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Labor market entries and early careers in the United States of America, 1984–2002

Increasing employment instability among young people?

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ABSTRACT

In this working paper, we analyze the labor market entries and the subsequent early careers of young people in the United States of America. Using data from the Panel Study of Income Dynamics, we study school leavers aged 16 to 35 longitudinally between 1984 and 2002. Our main research questions regard the consequences of increasing flexibility demands for youth across the past decades: we examine whether the initial phase of working life has become more difficult for young US Americans and whether certain social groups face a greater disadvantage to find a foothold on the job market.

We study the duration between leaving education and finding first employment as well as of the job quality of the labor market entry position. The quality is assessed, first, by the risk of starting the career in a precarious stopgap job and, second, by the probability of being overqualified for the respective position. We observe early career developments regarding the chances of moving out of such unfavorable stopgap jobs and the upward and downward mobility in the first five years of employment.

Our findings suggest that it has become more difficult for school leavers to find first employment in times of increasing flexibility demands; however, the job quality as well as the subsequent career mobility depend more on the general economic conditions that school graduates face when they leave the educational system. Moreover, our results indicate persisting inequality patterns for the US: young women have greater difficulties to enter the labor market and find a well-paid job than young men do. Although less pronounced, notable disadvantages for non-white minorities could also be identified. However, educational attainment plays the most discriminating role of the last decades: while a high school degree has lost much of its value, holding a tertiary degree has become the strongest predictor for early labor market success.

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INTRODUCTION

The United States of America represents a distinct case of a country following an extremely liberal economic and welfare regime strategy. US employees generally face rather high levels of economic and temporal uncertainty in international comparison. Labor market risks are shifted more rigorously to the employees' side than in other modern countries. Together with Great Britain, the US is characterized by being an uncoordinated market economy with weak employment protection legislation and marginal labor market policies. Unions have lost their power over the last decades in the course of de-industrialization and through the vast expansion of the service sector. Consequently, measures to increase flexibility in the labor market were possible to implement in the United States, unhampered as they were by policies to protect workers' security (cf. Bukodi et al. 2006).

It appears that this liberal strategy proved to be an economically successful one: while in many other industrialized countries, unemployment rates have been on the rise during the past decades, the US shows an opposite trend. Unsteady but long-term declining unemployment levels have been accompanied by a rather stable GDP growth. The United States recovered from the recessions in the early 1980s and 1990s better than the European countries and created strong employment growth, also labeled as the 'U.S. Employment Miracle' and 'the great American job machine' (see e.g., Krueger and Pishke 1997). However, this development should not be overinterpreted as exclusively positive for all groups in society, as youth, especially, have not been able to profit proportionally. Although youth unemployment follows the same trend as the overall rates, it stays on a relatively higher level, from 12 to more than 17 percent (compared to 4 – 7.5 percent of total unemployment). Between the mid-1980s and 2000, youth unemployment rates were about 2 to 3 times higher than those of adults, and –

most alarming – this ratio was even rising during times of an improving labor market situation marked by decreasing *overall* unemployment (cf. Sorrentino and Moy 2002).

These numbers indicate that young people in the United States are confronted with more difficulties in the labor market compared with older age groups. The aim of our study is to investigate at the micro level whether US youth's disadvantaged position has intensified in times of growing flexibility demands and uncertainty. Are youth facing increasing instability when entering the labor market after completing education? Furthermore, after finding an initial employment position, have their opportunities to find a foothold in the job market and establish a successful career path worsened? Are certain groups of young people more likely to be disadvantaged when transitioning from school to work? What are the consequences of an initially unfavorable job position for the later career progress? Will such a position be a trap for some young people but a bridge for others? If so, for whom, and why?

In order to analyze US labor market entries and early careers in the United States, we use data from the Panel Study of Income Dynamics (PSID), which allow us to investigate the time span from 1984 to 2002 longitudinally.

This paper will be structured as follows: in the first section, we will demonstrate an overview of the most important institutional features in the United States influencing young people's transition into the labor market and the period of settling down into stable employment. Subsequently, we describe our research design, questions, hypotheses, data, and methods. We then present our results and concluding remarks.

INSTITUTIONAL CONTEXT

Educational system

The prevailing educational system of a country has great impact on the way the transition from school to work is performed (cf. Blossfeld 2003).

In the United States, the educational system is denoted by a comparatively low level of stratification (Allmendinger 1989). This means there is less formalized tracking into different educational levels according to students' performance compared to systems that offer earlier exit degrees that qualify them for manual labor. American youth generally stay in high school until finishing the 12^{th} grade, typically at the age of 18. Due to this minimal selectivity, all American students (theoretically) get the same opportunities to reach the maximum years of general secondary schooling and therefore the chance to continue to higher education. Also, the US educational system displays the characteristics of an unstandardized system (Allmendinger 1989). The school system is highly decentralized, which means there are vast local differences in the quality of schools and the subjects offered. Also, the quality of general education in high school is rather low in international comparison. Thus, employers often criticize the deficient basic knowledge of high school graduates, which raises the

companies' costs for training (Büchtemann, Schupp, and Soloff 1993:509). The consequence of the deviations in quality and curricula of schools is that a high school degree alone tells little about the specific skills of a graduate, which causes the certificate itself to play a more minor role as an evaluation criterion or signal for potential employers compared to other countries (cf. Kerckhoff 2000:454).

The US has no developed vocational training system; instead, working skills are mainly attained through on-the-job training. Thus, one major factor complicating the job allocation for both potential employer and employee is the very weak link between the school system and the labor market, as this increases the likelihood of initial job mismatches (cf. Ryan 2001). As a result, many school graduates entering the labor market are confronted with a turbulent phase of frequent job changes and unemployment episodes, also referred to as "churning" (L'Hoest 1998:V) and "floundering" (Pallas 2000:506), until finding an adequate employment position. An attempt to enhance the connection between schools and employers is represented by the School-to-Work Opportunities Act, initiated by the Clinton administration in 1994. Its aim is to create statewide school-to-work programs that shall enable students to earn portable credentials, prepare for first jobs in high-skill careers, and increase opportunities for further education (see School-to-Work Opportunities Act 1994: section 3). However, these initiatives are only slowly advancing and display no substitute for a national vocational training system (cf. L'Hoest 1998).

Another noteworthy feature of the US educational system is the high price of tertiary education: the college and university tuition fees exploded dramatically during the last decades of the twentieth century. At public colleges, the tuition grew by 91 percent between 1980 and 1995 (Kane 1997:336). In the school year 2003/04, the fees amounted 4,600 dollars on average (Bund-Länder-Kommission für Bildungsplanung und Bildungsforschung 2004:6f). These costs can partly be financed through grants and scholarships, however, making use of student loans and thereby starting a career with a debt burden is a common scenario (Behrmann 1996:258). Also, switching between phases of full-time education and full-time work or doing both at the same time are common and necessary strategies to defray the high expenses of advanced education (Kerckhoff 2000:465). This development of rising tuition fees aggravates the existing inequality patterns, widening the gap between students from low-income families and those from higher social classes (McPherson and Schapiro 1999:15). At the same time, attaining a college degree is increasingly important to be successful in the US labor market. Since the United States is a country with a very high (and growing) share of tertiary-educated people[1], a high school diploma has lost much of its labor market value due to credential inflation (cf. Müller and Shavit 1998:7f).

Employment relationships and labor market regulations

Once performing the transition from education to work, what labor market conditions do school leavers face? The United States follows an extremely liberal strategy where market forces display the dominant regulating mechanism in the economy, and interference by the state is held to a minimal level. This strategy is manifested in passive labor market policies, a relatively small public sector, and a marginal social safety net (Esping-Anderson 1990, 1999). Thus, the US employment system can be described as an uncoordinated market economy with open employment relations (Soskice 1991, 1999; Sørensen and Tuma 1981). This results in a so-called individualistic regime (DiPrete et al. 1997), where an individual's resources (education, labor force experience, and skills) have a predominant effect on mobility prospects.

Within a deregulated labor market, job security generally is on a very low level, as dismissal protection is extremely limited and a strong hire-and-fire mentality is prevailing. Employment contracts are concluded individually, based on the principle of a voluntary contract, which is constituted in the common law doctrine of employment at-will (cf. Eger 2002:18ff). Contracts can be cancelled at any time and with almost no legal constraint. Generally, the law only prohibits lay-offs due to discrimination, based on the Civil Rights Act from 1964. Whether and how long in advance employers have to give notice about dismissal of workers strongly depends on the firm size and the employee's hours worked. According to the WARN act of 1989 (Worker Adjustment and Retraining Notification Act), only large scale lay-offs have to be notified 60 days ahead; however, this only applies to employees working more than 20 hours a week.

This tendency towards high numerical flexibility has been reinforced by a weakening power of labor unions since the 1970s. With the sectoral shift from Tayloristic industrial production to a vastly growing service sector, the role of collective bargaining diminished in the regulation of employment relationships: while in 1973, 24 percent of the US workforce were union members, the share decreased to 14 percent in 2002, and among the private sector to only 9 percent (Appelbaum, Bernhardt, and Murnane 2003:5).

Thus, on the one hand, lack of regulation results in high job instability and insecurity; however, on the other hand, the positive aspect is that young school leavers have higher chances to find a comparably quick entry into the labor market. Employers do not hesitate to hire workers on a trial basis to screen their work potential, since dismissal is not costly for them if a new employee proves not to be a good fit for the position.

The lack of legal as well as union regulation not only led to low job security but also to a large number of low-wage jobs. Expressed in 2001 US dollars, federal minimum wages dropped from 7.18 dollars in 1974 to only 5.15 dollars in 2001. This 28 percent decline in real labor income allowed firms to cut costs by adapting to the lower minimum wage levels (Appelbaum, Bernhardt, and Murnane 2003:5). While the lower educated have strongly been affected by frozen minimum wages, the financial return to a college degree has grown substantially, which leads to high social inequality and a strong polarization

between the 'working poor' and the 'working rich' (Krueger 2003:3ff). Thus, wage flexibility measures implemented at the lower end of the employment spectrum are of rising importance, one example of employers responding to increasing economic pressure.

This cost-saving strategy increasingly entails the use of non-standard employment forms or contingent work, such as part-time and temporary jobs, as well as on-call and day labor (Kalleberg, Reskin, and Hudson 2000). These employment forms allow companies to retain workers on a highly flexible and inexpensive basis, and the workers are considered to be easily interchangeable. Compared to standard full-time positions, working in such job arrangements does not entitle employees to receive employer provided benefits (e.g. health insurance) and gives no eligibility for unemployment and pension benefits. Since, unlike in European countries, the provision of these benefits is not given by the state but is primarily obtained through employment, holding a non-standard job clearly puts a worker at high risk of falling into poverty, as no developed social safety net provides sufficient assistance. Studies have confirmed that especially the youth are affected by these precarious jobs in the growing secondary segment of the US labor market (cf. Duncan, Boisjoly, and Smeeding 1996; Newman and Lennon 1995).

RESEARCH DESIGN: STUDYING LABOR MARKET ENTRIES AND EARLY CAREERS IN THE USA

In our study, we analyze labor market entry processes and early career developments of young Americans between 1984 and 2002. It can be assumed that varying economic conditions under which young people leave education and try to enter the labor market influence the smoothness of the school-to-work transition and the subsequent success in the first few years of the employment career. For this reason we distinguish our sample according to the overall unemployment trend in the US into three school leaver cohorts: in the years 1984 to 1988, the unemployment rate was declining, and the following period from 1989 to 1992 was marked by rising unemployment. These phases identify our first two cohorts. The last cohort exited education between 1993 and 2002 when the labor market recovered again (U.S. Department of Labor 2006).

Labor market entries

In the US, the transition from school to work is a rather blurry process, because Americans often combine school and employment and/or return to the educational system as an adult (Bacolod and Hotz 2005:14f). A clear-cut line between the two statuses is hard to draw. However, in order to analyze the time it takes to find a first job after education is complete, we use the point when a person reaches his or her highest education. This way, we try to catch the actual transition into the labor market rather than the frequently switching periods of

studying and working. Also, by selecting the sample of those aged 16 to 35 when leaving education, we intend to exclude those who have started further education in a later life stage after being part of the labor force for a longer time span and have performed their primary labor market entry earlier.

While analyzing the duration until finding a first job only provides information on the speed of entering the labor market, this tells nothing about how smoothly and successfully this transition was accomplished. In the US, due to very limited support of non-employed persons – especially when they are young and just out of school – it is a life necessity to find a job when exiting education. In many cases, this means taking any job available in order to sustain a living (see e.g. Mills, Johnston, and DiPrete 2006:332). As hardly any structural barriers prevent young people from getting into at least rudimentary employment, in general, US youth often find a comparably quick entry into the job market (see e.g. Bernardi, Gangl, and van de Werfhorst 2004:16f). But to assess the success of the transition, we must observe whether the position fits to the educational level of a school leaver, or whether this is only a stopgap job intended as a bridge into a more adequate employment career.

Therefore, our analysis of a first job's quality is split into two parts: first, we are interested in the job match between educational level and returns in income as well as occupational status in order to observe those who are overqualified for their current position. Education-status mismatch is indicated by the ISEI score (cf. Ganzeboom, de Graaf, and Treiman 1992) of a young person's new job that lies at least one standard deviation below the mean score of his or her respective educational group. Accordingly, an income mismatch is operationalized by calculating the lowest income quartile of each educational group. When a person falls into that share of low hourly income, this indicates an education-income mismatch. Both mismatches are described as overeducation. By definition, those in the lowest educational group (no high school) cannot be overeducated and are excluded from the analysis. In the second part, we concentrate on employment in the so-called stopgap jobs. This concept, developed by Oppenheimer and Kalmijn (1995), tries to identify those highly flexible low-level jobs without upward mobility prospects that are commonly used by young people as a temporary labor market entry route. In this typology, stopgap jobs are distinguished from the more favorable career entry and career positions by having high levels of youth and part-timers working in those jobs. As indicated earlier, especially part-time employment is a precarious job form in the United States, since it does not provide fringe benefits, health insurance, pension plans, and so forth. Thus, stopgap jobs are a good measure of disadvantageous labor market entry positions in the specific context of the US.

Early careers

In the deregulated system of the US, employment careers are generally marked by high mobility, which is reflected by frequent job and occupational changes and recurring unemployment spells (Topel 1992). For young job starters, this

mobility is even more pronounced due to the missing signalling effects from the educational system and the absence of vocational training programs. Hence, the search duration until the first job and the first job's quality would reveal only the initial step of a young person's path into the labor market. Further matching processes and on-the-job training experiences will often follow to further the goal towards a stable and adequate career.

Therefore, in the second part of the analysis we concentrate on the next phase of the early career, beginning with a duration analysis for those who started in disadvantageous stopgap positions and try to find their way into more promising career entry or career jobs. Additionally, since employment in stopgap jobs at the beginning is one common option but not a necessity for all, the general up- and downward career mobility in terms of status changes are in focus. For our study, we operationalized an ISEI status gain or loss of ten percent or more as a significant up- or downward career move. For both processes we choose a five-year observation window, starting with the first labor market entry.

RESEARCH QUESTIONS AND HYPOTHESES

By considering the historical context within which young people try to establish their early careers, as well as factors from the social environment and individual resources and agency, we have generated a set of research questions and corresponding hypotheses that will be tested within our study.

Have labor market opportunities deteriorated for young people since the mid-1980s?

Analyzing labor market entries and early careers of young Americans in the last decades of the twentieth century allows us to examine changes over time. According to the theoretical assumption of increasing flexibility and, therefore, a more rigorous shift of labor market risks to the employees, we pose the question whether these tendencies have affected labor market opportunities of US youth in an intensifying or changing way. Is it getting harder to find first employment? Is the risk of being in a precarious job rising? Do upward mobility moves become less likely in the course of the early career? We expect that the answers to these questions are yes.

Which factors facilitate or worsen labor market opportunities of young people?

We assume that specific factors are especially important with regard to the distribution of social inequality in the US context. Who is likely to be more disadvantaged in the labor market? We hypothesize along several dimensions.

Gender

Gender continues to be a relevant status identifier at the beginning of the employment career, as shown in prior studies (e.g. Bernardi, Gangl, and van de Werfhorst 2004; Arum and Hout 1998). In line with these studies, we expect women to have a harder time to establish themselves on the labor market. This is largely due to the fact that women are disproportionately overrepresented in part-time employment and temporary jobs, both of which lack the protections and benefits of full-time and non-temporary positions. Whether these assumed disparities may be leveled out during the first years in the job market will be an interesting question to be answered.

Race

Many studies have shown that in the United States, inequality patterns with regard to race and ethnic origin persist (Smith 1993; Massey and Denton 1994; Western and Pettit 2005). We expect non-white minorities, largely represented by African Americans and Hispanics, to have more problems to find their way into the labor market and to locate an adequate job position. In the longer term, the continuing legacy of discrimination means that non-white minorities may face relatively more difficulties climbing up the career ladder in the subsequent years. With the exception of Asian Americans who are a very successful group in the US educational system and labor market, we expect for minorities a continued disadvantage even when comparing groups of similar educational attainment.

Individual human capital resources

Educational attainment is expected to play the most discriminating role in the labor market entry processes of the last decades. Since highly qualified employees have become a necessity for companies to succeed in a knowledge-based society, and a growing proportion of young people obtain tertiary degrees, we expect the value of a secondary degree (high school graduation) to have declined notably over the time period under study.

However, due to the weak link between the educational system and the labor market in the US, the employer does not receive clear signals about the capabilities of a job applicant who has just left education. Therefore, employers have to utilize a different criterion gauging school leavers that tells more about 'real-life' competences. We expect that *labor force experience* young people gained before leaving education plays a major role for a successful labor market entry. Accordingly, with accumulating job experience, upward moves shall become more likely across the first few years of employment. However, not every labor force experience necessarily means an advantage for the young applicant: coming from a job where the attained education would have suggested higher returns in income or status may be perceived as a negative signal for potential employers.

Branch of industry

Since technological change has originated in distinct sectors of the economy (e.g., manufacturing and private services) (cf. Hornstein, Krussel, and Violante 2004:12ff), one could expect rising inequality between the educational groups within these industries.

Also, when exploring young people's employment chances, job quality and upward or downward career mobility, their branch affiliation shall give an indication about the level of flexibility demands they are experiencing (Whiteford 2006). While manufacturing and private service industries struggle with growing international competition, social services are less affected by this development and, hence, should shelter new applicants from deteriorating job quality and downward career mobility. This tendency should be enforced by the fact that social and public services are the segments of the US labor market where union membership rates are highest and even rising in the time span under study – presumably for the same reason: less competition (Hirsch 2007).

Although we expect lower upward mobility prospects in the early career when entering the social services or public sector, this should rather be resulting from generally better starting positions than as indicator of worse career prospects.

DATA AND METHODS

Although there are several other US panel and longitudinal studies providing detailed labor market data for the age group (16 till 35) and time span (mid-1980s to 2002) in focus here, we decided to examine this group with information from the representative Panel Study of Income Dynamics (PSID), as it allows us to follow repeating waves of school leavers in their job search and establishment phase (University of Michigan 2006).[2] This panel offers detailed information on the educational attainment, personal characteristics as well as job and income histories of household heads and – if present – their partners starting in 1984 up to the present.

Nevertheless, the PSID data structure has some severe shortcomings as well. Since it covers only those respondents' job histories who are leading an economically independent household, we cannot make any inferences for young people who start their working career while still living with parents or in other dependent living arrangements. This selection bias leads presumably to an underestimation of the search durations until finding first employment, as only job starters remain in the sample who (had to) support themselves and thus have supposedly higher interests in getting employed quickly. Furthermore, we were not able to link given individual job characteristics with monthly tenure data across the panel waves, because the dataset does not provide reliable linking codes or an uninterrupted individual job history file. Thus, for the early career, we use the PSID in its yearly panel format, which provides the job and income information at the time of the annual interview.[3]

Given these available data, we applied piecewise constant transition rate models on continuous time for the analysis of the job search phase after the last educational spell. For the further duration analysis in the labor market – out of stopgap as well as upward and downward career mobility – discrete time transition rate models are applied. The analysis of the risks of getting an initially precarious job is accomplished using logistic regression models.

RESULTS

Duration until first employment

Out of the 1,170 school leavers in the sample, a surprisingly high proportion – almost 55 percent – have already held an employment position while being in school and continued to keep this job until after they had left the educational system. This strategy facilitates a direct transition into the labor market for many, which results in a very high share of about 70 percent who were able to get into a job within the first two months after finishing school. After a year, less than 10 percent of the respondents have not (yet) entered the labor market. Thus, this general picture strongly confirms the very fast school-to-work transition in the United States.

However, the later school leavers from 1993 to 2002 had more difficulties to find an initial job position compared with the earlier cohorts, as seen in Table 1. This difference can be interpreted in terms of rising labor market insecurity in the course of intensified flexibility demands and competition. Especially in the light of declining unemployment rates during these years, this trend needs to be seen as a sign for the increasingly disadvantaged position of young people entering the US labor market. However, as an overall trend, high unemployment has a negative effect on the transition into a first job.

When looking at the distribution of social inequality, we find great support for our posed hypotheses: women, non-white minorities, and the less educated have a harder time entering the labor market. When controlling for educational attainment, the gender and race differences persist. This politically highly sensitive topic of a continued disadvantage of equally qualified women and minorities may be seen as an indicator for statistical discrimination, as suggested by many US studies concerning this issue (see e.g., Bielby and Baron 1986; Neumark 1999; England and Folbre 2003).

Table 1 Duration until first employment after leaving the educational system

Model	1	2	3
Periods			
Up to 3 months	-0.86 **	-0.16	-0.87 **
3 to 9 months	-1.91 **	-1.20 **	-1.91 **
9 to 18 months	-2.29 **	-1.59 **	-2.28 **
18 months and more	-4.70 **	-3.98 **	-4.69 **
School leaver cohort			
1984 to 1988	0.14 +		0.26 +
1989 to 1992	0.13 +		0.06
1993 to 2002 (ref.)	-		-
Unemployment rate		-0.10 **	
Sex			
Women	-0.34 **	-0.34 **	-0.34 **
Men (ref.)	-	-	-
Race			
Non-white	-0.13 *	-0.14 *	-0.13 *
White (ref.)	-	-	-
Educational level			
No high school	-0.22 *	-0.25 **	-0.21
High school (ref.)	-	-	-
Some college	0.44 **	0.42 **	0.45 **
College	0.53 **	0.55 **	0.55 **
Interaction effects			
Cohort 1984-88 * no high school			-0.26
Cohort 1984-88 * some college			-0.15
Cohort 1984-88 * college			-0.16
Cohort 1989-92 * no high school			0.19
Cohort 1989-92 * some college			0.09
Cohort 1989-92 * college			0.08
Number of events			1,127
N			1,170
Censored			43
-2*diff(logL) a)	136.59	139.05	140.60

Own calculations (PSID). Piecewise constant exponential models.
** significant at $\alpha \leq 0.01$, * significant at $\alpha \leq 0.05$, + significant at $\alpha \leq 0.1$.
a) The reference of the displayed likelihood ratio tests is the log likelihood of the piecewise constant exponential model without covariates.

Survivor functions for men and women indicate that the gender difference is especially strong in the first few months after school completion but levels out after about a year after leaving school (analyses not shown). This may indicate that a discrimination of women actually takes place when initially trying to enter the labor market, while the smaller disparities at the later months reflect the decisions of some women to stay at home as homemakers and mothers. This is also supported when looking at the censored persons in the sample: while about 5 percent of the 705 women stay out of employment completely, this is only the

case for about 2 percent of the 465 men in the sample. Such an explanation of intended non-employment does, of course, not hold up for minorities. Their transition rate stays significantly lower than that of whites over the whole observation time.

With regard to educational attainment, we find a clear distinction between those holding a high school degree or less compared to those with at least some college and especially with a college degree. This considerable gap confirms the assumption that a high school degree has lost value in the labor market and does not even grant an advantage compared to high school drop-outs. However, the interaction effects of cohort with educational attainment do not indicate a change in our observed time window, so this devaluation of high school credentials either has taken place at an earlier point of time, or our case numbers are too low for the change to show as statistically significant.

Overeducation in the first employment position

To evaluate whether the first employment position was a mismatch with the education level the respondent attained, we use both job socio-economic status and the income level of the respondent in comparison with the averages for those with the same level of education. When we use relative job status as a measure, we have 882 respondents; by using income, we lose more cases due to missing data and have only 842 cases available for analysis.

When using the income-education mismatch, we find the timing of an entry to make a significant difference in the likelihood of a respondent being overeducated relative to his or her first job. Compared to the latest cohort (1993 to 2002), the middle cohort (1989 to 1992) has faced a 52 percent higher risk of getting a job not appropriate to their initial education (see model 4). The overall unemployment rate did not show a significant influence, however. The lack of effect here may affirm the macro-level data findings that overall unemployment and youth unemployment do not exactly follow the same paths, but rather youth experience a much slower decline of their unemployment rates compared to the impressive improvements in the overall unemployment rate.[4] Gender was crucial in all models and with both indicators: perhaps unsurprisingly, the effect changed direction depending on the measurement of overeducation used. While women had a 63 percent higher risk to earn less in return to their qualification than men did, women were more likely than men to have higher status jobs relative to their qualification level. This finding is in line with other studies that show that women tend to get into a first employment of a higher occupational status while still being confronted with a notable gender pay gap (see e.g., Arum and Hout 1998). The assumption of statistical discrimination with regard to race has to be rejected for both ways of measurement. Non-white

Table 2 Likelihood of job mismatch after leaving the educational system

	Overeducation using labor income per hour				*Overeducation using ISEI score*			
Model	1	2	3	4	1	2	3	4
Constant	-2.00 **	-2.32 **	-2.20 **	-2.53 **	-1.21 **	-1.42 **	-1.46 *	-1.29 **
School leaver cohort								
1984 to 1988	0.17	0.42		0.16	-0.14	0.28		-0.14
1989 to 1992	0.49 *	0.95 *		0.42 +	0.31	0.49		0.33
1993 to 2002 (ref.)	-	-		-	-	-		
Unemployment rate			0.07				0.05	
Sex								
Women	0.61 **	0.61 **	0.61 **	0.49 *	-0.53 **	-0.54 **	-0.52 **	-0.40 *
Men (ref.)	-	-	-	-	-	-	-	-
Race								
Non-white	-0.05	0.00	-0.03	0.07	0.07	0.09	0.09	0.23
White (ref.)	-	-	-	-	-	-	-	-
Education								
High school (ref.)	-	-	-	-	-	-	-	-
Some college	-0.02	0.60	-0.04	0.07	0.06	0.40	0.05	0.23
College	0.03	-0.35	0.02	0.32	-0.42	-0.24	-0.44 +	-0.02
Duration until first employment (months)				0.01				0.01
Employed before leaving education				-0.57 *				0.26

Table 2 continued

	Overeducation using labor income per hour				*Overeducation using ISEI score*			
Model	1	2	3	4	1	2	3	4
Interaction effects								
Cohort 1984-88 * some college		-0.58				-0.78		
Cohort 1984-88 * college		0.57				-0.37		
Cohort 1989-92 * some college		-1.05 *				-0.29		
Cohort 1989-92 * college		0.38				-0.14		
Branch								
Extractive a)								1.67 **
Private services				0.98 **				-0.09
Social services				-0.05				-1.35 **
Transformative (ref.)				-				-
Branch missing				0.37				-0.32
N				842				882
-2*diff(logL)	342.71	350.45	337.47	378.21	372.74	375.03	368.07	412.94

Source: Own calculations (PSID). Logistic regression models.
** significant at $\alpha \leq 0.01$, * significant at $\alpha \leq 0.05$, + significant at $\alpha \leq 0.1$. a) In the ISEI models, collapsed into missing due to low case no.

minorities are not paid worse or find themselves in jobs of lower occupational status when comparing the same educational groups. Thus, if racial discrimination actually continues, it must be assumed that it takes place at an earlier stage when still being in school or looking for work.

Work experience attained before leaving the educational system, however, reduces the risk of the income-education mismatch, which is in line with our argumentation that prior work has a signaling effect and indicates a human capital investment strategy in the US labor market. Furthermore, especially in this analysis, we find a very strong branch effect: becoming employed in private services constitutes a high risk of being paid far below one's educational reference group compared to the transformative sector, while social services offer jobs of higher status right from the start compared to the transformative sector. Their non-competitive market and the stronghold of the unions proved to provide the expected higher job quality.

Entering and leaving stopgap employment

Table 3 presents the combined results of young people's risk of entering a stopgap job after leaving education and, for those who started their career in a stopgap job, the chances of leaving this precarious form of employment again. Out of the 1,053 observable school leavers, 434 started their employment career in a stopgap job. Thereafter, almost half of them (203 persons) performed an upward move into a more favorable career or career entry job.

Regarding the changes over the time under observation, we find a surprising result: the earlier cohorts from 1984 to 1992 show a higher likelihood of starting in stopgap employment than the later cohort.

Thus, the hypothesis of rising pressure for precarious jobs due to increasing flexibility demands does not hold true for the US youth; instead, the general trend of long-term decreasing unemployment rates seems to have an effect on the job quality: the lower the unemployment rate, the lower the probability to start in a stopgap job, but at the same time it is harder to leave such a job again. Thus, although school leavers had a harder time initially to enter the labor market during the last decade, they actually had slightly better chances to avoid low-level jobs, perhaps a side effect of economic recovery.

As expected, women are much more likely to enter the labor market in a stopgap job than men are. Besides their initial overrepresentation in stopgap employment (298 women vs. 136 men), no gender differences are found regarding the likelihood of moving out of stopgap jobs. Thus, women cannot compensate for their disadvantaged career start. Quite a reverse trend is observable with regard to race differences but with similar long-term consequences: while non-white minorities face a rather equal risk as whites to start in a stopgap job, they have a considerably harder time to exit it again and, therefore, are also much more prone to be trapped in such precarious jobs.

Table 3 *Likelihood of entering and propensity of exiting stopgap employment*

	Likelihood of entering a stopgap job after leaving the educational system				*Discrete time transition rate models for the exit out of stopgap jobs*			
Model	1	2	3	4	1	2	3	4
Constant	-0.74 **	-0.95 **	-1.39 **	-2.44 **	-0.91 **	-0.73 *	-2.15 **	0.59
School leaver cohort								
1984 to 1988	0.29 +	0.33		0.37 +	0.44 +	0.04		0.55 *
1989 to 1992	0.28 +	0.70 *		0.30 +	0.23	0.21		0.32
1993 to 2002 (ref.)	-	-		-	-	-		-
Unemployment rate			0.13 +				0.24 *	
Sex								
Women	0.76 **	0.78 **	0.76 **	0.49 **	-0.17	-0.21	-0.16	-0.09
Men (ref.)	-	-	-	-	-	-	-	-
Race								
Non-white	0.03	0.06	0.04	0.09	-0.33 +	-0.36 *	-0.33 +	-0.41 *
White (ref.)	-	-	-	-	-	-	-	-
Education								
No high school	1.04 **	1.27 **	1.01 **	1.07 **	-0.86 **	-0.86 +	-0.83 **	-0.90 **
High school (ref.)	-	-	-	-	-	-	-	-
Some college	-0.61 **	-0.23	-0.63 **	-0.62 **	-0.25	-0.61	-0.25	-0.34 +
College	-1.81 **	-2.15 **	-1.82 **	-1.74 **	0.82 *	0.10	0.86 *	0.63 +
Duration until 1st employment (months)				0.00				
Employed before leaving education				-0.35 +				

Table 3 continued

	Likelihood of entering a stopgap job after leaving the educational system				*Discrete time transition rate models for the exit out of stopgap jobs*			
Model	1	2	3	4	1	2	3	4
Duration in stopgap job (years)								-0.51 *
Duration in stopgap job^2								0.05
Interaction effects								
Cohort 1984-88 * no high school		0.45				0.50		
Cohort 1984-88 * some college		-0.44				0.76		
Cohort 1984-88 * college		1.12				0.94		
Cohort 1989-92 * no high school		-0.82 +				-0.74		
Cohort 1989-92 * some college		-0.63 +				0.25		
Cohort 1989-92 * college		-0.39				0.81		
Branch								
Extractive				2.85 **				-0.55
Private services				2.45 **				-1.00 **
Social services				1.30 **				-0.45
Transformative (ref.)				-				-
Branch missing				1.43 *				0.11
Design change a)					-1.66 *	-1.71 *	-1.50 *	-1.78 *
Number of events								203
Number of episodes								886
N				1,053				434
-2*diff(logL)	205.14	219.20	204.20	355.40	64.49	71.54	66.11	88.94

Source: Own calculations (PSID). ** significant at $\alpha \leq 0.01$, * significant at $\alpha \leq 0.05$, + significant at $\alpha \leq 0.1$.
Logistic regression models. a) Controls for the switch from annual to biannual waves

Individual human capital resources, such as educational attainment and employment experience, confirm our hypotheses: the higher the educational level, the less likely a person is to be employed in or stuck in a stopgap job. Looking at the interaction effects on cohort and education, the risk of entering a stopgap job was lower in the earlier cohort of 1989 to 1992 for those without a high school or college degree. This suggests a rising importance of a tertiary degree as protection from becoming trapped in a low-quality job. Employment experience before leaving the educational system reduces the risk of starting the career in a stopgap job, which emphasizes the importance of labor force experience as a resource in the US job market.

Furthermore, the negative duration dependence for the transition out of stopgap jobs suggests that selection processes are at work, meaning the longer one stays in a stopgap job, the more likely this becomes a trap rather than a bridge.

Also, tendencies related to the branch of industry could be found: while jobs in the production-oriented transformative sector hold less risk of stopgap employment compared to all other branches, extractive sector employment and private service jobs bear higher risks for such a bad entry. Private service jobs hold the highest risk of all. Thus the assumption of higher market pressures in these sectors seems to be confirmed.

Upward and downward mobility in the early career

We round off our empirical analysis with results on the propensity to move the early career ladder up or down from one year to another within a five year observation window, which starts with the entry into the labor market (Table 4). This final step should allow us to see whether the initial differences in the speed of entry and the quality of the first job, e.g., for gender, time period, and educational level are compensated or entrenched with time and experience in the labor market and across school leaver cohorts.

First, any assumptions of careers being upwardly directed along one-way paths for the vast majority must be rejected for the US case. Although 39 percent indeed make significant upward moves of a more than ten percent gain in ISEI status within five years, more than 30 percent of the job starters follow the opposite direction. Once again, the numbers reflect the overall high mobility in the US labor market.

The timing of leaving education has a pronounced effect in the US: from the mid-1980s to the early 1990s, when the unemployment rates have been highest in our observation window, job mobility both up *and* down has been on a higher level as well. The hypothesis of rising flexibility and worsening opportunities in the early career across the time periods must be therefore rejected. Since the labor market has become generally tight (from an employer's perspective), it seems to offer both fewer risks and fewer chances for the employees at the same time.

Table 4 *Upward and downward mobility in the early career using ISEI score*

	Upward mobility				*Downward mobility*			
Model	1	2	3	4	1	2	3	4
Constant	1.05 **	1.82 **	1.04	2.18 **	-4.06 **	-3.34 **	-4.06 **	-3.03 **
School leaver cohort								
1984 to 1988	0.52 **	0.63 **		0.16	0.54 **	0.65 **		0.19
1989 to 1992	0.37 *	0.49 **		0.11	0.41 *	0.53 **		0.17
1993 to 2002 (ref.)	-	-		-	-	-		-
Unemployment rate			0.19 *				0.18 +	
Sex	-	-	-	-	-	-	-	-
Women	-0.20	-0.26 +	-0.27 *	-0.28 *	-0.06	-0.09	-0.09	-0.10
Men (ref.)								
Race								
Non-white	0.08	0.08	0.10	0.07	-0.13	-0.18	-0.15	-0.19
White (ref.)	-	-	-	-	-	-	-	-
Education								
No high school	-0.23	-0.57 *	-0.63 **	-1.31 **	0.28	0.19	0.10	-0.30
High school (ref.)	-	-	-	-	-	-	-	-
Some college	0.66 **	0.73 **	0.69 **	0.29	-0.64 **	-0.56 **	-0.57 **	-0.88 **
College	1.02 **	1.24 **	1.26 **	1.44 **	-1.75 **	-1.57 **	-1.53 **	-2.49 **
ISEI (1st job)	-0.08 **	-0.08 **	-0.08 **	-0.08 **	0.05 **	0.06 **	0.06 **	0.06 **
Overeducation using ISEI (1st job)		-0.55 *	-0.58 **	-0.56 **		0.15	0.11	0.15
Stopgap as 1st job		0.28 +	0.28 +	0.29 +		0.53 **	0.55 **	0.54 **

Table 4 continued

	Upward mobility				*Downward mobility*			
Model	1	2	3	4	1	2	3	4
Branch								
Extractive a)								
Private services		0.32 +	0.33 +	0.30		-0.25	-0.27	-0.26
Social services		0.02	0.00	-0.06		-0.41 +	-0.47 *	-0.42 +
Transformative (ref.)		-	-	-		-	-	-
Branch missing		0.84 **	0.84 **	0.78 *		-2.43 *	-2.44 *	-2.43 *
Interaction effects								
Cohort 1984-88 * no high school				1.17 *				0.61
Cohort 1984-88 * some college				0.72 +				0.59
Cohort 1984-88 * college				-0.31				1.16 +
Cohort 1989-92 * no high school				0.93 +				0.79
Cohort 1989-92 * some college				0.50				0.25
Cohort 1989-92 * college				-0.15				1.09
Employment experience (years)		-0.60 **	-0.54 **	-0.58 **		-0.93 **	-0.85 **	-0.93 **
Employment experience²		0.07 *	0.06 +	0.06 +		0.11 **	0.11 **	0.11 **
Design change b)	-0.91 **	-0.52 +	-0.66 *	-0.48	-0.84 **	-0.30	-0.50 +	-0.24
Number of events				353				252
Number of episodes				2034				1956
N				898				825
-2*diff(logL)	274.58	321.56	314.43	331.08	116.46	172.42	165.29	178.08

Source: Own calculations (PSID). ** significant at $\alpha \leq 0.01$, * significant at $\alpha \leq 0.05$, + significant at $\alpha \leq 0.1$. Discrete time transition rate models.
a) Collapsed into missing due to low case no. b) Controls for the switch from annual to biannual waves.

Once taking women's higher initial ISEI status relative to their educational group into account – they are less often overeducated in this respect (see table 2 ISEI models) – we find that women show slower upward mobility than men. Thus, in the further career development, they cannot hold up the status advantage found in the overeducation models.

Interestingly, we cannot find a race effect in this respect. This leads to the conclusion that the early career disadvantages of minorities are concentrated in exiting low-level stopgap jobs (see Table 3), while observing the overall mobility does not imply greater difficulties of non-whites to be upwardly mobile in their first few years of employment.

Education is by far the strongest predictor for subsequent career chances: the higher the education, the better the upward career mobility prospects, irrespective of the initial socioeconomic status at labor market entry. Starting with a college degree provides about three and a half times faster upward mobility chances compared to those with a high school diploma while lowering the risk of career backlashes to about one fifth (cf. model 3 for both processes). For those without a high school diploma, the chances to perform upward moves declined across the cohorts, which supports our expectation that formal education is of rising importance on a highly competitive job market.

Being overeducated in the first job reduces the upward mobility chances. This counter-intuitive result may become more reasonable, when thinking of a 'bad' start as a negative signal for other potential employers. Also a possible interpretation for such an effect can be an unobserved heterogeneity regarding the educational degrees. For example, the quality and prestige of college degrees varies across the country and, therefore, graduates with same formal educational level may represent a highly diverse group.

Another surprising result was generated, when looking at the impact of a stopgap job on further career moves. As expectable and described by the label "stopgap" itself, a start in such a job is followed by faster upward job mobility. On the other hand, it accelerates even more the way down the career ladder.

Employment in the social service sector shelters from downward moves, while the private services seem to offer better upward prospects – on the expense of lower status and payments in the beginning, as had been shown in the job quality models above. Employment experience (after finishing education) does not improve the speed up the career ladder, but, at the same time, it provides a strong shield against downward mobility.

CONCLUSION

In sum, have the opportunities deteriorated for young school leavers across the past decades? Our findings suggest that in fact it has become more difficult for school leavers to find a first employment in times of increasing flexibility

demands; however, the job quality as well as the subsequent career mobility rather depend on the general economic conditions that school graduates face when they leave the educational system. Thus, once having found the way into the labor market, young people could actually profit from the recovering economy by finding more adequate jobs. With the improving labor market situation, mobility generally declined, which can be seen as a stabilizing trend: fewer chances to move up come along with lower risks of losing the attained occupational status.

Which factors are crucial with regard to early labor market opportunities? For one, we find the branch of industry to play a quite important role. Our results strongly support the idea of the social services as a safe resort, especially in contrast to private services: in social service jobs, young people have the chance to start at a comparably higher occupational status and face lower risks of losing the achieved status. For all other sectors, the picture is mixed: either young people suffer from bad entry positions as well as less chances to leave initial stopgap jobs (like in the private service sector), or the risk of downward mobility is very pronounced (like in the manufacturing industry).

Moreover, our results indicate persisting inequality patterns for the US: young women have greater difficulties to enter the labor market, find an adequate job – especially with regard to income – and establish a successful, upwardly mobile employment career compared to men. Although less pronounced, notable disadvantages for non-white minorities could also be identified: they need longer to find a first job, and when this first employment is a stopgap job, it is more likely for them to become a trap rather than a bridge.

However, educational attainment plays the most discriminating role in the last decades: of course, the most severely affected are the high school dropouts, but also finishing secondary schooling has lost much of its value. Especially with the increasing proportion of tertiary educated people, a college or university degree combined with labor force experiences gathered before exiting education has become the strongest predictor for early labor market success.

NOTES

[1] The share of 25- to 29-year-olds that have reached a bachelor's degree or higher went up from 17 to 29 percent between 1971 and 2005 (National Center for Education Statistics 2006).

[2] The Panel Study of Income Dynamics is primarily sponsored by the National Science Foundation, the National Institute of Aging, and the National Institute of Child Health and Human Development and is conducted by the University of Michigan.

[3] After 1997, the PSID turned to a biannual research design due to budget reasons.

[4] The interaction effects are not interpreted here, since the improvement of the model is just at the limit of a ten percent α level at the χ squared test.

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