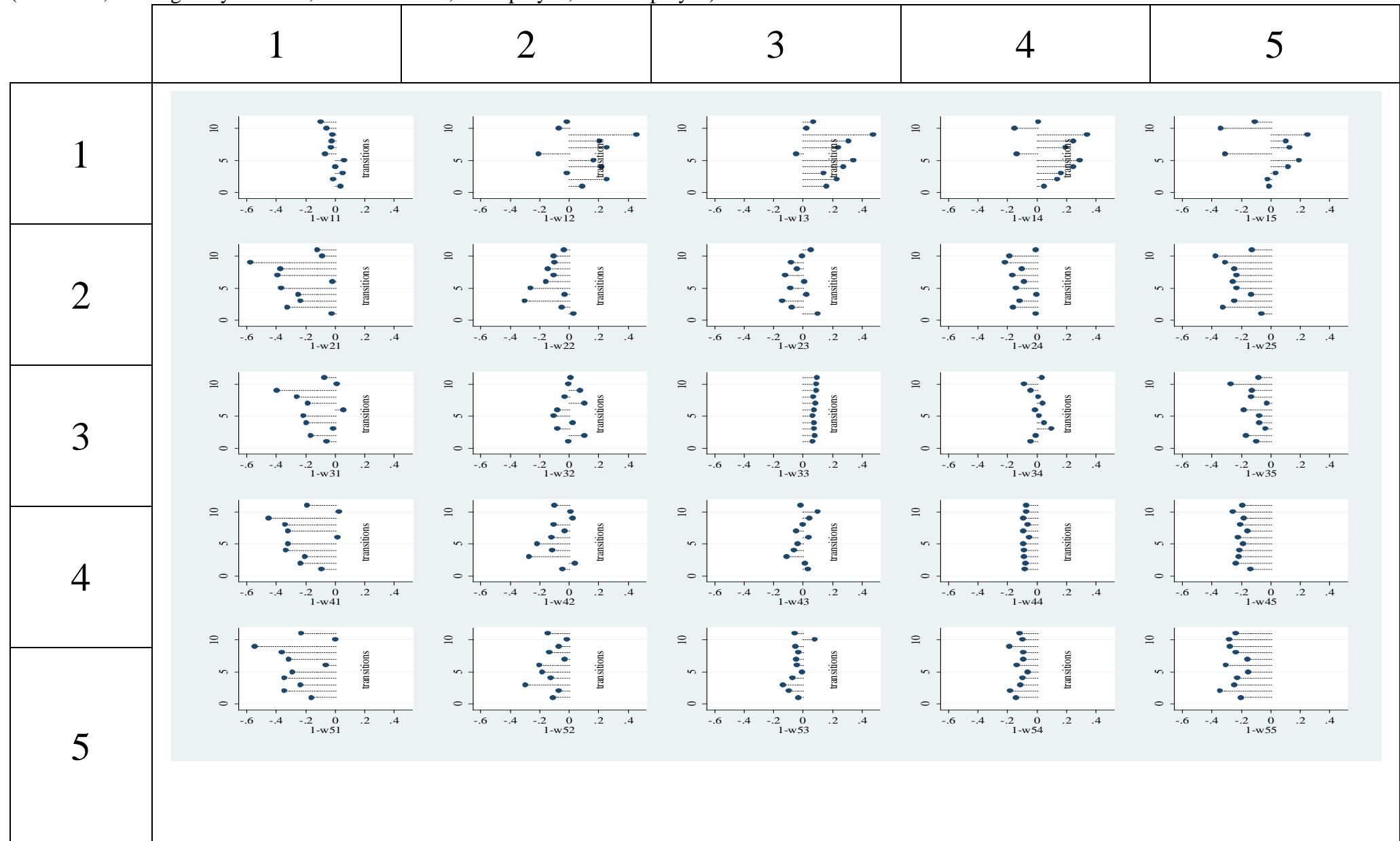


Table 6: Weight Analysis for Age 15+ -- Annual Transitions
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

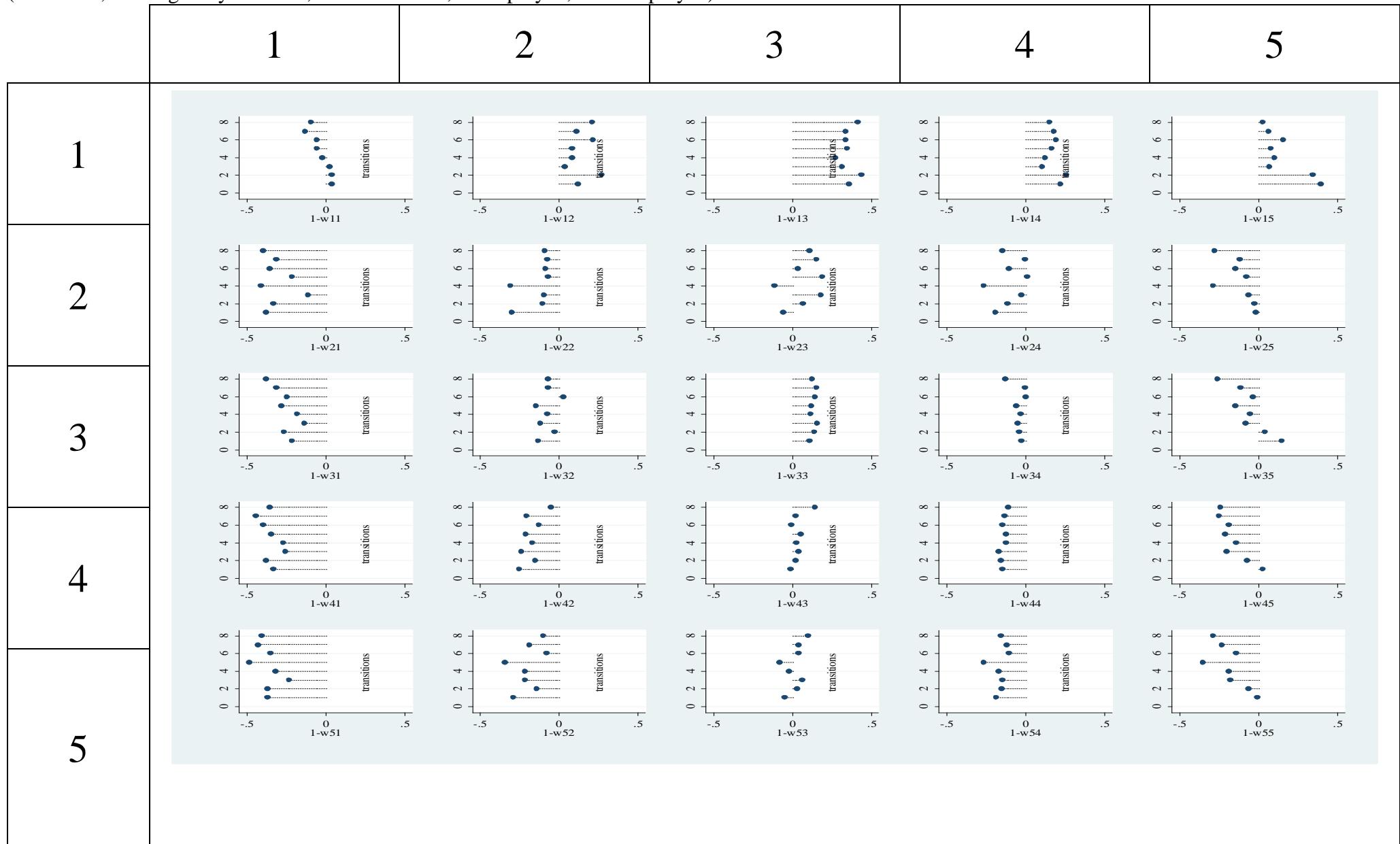


Table 7: Weight Analysis for Age 15+, F -- Annual Transitions
 (1=student, 2=marginal attachment, 3=not attached, 4=employed, 5=unemployed)

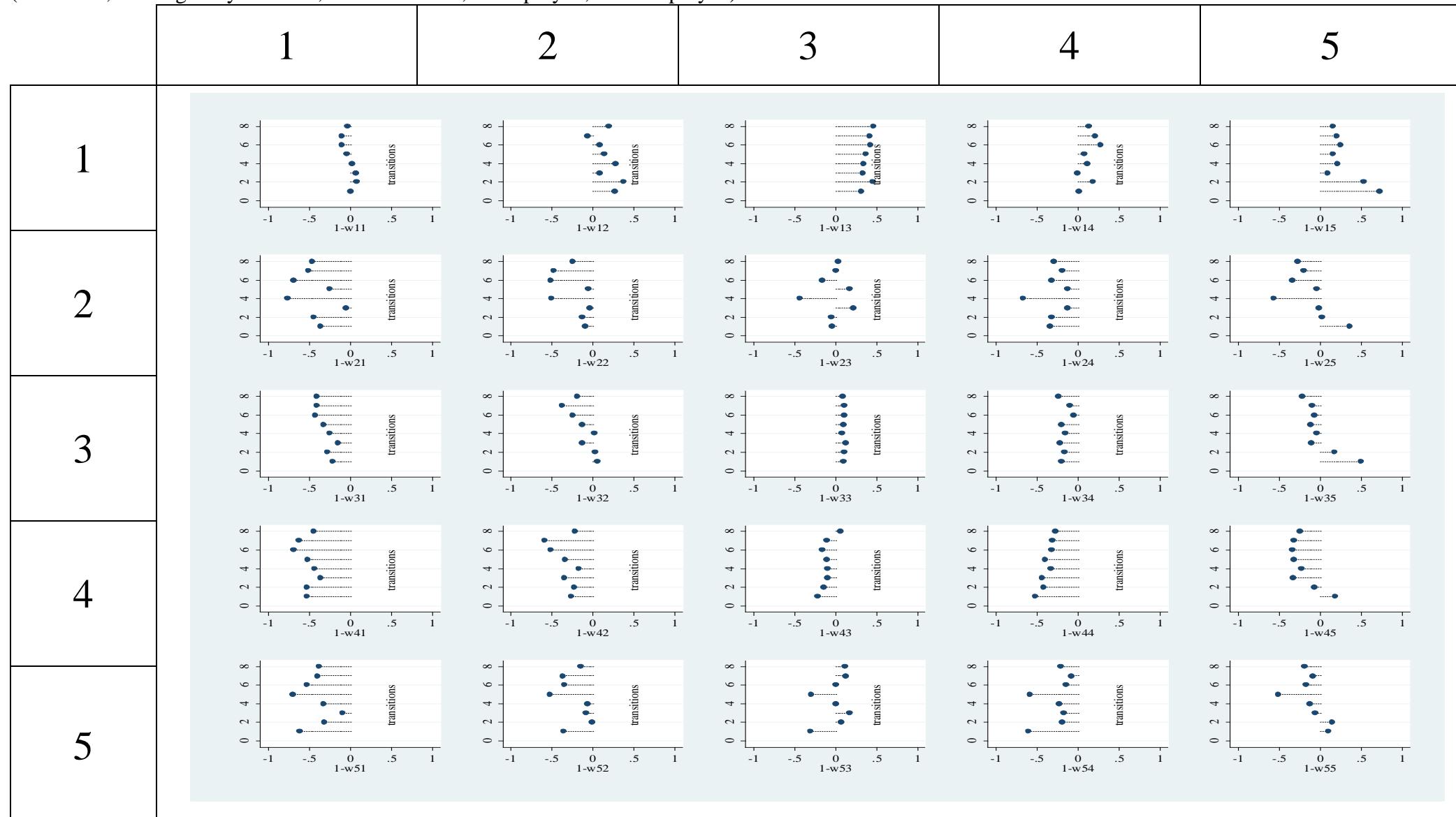


Table 8: Weight Analysis for Age 15+, M -- Annual Transitions
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

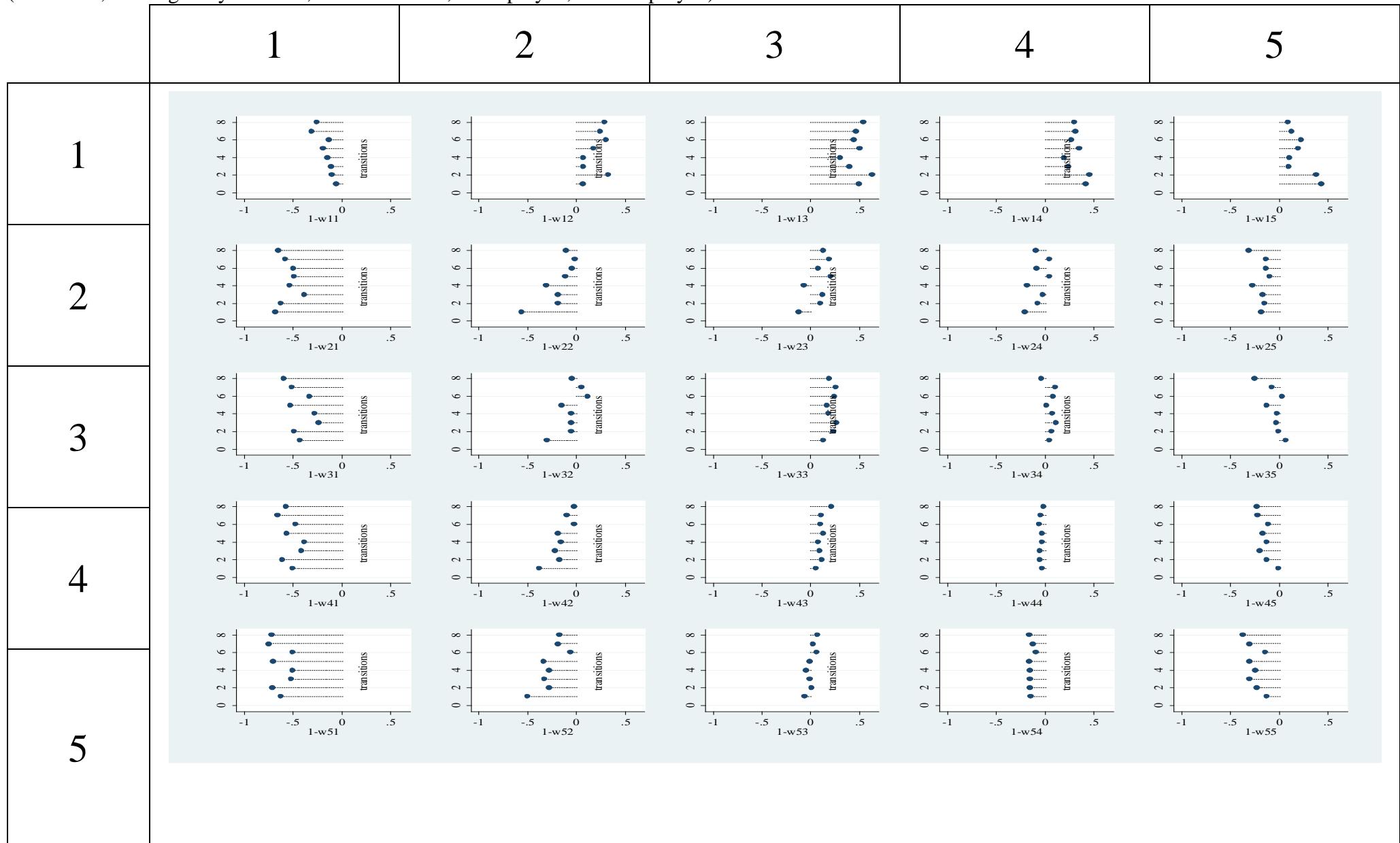


Table 9: Weight Analysis for Age 15+, R -- Annual Transitions
 (1=student, 2=marginally attached, 3=not attached, 4=employed, 5=unemployed)

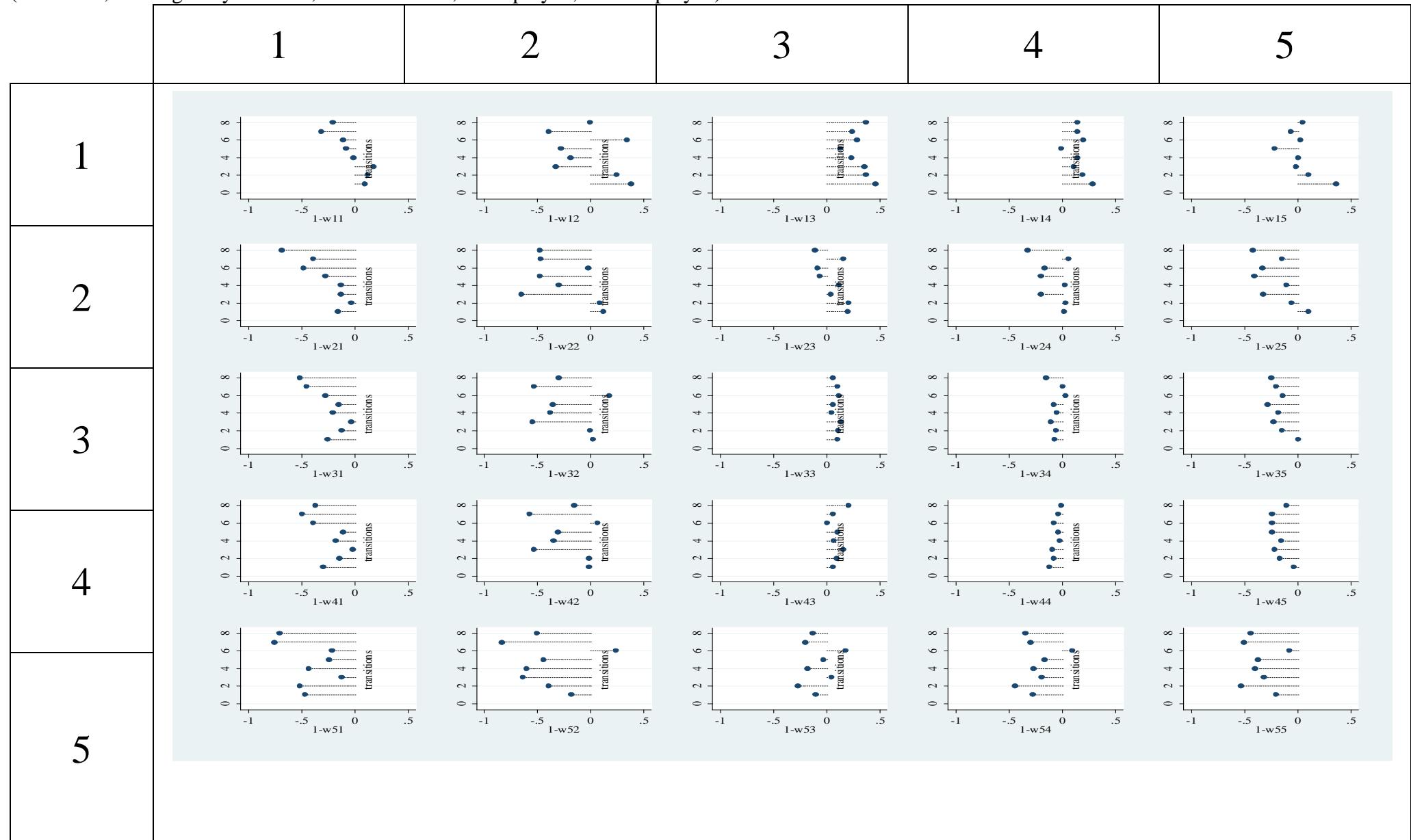
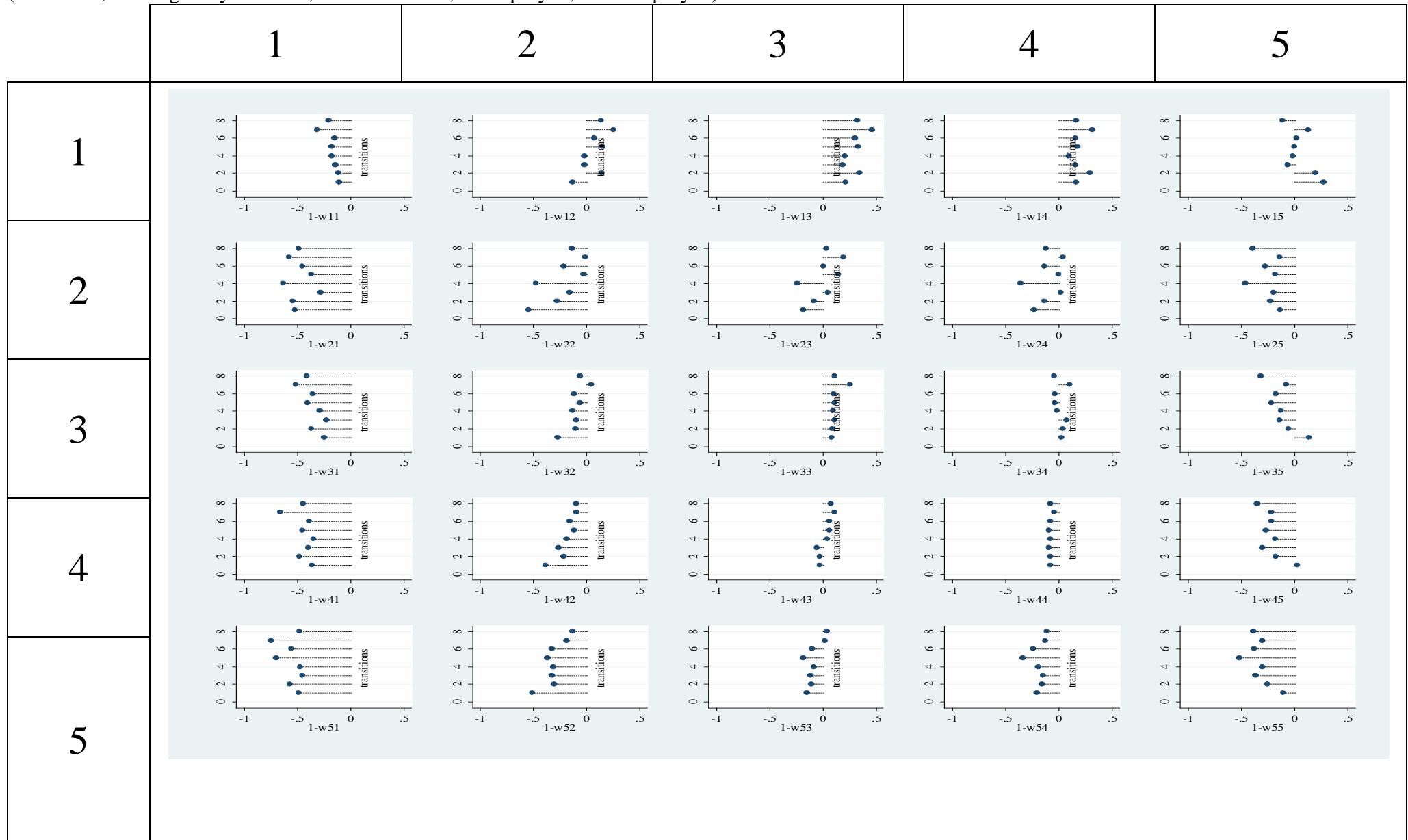


Table 10: Weight Analysis for Age 15+, U -- Annual Transitions
 (1=student, 2=marginal attachment, 3=not attached, 4=employed, 5=unemployed)



12 Appendix C: Multinomial Logit Estimates (Quarterly/Annual)

Table 1a: MNL Estimates of Transitions from the Marginal Attachment 2002Q3-Q4 (unrestricted)

Base Category: Marginally attached individuals in the second period

	Student		Not Attached		Employed		Unemployed	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Gender (Ref. Male)								
Female	0.238 (0.958)	0.214 (0.924)	0.888 (0.698)	0.888 (0.650)	-0.576 (0.768)	-0.581 (0.737)	-0.076 (0.674)	-0.071 (0.647)
Residential Area (Ref. Rural)								
Urban	16.32*** (0.939)	15.93 (2169.370)	-0.495 (1.050)	-0.533 (0.917)	-0.542 (0.932)	-0.534 (0.924)	0.393 (1.007)	0.374 (0.990)
Age Groups (Ref. 15-24)								
Age 25-34	-16.449*** (0.662)	-16.051 (1458.752)	-1.499** (0.672)	-1.509** (0.767)	-0.813 (0.655)	-0.814 (0.758)	-0.372 (0.643)	-0.366 (0.690)
Age 35-44	1.685 (1.049)	1.685 (2838.354)	15.504*** (0.783)	15.15 (2005.864)	16.162*** (0.721)	15.817 (2005.864)	16.884*** (0.730)	16.552 (2005.864)
Age 45over	-14.53*** (1.178)	-14.11 (1838.48)	0.734 (1.155)	0.713 (1.2598)	1.168 (1.174)	1.159 (1.280)	0.228 (1.242)	0.235 (1.289)
Marital Status (Ref. unmarried)								
Married	-14.256*** (0.766)	-13.85 (1002.076)	0.513 (0.649)	0.535 (0.752)	0.034 (0.678)	0.034 (0.775)	0.588 (0.633)	0.580 (0.715)

(Continued on next page)

	Student		Not Attached		Employed		Unemployed	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Human Capital (Ref. Skilled)								
Unskilled	1.042 (1.139)	0.957 (5255.929)	17.542*** (1.008)	17.18 (3714.297)	0.258 (0.850)	0.28 (4666.899)	16.951*** (0.751)	16.575 (3714.297)
Semi skilled	-1.484 (1.195)	-1.486 (1.211)	0.892 (0.584)	0.892 (0.636)	0.959 (0.614)	0.958 (0.651)	-0.134 (0.560)	-0.136 (0.615)
Highly skilled	0.043 1.657	0.036 (1.556)	-0.166 (1.582)	-0.161 (1.520)	0.751 (1.362)	0.727 (1.344)	1.294 (1.245)	1.,275 (1.174)
Constant	-15.763*** (0.769)	-15.400 (2169.3)	0.468 (0.987)	0.578 (0.921)	0.714 (0.880)	0.721 (0.922)	0.355 (0.884)	0.291 (0.989)

Standard errors are reported inside parenthesis.

"***" statistically significant at 1%; "**" at 5%; and "*" at 10%.

Balanced Panel (BP) Regression:

Number of Obs.=162

Log-likelihood=-201.066

LR $\chi^2(36)=71.62$

Adjusted Panel (AP) Regression:

Number of Obs.=162

Log-likelihood=-189.84

LR $\chi^2(36)=6715.90$

Table 1b: MNL Estimates of Transitions from the Unemployment 2002Q3-Q4 (unrestricted)
 Base Category: Unemployed individuals in the second period

	Student		Not Attached		Employed		Marginally Attached	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Gender (Ref. Male)								
Female	0.141 (0.357)	0.163 (0.359)	1.302*** (0.195)	1.294*** (0.188)	-0.439** (0.195)	-0.448** (0.199)	-0.633* (0.368)	-0.628* (0.364)
Residential Area (Ref. Rural)								
Urban	0.651 (0.645)	0.646 (0.634)	-0.022 (0.252)	-0.019 (0.256)	0.049 (0.229)	0.049 (0.226)	-0.338 (0.355)	-0.341 (0.359)
Age Groups (Ref. 15-24)								
Age 25-34	-2.051*** (0.644)	-2.046*** (0.638)	-0.409* (0.235)	-0.405* (0.228)	-0.228 (0.213)	-0.23 (0.217)	-0.715* (0.403)	-0.716* (0.392)
Age 35-44	-16.022*** (0.509)	-16.031 (967.143)	-0.671** (0.299)	-0.669** (0.297)	-0.412 (0.259)	-0.414 (0.268)	-0.939 (0.579)	-0.937* (0.513)
Age 45over	-15.681*** (0.715)	-15.661 (1021.245)	0.273 (0.310)	0.286 (0.310)	-0.607* (0.296)	-0.611* (0.299)	-0.645 (0.538)	-0.649 (0.532)
Marital Status (Ref. unmarried)								
Married	-1.040 (0.805)	-1.054 (0.768)	0.199 (0.227)	0.181 (0.222)	0.442** (0.203)	0.445** (0.213)	0.259 (0.418)	0.261 (0.388)

(Continued on next page)

	Student		Not Attached		Employed		Marginally Attached	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Human Capital (Ref. Skilled)								
Unskilled	1.548 (1.214)	1.572 (1.184)	1.340*** (0.494)	1.333*** (0.489)	1.259** (0.507)	1.263** (0.511)	0.456 (0.879)	.464 (0.863)
Semi skilled	-0.517 (0.399)	-0.521 (0.403)	-0.046 (0.207)	-0.058 (0.201)	0.436** (0.195)	0.438** (0.200)	-0.400 (0.329)	-0.394 (0.317)
Highly skilled	0.423 (0.444)	0.415 (0.451)	-0.715** (0.333)	-0.715** (0.312)	-0.033 (0.301)	-0.033 (0.303)	-0.421 (0.499)	-0.424 (0.499)
Constant	-1.873*** (0.678)	-1.831*** (0.655)	-0.925*** (0.299)	-0.765*** (0.296)	-0.581** (0.276)	-0.499* (0.275)	-0.903* (0.411)	-0.831** (0.401)

Standard errors are reported inside parenthesis.

"***" statistically significant at 1%; "**" at 5%; and "*" at 10%.

Balanced Panel (BP) Regression:

Number of Obs.=1078

Log-likelihood=-1360.339

LR $\chi^2(36)=221.01$

Adjusted Panel (AP) Regression:

Number of Obs.=1078

Log-likelihood=-1441.418

LR $\chi^2(36)=7936.39$

Table 1c: MNL Estimates of Transitions from the Marginal Attachment or Unemployment 2002Q3-Q4 (restricted-pooled)
 Base Category: Marginally Attached or Unemployed individuals in the second period

	Student		Not Attached		Employed		Unemployed	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Gender (Ref. Male)								
Female	0,639 (0.422)	0,645 (0.417)	1.743*** (0.328)	1.713*** (0.316)	0,048 (0.335)	0,022 (0.325)	0,482 (0.317)	0,462 (0.310)
Residential Area (Ref. Rural)								
Urban	1,121 (0.689)	1.136* (0.673)	0,219 (0.353)	0,208 (0.353)	0,273 (0.338)	0,261 (0.338)	0,309 (0.333)	0,306 (0.332)
Age Groups (Ref. 15-24)								
Age 25-34	-1.727** (0.684)	-1.759*** (0.685)	-0,050 (0.351)	-0,079 (0.349)	0,206 (0.342)	0,179 (0.341)	0,441 (0.332)	0,418 (0.330)
Age 35-44	-15,097*** (0.666)	-15,828 (1450.087)	0,303 (0.552)	0,307 (0.507)	0,634 (0.572)	0,643 (0.489)	1,065** (0.522)	1,079** (0.480)
Age 45over	-15,152*** (0.755)	-15,864 (1539.112)	0,817* (0.483)	0,816* (0.495)	0,101 (0.482)	0,106 (0.490)	0,567 (0.470)	0,562 (0.481)
Marital Status (Ref. unmarried)								
Married	-1,387 (0.833)	-1,387* (0.806)	0,041 (0.360)	0,038 (0.349)	0,207 (0.352)	0,212 (0.344)	-0,131 (0.341)	-0,12 (0.335)

(Continued on next page)

	Student		Not Attached		Employed		Unemployed	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Human Capital (Ref. Skilled)								
Unskilled	0,949 (1.289)	0,934 (1.317)	1,110 (0.798)	1,126 (0.795)	0,894 (0.801)	0,900 (0.811)	-0,072 (0.830)	-0,039 (0.822)
Semi skilled	-0,297 (0.430)	-0,323 (0.430)	0,431 (0.298)	0,424 (0.290)	0,860*** (0.292)	0,860*** (0.289)	0,376 (0.279)	0,369 (0.277)
Highly skilled	0,815 (0.573)	0,809 (0.567)	-0,146 (0.509)	-0,129 (0.494)	0,528 (0.488)	0,542 (0.483)	0,619 (0.457)	0,640 (0.454)
Constant	-1,005 (0.710)	-1,044 (0.687)	0,0291 (0.403)	0,127 (0.388)	0,348 (0.388)	0,363 (0.375)	0,847** (0.371)	0,770** (0.363)

Standard errors are reported inside parenthesis.

"***" statistically significant at 1%; "**" at 5%; and "*" at 10%.

Balanced Panel (BP)

Regression:

Number of Obs.=1240

Log-likelihood=--1584.554

LR $\chi^2(36)=254.94$

Adjusted Panel (AP)

Regression:

Number of Obs.=1240

Log-likelihood=-1653.450

LR $\chi^2(36)=9597.45$

Table 2a: MNL Estimates of Transitions from the Marginal Attachment 2001Q3-Q4 (unrestricted)

Base Category: Marginally attached individuals in the second period

	Student		Not Attached		Employed		Unemployed	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Gender (Ref. Male)								
Female	1.734*	1.772*	1.949***	1.925***	-0.820*	-0.826*	-0.410	-0.417
	(0.875)	(0.927)	(0.378)	(0.387)	(0.424)	(0.430)	(0.386)	(0.402)
Residential Area (Ref. Rural)								
Urban	13.933***	12.996	-0.744*	-0.727	0.022	0.021	-0.021	-0.023
	(0.644)	(711.869)	(0.438)	(0.452)	(0.440)	(0.434)	(0.442)	(0.446)
Age Groups (Ref. 15-24)								
Age 25-34	0.589	0.604	-0.445*	-0.782*	-0.842*	-0.843*	-0.440	-0.440
	(0.797)	(0.894)	(0.424)	(0.438)	(0.423)	(0.433)	(0.418)	(0.413)
Age 35-44	-13.244***	-12.270	-0.445	-0.444	-0.661	-0.659	-0.080	-0.079
	(0.970)	(687.431)	(0.594)	(0.629)	(0.625)	(0.613)	(0.576)	(0.615)
Age 45over	-12.836***	-11.855	0.880	0.847	-0.928	-0.937	-0.958	-0.965
	(1.474)	(1193.241)	(0.777)	(0.772)	(0.764)	(0.764)	(0.832)	(0.839)
Marital Status (Ref. unmarried)								
Married	-0.492	-0.544	1.103**	1.091**	1.615***	1.615***	0.621	0.621
	(1.076)	(1.244)	(0.450)	(0.469)	(0.443)	(0.453)	(0.426)	(0.448)

(Continued on next page)

	Student		Not Attached		Employed		Unemployed	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Human Capital (Ref. Skilled)								
Unskilled	-13.506*** (0.961)	-12.514*** (1291.278)	-1.039 (0.946)	-1.011 (0.996)	0.192 (0.860)	0.202 (0.936)	-0.394 (1.057)	-0.390 (1.065)
Semi skilled	-0.244 (0.911)	-0.268 (0.981)	-0.344 (0.369)	-0.330 (0.381)	-0.002 (0.354)	0.001 (0.368)	-0.045 (0.359)	-0.043 (0.375)
Highly skilled	-0.790 (1.161)	-0.746 (1.229)	-0.793 (0.576)	-0.807 (0.596)	-0.197 (0.579)	-0.195 (0.606)	0.551 (0.543)	0.551 (0.538)
Constant	-16.433*** (0.927)	-15.711 (711.870)	0.516 (0.536)	0.528 (0.486)	0.609 (0.512)	0.604 (0.473)	0.652 (0.510)	0.602 (0.483)

Standard errors are reported inside parenthesis.

"***" statistically significant at 1%; "**" at 5%; and "*" at 10%.

Balanced Panel (BP) Regression:

Number of Obs.=431

Log-likelihood=-537.703

LR $\chi^2(36)=143.08$

Adjusted Panel (AP) Regression:

Number of Obs.=431

Log-likelihood=-574.892

LR $\chi^2(36)=1449.11$

Table 2b: MNL Estimates of Transitions from the Unemployment 2001Q3-Q4 (unrestricted)

Base Category: Unemployed individuals in the second period

	Student		Not Attached		Employed		Marginally Attached	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Gender (Ref. Male)								
Female	0.404 (0.293)	0.383 (0.291)	0.905*** (0.137)	0.898*** (0.134)	-0.538*** (0.143)	-0.550*** (0.146)	-0.609*** (0.224)	-0.615*** (0.230)
Residential Area (Ref. Rural)								
Urban	-0.101 (0.407)	-0.063 (0.410)	0.005 (0.171)	0.007 (0.173)	0.149 (0.158)	0.151 (0.156)	-0.047 (0.238)	-0.025 (0.238)
Age Groups (Ref. 15-24)								
Age 25-34	-1.521*** (0.520)	-1.538*** (0.509)	-0.129 (0.170)	-0.122 (0.169)	-0.343** (0.162)	-0.343** (0.163)	-0.712*** (0.258)	-0.698*** (0.261)
Age 35-44	-15.832*** (0.486)	-15.791 (949.504)	-0.220 (0.217)	-0.215 (0.213)	-0.440** (0.194)	-0.437** (0.197)	-0.254 (0.301)	-0.256 (0.311)
Age 45over	-15.475*** (0.564)	-15.432 (1166.717)	0.617*** (0.223)	0.629*** (0.229)	-0.482** (0.225)	-0.477** (0.225)	-0.532 (0.351)	-0.516 (0.371)
Marital Status (Ref. unmarried)								
Married	-0.760 (0.668)	-0.801 (0.645)	0.148 (0.169)	0.147 (0.165)	0.493*** (0.156)	0.497*** (0.159)	-0.042 (0.248)	-0.053 (0.261)

(Continued on next page)

	Student		Not Attached		Employed		Marginally Attached	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Human Capital (Ref. Skilled)								
Unskilled	-15.172*** (0.384)	-15.143 (1965.778)	0.646* (0.334)	0.631* (0.342)	0.594* (0.350)	0.582* (0.349)	1.068** (0.454)	1.037** (0.458)
Semi skilled	-1.31*** (0.372)	-1.311*** (0.374)	-0.062 (0.142)	-0.061 (0.142)	0.491*** (0.139)	0.491*** (0.139)	0.160 (0.216)	0.148 (0.217)
Highly skilled	-0.495 (0.405)	-0.489 (0.404)	-1.019*** (0.247)	-1.004*** (0.242)	-0.616** (0.249)	-0.611** (0.252)	0.364 (0.298)	0.359 (0.297)
Constant	-1.239*** (0.401)	-1.370*** (0.405)	-0.790*** (0.195)	-0.728*** (0.195)	-0.614*** (0.183)	-0.514*** (0.183)	-1.294*** (0.270)	-1.246*** (0.271)

Standard errors are reported inside parenthesis.

"***" statistically significant at 1%; ** at 5%; and * at 10%.

Balanced Panel (BP)

Regression:

Number of Obs.=2057

Log-likelihood=-2648.991

LR $\chi^2(36)=329.76$

Adjusted Panel (AP)

Regression:

Number of Obs.=2057

Log-likelihood=-2803.874

LR $\chi^2(36)=12380.88$

Table 2c: MNL Estimates of Transitions from the Marginal Attachment or Unemployment 2001Q3-Q4 (restricted-pooled)

Base Category: Marginally Attached or Unemployed individuals in the second period

	Student		Not Attached		Employed		Unemployed	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Gender (Ref. Male)								
Female	1.009*** (0.311)	0.994*** (0.313)	1.533*** (0.194)	1.528*** (0.197)	-0.131 (0.200)	-0.133 (0.205)	0.419** (0.187)	0.422** (0.192)
Residential Area (Ref. Rural)								
Urban	0.078 (0.426)	0.08 (0.431)	-0.090 (0.215)	-0.103 (0.219)	0.167 (0.209)	0.152 (0.210)	0.040 (0.204)	0.024 (0.207)
Age Groups (Ref. 15-24)								
Age 25-34	-0.702 (0.434)	-0.721* (0.432)	-0.142 (0.224)	0.128 (0.225)	-0.030 (0.205)	-0.041 (0.220)	0.311 (0.208)	0.301 (0.209)
Age 35-44	-14.757*** (0.459)	-15.837 (1034.63)	-0.122 (0.282)	-0.116 (0.288)	-0.342 (0.267)	-0.336 (0.277)	0.135 (0.262)	0.135 (0.270)
Age 45over	-14.121*** (0.561)	-15.213 (1293.547)	1.012*** (0.320)	1.006*** (0.335)	-0.167 (0.314)	-0.175 (0.332)	0.307 (0.312)	0.291 (0.328)
Marital Status (Ref. unmarried)								
Married	-0.610 (0.594)	-0.646 (0.591)	0.434* (0.223)	0.438* (0.229)	0.815*** (0.212)	0.823*** (0.224)	0.227 (0.207)	0.235 (0.218)

(Continued on next page)

	Student		Not Attached		Employed		Unemployed	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Human Capital (Ref. Skilled)								
Unskilled	-15.251*** (0.438)	-16.319 (2150.957)	-0.459 (0.402)	-0.443 (0.406)	-0.374 (0.395)	-0.353 (0.403)	-0.928** (0.409)	-0.902** (0.413)
Semi skilled	-1.331*** (0.365)	-1.329*** (0.372)	-0.223 (0.190)	-0.212 (0.192)	0.285 (0.186)	0.301 (0.189)	-0.100 (0.179)	-0.090 (0.183)
Highly skilled	-0.748* (0.428)	-0.736 (0.428)	-1.218*** (0.297)	-1.209*** (0.294)	-0.789*** (0.293)	-0.785*** (0.296)	-0.160 (0.255)	-0.159 (0.255)
Constant	-0.383 (0.432)	-0.563 (0.434)	-0.497** (0.249)	0.511 (0.246)	0.640*** (0.241)	0.679*** (0.239)	1.134*** (0.234)	1.086*** (0.232)

Standard errors are reported inside parenthesis.

"***" statistically significant at 1%; "**" at 5%; and "*" at 10%.

Balanced Panel (BP) Regression:

Number of Obs.=2488

Log-likelihood=-3232.2746

LR $\chi^2(36)=417.38$

Adjusted Panel (AP) Regression:

Number of Obs.=2488

Log-likelihood=-3429.5025

LR $\chi^2(36)=12594.44$

Table 3a: MNL Estimates of Transitions from the Marginal Attachment 2001Q3-Q4 (unrestricted)

Base Category: Marginally attached individuals in the second period

	Student		Not Attached		Employed		Unemployed	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Gender (Ref. Male)								
Female	1.734* (0.875)	1.772* (0.927)	1.949*** (0.378)	1.925*** (0.387)	-0.820* (0.424)	-0.826* (0.430)	-0.410 (0.386)	-0.417 (0.402)
Residential Area (Ref. Rural)								
Urban	13.933*** (0.644)	12.996 (711.869)	-0.744* (0.438)	-0.727 (0.452)	0.022 (0.440)	0.021 (0.434)	-0.021 (0.442)	-0.023 (0.446)
Age Groups (Ref. 15-24)								
Age 25-34	0.589 (0.797)	0.604 (0.894)	-0.445* (0.424)	-0.782* (0.438)	-0.842* (0.423)	-0.843* (0.433)	-0.440 (0.418)	-0.440 (0.413)
Age 35-44	-13.244*** (0.970)	-12.270 (687.431)	-0.445 (0.594)	-0.444 (0.629)	-0.661 (0.625)	-0.659 (0.613)	-0.080 (0.576)	-0.079 (0.615)
Age 45over	-12.836*** (1.474)	-11.855 (1193.241)	0.880 (0.777)	0.847 (0.772)	-0.928 (0.764)	-0.937 (0.764)	-0.958 (0.832)	-0.965 (0.839)
Marital Status (Ref. unmarried)								
Married	-0.492 (1.076)	-0.544 (1.244)	1.103** (0.450)	1.091** (0.469)	1.615*** (0.443)	1.615*** (0.453)	0.621 (0.426)	0.621 (0.448)

(Continued on next page)

	Student		Not Attached		Employed		Marginally Attached	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Human Capital (Ref. Skilled)								
Unskilled	-13.506*** (0.961)	-12.514*** (1291.278)	-1.039 (0.946)	-1.011 (0.996)	0.192 (0.860)	0.202 (0.936)	-0.394 (1.057)	-0.390 (1.065)
Semi skilled	-0.244 (0.911)	-0.268 (0.981)	-0.344 (0.369)	-0.330 (0.381)	-0.002 (0.354)	0.001 (0.368)	-0.045 (0.359)	-0.043 (0.375)
Highly skilled	-0.790 (1.161)	-0.746 (1.229)	-0.793 (0.576)	-0.807 (0.596)	-0.197 (0.579)	-0.195 (0.606)	0.551 (0.543)	0.551 (0.538)
Constant	-16.433*** (0.927)	-15.711 (711.870)	0.516 (0.536)	0.528 (0.486)	0.609 (0.512)	0.604 (0.473)	0.652 (0.510)	0.602 (0.483)

Standard errors are reported inside parenthesis.

"***" statistically significant at 1%; "**" at 5%; and "*" at 10%.

Balanced Panel (BP) Regression:

Number of Obs.=431

Log-likelihood=-537.703

LR $\chi^2(36)=143.08$

Adjusted Panel (AP) Regression:

Number of Obs.=431

Log-likelihood=-574.892

LR $\chi^2(36)=1449.11$

Table 3b: MNL Estimates of Transitions from the Not Attachment 2001Q3-Q4 (unrestricted)

Base Category: Not Attached individuals in the second period

	Student		Marginally Attached		Employed		Unemployed	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Gender (Ref. Male)								
Female	-0.578*** (0.157)	-0.560*** (0.157)	-1.910*** (0.232)	-1.864*** (0.200)	-1.298*** (0.093)	-1.247*** (0.061)	-1.665*** (0.125)	-1.631*** (0.108)
Residential Area (Ref. Rural)								
Urban	-0.0521 (0.183)	-0.029 (0.180)	-0.445** (0.221)	-0.451** (0.217)	-1.378** (0.075)	-1.245** (0.054)	0.010 (0.125)	-0.025 (0.125)
Age Groups (Ref. 15-24)								
Age 25-34	-0.941*** (0.227)	-1.013*** (0.236)	-0.042 (0.325)	-0.035 (0.283)	-0.103 (0.125)	-0.071 (0.091)	-0.004 (0.145)	-0.049 (0.145)
Age 35-44	-1.429*** (0.308)	-1.454*** (0.323)	0.499* (0.303)	0.483* (0.282)	0.012 (0.127)	0.008 (0.094)	-0.020 (0.157)	-0.041 (0.159)
Age 45over	-2.029*** (0.210)	-2.019*** (0.227)	-1.851*** (0.345)	-1.864*** (0.329)	-0.702*** (0.115)	-0.587*** (0.082)	-1.666*** (0.155)	-1.653*** (0.157)
Marital Status (Ref. unmarried)								
Married	-1.507*** (0.164)	-1.506*** (0.182)	-0.511* (0.274)	-0.531* (0.243)	-0.132 (0.094)	-0.187 (0.066)	-0.905*** (0.119)	-0.896*** (0.121)

(Continued on next page)

	Student		Marginally Attached		Employed		Unemployed	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Human Capital (Ref. Skilled)								
Unskilled	-1.208*** (0.236)	-1.139*** (0.247)	-2.245*** (0.488)	-2.204*** (0.486)	0.073 (0.155)	0.023 (0.107)	-1.044*** (0.198)	0.993** (0.198)
Semi skilled	-1.341*** (0.153)	-1.327*** (0.158)	-1.006*** (0.228)	-0.986*** (0.209)	0.195 (0.132)	0.095 (0.091)	-0.460*** (0.129)	-0.445*** (0.121)
Highly skilled	0.661** (0.280)	0.665** (0.283)	0.244 (0.407)	0.258 (0.401)	0.583** (0.244)	0.426** (0.173)	0.848*** (0.218)	0.816*** (0.210)
Constant	-1.150*** (0.216)	-1.388*** (0.212)	-1.643*** (0.249)	-1.695*** (0.254)	-0.939*** (0.146)	-0.356*** (0.106)	-0.942*** (0.150)	-1.007*** (0.155)

Standard errors are reported inside parenthesis.

"***" statistically significant at 1%; "**" at 5%; and "*" at 10%.

Balanced Panel (BP) Regression:

Number of Obs.=22496

Log-likelihood=-9271.69

LR $\chi^2(36)=233.52$

Adjusted Panel (AP) Regression:

Number of Obs.=22496

Log-likelihood=-6706.5516

LR $\chi^2(36)=1895.75$

Table 3c: MNL Estimates of Transitions from the Marginal Attachment or Not Attachment 2001Q3-Q4 (restricted-pooled)

Base Category: Marginally Attached or Not Attached individuals in the second period

	Student		Not Attached		Employed		Unemployed	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Gender (Ref. Male)								
Female	1.690*** (0.236)	1.648*** (0.218)	2.306*** (0.185)	2.234*** (0.162)	0.595*** (0.201)	0.787*** (0.168)	0.288 (0.209)	0.286 (0.182)
Residential Area (Ref. Rural)								
Urban	0.216 (0.258)	0.269 (0.254)	0.228 (0.190)	0.262 (0.187)	-0.973** (0.200)	-0.908*** (0.191)	0.249 (0.216)	0.247 (0.213)
Age Groups (Ref. 15-24)								
Age 25-34	-1.207*** (0.315)	-1.248*** (0.303)	-0.396*** (0.234)	-0.361* (0.215)	-0.392 (0.256)	-0.377* (0.226)	-0.267 (0.259)	-0.278 (0.241)
Age 35-44	-1.900*** (0.392)	-1.913*** (0.401)	-0.500** (0.250)	-0.484** (0.244)	-0.501* (0.274)	-0.475* (0.256)	-0.461* (0.282)	-0.469* (0.278)
Age 45over	0.054 (0.350)	0.060 (0.360)	2.054 (0.287)	2.051*** (0.284)	1.052*** (0.305)	1.328*** (0.292)	0.141 (0.317)	0.192 (0.316)
Marital Status (Ref. unmarried)								
Married	-0.643** (0.264)	-0.673** (0.264)	0.999 (0.211)	0.856*** (0.197)	0.742*** (0.227)	0.658*** (0.204)	-0.025 (0.234)	-0.046 (0.204)

(Continued on next page)

	Student		Not Attached		Employed		Unemployed	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Human Capital (Ref. Skilled)								
Unskilled	0.786*	-0.828*	1.978***	1.957***	1.965***	1.963***	0.924**	0.959**
	(0.473)	(0.476)	(0.414)	(0.411)	(0.430)	(0.419)	(0.446)	(0.447)
Semi skilled	-0.564**	-0.551***	0.763***	0.766***	0.831***	0.816***	0.348	0.362*
	(0.237)	(0.229)	(0.189)	(0.174)	(0.215)	(0.188)	(0.214)	(0.199)
Highly skilled	-0.059	-0.015	-0.618**	-0.599**	-0.115	-0.195	0.375	0.361
	(0.396)	(0.393)	(0.302)	(0.301)	(0.357)	(0.329)	(0.337)	(0.331)
Constant	0.094	-0.063	1.266***	1.350***	0.825***	1.223***	0.667***	0.644***
	(0.292)	(0.289)	(0.220)	(0.214)	(0.239)	(0.225)	(0.243)	(0.243)

Standard errors are reported inside parenthesis.

"***" statistically significant at 1%; "**" at 5%; and "*" at 10%.

Balanced Panel (BP) Regression:

Number of Obs.=22927

Log-likelihood=-10048.776

LR $\chi^2(36)=2971.38$

Adjusted Panel (AP) Regression:

Number of Obs.=22927

Log-likelihood=-7572.145

LR $\chi^2(36)=2406.36$

Table 4: BNL Estimates of Transitions 2001Q3-Q4 (all models included) – Cannot Reject
 Dependent Variable: Employed individuals in the second period

	Labor market state in the first period					
	Marginally Attached		Unemployed		Marginally Attached/Unemployed	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Gender (Ref. Male)						
Female	-1.538*** (0.328)	-1.553*** (0.321)	-0.814*** (0.130)	-0.829*** (0.131)	-0.931*** (0.120)	-0.942*** (0.121)
Residential Area (Ref. Rural)						
Urban	0.232 (0.309)	0.238 (0.295)	0.155 (0.141)	0.152 (0.139)	0.167 (0.128)	0.167 (0.125)
Age Groups (Ref. 15-24)						
Age 25-34	-0.444 (0.325)	-0.439 (0.329)	-0.172 (0.146)	-0.178 (0.148)	-0.210 (0.133)	-0.215 (0.135)
Age 35-44	-0.498 (0.447)	-0.496 (0.421)	-0.288* (0.172)	-0.288* (0.177)	-0.334** (0.161)	-0.332** (0.163)
Age 45over	-0.976 (0.490)	-0.991 (0.493)	-0.596*** (0.196)	-0.609*** (0.197)	-0.658*** (0.183)	-0.668*** (0.183)
Marital Status (Ref. unmarried)						
Married	1.028*** (0.332)	1.029*** (0.321)	0.469*** (0.141)	0.472*** (0.143)	0.574*** (0.130)	0.573*** (0.131)

(Continued on next page)

	Marginally Attached		Unemployed		Marginally Attached/Unemployed	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Human Capital (Ref. Skilled)						
Unskilled	0.762 (0.644)	0.762 (0.679)	0.252 (0.287)	0.233 (0.288)	0.274 (0.261)	0.262 (0.261)
Semi skilled	0.133 (0.260)	0.133 (0.258)	0.553*** (0.128)	0.547*** (0.125)	0.463*** (0.114)	0.464*** (0.112)
Highly skilled	-0.234 (0.453)	-0.219 (0.469)	-0.376 (0.237)	-0.369 (0.239)	-0.348* (0.209)	-0.341 (0.211)
Constant	-0.960*** (0.324)	-0.949*** (0.323)	-1.285*** (0.163)	-1.195*** (0.164)	-1.217 (0.145)	-0.341*** (0.146)

Standard errors are reported inside parenthesis.

"***" statistically significant at 1%; "**" at 5%; and "*" at 10%.

First Equation

Balanced Panel(BP)Regression:

Number of Obs.=431

Log-likelihood=-239.383

LR $\chi^2(9)=52.59$

Adjusted Panel(AP)Regression:

Number of Obs.=431

Log-likelihood=-253.991

LR $\chi^2(9)=37.02$

Second Equation

Balanced Panel (BP) Regression:

Number of Obs.=2057

Log-likelihood=-1187.657

LR $\chi^2(9)=122.17$

Adjusted Panel (AP) Regression:

Number of Obs.=2057

Log-likelihood=-1225.45

LR $\chi^2(9)=107.54$

Third Equation

Balanced Panel (BP) Regression:

Number of Obs.=2488

Log-likelihood=-1432.606

LR $\chi^2(9)=163.52$

Adjusted Panel (AP) Regression:

Number of Obs.=2488

Log-likelihood=-1485.944

LR $\chi^2(9)=139.90$

Table 5: BNL Estimates of Transitions 2000Q1-Q2 (all models included)--Reject
 Dependent Variable: Employed individuals in the second period

	Labor market state in the first period					
	Marginally Attached		Unemployed		Marginally Attached/Unemployed	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Gender (Ref. Male)						
Female	-1.897*** (0.299)	-1.901*** (0.290)	-1.342*** (0.148)	-1.337*** (0.145)	-1.464*** (0.131)	-1.492*** (0.129)
Residential Area (Ref. Rural)						
Urban	-0.516** (0.257)	-0.486* (0.259)	-0.331** (0.145)	-0.324** (0.149)	-0.381** (0.126)	-0.365** (0.128)
Age Groups (Ref. 15-24)						
Age 25-34	0.414 (0.304)	0.448 (0.304)	-0.057 (0.163)	-0.034 (0.163)	0.043 (0.142)	0.067 (0.142)
Age 35-44	0.051 (0.380)	0.059 (0.411)	-0.142 (0.210)	-0.106 (0.208)	-0.085 (0.183)	-0.054 (0.184)
Age 45over	-1.150** (0.469)	-1.150** (0.475)	-0.413* (0.228)	-0.432* (0.228)	-0.523** (0.202)	-0.539** (0.203)
Marital Status (Ref. unmarried)						
Married	0.679** (0.304)	0.684** (0.315)	0.612*** (0.165)	0.602*** (0.164)	0.603*** (0.143)	0.599*** (0.144)

(Continued on next page)

	Marginally Attached		Unemployed		Marginally Attached/Unemployed	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Human Capital (Ref. Skilled)						
Unskilled	0.076 (0.616)	0.020 (0.602)	0.394 (0.334)	0.373 (0.339)	0.306 (0.291)	0.274 (0.292)
Semi skilled	0.255 (0.237)	0.243 (0.241)	0.695*** (0.137)	0.678*** (0.137)	0.581*** (0.118)	0.569*** (0.118)
Highly skilled	-0.949* (0.521)	-0.936* (0.523)	0.314 (0.252)	0.314 (0.235)	0.057 (0.224)	0.064 (0.210)
Constant	0.133 (0.263)	-0.032 (0.267)	-0.313* (0.164)	-0.383* (0.167)	-0.182 (0.139)	-0.281** (0.141)

Standard errors are reported inside parenthesis.

"***" statistically significant at 1%; "**" at 5%; and "*" at 10%.

First Equation

Balanced Panel(BP)Regression:

Number of Obs.=477

Log-likelihood=-98.16

LR $\chi^2(9)=52.59$

Adjusted Panel(AP)Regression:

Number of Obs.=477

Log-likelihood=-284.942

LR $\chi^2(9)=59.14$

Second Equation

Balanced Panel (BP) Regression:

Number of Obs.=1550

Log-likelihood=-950.943

LR $\chi^2(9)=213.80$

Adjusted Panel (AP) Regression:

Number of Obs.=1550

Log-likelihood=-1019.522

LR $\chi^2(9)=145.66$

Third Equation

Balanced Panel (BP) Regression:

Number of Obs.=2027

Log-likelihood=-1226.893

LR $\chi^2(9)=298.59$

Adjusted Panel (AP) Regression:

Number of Obs.=2027

Log-likelihood=-1019.522

LR $\chi^2(9)=145.66$

Table 6: BNL Estimates of Transitions 2000Q1-Q2 (all models included) – Cannot Reject
 Dependent Variable: Not Attached individuals in the second period

	Labor market state in the first period					
	Marginally Attached		Not Attached		Marginally Attached/Not Attached	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Gender (Ref. Male)						
Female	0.365 (0.288)	0.293 (0.288)	-1.691*** (0.155)	-1.370*** (0.131)	-1.550*** (0.133)	-1.348*** (0.117)
Residential Area (Ref. Rural)						
Urban	0.912** (0.456)	0.889** (0.452)	0.881*** (0.217)	1.219*** (0.216)	0.924*** (0.194)	1.199*** (0.194)
Age Groups (Ref. 15-24)						
Age 25-34	0.181 (0.414)	0.172 (0.359)	0.393 (0.191)	0.403 (0.174)	0.307* (0.171)	0.343** (0.194)
Age 35-44	-0.127 (0.591)	-0.174 (0.561)	0.233 (0.207)	0.196 (0.197)	0.114 (0.191)	0.093 (0.183)
Age 45over	0.149 (0.675)	0.107 (0.630)	-1.354*** (0.199)	-1.159*** (0.194)	-1.373*** (0.182)	-1.251*** (0.180)
Marital Status (Ref. unmarried)						
Married	-0.531 (0.396)	-0.496 (0.376)	-0.793*** (0.158)	-0.810*** (0.149)	-0.797*** (0.144)	-0.814*** (0.137)

(Continued on next page)

	Marginally Attached		Not Attached		Marginally Attached/Not Attached	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Human Capital (Ref. Skilled)						
Unskilled	-0.475 (1.208)	-0.396 (1.109)	-1.721*** (0.329)	-1.744*** (0.318)	-1.720*** (0.312)	-1.732*** (0.303)
Semi skilled	0.184 (0.314)	0.219 (0.308)	-0.374** (0.160)	-0.467** (0.139)	-0.365** (0.144)	-0.434*** (0.126)
Highly skilled	0.487 (0.507)	0.401 (0.477)	0.310 (0.293)	0.282 (0.270)	0.445* (0.252)	0.411* (0.233)
Constant	-2.610*** (0.437)	-2.659*** (0.469)	-2.269*** (0.240)	-3.065 (0.236)	-2.282*** (0.207)	-2.928*** (0.209)

Standard errors are reported inside parenthesis.

"***" statistically significant at 1%; "**" at 5%; and "*" at 10%.

First Equation

Balanced Panel(BP)Regression:

Number of Obs.=477

Log-likelihood=-187.383

LR $\chi^2(9)=12.37$

Adjusted Panel(AP)Regression:

Number of Obs.=477

Log-likelihood=-203.323

LR $\chi^2(9)=12.91$

Second Equation

Balanced Panel (BP) Regression:

Number of Obs.=19823

Log-likelihood=-1480.973

LR $\chi^2(9)=408.22$

Adjusted Panel (AP) Regression:

Number of Obs.=19823

Log-likelihood=-1452.087

LR $\chi^2(9)=534.26$

Third Equation

Balanced Panel (BP) Regression:

Number of Obs.=20300

Log-likelihood=-1706.597

LR $\chi^2(9)=524.64$

Adjusted Panel (AP) Regression:

Number of Obs.=20300

Log-likelihood=-1691.707

LR $\chi^2(9)=640.77$

Table 7: BNL Estimates of Transitions 2001Q3-Q4 (all models included) -- Reject

Dependent Variable: Not Attached individuals in the second period

	Labor market state in the first period					
	Marginally Attached		Unemployed		Marginally Attached/Unemployed	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Gender (Ref. Male)						
Female	2.325*** (0.292)	2.317*** (0.292)	1.113*** (0.125)	1.127*** (0.120)	1.311*** (0.113)	1.321*** (0.109)
Residential Area (Ref. Rural)						
Urban	-0.779** (0.328)	-0.754** (0.324)	-0.038 (0.154)	-0.044 (0.155)	-0.175 (0.136)	-0.178 (0.137)
Age Groups (Ref. 15-24)						
Age 25-34	-0.400 (0.329)	-0.401 (0.340)	0.122 (0.156)	0.127 (0.154)	0.035 (0.139)	0.039 (0.139)
Age 35-44	-0.205 (0.449)	-0.205 (0.452)	0.031 (0.196)	0.035 (0.194)	-0.010 (0.177)	-0.007 (0.176)
Age 45over	1.452*** (0.510)	1.425*** (0.510)	0.900*** (0.205)	0.911*** (0.202)	0.951*** (0.188)	0.958*** (0.186)
Marital Status (Ref. unmarried)						
Married	0.320 (0.345)	0.298 (0.344)	-0.010 (0.156)	-0.023 (0.150)	0.041 (0.140)	0.026 (0.136)

(Continued on next page)

	Marginally Attached		Unemployed		Marginally Attached/Unemployed	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Human Capital (Ref. Skilled)						
Unskilled	-0.938 (0.681)	-0.930 (0.750)	0.367 (0.277)	0.338 (0.283)	0.194 (0.258)	0.170 (0.264)
Semi skilled	-0.284 (0.276)	-0.274 (0.278)	-0.176 (0.132)	-0.194 (0.128)	-0.206* (0.117)	-0.222* (0.115)
Highly skilled	-0.910* (0.490)	-0.929** (0.462)	-0.901*** (0.237)	-0.884*** (0.230)	-0.907*** (0.210)	-0.899*** (0.205)
Constant	-1.088*** (0.364)	-1.054*** (0.343)	-1.529*** (0.176)	-1.486*** (0.176)	-1.419*** (0.157)	-1.375*** (0.155)

Standard errors are reported inside parenthesis.

"***" statistically significant at 1%; "**" at 5%; and "*" at 10%.

First Equation

Balanced Panel(BP)Regression:

Number of Obs.=431

Log-likelihood=-210.128

LR $\chi^2(9)=93.34$

Adjusted Panel(AP)Regression:

Number of Obs.=431

Log-likelihood=-220.821

LR $\chi^2(9)=72.73$

Second Equation

Balanced Panel (BP) Regression:

Number of Obs.=2057

Log-likelihood=-1065.120

LR $\chi^2(9)=121.38$

Adjusted Panel (AP) Regression:

Number of Obs.=2057

Log-likelihood=-1115.563

LR $\chi^2(9)=112.81$

Third Equation

Balanced Panel (BP) Regression:

Number of Obs.=2488

Log-likelihood=-1289.134

LR $\chi^2(9)=190.98$

Adjusted Panel (AP) Regression:

Number of Obs.=2488

Log-likelihood=-1351.428

LR $\chi^2(9)=175.67$

Table 8: BNL Estimates of Transitions 2000Q1-Q2 (all models included)--Reject
 Dependent Variable: Unemployed individuals in the second period

	Labor market state in the first period					
	Marginally Attached		Not Attached		Marginally Attached/Not Attached	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Gender (Ref. Male)						
Female	0.365 (0.288)	0.293 (0.288)	-1.691*** (0.155)	-1.370*** (0.131)	-1.550*** (0.133)	-1.348*** (0.117)
Residential Area (Ref. Rural)						
Urban	0.912** (0.456)	0.889** (0.452)	0.881*** (0.217)	1.219*** (0.216)	0.924*** (0.194)	1.199*** (0.194)
Age Groups (Ref. 15-24)						
Age 25-34	0.181 (0.414)	0.172 (0.359)	0.393 (0.191)	0.403 (0.174)	0.307* (0.171)	0.343** (0.194)
Age 35-44	-0.127 (0.591)	-0.174 (0.561)	0.233 (0.207)	0.196 (0.197)	0.114 (0.191)	0.093 (0.183)
Age 45over	0.149 (0.675)	0.107 (0.630)	-1.354*** (0.199)	-1.159*** (0.194)	-1.373*** (0.182)	-1.251*** (0.180)
Marital Status (Ref. unmarried)						
Married	-0.531 (0.396)	-0.496 (0.376)	-0.793*** (0.158)	-0.810*** (0.149)	-0.797*** (0.144)	-0.814*** (0.137)

(Continued on next page)

	Marginally Attached		Not Attached		Marginally Attached/Not Attached	
	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel	Adjusted Panel	Balanced Panel
Human Capital (Ref. Skilled)						
Unskilled	-0.475 (1.208)	-0.396 (1.109)	-1.721*** (0.329)	-1.744*** (0.318)	-1.720*** (0.312)	-1.732*** (0.303)
Semi skilled	0.184 (0.314)	0.219 (0.308)	-0.374** (0.160)	-0.467** (0.139)	-0.365** (0.144)	-0.434*** (0.126)
Highly skilled	0.487 (0.507)	0.401 (0.477)	0.310 (0.293)	0.282 (0.270)	0.445* (0.252)	0.411* (0.233)
Constant	-2.610*** (0.437)	-2.659*** (0.469)	-2.269*** (0.240)	-3.065 (0.236)	-2.282*** (0.207)	-2.928*** (0.209)

Standard errors are reported inside parenthesis.

"***" statistically significant at 1%; "**" at 5%; and "*" at 10%.

First Equation

Balanced Panel(BP)Regression:
Number of Obs.=477
Log-likelihood=-187.383
LR $\chi^2(9)=12.37$

Adjusted Panel(AP)Regression:
Number of Obs.=477
Log-likelihood=-203.323
LR $\chi^2(9)=12.91$

Second Equation

Balanced Panel (BP) Regression:
Number of Obs.=19823
Log-likelihood=-1480.973
LR $\chi^2(9)=408.22$

Adjusted Panel (AP) Regression:
Number of Obs.=19823
Log-likelihood=-1452.087
LR $\chi^2(9)=534.26$

Third Equation

Balanced Panel (BP) Regression:
Number of Obs.=20300
Log-likelihood=-1706.597
LR $\chi^2(9)=524.64$

Adjusted Panel (AP) Regression:
Number of Obs.=20300
Log-likelihood=-1691.707
LR $\chi^2(9)=640.77$