DISCUSSION PAPER SERIES

IZA DP No. 2908

Unequal Chances on the Transitional Labor Market: The Case of the Netherlands

Govert E. Bijwaard
Justus Veenman

July 2007

Forschungsinstitut
zur Zukunft der Arbeit
Institute for the Study
of Labor

Unequal Chances on the Transitional Labor Market: The Case of the Netherlands

Govert E. Bijwaard
Erasmus University Rotterdam
and IZA

Justus Veenman
Erasmus University Rotterdam

Discussion Paper No. 2908
July 2007

IZA

P.O. Box 7240
53072 Bonn
Germany

Phone: +49-228-3894-0
Fax: +49-228-3894-180
E-mail: iza@iza.org

IZA Discussion Paper No. 2908
July 2007

ABSTRACT

Unequal Chances on the Transitional Labor Market: The Case of the Netherlands*

The emergence of a transitional labor market offers new opportunities to workers, but at the same time bears the risk of (new) inequalities. This paper deals with unequal chances on the transitional labor market in the Netherlands, in particular for workers from the four largest immigrant groups: Turks, Moroccans, Surinamese and Antilleans. The data used are from the SPVA, the survey `Social Position and Use of Public Utilities by Migrants' for the years 1998 and 2002. These are based on stock sampling. Since for some individuals labor market transitions occur at a very low rate, these individuals may stay in their current state till they reach the retirement age of 65. We estimate hazard rate models that account for both the stock-sampling and the possible maximum duration for the transitions from unemployment, household care and disability to employment. Then we decompose the difference in expected duration between the immigrant groups and the Dutch into the contribution of differences in observable characteristics, coefficient estimates and baseline hazard parameters. The main results of the analyses are that unequal chances exist, but to a different degree for the various groups and with variations per transition type.

JEL Classification: C41, J64, J7

Keywords: transitional labor market, duration, Oaxaca-Blinder decomposition

Corresponding author:

Govert E. Bijwaard
Econometric Institute
Erasmus University
P.O. Box 1738
3000 DR Rotterdam
Netherlands
E-mail: bijwaard@few.eur.nl

* Bijwaard's research is financially supported by the Netherlands Organization for Scientific Research (NWO) nr. 451-04-011. Veenman's research is financially supported by the Netherlands Organization for Scientific Research (NWO), nr. 26198904.

1 Introduction

According to the German economist Günther Schmid, who is the founding father of the concept of the transitional labor market (TLM), this type of labor market is now emergent in Western economies (e.g. Schmid 1998, 2000, 2002a,b). This implies that individuals experience an increasing number of transitions during their working career as a consequence of intertwined economic and social trends. These transitions concern both the field of paid labor itself, e.g. transitions from one job to another, and transitions between work and other activities, e.g. family care, education, unemployment. The rise of such transitions implies that 'life-long tenures' are becoming a characteristic of the past, since today's workers are much more inconstant and flexible.

One of the basic assumptions of Schmid's approach is that the increased worker flexibility is beneficial to employers who need to adapt to turbulent markets, as well as to employees who want to bring their working career in line with their private life. Increasing transitions comprise a risk for employees however, viz. that interruptions of the working career which are meant to be temporary, unintendedly turn out to be permanent. This applies in particular to transitions from work to unemployment, education, prolonged illness and household care. For this reason governments apply policies to stimulate the return to work for those who experience a break in their working career. Such policies are in accordance with Schmid's normative concept of the transitional labor market: "... to envisage new kinds of institutional arrangements to prevent those transitions from becoming gates to social exclusion and to transform them into a wider range of opportunities for the employed (*maintenance transitions*) as well as for the inactive or unemployed people (*integrative transitions*)" (Schmid 2000:xx). Pro-active policies, supported by public and private arrangements facilitating labor market transitions, will favour the efficient operation of the labor market as well as diminish the risks of 'exclusionary transitions'.

In Schmid's view, the Netherlands offers a good example in this respect. He favors the Dutch employment strategy of redistributing work and income on a massive scale, and argues that e.g. Germany can learn from the modernization of the Dutch employment service. In this connection, he points in particular at the placement service for long-term unemployed, 'who under

normal conditions have virtually no chance of finding employment again' (Schmid 1997:10). He furthermore attributes the Dutch 'employment miracle' of the 1990s to the high degree of part-time work in newly created jobs (Schmid 2002b:156), to increased flexibilization on the labor market (especially as a consequence of the growth of temporary work), and to the 'flexicurity'-approach optimizing flexibility as well as work security (ibidem 2001:12; also Wilthagen 1998). Given Schmid's appreciation of the Dutch situation, it is particularly interesting to choose the Netherlands as a case to investigate whether the emergence of a transitional labor market implies new risks of social exclusion.

According to the German sociologist Ullrich Beck increasing risks of social exclusion are a trade-mark of the modern 'risk-society', which means that we can all be the victim of it (Beck 1992). We may nevertheless assume that individuals differ in 'transitional skills' in the same way they differ in e.g. human capital. Not everyone possesses the cognitive and social skills required for a 'reflexively organized life planning' (Giddens 1991). This holds true even when institutional arrangements of the kind Schmid proposes are available, since individuals differ in self-activity (Dewey 1990) - also in relation to using public utilities, what has been called 'institutional self-activity' (Dieleman and van der Lans 1999).

In the Netherlands Distelbrink and Pels (2002) found that immigrants experience more problems in relation to such self-activity, partly as a consequence of their upbringing which is more directed at compliance and respect than at autonomic thinking and acting, and partly because of their on average lower educational level. We therefore expect immigrants to also have less 'transitional skills' in addition to impediments in other resources that are relevant for their achievements on the labor market, like human capital, social capital and cultural capital (Bourdieu 1986). This makes it of interest to compare the transitional risks of immigrants and Dutch natives. If we add that selection processes on the Dutch labor market also negatively affect immigrants' job chances, even when they have identical resources (e.g. Bovenkerk et al. 1995), we believe to have enough arguments to focus on the risks of exclusionary transitions for immigrants in the Netherlands.

We therefore formulate the research question as follows: *Does the emergent transitional*

labor market in the Netherlands imply higher risks of 'exclusionary' transitions for immigrants compared to Dutch natives?

With the exception of the year 1967, the Netherlands is a net-immigration country since the 1960s. From this time up to the 1990s immigration was dominated by four immigrant groups, and still the majority, about 70 percent of the immigrants and their descendants, come from Turkey and Morocco (the Mediterraneans), and from Suriname and the Dutch Antilles (the Caribbeans). We will therefore focus on these four groups, also because they are the best documented immigrant groups in the Netherlands.

Since we try to gain insight into exclusionary transitions we will focus on those who are unemployed or inactive now, to ascertain their chances to find a job (again). For this reason we are interested in four transition types, viz. from education to work, from unemployment to work, from domestic care to work, and from prolonged illness (disability to work, to be more precise) to work. We will systematically compare the transition chances of immigrants and Dutch natives in these fields.

Hereafter we will first elaborate on Schmid's approach of the transitional labor market (section 2). We will then discuss our method and the data used (section 3). The analyzes and their results will be presented in section 4, where each of the four aforementioned transitions will be elaborated on subsequently. Section 5 will contain our conclusions and a short discussion of the main findings.

2 The TLM-approach

In recent decades work has become more variable and insecure. There is no guarantee on full employment and the standard biography (*education-work-inactivity* for males and *education-work-marriage/care-inactivity* for females) increasingly became a feature of the past. Individuals face transitions in their working career more often. Some of these transitions are voluntarily from the point of view of the worker. In this sense the standard biography has been replaced by a biography from choice; today's citizens have increasing opportunities to arrange their lives according to their own needs and preferences. The situation of individual 'free choice'

has a drawback, however. The new biography, which has been described as a 'do-it-yourself biography', can in some instances become a 'breakdown biography' (Beck 1992, Giddens 1991). Increasing risks therefore are characteristic of today's labor markets.

Schmid's concept of the transitional labor market is both empirical and normative. In the latter sense it is directed at giving advices on new institutional arrangements that should prevent exclusion from paid work. The *empirical* TLM-concept concerns the actual increase in transitions during the working career. The number of labor market transitions has grown and their nature has changed because of a combination of economic, technological, cultural and demographic trends that partly coincide. The most relevant *economic trend* is the growing need for flexibilization of labor relations, which is especially caused by insecurity in sales markets and increased international competition (Schmid 1998, 2002a,b, and for the Netherlands: Geelhoed 1997). *Technological trends* also affect the flexibilization of labor relations, and at the same time have a more direct effect on the increment of transitions. In this connection one should particularly think of fast changes in the ICT-sector which were strongly influenced by globalization (Schmid 2002a). The most important *cultural trends* influencing the emergence of transitional labor markets are the interlinked individualization and women's liberation, in their turn both affected by secularization. Particularly the fast growing female labor market participation requires smooth transitions between paid work and domestic work. *Demographic trends* that add to the coming of the transitional labor market are population ageing in combination with declining fertility rates. Their consequences in terms of the ratio of economically inactive and active people in society (the so-called i/a-ratio), call for policies such as the prolongation of the working life. To ensure this, extra investments in human capital are needed during the working career (to diminish the usual deterioration of this capital). Furthermore one or two rest periods during the working career may be instrumental to motivate workers to bonding to the labor market until an advanced age. From the above we can infer the necessity of transitions between paid labor on the one hand and education and sabbaticals on the other.

This short sketch of 'driving forces' behind the emergence of a transitional labor market leads us to the transition types we are talking about. Günther Schmid (1998) uses the following

scheme to show which transitions are relevant for his TLM-approach.

[Place Figure 1 about here]

We will deviate somewhat from the scheme by neglecting the transition to and from retirement, since this is still mainly 'one-way traffic' and therefore less interesting for our purposes to elaborate on differences in exclusionary transitions. Instead we will explicitly add the transition from prolonged illness, in this case the disability to work. The latter is of special interest for the Netherlands, where in 2004 about 960,000 people received an allowance since they were officially registered as inable to work (Statistics Netherlands).[1]

Günther Schmid advocates the normative TLM-concept because he is convinced that apart from some advantages, the emergent transitional labor markets bear the risk of social exclusion and insecurity. He states that many transitions are critical in the sense that they may lead to downward spirals of job careers (exclusionary transitions), ending in recurrent unemployment or ultimately in long-term unemployment and poverty (Schmid 2000:93). He uses the metaphor of a door to indicate the risks of transitions. Risky transitions may be seen as an exit from the labor market, while it is not at all certain whether there will be an entrance again. Schmid uses the expression 'kick off process of social exclusion' (1998:9) for such circumstances. Opposite to exclusionary transitions are integrative transitions and maintenance transitions. The first refer to transitions of those who were initially outside paid labor and enter a job now, while the second refer to transitions of those who are already in work and have found ways of maintaining employment by moving between different working-time regimes. The latter must be considered as an example, because other transitions can also have a maintenance character, like e.g. the transition from one job to another. Integrative transitions may in our opinion also refer to the movement of those who are in paid labor and considerably improve their position (e.g. by going from an irregular job to a regular job).

Given the aforementioned economic, technological and social trends, the core question within

[1]Recently several measures were taken to diminish the number of those who are disabled to work. The positive results show from the decline in 2005 to about 880,000 people. To put this number in perspective, we add that the employed labor force then counted about 6,9 million people.

Schmid's TLM-approach is not whether or not transitions will increase, but how they will affect the worker position. Are workers able to maintain or even improve their position, or will they be the victims of unintended social exclusion which may lead to long-lasting unemployment? Before we answer this question we will first present the data and method used.

3 Data and method

Our data are taken from the nationwide survey 'Social Position and Use of Public Utilities by Migrants', more specifically from the survey's editions for the years 1998 and 2002.[2] The survey's main purposes are to gain insight into (the development of) the socio-economic position of the four largest immigrant groups in the Netherlands (Turks, Moroccans, Surinamese and Antilleans), in the variety in socio-economic position among these groups as well as in differences in position compared to the native Dutch.[3] Because of the high degree of spatial concentration of immigrants in the larger cities, the survey is based on random sampling within the 13 largest Dutch cities. This procedure results in nationwide representativeness for the four immigrant groups.[4] In each household the head of household was asked to answer general questions on the composition of the household and (if relevant) on its migration history. All members of the household being older than 11 years were asked to answer the other questions.[5] Both the first generation of actual immigrants and the second generation (of descendants) are represented in the survey. Table 1 shows the number of respondents per group.

[2] The 1998-survey was done by the Institute for Sociological and Economic Research (ISEO) from Erasmus University Rotterdam in co-operation with the Social and Cultural Planning Office of the Netherlands (SCP). In 2002 ISEO co-operated with the SCP and, on specific items, with researchers from the Netherlands Organization for Scientific Research (NWO)-Program Netherlands Kinship Panel Study (NKPS).

[3] To be considered as a member of one of the immigrant groups, the person or at least one of his parents should be coming from the country concerned.

[4] More detailed information on the survey can be found in Groeneveld and Weijers-Martens (2003).

[5] An exception must be made for a series of questions on cultural integration and social contacts, which are not relevant for our purposes. These questions were asked alternately in interviews with the head of household and his/her partner and in interviews with the eldest child present during the interview.

Table 1: Number of people in SPVA by ethnicity and main activity.

	Turks	Moroccans	Surinamese	Antilleans	Natives	Total
Main activity						
Working	2129	1640	2802	1522	2336	10429
Unemployed searching for job	589	500	364	263	128	1844
Domestic care	1328	1164	439	308	402	3641
Disability benefits	552	440	303	116	165	1576
Student	259	304	296	274	152	1289
Other	189	118	100	79	162	648
Total	5046	4166	4304	2562	3345	19423

* Only people 18-65 years. *Source:* SPVA (ISEO/SCP)

3.1 Duration analysis

The differences in employment rate are reflected in data on the duration of unemployment, the duration of disability benefits and the duration of domestic care. The data contain retrospective information on the length of the elapsed duration in the labor market situation at the interview moment.

The aforementioned data on the duration in a particular state are based on stock sampling, because they are obtained by sampling from the stock in that state using a single interview.[6] Since for some individuals labor market transitions occur at a very low rate, these individuals may stay in their current state till they reach the retirement age of 65. In the Netherlands, as in most Western countries, unemployment benefits and disability benefits cease after retirement. In fact, everybody leaves the (potential) workforce when reaching the retirement age. This implies that every state has an upper bound of its duration till retirement. We will account for both the stock-sampling and the possible maximum duration.

In duration analysis the hazard rate or intensity is usually modelled. A common way to

[6] In fact some individuals are interviewed twice, both in 1998 and in 2002, in the SPVA. However, only for a very limited number of individuals this occurs. Therefore we ignore the panel structure for these few individuals.

accommodate the presence of observed characteristics is to specify a proportional intensity model,

$$\lambda(t|x) = \lambda_0(t;\alpha)e^{\beta' x_i(t)}, \tag{1}$$

where $\lambda_0(t;\alpha)$ represents the baseline hazard, that is, the duration dependence of the intensity common to all individuals. The covariates affect the intensity proportionally and the time-varying variables are external variables that change independent of the employment state, such as the age of a disabled individual that changes independent of the employment state. If the duration of individual i has an upper bound of $\bar{t}_i$, the time till retirement, the hazard of leaving unemployment at $\bar{t}_i$ is ∞. This implies that the probability to reach $\bar{t}_i$ for individual i is $S(\bar{t}_i|x_i) = \exp\big(-\int_0^{\bar{t}_i} \lambda_0(s;\alpha)e^{\beta' x_i(s)}\, ds\big)$.

If we sample from a stock of individuals at time 0 (in calendar time) in a particular state, e.g. from the stock of people on disability benefits, and observe the elapsed time e in that state, then the distribution of the observations e is a conditional distribution, see a.o. Heckman and Singer (1984). The condition is the presence of a particular individual in the stock. Let $r(-e|x_i)$ denote the entry rate, the probability to enter the state during $[e, e+de)$ in the past given observed characteristics x and assume, as Nickell (1979) does, that the entry of people with characteristics x is a constant fraction of the total entry, $r(-e|x) = r_1(-e)r_2(x)$ then the density of the elapsed duration is

$$h(e|\bar{t}_i, x_i) = \frac{r_1(-e)e^{-\Lambda(e|x_i)}}{\int_0^{\bar{t}_i} r_1(-\tau)e^{-\Lambda(\tau|x_i)}\, d\tau} \tag{2}$$

where $\Lambda(e|x_i) = \int_0^e \lambda_0(s;\alpha)\exp\big(\beta' x_i(s)\big)\, ds$, the integrated hazard.

In practice it is hard to find a closed form solution to the integrals in the density. For example, the commonly applied proportional hazard model with Weibull baseline hazard leads to intractable integrals. Although these integrals may be approximated, the Weibull baseline is also very restrictive. A very flexible and tractable assumption is to use a piecewise constant baseline hazard. If the entry rate is also constant on intervals we have a closed form expression for the density of the elapsed duration, from which we can easily derive a maximum likelihood estimator for the parameters of the model. This boils down to assuming the baseline hazard

is constant on M intervals. Let the intervals $I_m(t) = I(d_{m-1} \leq t < d_m)$ for $m = 0, \ldots, M$ with $d_0 = 0$ and $d_M = \max_i\{\bar{t}_i\}$ be the intervals on which we define the baseline hazard. Then the baseline hazard is $\lambda_0(t;\alpha) = \sum_{m=0}^{M} e^{\alpha_m} I_m(t)$. When the covariates may only change on the same intervals the integrated hazard is[7]

$$\Lambda(t|x) = \sum_{m=1}^{M} \Big[J_m(t)(d_m - d_{m-1}) + I_m(t)(t - d_{m-1}) \Big] \exp(\alpha_{m-1} + x(d_{m-1})\beta)$$

where $J_m(t) = I(t > t_m)$. If we assume that the entry rate $r_1(-e)$ is also constant on intervals the integral can be written in closed form.

A well known issue in duration models is that neglecting unobserved heterogeneity in proportional hazards models leads to spurious negative duration dependence. In principle it is possible to allow for possible unobserved heterogeneity in our model through a multiplicative random error term in the hazard, $\lambda(t|x,v) = v\lambda_0(t;\alpha)e^{\beta' x_i(t)}$. Murphy (1996) shows how to include Gamma-distributed unobserved heterogeneity into the stock-sampled proportional hazards model. The adjustment to a possible upper bound on the duration is rather straightforward, as is the use of a discrete unobserved heterogeneity distribution. We attempted to fit models with a gamma or with a discrete unobserved heterogeneity distribution. However, none of these models have led to an indication of unobserved heterogeneity or a change in the parameters and, therefore, we do not present the details of the models with unobserved heterogeneity.

3.2 Decomposition of the difference in expected duration

The standard wage decomposition methodology of Oaxaca (1973) and Blinder (1973) has been widely used to examine discrimination in the labor market. The technique decomposes the average difference in wages between two demographic groups into differences in observable characteristics (differences that the variables in the regression model can explain, mainly endowments), and differences in coefficient estimates (the structure of the model that cannot be explained).

[7]This is for notational convenience. If either the covariates or the entry rate or both changes at different points, we can just add additional change points.

Suppose we distinguish two groups $g = 1, 2$ and observe for each group $i = 1, \ldots, N_g$ individuals. Consider the following linear regression model, which is estimated separately for each group

$$Y_{ig} = X_{ig}\beta_g + \epsilon_{ig} \tag{3}$$

For such a linear model, the standard Oaxaca-Blinder decomposition of the average value of the dependent variable is

$$\begin{aligned} \bar{Y}_1 - \bar{Y}_2 &= \Big[\mathrm{E}[Y_{i1}|X_{i1}, \hat{\beta}_1] - \mathrm{E}[Y_{i1}|X_{i1}, \hat{\beta}_1]\Big] \\ &\quad + \Big[\mathrm{E}[Y_{i2}|X_{i2}, \hat{\beta}_1] - \mathrm{E}[Y_{i2}|X_{i2}, \hat{\beta}_2]\Big] \\ &= (\bar{X}_1 - \bar{X}_2)\hat{\beta}_1 + \bar{X}_2(\hat{\beta}_1 - \hat{\beta}_2) \end{aligned} \tag{4}$$

where $\bar{Y}_g = N_g^{-1} \sum_{i=1}^{N_g} Y_{ig}$ and $\bar{X}_g = N_g^{-1} \sum_{i=1}^{N_g} X_{ig}$. $\mathrm{E}[Y_{ig}|X_{ig}, \hat{\beta}_g]$ refers to the conditional expectation of Y_{ig} evaluated at the (OLS) estimated parameter vector $\hat{\beta}_g$. The first term on the right hand side of (4) represents the difference in the outcome variable between the groups due to differences in observable characteristics and the second term represents the differential due to differences in coefficient estimates. The second term also captures the portion of the differential due to group differences in unmeasurable characteristics.

However, in most models for duration outcomes the expectation is a non-linear function of the coefficients β and ancillary parameters α reflecting the shape of the baseline hazard. Additionally, duration data are usually censored and OLS estimation leads to biased estimation of the parameter vector and hence to misleading results of the decomposition. Let $E(X_i, \beta, \alpha)$ denote the expected duration for the individual with characteristics X_i given the coefficient vector β and the baseline hazard parameter vector α. Then, following Fairlie (2006), the decomposition of the non-linear difference in expected duration $\bar{Y}_1 - \bar{Y}_2$ can be written as

$$\begin{aligned} D^1 &= \left[\sum_{i=1}^{N_1} \frac{E(X_{i1}, \hat{\beta}_1, \hat{\alpha}_1)}{N_1} - \sum_{i=1}^{N_2} \frac{E(X_{i2}, \hat{\beta}_1, \hat{\alpha}_1)}{N_2}\right] \\ &\quad + \left[\sum_{i=1}^{N_2} \frac{E(X_{i2}, \hat{\beta}_1, \hat{\alpha}_1)}{N_2} - \sum_{i=1}^{N_2} \frac{E(X_{i2}, \hat{\beta}_1, \hat{\alpha}_2)}{N_2}\right] \\ &\quad + \left[\sum_{i=1}^{N_2} \frac{E(X_{i2}, \hat{\beta}_1, \hat{\alpha}_2)}{N_2} - \sum_{i=1}^{N_2} \frac{E(X_{i2}, \hat{\beta}_2, \hat{\alpha}_2)}{N_2}\right] \end{aligned} \tag{5}$$

The first term in brackets on the right hand side reflects the contribution of the characteristics, the second term in brackets reflects the contribution of the baseline hazard and the last term in brackets reflects the contribution of the coefficients to the difference in expected duration. Note that the decomposition also depends on the shape parameter(s), α. Consequently, there are three other equivalent possible decompositions of the difference in expected duration between the two groups on which α_g is used in the counterfactual parts of the decomposition equation.

$$\begin{aligned} D^2 &= D\big(X_1,1,1,X_2,1,1\big) + D\big(X_2,2,1,X_2,2,2\big) + D\big(X_2,1,1,X_2,2,1\big) \\ D^3 &= D\big(X_1,2,2,X_2,2,2\big) + D\big(X_1,1,1,X_1,1,2\big) + D\big(X_1,1,2,X_1,2,2\big) \\ D^4 &= D\big(X_1,2,2,X_2,2,2\big) + D\big(X_1,2,1,X_1,2,2\big) + D\big(X_1,1,1,X_1,2,1\big) \end{aligned}$$

where

$$D\big(X_m,b^1,a^1,X_n,b^2,a^2\big) = \sum_{i=1}^{N_m} \frac{E(X_{im},\hat{\beta}_{b^1},\hat{\alpha}_{a^1})}{N_m} - \sum_{i=1}^{N_n} \frac{E(X_{in},\hat{\beta}_{b^2},\hat{\alpha}_{a^2})}{N_n}$$

The alternative methods of calculating the decomposition provide different estimates, which is the familiar index problem with the Oaxaca-Blinder decomposition. Ham et al. (1998) suggest to average over the alternative decompositions to estimate the contribution of the coefficient estimates and of the coefficients. They did not consider the difference in the baseline hazard. Thus including the ancillary parameters, we propose to measure the contribution of the difference in the duration between the groups due to differences in observable characteristics by

$$D(X) = \frac{1}{2}\sum_{k=1}^{2} D\big(X_1,k,k,X_2,k,k\big) \tag{6}$$

The contribution of the coefficient estimates to the differential is measured by

$$D(\beta) = \frac{1}{4}\sum_{g=1}^{2}\Big[D\big(X_g,1,2,X_g,2,2\big) + D\big(X_g,1,1,X_g,2,1\big)\Big] \tag{7}$$

The contribution of the baseline hazard to the differential is measured by

$$D(\alpha) = \frac{1}{4}\sum_{g=1}^{2}\Big[D\big(X_g,2,1,X_g,2,2\big) + D\big(X_g,1,1,X_g,1,2\big)\Big] \tag{8}$$

Note that $D(X) + D(\beta) + D(\alpha) = D\big(X_1, 1, 1, X_2, 2, 2\big) = \bar{Y}_1 - \bar{Y}_2$, as should be. However, this holds only for uncensored data. For censored (and also for stock sampled data) the average observed duration is not equal to the true underlying expected duration. With stock sampled data the average observed elapsed duration is (see Heckman and Singer (1984))

$$\mathrm{E}[e] = \tfrac{1}{2}\mu\Big(1 + \frac{\sigma^2}{\mu^2}\Big)$$

with μ and σ^2 as true expected duration and true variance of duration respectively. These two moments of the true durations cannot be observed and, therefore, we decompose the expected durations implied by the model, say the proportional hazards model in section 3.1, instead of the observed mean durations.

4 Differential transitional risks

In this section we will try to answer the research question whether the emergent transitional labor market in the Netherlands implies higher risks of 'exclusionary' transitions for immigrants than for Dutch natives. As stated before we will subsequently focus on four transition types: from education, unemployment, domestic care and prolonged illness (disability to work) to paid work.

4.1 From education to work

Career breaks due to a transition from work to full-time education are rare (see de Koning et al. 2003 for the Netherlands). Because of this hardly any information is available on such transitions. We will therefore focus on youngsters' transition from full-time education to work. However, since we lack data on the duration of unemployment among school leavers, we are not able to use duration analysis. Being rather 'critical', the transition from school to work will nonetheless not remain unspoken. We have to rely on 'stylized facts' though. From these we learn that the transition is problematic for Turkish and Moroccan youngsters, even more than for Surinamese and Antillean youngsters (Roelandt and Veenman 1990). An important

causal factor is that many Turkish and Moroccan youngsters leave school without a diploma. Especially for these 'drop outs' the transition to work is very difficult.

Using the SPVA-1998 Dagevos (2001) investigated the transition from school to work for those with a secondary vocational education, on the assumption that the immigrant youth who finished this education were brought up in the Netherlands and master the Dutch language. But even in these conditions and with a diploma that is considered to offer good opportunities on the labor market, immigrant youth appear to have less job chances than native Dutch contemporaries with the same education. In contrast to the native Dutch reference category, Turkish and Moroccan school leavers on this educational level are often unemployed for some time. In this respect Surinamese and Antillean school leavers with a secondary vocational education are in-between the Turkish and Moroccan youth on the one hand and the native Dutch youth on the other. Dagevos emphasizes that these outcomes remain unchanged even when school leavers with the same educational profile are compared to each other: Turkish and Moroccan youngsters are more often and longer unemployed, and Surinamese and Antillean youngsters too have a significantly higher unemployment rate and a longer employment duration than native Dutch youngsters.

The latest edition of the SPVA (SPVA-2002) shows high unemployment figures for immigrant youth, this time for Caribbean youth (Surinamese and Antillean) in particular. Their unemployment rate is almost five times as high as the rate for native Dutch youth. The unemployment rate for Mediterranean youth (Turks and Moroccans) is about three times as high as the rate for native Dutch youth. From these data we may infer that the transition from school to work is still problematic for immigrant youngsters. This expectation is confirmed when we compare the unemployment rates of those with an identical educational level. This rate is much higher among immigrant youth. Among school leavers without a diploma (the 'drop outs') about two-thirds of both the Mediterranean and the Caribbean youngsters are unemployed or have a job for less than 12 hours per week. Among native Dutch 'drop outs' this figure is less than 30%. Among school leavers with a diploma of a primary vocational education 45% of the Caribbean youngsters, 35% of the Mediterranean youngsters and 17% of the native Dutch

youngsters are unemployed or work less than 12 hours per week. On the secondary educational the percentage among immigrant youth is 27 and among native Dutch youth 10.[8]

The aforementioned results all point in the direction of higher transitional risks for immigrants. The conclusion holds for all four immigrant groups. The on average lower educational level and the higher proportion of 'drop outs' partly explain the findings. However, immigrant youth with an identical educational level still have higher transitional risks than native Dutch youth. Veenman (1998) found that a combination of factors attribute to the explanation of this phenomenon: lower language proficiency, less knowledge of the labor market, less useful social contacts, another attitude towards work, as well as selection processes on the labor market which are detrimental to immigrants.

4.2 From unemployment to work

The unemployment among immigrant groups as 'officially' registered by the Employment Office is four till five times as high as among Dutch natives, with the most disadvantageous figures for the Mediterraneans.[9] These differences in employment rate are reflected in data on the unemployment duration. Looking at the 'registered' unemployment again, we find that the Turks have, on average, the longest duration, followed by (in this order) Antilleans, Moroccans and Surinamese.[10] The relatively favorable position of Moroccans is caused by the labor market withdrawal of women in case their unemployment lasts more than a few months. Focusing on males only, we find that Moroccans have on average the longest unemployment duration after the Turks.

The described data on the unemployment duration are based on stock sampling which leads to a distortion as a consequence of 'length biased sampling'. In section 3.1 a correction

[8]On the level of higher vocational education and universities the numbers of immigrant school leavers are too small to formulate reliable statements.

[9]The 'registered' unemployment figures are: Dutch natives 2%, Surinamese: 7%, Antilleans 8%, Moroccans 9% and Turks 10%. (source: SPVA-2002 and survey Labor Force 2002).

[10]To illustrate this: among unemployed Turks almost 40% is jobless for at least two years. For Moroccans the same figure is 30%, among Antilleans 28% and among Surinamese 20%.

for this distortion is discussed. We also account for the possibility that some individuals stay unemployed till they reach retirement. With stock sampled data, unemployed from a period with high unemployment are overrepresented in the data. We adjust for such overrepresentation by assuming that the national inflow in the unemployment in the past is proportional to the observed characteristics of the unemployed.[11] These inflow figures give the weights $r_1(-e)$ in equation (2). The inclusion of two time-varying covariates, age and presence of young children, deserve additional explanation. The age of the unemployed at the moment of the interview is calculated backwards to the age at the moment their unemployment spell begun. The presence of young children (under twelve) in the household is also calculated backwards through the information on the age of all the children now present in the household.

For this stock based sample of unemployment durations (in months) we apply a proportional hazards model with a piecewise constant baseline hazard on six intervals: 0 till 2 months; 2 till 6 months; 6 months till 1 year; 1 till 2 years; 2 till 5 years and 5 years and beyond.[12] The estimation results are given in Table 7 in Appendix A. Big differences are visible among the ethnic groups. From the parameters of the piecewise constant baseline hazard we can estimate the baseline survival function, that is the survival function for the reference individual, an individual with all covariates at zero, that is a single male with basic or no education, good health, no labor market experience, no kids and aged 35. This baseline survival function (taking the changing age into account) is depicted for each ethnic group in Figure 2. A native reference individual leaves unemployment the fastest and a Turkish reference individual the slowest.

[Place Figure 2 here]

The impact of observed characteristics on the outflow into employment differs substantially among the ethnic groups. We see from Table 7 that the relative labor market experience, the percentage of time spent working since graduating, is the most important variable. The more labor market experience the faster the unemployed return to work. This effect is the highest for Turks and Antilleans. Gender plays a role for the Antilleans and natives, education is

[11] See UWV, `http://www.uwv.nl/overuwv/kennis-publicaties/index.aspx` (only in Dutch)

[12] Due to limited observations in particular duration intervals for some ethnic groups we had to combine the baseline intervals for that group.

important for the Turks and Moroccans, marital status is important for Surinamese and health is important for Turks. The presence of young children reduces the re-employment rate (only significant for Turks, Moroccans and Surinamese).

To find out to what extent the model's determinants affect the expected unemployment duration, we applied the decomposition method explained in section 3.2. For each ethnic group we calculate the expected unemployment duration implied by parameter estimates and compare this expected duration with the expected duration of Dutch natives. The decomposition allows us to calculate the portion of the difference that arises from differences in coefficients, the portion of the difference that arises from differences in the baseline hazard and the portion of the difference that arises from differences in explanatory variables.

Table 2: Decomposition of difference in expected UNEMPLOYMENT duration (in months)

	Turks	Moroccans	Surinamese	Antilleans
Expected duration ethnic group	41.0	39.6	17.6	19.5
Expected duration natives	4.6	4.6	4.6	4.6
ethnic group- natives	36.4	35.0	13.0	14.9
Difference due to:				
Explanatory variables	10.1	12.8	3.5	5.8
Coefficients	1.8	8.7	-1.4	6.0
Baseline hazard	24.5	13.6	10.9	3.1

Source: SPVA (ISEO/SCP)

The results in Table 2 show that Turks and Moroccans have far the longest expected unemployment duration (more than three years) and natives far the shortest (about $4\frac{1}{2}$ months). The difference in the expected unemployment duration is mainly attributable to the fact that the variables in our model turn out to be unfavorable for the job chances of Turks and Moroccans. The difference in coefficients play only a role in explaining the difference in expected duration for Antilleans and Moroccans. The baseline duration dependence for Turks and Moroccans is

also much worse. This implies that a Turkish or Moroccan reference individual will stay much longer unemployed than a Dutch native reference individual.

A different baseline hazard can arise for two reasons. First, the baseline hazard is truly different and/or, secondly, important factors that explain the unemployment duration are neglected in the model. Although, we could not identify unobserved heterogeneity, it may still be present (see Bijwaard and Ridder 2005). If the baseline hazard is truly lower for ethnic groups this may indicate discrimination of these groups on the labor market. The same holds for the difference in coefficients. However, we cannot rule out that important unobserved factors like Dutch language proficiency, social aspects and cultural networks explain the differences (cf. Veenman 1998).

4.3 From domestic care to work

Since domestic care is still predominantly a female activity, even in 'modern' Western societies (Hofmeister et al. 2003), we will focus on women in this section. Looking at the labor market participation in 2002, we find the highest rates among Surinamese females (64%), followed by Antillean and native Dutch females (59%). A large gap exists with Mediterranean females: 32% labor market participation among Turkish women and 30% among Moroccan women. Age differentiation reveals participation rates during the life cycle, see Figure 3. For native Dutch women we find a kind of inverse U-curve that is known for men, however with a decline after the age of 30. This is the age at which native Dutch women on average give birth to their first child. Since a slight increase in participation exists after the age of 42 we may speak of a 'child dip' in the participation curve, although without a return to the original high level. The labor market participation among native Dutch females drops back strongly after the age of 48, partly because of a cohort effect since women above 60 mostly did not participate at all.

[Place Figure 3 here]

Surinamese women show a clearer inverse U-curve, although with a difficult to explain decline in the age category 45 till 48. The labor market participation definitely diminishes after the age of 51. Antillean women show a kind of inverse U-curve. A 'child dip' in the curve

exists between the ages of 27 and 39. As among Surinamese women the participation rate clearly diminishes after the age of 51. While Surinamese women and to a lesser degree Antillean women are able to combine domestic care and work, we find quite different results for Mediterranean women. They have a relatively low marriage age, have children on a relatively early age, and show a strong decline in labor market participation after marrying and giving birth to a child. Among Moroccan females the labor market participation remains low during their life cycle while Turkish women show a slight increase after the first decline, followed by a second decline. It therefore comes as no surprise that the life cycle participation rate among Mediterranean women is much lower than among Caribbean and native Dutch women. The lower labor market participation can be explained from more traditional gender roles. Mediterranean women are expected to take care of the family and not (or to a lesser degree) to participate on the labor market (Distelbrink and Pels 2002).

Table 3 presents information on the separate effects of partner and child(ren) on the labor market participation of women between 15 and 50 years of age. Mediterranean women show the lowest participation rates if they have both a partner and a child. Among Turkish women the difference with having a partner or a child is rather small. Among Moroccan women we find a stronger (negative) effect on labor market participation in case of a having a child than of having a partner. For them marriage has less effect on participation than giving birth to a child. Among Caribbean women we find the lowest participation rates for those with a child and without a partner. Yet the proportion of those working (for at least 12 hours per week) among these single mothers is nearly 60% for Surinamese females and 50% for Antillean females. This may illustrate the general high labor market participation rate among Caribbean women. Having a partner does not (negatively) affect the participation. Among Antillean women the effect of having a child is much greater.

Like we did for the duration in unemployment we estimate the hazard rates for the time spent in domestic care (in years) using the model with maximum duration for stock-sampled data that accounts for varying entry, see Section 3.1. Very often women stay at home for a long period. Thus the domestic care duration can easily be 20 years. This implies that many

Table 3: Labor market participation among women (15-50 years of age) by family structure and ethnic group

(%)	Turks	Moroccans	Surinamese	Antilleans
No partner, no child	53*	50	67	62
Partner, no child	29	46	72	80
Partner and child	28	22	73	61
No partner, child	30	32	59	50
(N =)	726	613	609	486

$*$ less than 25 observations. *Source*: SPVA (ISEO/SCP)

women do not participate on the labor market till their retirement age and therefore has the upper bound on the duration a greater impact on the estimation results. Only recently the participation rate of women in The Netherlands increased. In the late 70s less than 20% of the women were participating on the labor market. This implies an overrepresentation of the women who begun their domestic care in the 70s or earlier. We adjust for this overrepresentation by assuming that the national inflow in domestic care in the past is proportional to the number of non-participating women 20 years of age.[13] We also assume that this inflow is proportional to the observed characteristics of the women.

We estimate a proportional hazards model with a piecewise constant baseline hazard on four intervals: 0 till 5 years; 5 till 10 years; 10 till 20 years and 20 years and beyond.[14] The estimation results are given in Table 8 in Appendix A. Again the parameters estimates differ among the ethnic groups. We estimate the survival rate for the reference female, that is a single female with basic or no education, no labor market experience, no kids and aged 40. This baseline survival function (taking the changing age into account) is depicted for each ethnic group in Figure 4. A Dutch native (reference) female in domestic care has the slowest outflow and an Antillean the fastest outflow into employment. Note that for all groups more than 60% remain in domestic care for more than 25 years.

[13]See the public statistics site of Statistics Netherlands, `http://statline.cbs.nl/` for the numbers.

[14]See note 12.

[**Place Figure 4 here**]

The impact of observed characteristics on the re-employment rate out off domestic care differs substantially among the ethnic groups. We see from Table 8 that the relative labor market experience is again the most important variable. The more labor market experience the faster the women leave domestic care and start working again. This effect is the highest for Turkish women. Education is important for the Turkish and Moroccan women, marital status is important for Turkish women. The presence of young children reduces the rate to leave domestic care for Turkish and Moroccan women by more than 90%. To find out to what extent the model's determinants affect the expected duration of domestic care, we applied the decomposition method explained in section 3.2.

Table 4: Decomposition of difference in expected HOUSEHOLD CARE duration (in years)

	Turks	Moroccans	Surinamese	Antilleans
Expected duration ethnic group	28.7	36.0	27.4	22.8
Expected duration natives	26.6	26.6	26.6	26.6
ethnic group- natives	2.1	9.4	0.8	-3.8
Difference due to:				
Explanatory variables	13.0	18.7	7.3	8.3
Coefficients	1.1	2.9	0.3	0.7
Baseline hazard	-12.0	-12.3	-6.8	-12.8

Source: SPVA (ISEO/SCP)

The results in Table 4 show that Moroccan women have the longest expected domestic care duration (36 years) and Antillean women the shortest (23 years), which is even shorter than the expected duration of Dutch native women (somewhat less than 27 years). The difference in the expected domestic care duration is mainly attributable to the fact that the variables in our model are unfavorable for the job chances of Moroccan women (and Turkish women). The baseline hazard is for all ethnic minority women above the baseline hazard for native women,

which is probably due to the fact that native Dutch women, who completely stop working after giving birth to a child, are a very specific category with rather traditional norms in relation to gender roles. The difference in coefficients plays only a minor role in explaining the difference in expected domestic care duration of women.

4.4 From prolonged illness to work

The last transition type to be discussed here is between prolonged illness and paid work. Mainly because the available data confine to disability to work, we will focus on that. The SPVA-2002 contains data on self-reported disability to work and on receiving a disability allowance. Combining these two variables, we find highly varying proportions of disabled persons per ethnic group see Table 5.

Table 5: Percentage disabled persons in the total population (15-65 years) and in the labor force by ethnic group

	Turks		Moroccans		Surinamese		Antilleans		Dutch	
	M	F	M	F	M	F	M	F	M	F
Total Population	11	8	11	4	5	7	4	4	9	8
Labor force	17	25	17	12	7	11	5	6	12	14

Source: SPVA (ISEO/SCP)

When looking at the total population (15-65 years of age), we find the proportion of disabled persons to be the highest among Mediterranean males, followed by native Dutch males. The proportion of disabled persons among Caribbean males is much lower. Among females, the Turks and the Dutch natives show the highest proportion of disabled persons, followed by the Surinamese. The proportion is low among Moroccan and Antillean women. The proportion of disabled persons in the labor force (those working for at least 12 hours per week or actively looking for work for at least 12 hours per week) is the highest among Turkish females (25%). This is the result of a combination of relatively many disabled persons and a relatively small labor force. Mediterranean males too show a high proportion of disabled persons in the labor force

(17%), followed at some distance by the native Dutch males (12%). A much lower proportion is found among the Antilleans, males and females alike.

Again we estimate the hazard rate for the transition from disability to work (in years). To this end, we apply the model described in section 3.1. Since the duration on disability benefits can exceed 20 years, in the analysis of the return to work from disability the maximum duration implied by the retirement age also plays an important role. As the inflow into disability has changed over time, we use the national inflow figures to adjust for the changing inflow in the past.[15] We assume a piecewise constant baseline hazard on five intervals: 0 till 5 years; 5 till 10 years; 10 till 15 years; 15 till 20 years and 20 years and beyond.[16] The estimated survival functions for the reference individual, a single male with no high education, no labor market experience aged 48, are depicted in Figure 5. Note the drop to zero in the baseline survival functions after 17 years in disability, when the retirement age of 65 is reached. An Antillean (reference) individual in disability has the fastest outflow into employment. Turks, Moroccans and Surinamese have the first 10 years of disability a very low rate of leaving disability.

[Place Figure 5 here]

The estimation results in Table 9 (appendx A) indicate that the impact of observed characteristics on the re-employment rate differ substantially among the ethnic groups. Again the relative labor market experience is the most important variable. However, due to limited observations the impact of this variable for Dutch natives had to be fixed to zero. For the ethnic minorities the more labor market experience the faster they leave disability and return to work. Education is only important for natives and gender is important for Turks. We applied the decomposition method again to disentangle the affect of the model's determinants on the expected disability duration.

The results in Table 6 show that Moroccans have the longest expected disability duration (18 years) and Antilleans the shortest (5 years). This is a surprisingly short period when compared to the expected disability duration of Dutch natives (13 years). The high expected

[15] See note 11

[16] See note 12.

Table 6: Decomposition of difference in expected DISABILITY duration (in years)

	Turks	Moroccans	Surinamese	Antilleans
Expected duration ethnic group	14.6	17.8	14.3	4.6
Expected duration natives	13.4	13.4	13.4	13.4
ethnic group- natives	1.2	4.4	0.9	-8.8
Difference due to:				
Explanatory variables	4.7	4.7	4.2	2.1
Coefficients	-8.6	-5.8	-9.1	0.2
Baseline hazard	5.0	5.5	5.8	-11.1

Source: SPVA (ISEO/SCP)

disability durations are attributable to the fact that the variables in the model turn out to be unfavorable for the groups concerned. The differences in the baseline duration dependence (5 to 6 years) add to the long expected duration for Moroccans, Turks and Surinamese. The difference in coefficients, on the other hand, lead to a shorter expected disability duration for these groups compared to the Dutch natives. The Antilleans show a much shorter expected disability duration, mainly due to a better baseline hazard.

5 Summary and conclusions

According to the German economist Günther Schmid, contemporary labor markets are characterized by such a high degree of flexibility that a new type of labor market is emergent. This so-called transitional labor market offers new chances for employers and employees alike, but at the same time increases the risk of 'exclusionary transitions'. To diminish this risk, Schmid pleads for institutional arrangements that further maintenance and integrative transitions. In Schmid's view, the Netherlands offer a good example of a labor market with such arrangements.

We investigated whether the emergent transitional labor market in the Netherlands implies higher risks of 'exclusionary' transitions for groups which, for human capital reasons, are al-

ready vulnerable on the labor market. We therefore compared immigrants to Dutch natives, and subsequently elaborated on the transitions from (a) education, (b) unemployment, (c) domestic care, and (d) prolonged illness to work. We used duration analysis to estimate different groups' chances to make a transition from inactivity to work. Such analysis was not possible for the transition from education to work, however, as we lack data on the duration of unemployment among school leavers. In this case we looked at differences in unemployment rate among youngsters with identical educational achievements, belonging to various ethnic groups. We found that immigrant youth have higher transitional risks than their native Dutch contemporaries. This is especially the case for Turkish and Moroccan youngsters. The higher risks are explained from lower language proficiency, less knowledge of the labor market, less useful social contacts, as well as from selection processes on the Dutch labor market which are detrimental to immigrants.

To investigate the other transition types, we used proportional hazards models with maximum duration for stock-sampled data that account for varying entry, and piecewise constant baseline hazards on different intervals (calculated in months for unemployment and in years for both domestic care and prolonged illness). Looking at the baseline survival function, we find that in the case of unemployment the native Dutch reference individual leaves unemployment the fastest. Turks and Moroccans leave unemployment the slowest, while the Surinamese and Antilleans are in-between as in the case of the transition from education. The analysis of the transition from domestic care to work, which is restricted to women, establishes that the native reference female has the slowest outflow. Surinamese and in particular Antillean women clearly have faster outflows, while the Turkish and Moroccan females compare more to native women. We explained this somewhat remarkable outcome from the traditional attitude among the specific category of native women who completely stop working after giving birth to a child. In the case of disability to work, the transition to the labor market is the fastest for the Antillean reference individual. More generally, Antilleans diverge remarkably from all other groups that show very low outflow, especially in the first ten years of disability.

Our analyzes show that unequal chances exist, but to a different degree for the various

groups and with variations per transition type. To try and explain the differences found, we used decomposition analyzes on the expected durations estimated by the proportional hazards model. Again, it is difficult to formulate general findings. In the case of unemployment, we first established that the impact of the observed characteristics on the outflow differs greatly among the various groups. We then showed that the higher transitional risks for the Turks and Moroccans are mainly attributable to the fact that the observed characteristics turn out to be unfavorable for them. These characteristics concern both endowments and demographic features, such as marital status, gender and age. Since their baseline duration dependence is also much worse, we should take into consideration that discrimination may play a role alongside other unobserved factors such as language proficiency, social networks and cultural aspects (e.g. work attitude, search behavior).

In the case of domestic care, we again found large differences in the impact of the observed characteristics on the transitional risks of the ethnic groups. The decomposition of the expected home care durations shows that the observed characteristics are unfavorable for Moroccan and Turkish women. The difference in coefficients plays only a minor role in the explanation of the expected outflow. The disadvantageous baseline hazard for the specific category of native Dutch women, who completely stopped working after giving birth to a child, is explained from their traditional attitude towards gender roles.

Also in the case of disability, the impact of the observed characteristics differs substantially among the various groups. While the Antilleans, characterized by a fast outflow, show an advantageous baseline hazard, the low outflow of Turks, Moroccans and Surinamese seems to be related to the observed characteristics as well as to the difference in baseline duration dependence. This may be due to the same factors mentioned in the case of unemployment. It may however also be a consequence of miscommunication with civil servants from the agency responsible for the disability benefits (Veenman 2006). Such factors seem to be highly relevant, given the fact that the differences in coefficients lead to a shorter expected disability duration for the Turks, Moroccans, and Surinamese compared to the Dutch natives.

The short discussion of the results from the decomposition analyzes confirms that it is not

easy to formulate general findings. The only factor with significant meaning in every analysis is the relative labor market experience, i.e. the percentage of time spent working since leaving education. The longer the period of labor market participation, the faster the return to work for those who at the moment are unemployed, take care of children or are disabled. If the duration of work experience is of such importance, it means that rapid transitions back-to-work are a strong remedy against 'exclusionary' transitions. This somewhat circular reasoning underlines the importance of the institutional arrangements Schmid pleaded for. Without such arrangements the transitional labor market might be very risky for groups that are already vulnerable for human capital reasons.

References

Beck, U. (1992). *Risk Society, Towards a New Modernity*. London: Sage.

Bijwaard, G. E. and G. Ridder (2005). Correcting for selective compliance in a re–employment bonus experiment. *Journal of Econometrics 125*, 77–111.

Blinder, A. S. (1973). Wage discrimination: Reduced form and structural estimates. *Journal of Human Resources 8*, 436–455.

Bourdieu, P. (1986). The forms of capital. In J. G. Richardson (Ed.), *Handbook of Theory and Research for the Sociology of Education*, pp. 241–258. New York: Greenwood Press.

Bovenkerk, F., M. J. I. Gras, and D. Ramsoedh (1995). Discrimination against migrant workers and ethnic minorities in access to employment in the Netherlands. International Migration Papers 4, Employment Department, International Labour Office (ILO), Geneva.

Dagevos, J. (2001). Perspectief op integratie ('Perspective of integration'). WRR-report, Scientific Council for Government Policy, The Hague.

de Koning, J., G. E. Bijwaard, A. Gelderblom, and H. Kroes (2003). Arbeidsmarkttransities en aanboddiscrepanties ('Labour market transitions and supply discrepancies'). OSA-publicatie A191, Tilburg.

Dewey, J. (1990). *The school and society and the child and the curriculum*. Chicago: The University of Chicago Press.

Dieleman, A. J. and J. van der Lans (1999). *Heft in eigen handen, Zelfsturing en sociale betrokkenheid bij jongeren ('Do it on your own, Self-activity and social commitment among youngsters')*. Assen: Van Gorcum.

Distelbrink, M. and T. Pels (2002). Normatieve oriëntaties en binding ('Normative orientations and bonding'). In J. Veenman (Ed.), *De toekomst in meervoud*, pp. 115–145. Assen: Van Gorcum.

Fairlie, R. W. (2006). An extension of the Blinder-Oaxaca decomposition technique to logit and probit models. Discussion Paper 1917, IZA, Bonn.

Geelhoed, L. (1997). Flexibilisering van de arbeid, deregulering en marktwerking ('Labour market flexibilisation, de-regulation and markets'). In G. Faber and J. Schippers (Eds.), *Flexibilisering van arbeid*, pp. 29–40. Bussum: Coutinho.

Giddens, A. (1991). *Modernity and self-identity, Self and society in the late modern-age*. Cambridge (UK): Polity Press.

Groeneveld, S. M. and Y. M. R. Weijers-Martens (2003). *Minderheden in beeld, De SPVA-02 ('A portrait of ethnic minoirities, The SPVA-2002')*. Rotterdam: Institute for Sociological and Economic Research.

Ham, J. C., J. Svejnar, and K. Terrel (1998). Unemployment and the socail safety net during transitions to a market economy: Evidence from the Czech and Slovak Republics. *American Economic Review 88*, 1117–1142.

Heckman, J. J. and B. Singer (1984). Econometric duration analysis. *Journal of Econometrics 24*, 63–132.

Hofmeister, H., M. Mills, and H. P. Blossfeld (2003). Globalization, uncertainty, and women's mid-career life courses, A theoretical framework. Globalife Working paper 45, Faculty of Social and Economic Science, Bamberg.

Murphy, A. (1996). A piecewise–constant hazard-rate model for the duration of unemployment in single-interview samples of the stock of unemployed. *Economics Letters 51*, 177–183.

Nickell, S. (1979). Estimating the probability of leaving unemployment. *Econometrica 47*, 1249–1266.

Oaxaca, R. L. (1973). Male–female wage differentials in urban labor markets. *International Economic Review 14*, 693–709.

Roelandt, T. and J. Veenman (1990). Allochtonen van school naar werk ('Allochthones from school to work'). WRR-report 67, Scientific Council for Government Policy, The Hague.

Schmid, G. (1997). The Dutch employment miracle?, A comparison of employment systems in the Netherlands and Germany. Discussion paper FS I 97-202, Wissenschaftszentrum Berlin für Sozialforschung, Berlin.

Schmid, G. (1998). Transitional labour markets, A new European employment strategy. Discussion paper FS I 98-206, Wissenschaftszentrum Berlin für Sozialforschung, Berlin.

Schmid, G. (2000). Foreword. In J. O'Reilly, I. Cebrian, and M. Lallement (Eds.), *Working-time Changes: Social Integration through Transitional Labour Markets*, pp. xix–xxi. Cheltenham, UK: Edward Elgar.

Schmid, G. (2001). Die Zukunft der Erwerbsarbeit, Thesen und Perspektiven fü Mecklenburg-Vorpommern. Diskussionsbeiträge Schwerin -Schloss Schwerin.

Schmid, G. (2002a). Employment systems in transition: Explaining performance differentials of post-industrial economies. In G. Schmid and B. Glazier (Eds.), *The Dynamics of Full Employment, Social Integration through Transitional Labour Markets*, pp. 23–48. Cheltenham, UK: Edward Elgar.

Schmid, G. (2002b). Towards a theory of transitional labour markets. In G. Schmid and B. Glazier (Eds.), *The Dynamics of Full Employment, Social Integration through Transitional Labour Markets*, pp. 151–195. Cheltenham, UK: Edward Elgar.

Veenman, J. (1998). *Buitenspel, Over langdurige werkloosheid onder etnische minderheden ('Off-side, Long-term unemployed ethnic minorities')*. Assen: Van Gorcum.

Veenman, J. (Ed.) (2006). *Nieuwe ongelijkheden op de transitionele arbeidsmarkt ('New inequalities on the transitional labour market')*, Amsterdam. Aksant.

Wilthagen, T. (1998). Flexicurity, A new paradigm for labour market policy reform? Discussion paper FS I 98-202, Wissenschaftszentrum Berlin für Sozialforschung, Berlin.

A Estimation results

Table 7: Parameter estimates of hazard model with maximum duration for time in UNEMPLOYMENT (in months)

	Turks	Moroccans	Surinamese	Antilleans	Natives
Regression coefficients					
Female	0.024	0.057	−0.047	−0.574**	−0.269*
	(0.111)	(0.148)	(0.094)	(0.164)	(0.125)
Married/Cohabiting	0.171	−0.008	0.258*	0.182	0.029
	(0.109)	(0.121)	(0.118)	(0.190)	(0.124)
Low Secondary educ.	0.408**	0.591**	0.115	0.055	–
	(0.149)	(0.154)	(0.133)	(0.204)	
High Secondary educ.	0.211	0.551**	−0.055	0.230	0.104
	(0.185)	(0.208)	(0.134)	(0.205)	(0.145)
High education	0.021	0.107	−0.201	−0.410	0.133
	(0.357)	(0.309)	(0.185)	(0.250)	(0.153)
Relative labor experience	1.113**	0.798**	0.826**	1.130**	0.600*
	(0.247)	(0.225)	(0.178)	(0.295)	(0.235)
bad health	−0.383*	−0.314	−0.052	−0.200	0.264
	(0.169)	(0.185)	(0.178)	(0.294)	(0.147)
age[a]	−0.118	0.083	−0.065	0.065	−0.061
	(0.089)	(0.100)	(0.061)	(0.101)	(0.075)
age-squared	−0.131*	−0.269**	0.009	−0.126	−0.008
	(0.061)	(0.076)	(0.045)	(0.075)	(0.056)
Children (< 12)	−0.640**	−0.590**	−0.381**	−0.055	−0.045
	(0.160)	(0.149)	(0.137)	(0.180)	(0.155)
duration dependence[b]					
α_1 (0 to 2 months)	−2.913	−2.254	−2.758	−2.071	−0.536
	(0.527)	(0.427)	(0.282)	(0.370)	(0.394)
α_2 (2 to 6 months)	−2.913	−2.254	−2.758	−2.071	−1.861
	(0.527)	(0.427)	(0.282)	(0.370)	(0.481)
α_3 (6 month to 1 year)	−3.868	−2.907	−2.758	−2.810	−3.654
	(0.412)	(0.613)	(0.282)	(0.333)	(0.303)
α_4 (1 to 2 years)	−3.868	−3.968	−2.713	−2.810	−3.654
	(0.412)	(0.240)	(0.284)	(0.333)	(0.303)
α_5 (2 to 5 years)	−3.884	−3.968	−4.017	−3.658	−3.654
	(0.254)	(0.240)	(0.369)	(0.411)	(0.303)
α_6 (> 5 years)	−4.172	−4.071	−4.270	−3.593	−4.596
	(0.151)	(0.165)	(0.177)	(0.238)	(0.264)
Log-likelihood	−2192.3	−1857.2	−1193.0	−659.4	−465.6
N	414	343	247	142	103

[a] Age is the (time-varying) age at each year of unemployment, starting from the year the individual entered unemployment, centered at the mean age of 35 years.
[b] The duration dependence is piecewise constant with parameter e^{α_i}, for $i = 1, \ldots 6$. Some intervals are combined. Turks: 1 and 2, 3 and 4; Moroccans: 1 and 2, 4 and 5; Surinamese: 1, 2 and 3; Antilleans: 1 and 2, 3 and 4; Natives: 3, 4 and 5. *Notes:* Standard errors are shown in parentheses. $^{*}p < 0.05;^{**}p < 0.01$ (only for regression coefficients). *Source:* SPVA (ISEO/SCP)

Table 8: Parameter estimates of hazard model with maximum duration for time in DOMESTIC CARE (in years) for women

	Turks	Moroccans	Surinamese	Antilleans	Natives
Regression coefficients					
Married/Cohabiting	0.647^{**}	-0.421	-0.070	-0.417	-0.268
	(0.173)	(0.557)	(0.304)	(0.246)	(0.368)
Low Secondary educ.	0.647^{**}	1.597^{*}	–	0.631	–
	(0.251)	(0.685)		(0.412)	
High Secondary educ.	0.762^{*}	2.344^{**}	–	0.600	–
	(0.346)	(0.722)		(0.470)	
High education	-0.100	1.800	–	0.849	0.183
	(0.866)	(1.251)		(0.649)	(0.376)
Relative labor experience	4.065^{**}	3.406^{**}	3.344^{**}	1.391^{**}	3.418^{**}
	(0.594)	(1.064)	(0.653)	(0.395)	(0.635)
age[a]	0.365	0.137	-0.046	-0.702	0.457
	(0.339)	(0.722)	(0.254)	(0.419)	(0.270)
age-squared	-1.355^{*}	-1.634^{*}	-0.605^{*}	-1.144^{**}	-0.415
	(0.617)	(0.659)	(0.261)	(0.374)	(0.270)
Children (< 12)	-2.764^{**}	-2.382^{**}	-0.107	0.487	0.286
	(0.995)	(0.626)	(0.415)	(0.344)	(0.394)
duration dependence[b]					
α_1 (0 to 5 years)	-3.919	-3.478	-3.267	-2.318	-4.161
	(0.444)	(0.832)	(0.556)	(0.512)	(0.590)
α_2 (5 to 10 years)	-3.919	-3.478	-3.066	-2.318	-4.161
	(0.444)	(0.832)	(0.583)	(0.512)	(0.590)
α_3 (10 to 20 years)	-2.850	-2.888	-4.684	-4.308	-5.974
	(0.402)	(0.285)	(0.512)	(0.504)	(0.816)
α_4 (> 20 years)	-3.122	-2.888	-4.684	-4.308	-5.974
	(0.204)	(0.285)	(0.512)	(0.504)	(0.816)
Log-likelihood	-4615.447	-4143.754	-1481.672	-1070.293	-1211.743
N	1268	1098	418	306	345

[a] Age is the (time-varying) age at each year of unemployment, starting from the year the individual entered unemployment, centered at the mean age of 40 years. [b] The duration dependence is piecewise constant with parameter e^{α_i}, for $i = 1, \ldots 4$. Some intervals are combined. Turks: 1 and 2; Moroccans: 1 and 2, 3 and 4; Surinamese: 3 and 4; Antilleans: 1 and 2, 3 and 4; Natives: 1 and 2, 3 and 4. *Notes:* Standard errors are shown in parentheses. $^{*}p < 0.05$;$^{**}p < 0.01$ (only for regression coefficients). *Source:* SPVA (ISEO/SCP)

Table 9: Parameter estimates of hazard model with maximum duration for time in DISABILITY (in years)

	Turks	Moroccans	Surinamese	Antilleans	Natives
Regression coefficients					
Female	0.869**	0.943	0.507	0.129	–
	(0.244)	(0.487)	(0.288)	(0.293)	
married/cohabiting	0.139	−0.635	0.431	–	0.512
	(0.214)	(0.479)	(0.270)		(0.494)
High education	–	–	–	–	1.200*
					(0.513)
Relative labor experience	3.036**	3.504**	2.621**	0.082	–
	(0.488)	(0.984)	(0.511)	(0.418)	
age[a]	0.228	0.223	0.687**	0.001	–
	(0.184)	(0.300)	(0.194)	(0.335)	
age-squared	−0.029	−0.201	0.221	0.111	–
	(0.125)	(0.286)	(0.160)	(0.172)	
duration dependence[b]					
α_1 (0 to 5 years)	-4.529	-6.655	-4.510	-1.544	-3.414
	(0.617)	(1.027)	(0.512)	(0.527)	(0.448)
α_2 (5 to 10 years)	-4.742	-4.313	-4.510	-2.725	-3.414
	(0.602)	(0.592)	(0.512)	(0.466)	(0.448)
α_3 (10 to 15 years)	-4.694	-5.357	-4.510	-2.725	-3.414
	(0.795)	(1.093)	(0.512)	(0.466)	(0.448)
α_4 (15 to 20 years)	-3.976	-5.357	-3.900	-2.725	-3.414
	(0.615)	(1.093)	(0.468)	(0.466)	(0.448)
α_5 ($>$ 20 years)	-2.810	-2.099	-3.900	-3.278	-3.618
	(0.387)	(0.529)	(0.468)	(1.367)	(0.961)
Log-likelihood	-1544.9	-1205.6	-794.5	-244.1	-368.7
N	508	397	268	84	117

[a] Age is the (time-varying) age at each year of unemployment, starting from the year the individual entered disability, centered at the mean age of 48 years. [b] The duration dependence is piecewise constant with parameter e^{α_i}, for $i = 1, \ldots 5$ on the intervals: 0 to 5 years, 5 to 10 years, 10 to 15 years, 15 to 20 years and 20 years and beyond. Some intervals are combined. Moroccans: 3 and 4; Surinamese: 1, 2 and 3, 4 and 5; Antilleans: 2, 3 and 4; Natives: 1 to 4. *Notes:* Standard errors are shown in parentheses. $^*p < 0.05$;$^{**}p < 0.01$ (only for regression coefficients). *Source:* SPVA (ISEO/SCP)

B Figures

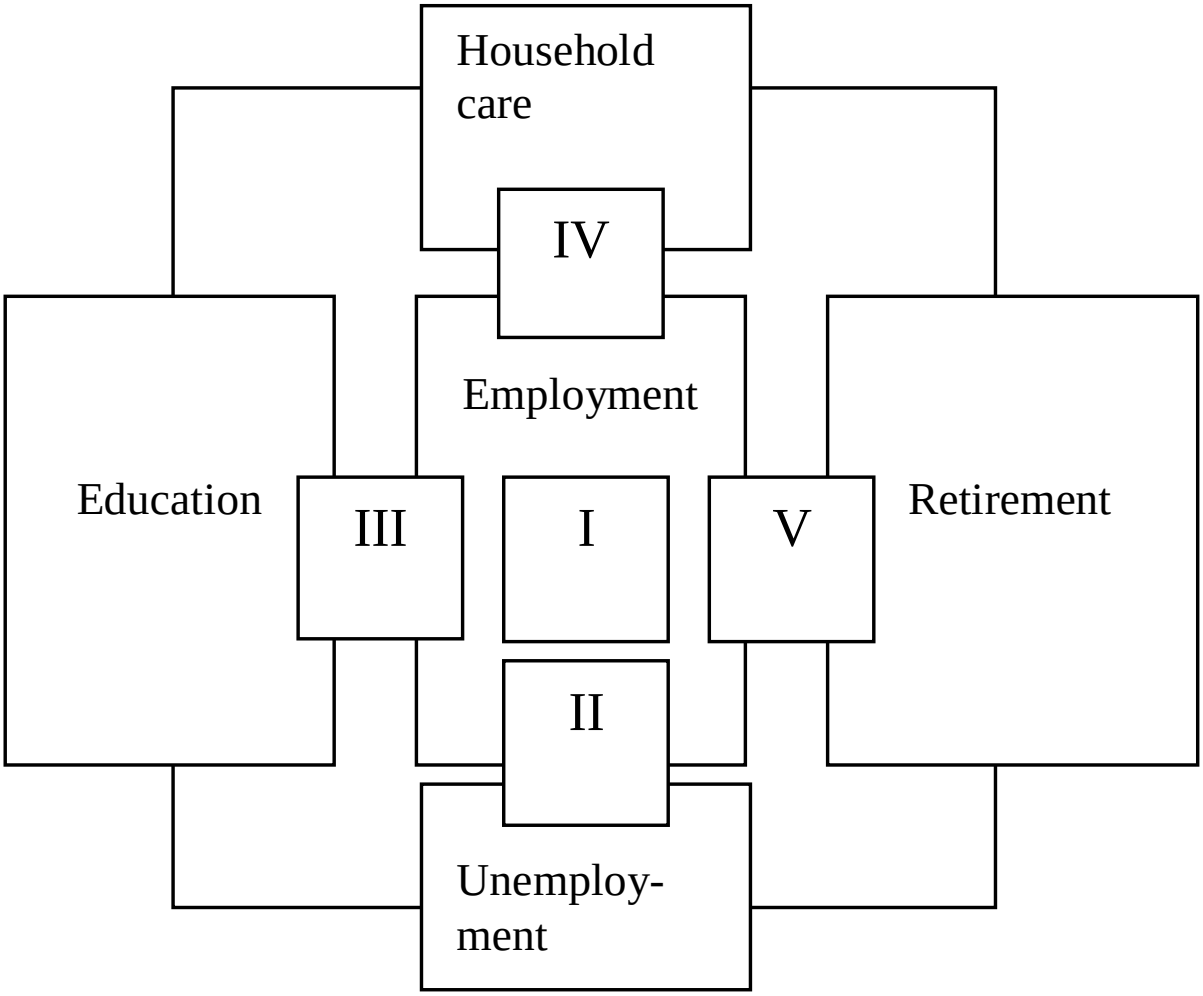

Figure 1: Forms of labor market transitions within the TLM-approach.
Source: Schmid, 1998:12

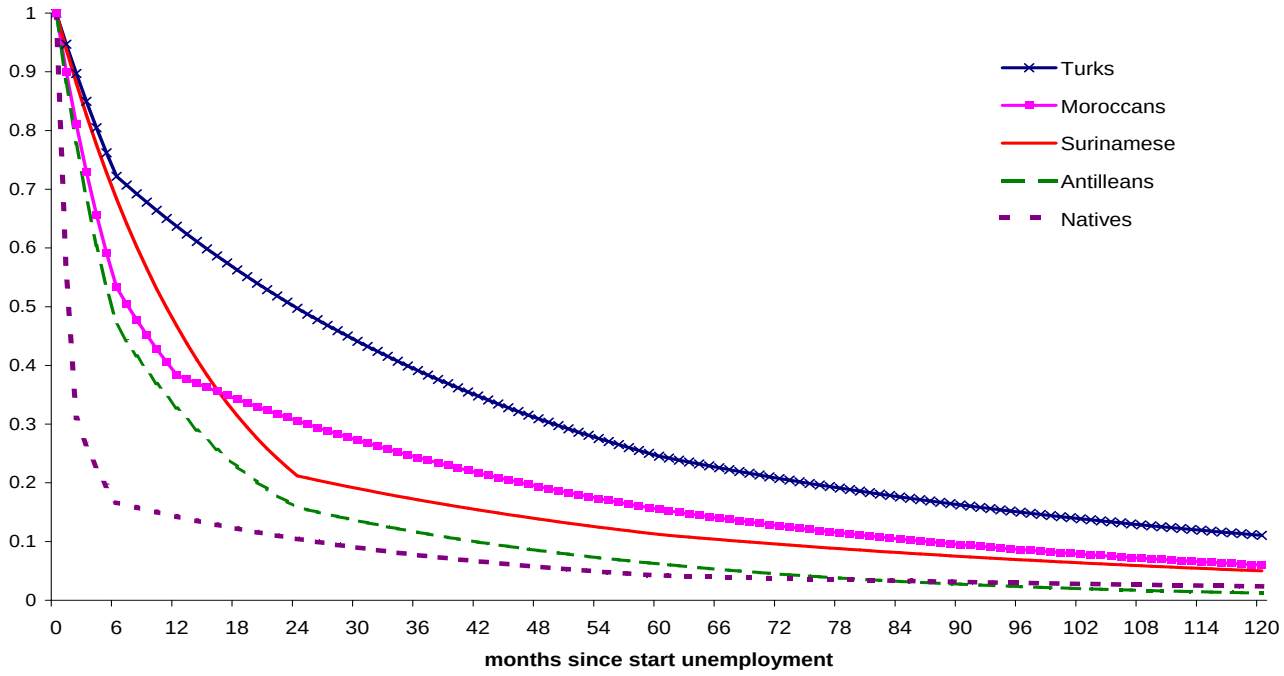

Figure 2: Estimated survival rate in UNEMPLOYMENT for a reference individual.
A reference individual is a single male with basic or no education, good health, no labor market experience, no kids and aged 35.

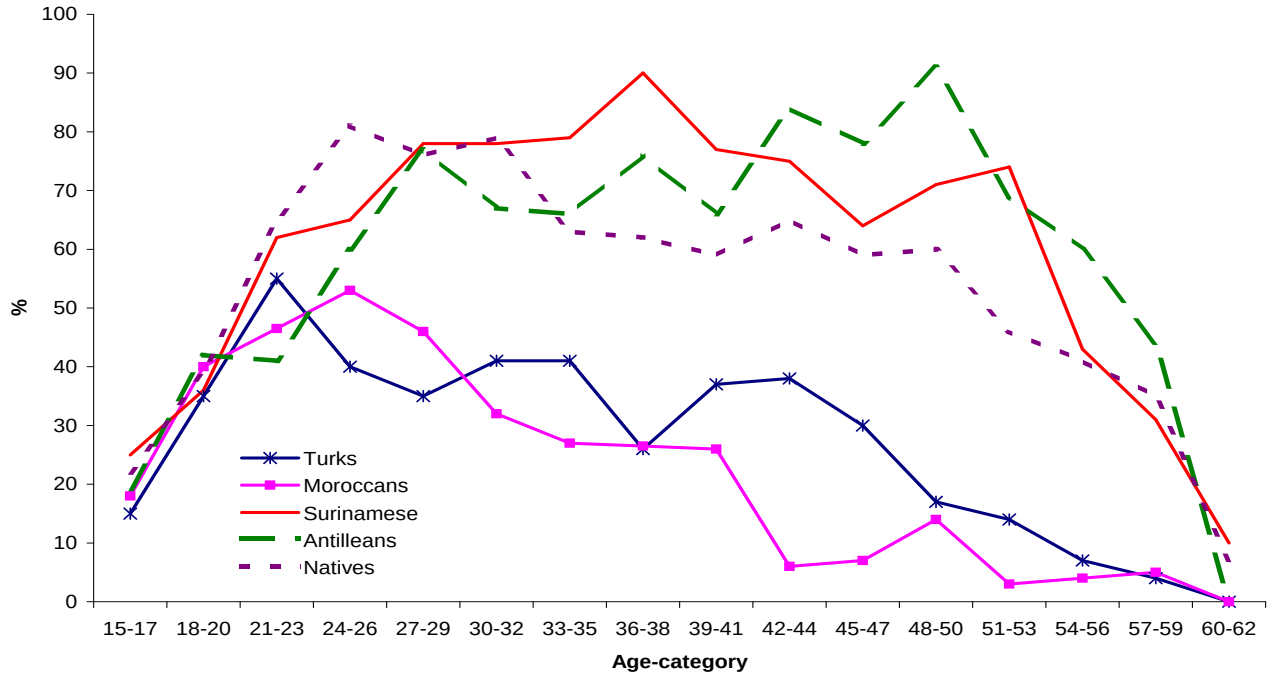

Figure 3: labor participation of women by ethnic group and age, 2002.
Source: SPVA (ISEO/SCP)

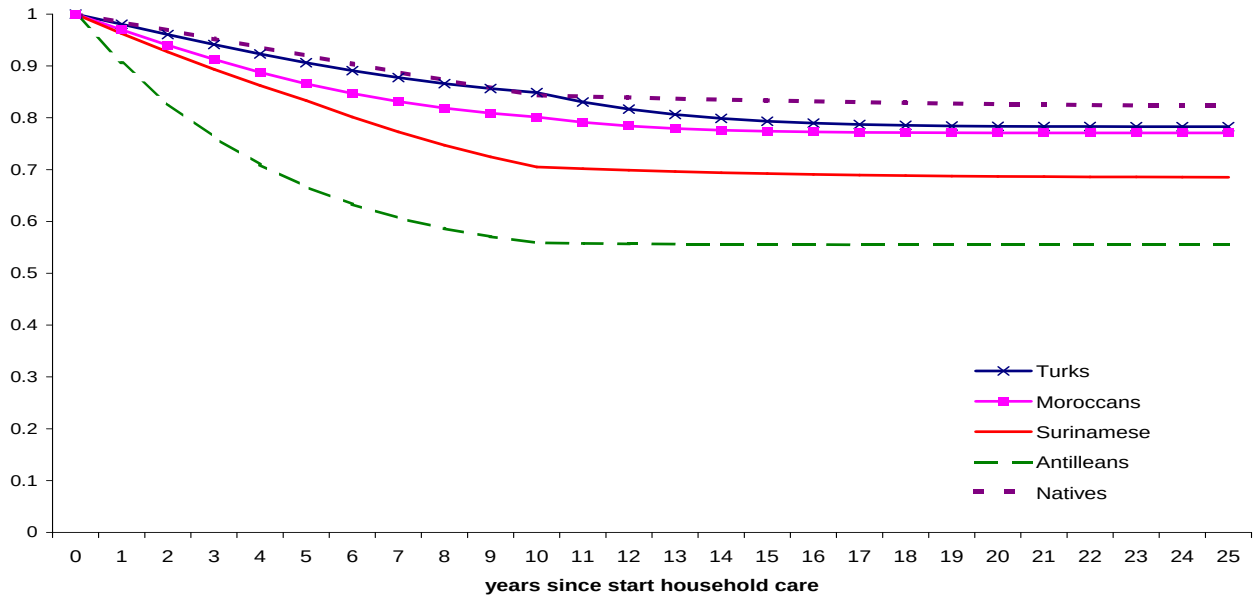

Figure 4: Estimated survival rate in DOMESTIC CARE for a reference female.
A reference female is a single female with basic or no education, no labor market experience, no kids and aged 40.

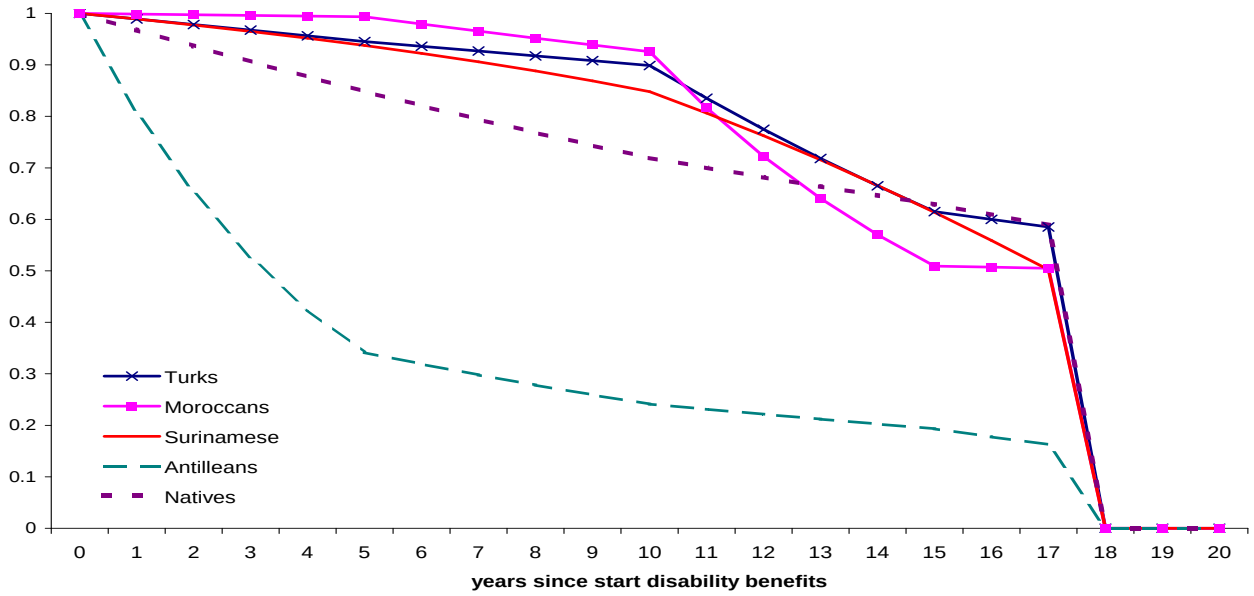

Figure 5: Estimated survival rate in DISABILITY for a reference individual.
A reference individual is a single male with no high education, no labor market experience, no kids and aged 48.