

Brändle, Tobias; Ordemann, Jessica

**Same same but different? : non-traditional students and alumni in Germany**

*Studia paedagogica*. 2020, vol. 25, iss. 4, pp. [35]-50

ISSN 1803-7437 (print); ISSN 2336-4521 (online)

Stable URL (DOI): <https://doi.org/10.5817/SP2020-4-2>

Stable URL (handle): <https://hdl.handle.net/11222.digilib/143452>

Access Date: 25. 02. 2024

Version: 20220831

Terms of use: Digital Library of the Faculty of Arts, Masaryk University provides access to digitized documents strictly for personal use, unless otherwise specified.

# **SAME SAME BUT DIFFERENT? NON-TRADITIONAL STUDENTS AND ALUMNI IN GERMANY**

TOBIAS BRÄNDLE,  
JESSICA ORDEMANN

## **Abstract**

*This article gives an overview about current research on non-traditional students and alumni in Germany. Its aim is to highlight similarities and differences with their traditional counterparts. The paper concentrates on the motivation to study, study performance, and labor market success (status and income) of those who do not hold a traditional higher education entrance certificate but entered university via occupational qualification. We show a widespread divergence in findings from no statistical difference at all to clear differences between non-traditional and traditional students and alumni. This holds true with regard to student motivation, study performance, and labor market success after graduation. We conclude that biggest challenge is the non-completion rates of non-traditional students, which poses a development task for institutions of higher education.*

## **Keywords**

*non-traditional students, non-traditional alumni, Germany, study performance, labor market success*

## Introduction

Non-traditional students in higher education have become a stronger focus in research over the past few years due to their increasing share in the student population. There have already been several attempts to bring order to the clutter of definitions of non-traditional students (Schuetze, 2014; Schuetze & Slowey, 2002). However, no consistent definition for this group of students has been established. To define non-traditional students, a wide range of criteria is used. That is, in comparison to the general student population they are older when they begin studying or once they graduate (Egerton, 2000a), they might have received their university entrance certificate over a second educational pathway such as the US GED (Elman & O’Rand, 2004), their parents might not have studied themselves (Müller & Pollak, 2010), they might have chosen long distance learning (Alheit et al., 2008), or they might have been working before entering higher education (Hällsten, 2011). Given this broad range of definitions for non-traditional students, there is one commonality they share: non-traditional students are conceptualized as a minority at institutions of higher education.

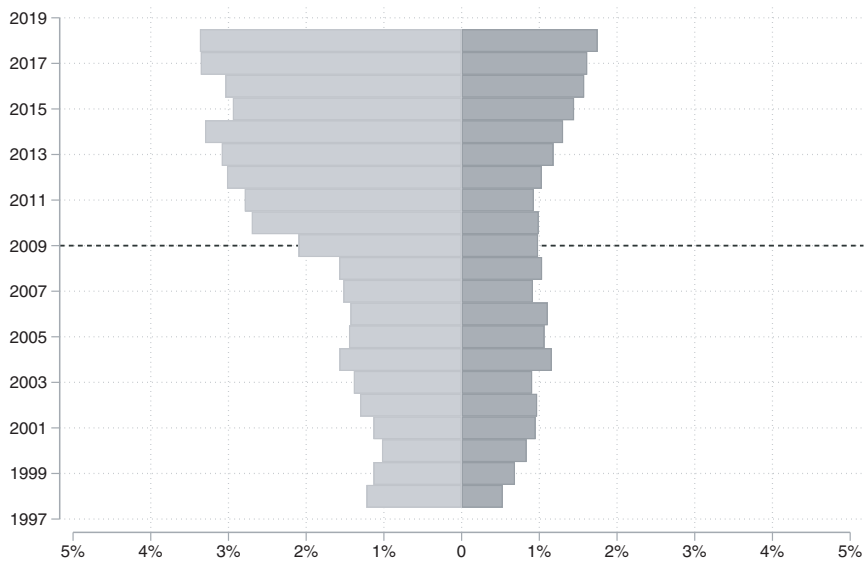
This holds true not only internationally, but also—to a lesser degree—in Germany, where universities nationwide were opened to vocationally qualified individuals in 2009 after a decision by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (Kultusministerkonferenz [KMK], 2009). Since then, another means of entering higher education has been established—in addition to the most common way of obtaining general qualifications to enter university—usually after 12 or 13 years of schooling. The ministers agreed to open higher education to prospective students who had completed vocational education: graduates of advanced further training independently of their field of expertise and without taking an additional entrance examination, and graduates of vocational education in many cases after taking an entrance examination and only studying a subject that is related to their field of expertise. Establishing this minimal standard for entering university without having obtained general qualifications for university over the primary educational pathways or via second chance education has led to an increase in non-traditional students and alumni in Germany.

Figure 1 describes the trend in the shares of non-traditional students and alumni in the total student population from 1998 to 2018. Both trends show a rise over the past two decades. It is obvious that the shares of non-traditional students have significantly increased since the decision to open universities nationwide. After a jump from 1.6% to 3.1% between 2008 and 2011, however, the shares remained at a similar level. Additionally, despite the increase over time the share of non-traditional students is still low today at just about 3%,

which equals 17,239 non-traditional students. Similarly, the increase in non-traditional alumni has also been low. While 0.5% of graduates were non-traditional in 1998, 21 years later 1.8% had graduated from higher education over the third educational pathway, equaling 8,728 non-traditional alumni. Unsurprisingly, this increase in alumni lags about 3 years behind the increase in the numbers of non-traditional students – the average time it takes to receive a bachelor’s degree.

Figure 1

*Development of the shares of non-traditional students (left) and alumni (right) between 1998 and 2018; the dotted line represents the KMK decision in 2009*



(Statistisches Bundesamt, 1993–2018, 1997–2018)

Against this backdrop, our article gives a brief overview of findings on non-traditional students and alumni in Germany, drawing primarily on our most recent studies that have already been published (Brändle, 2019; Ordemann, 2018, 2019). First, we discuss whether non-traditional students differ from traditional students regarding their motivation, study success, and labor market success. We show that there is a big divergence in findings: while some results have found no differences between non-traditional and traditional students and alumni, others have found differences between the two groups.

Second, we turn to the labor market returns of non-traditional alumni and discuss how their occupational status and income differ from those of traditional alumni. Our findings signal that they have attained significantly lower status but earned the same as their traditional counterparts have. The article concludes with a discussion of how similar or different non-traditional and traditional students and alumni are.

### **Motivation, study performance, and labor market success**

In the following, we focus on different aspects of the student life cycle and the time after graduation. First, we discuss their motivation to study and their performance in their studies. Then, we discuss labor market success.

#### *Motivation to study*

Motivation to study is of general interest in research in higher education. That is why there have been many studies on the motivation to study among non-traditional students since the beginning of scientific interest in this group. One of the questions investigated is whether non-traditional students start studying to further develop their personality or rather to further develop their vocational qualifications. Despite remarkable effort, there have not been any consistent findings regarding motivation to study (Brändle, 2019).

Studies in the early days of research on non-traditional students in Germany found a great importance of motives regarding the further development of personality (Friebel, 1978; Mucke, 1997; Rau, 1997; Scholz & Wolter, 1984, 1986; Schroeter, 1998; Wolter & Reibstein, 1991). Scholz and Wolter (1986) showed that these motives were about as important as motives regarding the further development of vocational qualifications, while most other studies argued that the development of personality was the dominant motive to start studying for non-traditional students. Several more recent studies have reproduced these findings: Scholz (2006) showed that about two thirds of non-traditional students started studying due to occupational motives, but 87% of them reported that they had started studying to further develop their personality. Kamm et al. (2016) even found that this was the case for 94% of non-traditional students. Brändle (2014) reported that for more than half of non-traditional students this was the dominant motive to start studying. However, there are opposing findings that reported a higher relevance of motives regarding further development of vocational qualifications compared to motives regarding the development of personality. Alheit et al. (2008) observed a growing career orientation among non-traditional students. Kamm and Otto (2013) claimed that non-traditional

students orient themselves toward occupational goals and emphasized that their vocation can act as either a pull or a push factor. Wolter et al. (2015) found that non-traditional students mainly start studying due to occupational motives – such as an occupational change or promotion or to earn more money. Altogether, the findings from surveys regarding the motivation of non-traditional students have been far from consistent, mainly due to the insufficient comparability of samples and methods.

But do their personality and vocational motives set non-traditional students apart from traditional students? Comparative analyses involving non-traditional and traditional students have shown that there are differences regarding their motivations. Generally, non-traditional students have tended to be more motivated to study than traditional students have regarding their motivation to develop their personality and develop their vocational qualifications (Brändle, 2019). There is some evidence, however, that these differences might primarily be a consequence of the differing characteristics of the two groups. That is, when study motives are investigated while controlling for sociodemographics, cultural fit, and availability of capital, the effects of university entrance qualifications have been reduced or are even no longer statistically significant (Brändle, 2019).

#### *Study performance*

Study performance, namely such measures as grades, are a core indicator for academic integration and thus important for persistence and success at higher education (Tinto, 1975). However, studies on the performance of non-traditional students are scarce (Freitag, 2012). This scarcity can be traced back to the facts that non-traditional students are a rarity in higher education in Germany and obtaining reliable data on study performance is a difficult task. In addition, the few studies that have focused on the study performance of non-traditional students have not yielded consistent findings (Brändle, 2019).

Several studies have found that the performance of non-traditional and traditional students is (at least) similar (Dahm et al., 2019; Scholz, 2006; Scholz & Wolter, 1986) – some have even argued that non-traditional students perform better than the latter (Hartung & Kraus, 1990). Scholz (2006) stated that non-traditional students have abilities, skills, and knowledge that are functionally equivalent to those of other groups of students. Scholz and Wolter (1986) found that the performance of non-traditional students in teacher training was equivalent to that of traditional students. Dahm et al. (2019) analyzed official higher education statistics and reported that across all of the investigated fields of studies there were only small differences regarding the final grades of non-traditional and traditional students. However, their analyses also pointed to higher and faster drop-out among

non-traditional students (Dahm et al., 2019).<sup>1</sup> Richter (1995) had contrary results. Her findings showed that the graduation rates of non-traditional and traditional students were similar, while the grades of the former were lower throughout their studies, even though there was a convergence in grades over the course of the studies. Berg et al. (2014) also found a convergence in grades over the first two semesters with lower performance among non-traditional students. Nevertheless, in their study these lower grades also translated into lower completion rates. On the other hand, Brändle and Lengfeld (2017) found consistently lower performance among non-traditional students throughout their complete course of studies. Moreover, they noted that non-traditional students had lower course completion rates at the beginning of their studies, less frequently obtained a degree, and, when they did, received worse grades than traditional students did (Brändle & Lengfeld, 2015). Altogether, findings regarding the study performance of non-traditional students are far from consistent – the reasons being insufficient comparability of samples and discipline-specific grading cultures (Müller-Benedict & Tsarouha, 2011).

But does this set non-traditional students apart from traditional students? Some of the studies cited above showed differences in the grades of non-traditional and traditional students – with lower performance among non-traditional students. On the one hand, there is some evidence that these differences hold up when performance is studied controlling for sociodemographics (Brändle & Lengfeld, 2015), cultural fit, and availability of capital (Brändle, 2019). On the other hand, there are findings that differences in drop-out probability between non-traditional and traditional students are no longer significant when controlling for sociodemographics, probability of success, use and cost of studies, and living conditions (Dahm & Kerst, 2016) and non-completion might be a consequence of the group composition of non-traditional students (Tieben, 2020).

#### *Labor market success*

Once non-traditional students have successfully completed their studies, group differences should disappear and they should be able to expect the same status attainment and income as traditional students do: Independent of the educational pathway, a graduate degree should send a clear signal to future employees (Spence, 1973; Stigler, 1962) and should therefore yield

---

<sup>1</sup> Looking into the reasons for drop-out intention among non-traditional students, Dahm et al. (2018) found it can primarily be traced back to social integration at institutions of higher education, that is a lack of contacts with their fellow students.

the highest status attainment in comparison to all other educational degrees (Manzoni et al., 2014; Neugebauer & Weiss, 2018). This holds especially true for Germany, where the educational system and the labor market are closely interlinked (Allmendinger, 1989; Müller & Gangl, 2003). In Germany, a bachelor's degree from university will yield a higher occupational status in the labor market than a vocational training degree but a lower occupational status than a master's degree (Neugebauer & Weiss, 2018). Over the course of their careers, occupational prestige is higher for both women and men with a graduate degree than for other educational degree holders (Manzoni et al., 2014). Furthermore, graduates find a job faster after graduating (Glocker & Storck, 2012) and earn more (Anger & Lupo, 2007).

Even though non-traditional and traditional alumni share the same degree, their educational biographies and competences differ and could therefore result in different labor market outcomes. The international literature has pointed to disadvantages for non-traditional alumni in comparison to traditional alumni. This research has differed in its definition of the observed population as it defines non-traditional alumni to be older than traditional alumni. As non-traditional alumni in Germany are also older than their traditional counterparts, the international findings can be used for further knowledge about potential status attainment after graduation. For the UK, non-traditional alumni are often viewed as mature students aged 21 and older (Egerton, 2000a). Mature students are less likely to enter the higher service class than early graduates are (Egerton, 2001b) and their position in the labor market is lower (Egerton, 2001a). Results for the US are rare and pertain to the income of non-traditional alumni, who are conceptualized as being over 25 years of age. Elman and O'Rand (2004) have shown that studying later goes hand in hand with a lower income than that associated with entering higher education earlier in life. Especially in the international literature, one constant explanatory factor for the lower educational returns is social origin. Not only do people from the working class have a lower probability to enter the higher service class than people from the middle and service classes in the UK do (Egerton, 2001a), but it also affects their earnings negatively (Egerton, 2000b). In the US, social origin affects wages over the pathway as well as the educational degree (Elman & O'Rand, 2004).

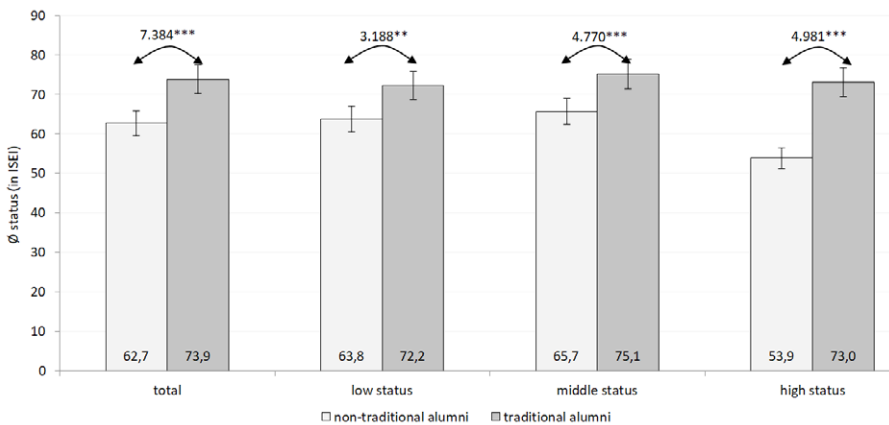
But are there differences in the labor market outcomes of German non-traditional and traditional alumni? Research on German non-traditional alumni has offered evidence that they have not obtained the expected returns from higher education in the labor market. They have attained a lower occupational status than traditional alumni have after finishing their studies. Nevertheless, non-traditional alumni perceived their studies as positively influencing their careers (Diller et al., 2011) and they reached higher status positions than vocational trainees who did not move onto higher education (Rzepka, 2018).



Still, inferential statistics (t-tests) based on the adult cohort of the German National Education Panel Study (NEPS) have shown that 5 years after receiving their degree, they had not attained the same degree of occupational status as traditional alumni had (Ordemann, 2018). At that point in time, they were placed lower in the occupational hierarchy than traditional alumni were (Figure 2).

Figure 2

*Mean comparison of status attainment (ISEI) by non-traditional and traditional alumni (t-test, values above bars)*



(LIfBi, NEPS, SC6, 2007–2015; Ordemann, 2018, p. 275)

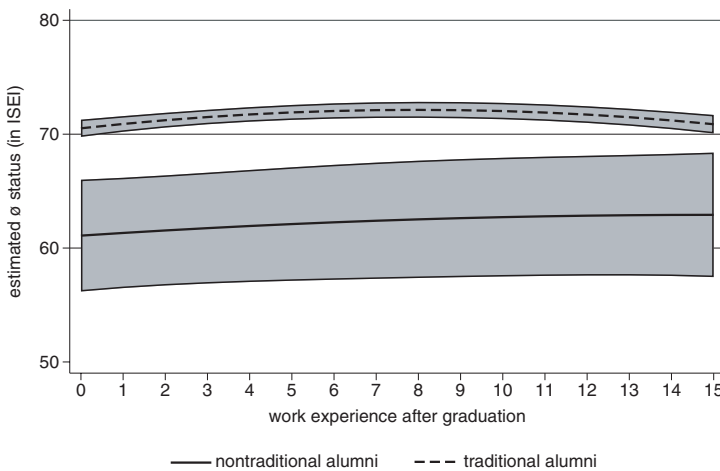
*Note:* Mean status values (ISEI) are shown at the bases of the bars and the  $|t|$ -values are above the arrows with \* meaning  $p < 0.05$ , \*\*  $p < 0.01$ , and \*\*\*  $p < 0.001$ .  $N = 733$ . Parental status is defined by the ISEI distribution:  $< 25\%$  of the ISEI distribution = low status,  $\geq 25\%$  and  $< 75\%$  of the ISEI distribution = middle status, and  $\geq 75\%$  of the ISEI distribution = high status.

One main driver for this lower attainment is social status. While the status attainment of alumni whose parents came from lower and middle social origins did not show any parental influence at this time, the parental status of non-traditional alumni from higher social origins had a strong impact. They were placed lower in the occupational hierarchy than all other groups of non-traditional and traditional alumni. In regard to the question of whether non-traditional and traditional alumni are the same, this is an interesting result. If you follow status reproduction theory by Boudon (1974), traditional alumni, who generally come from higher origins, also attained higher occupational status. The results of Ordemann (2018) showed that if they could not reach a similar status over the first educational pathway, they aimed but failed to reach it over the third educational pathway.

The differences in the occupational status attainment of non-traditional and traditional alumni have been maintained over their careers. Despite the same degree, random-effects panel regressions with data from the NEPS adult cohort have shown that non-traditional alumni attained lower status (Ordemann, 2019). Already at graduation, non-traditional alumni attained lower status than traditional alumni did (Figure 3). This did not change over the next 15 years, even though their career trajectories were steeper than those of traditional alumni. The covariants in the model indicate that occupational status was highly influenced by the last occupation status non-traditional alumni occupied before studying – in comparison, the occupational status of the parents of traditional alumni had a greater influence on their attainment. This result speaks to a “sticky bottom” effect from the first occupational career of the non-traditional alumni. In addition, non-traditionals chose different work environments. For example, they more often worked within former East Germany than traditional alumni did, had more experience with unemployment, and less often worked in the civil service or at bigger companies – all factors that can enhance that effect. In short, despite having the same degree as traditional alumni, non-traditionals attained lower occupational status than traditional alumni did, in part due to a sticky bottom effect from their previous career and the choices they made in the labor market after their studies.

Figure 3

*Status mobility of non-traditional and traditional students over 15 years after graduation (ISEI)*



(LifBi, NEPS, SC6, 2007–2015; Ordemann, 2019, p. 126)

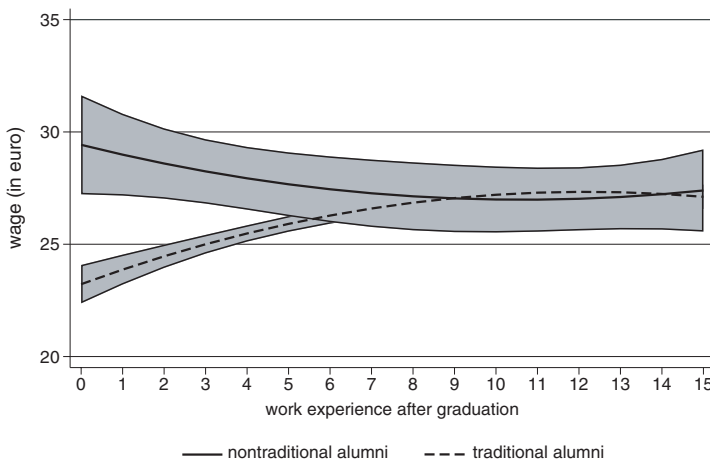
*Note:* Mean status values (ISEI) shown with confidence interval (gray shading). The scale is reduced to 50–80 ISEI status points for better representation. N = 23,767.

Regardless of the lower status attainment, no significant income difference has been found for non-traditional and traditional alumni over their occupational careers after graduating from tertiary education (Ordemann, 2019). A quick look at wages after graduation reveals that 1 year after graduation non-traditional alumni earned an hourly wage of EUR 23.7 whereas traditional alumni earned EUR 24.5 per hour. Over their succeeding careers, non-traditional alumni remained at nearly the same level as at the beginning whereas traditional alumni experienced a significant increase in wages. This led to an advantage for the traditional alumni after about 5 years into their career.

Looking closer shows that those findings do not honor the importance of social origin and work context, which also influence status attainment, as Mincer regressions with the adult cohort of the NEPS showed (Figure 4). Once conditions such as parental status, the point in time at which they entered the labor market, work in the civil service and full time, and having previous experience with unemployment are factored into the analysis, the picture changes slightly. Under those conditions, non-traditional alumni had higher incomes than traditional alumni did directly after graduation before both income trajectories merged about 9 years into their careers. This emphasizes the importance of their previous careers as well as work-related decisions after graduation. Taken together, non-traditional alumni generally earned the same as traditional alumni did and were therefore able to attain the same life chances.

Figure 4

*Income mobility of non-traditional and traditional alumni*



(LIfBi, NEPS, SC6, 2007–2015; Ordemann, 2019, p. 158)

*Note:* Mean wage shown with confidence interval (gray shading). The scale is reduced to EUR 20–35 for better representation. N = 7,428.

## Conclusion

In this article, we gave a brief overview of non-traditional students and alumni in Germany. Drawing on the literature, we gave an outline of findings on their motivation, their study performance, and their labor market success. We pointed out that present studies have not yielded consistent results. This lack of consistency can be primarily traced back to a wide range of group definitions that are applied in research on non-traditional students and alumni as well as to differences in methodology, resulting in very few comparable studies. Thus, answering the provocative question in the title “same same but different?” is complex.

Taken with a grain of salt, motivation to study is highly developed for non-traditional students. There is a tendency for them to be higher motivated than traditional students are. However, existing studies have found that non-traditional students have had lower study performance than traditional students have. While differences in grades have been relatively small, differences in non-completion seem to be more meaningful. The labor market outcomes of non-traditional alumni also showed differences to those of traditional alumni. In regard to their occupational status after graduation, the results showed a distinct disadvantage for non-traditional alumni. Nevertheless, that status did not yield lower life chances in regard to income. Instead, non-traditional alumni earned more directly after graduation before the traditional alumni closed the earning gap. Afterward, both groups earned the same. Additionally, group differences—in all focused aspects—were reduced when the groups’ composition was taken into account.

All in all, even if there are differences between non-traditional and traditional students—during their studies and after graduation—these differences are relatively small. Mostly, these differences are accounted for by group composition. That is, non-traditional students differ from traditional students because they are in a different stage of life, which means they have not only different obligations but also different competencies at hand. Therefore, non-traditional students are not a (cheap) copy of traditional students. In fact, they have unique competencies and requirements that need to be discovered and fulfilled by institutions of higher education. In this respect, non-traditional students act as agents of change that awaken institutions of higher education from a deep slumber – and can also shake up longstanding perspectives in the labor market. Traditionally, employers in Germany have preferred straight career paths, which non-traditional alumni do not have. Nevertheless, with their diverse competences and abilities to develop and train further, it could be this specific group that can meet the challenges of the future and stand as an example for lifelong learning.

Before they enter the labor market, the biggest challenge is the non-completion rates of non-traditional students. Regarding the educated guess that only an elite group of non-traditional students finds their way to university, it is still remarkable that the non-completion rates of non-traditional and traditional students differ. Put simply, similar study performance and similar labor market returns might also be a consequence of (self-)selection processes during their studies. If that is the case, institutions of higher education need to communicate the requirements for studying successfully more openly. Doing so would prevent hopes from being shattered and ultimately time from being wasted for starting something that might be unattainable.

## References

- Alheit, P., Rheinländer, K., & Watermann, R. (2008). Zwischen Bildungsaufstieg und Karriere. Studienperspektiven „nicht-traditioneller Studierender“ [Between educational betterment and career: Studies' views on non-traditional students]. *Zeitschrift für Erziehungswissenschaft*, *11*(4), 577–606. <https://doi.org/10.1007/s11618-008-0051-1>
- Allmendinger, J. (1989). Educational systems and labor market outcomes. *European Sociological Review*, *5*(3), 231–250. <https://doi.org/10.1093/oxfordjournals.esr.a036524>
- Anger, S., & Lupo, K. (2007). Bildungsrenditen von Vollzeitbeschäftigten in Deutschland: Der Osten hat aufgeholt [Educational returns of full-time staff in Germany: The east has caught up]. *DIW Wochenbericht*, *74*(10), 149–157.
- Berg, H., Grendel, T., Haußmann, I., Lübbe, H., & Marx, A. (2014). *Der Übergang beruflich Qualifizierter in die Hochschule: Ergebnisse eines Modellprojekts in Rheinland-Pfalz* [The transition of vocational qualified to higher education. Findings of a model project in Rhineland-Palatinate]. Mainzer Beiträge zur Hochschulentwicklung: Zentrum für Qualitätssicherung und -entwicklung.
- Boudon, R. (1974). *Education, opportunity, and social inequality: Changing prospects in Western society*. John Wiley.
- Brändle, T. (2014). Studienmotive und Lebensziele: Ein Vergleich der Intentionen nicht-traditioneller und traditioneller Studierender [Students' motives and life goals. Comparing intentions of non-traditional and traditional students]. *Beiträge zur Hochschulforschung*, *36*(4), 92–119.
- Brändle, T. (2019). *Passfähige Sonderlinge? Zur Relevanz von fachkultureller Passung sowie von sozialem, kulturellem und ökonomischem Kapital für nicht-traditionelle Studierende* [Fitting misfits? The relevance of socio-cultural fit and social, cultural, and economic capital for non-traditional students]. Beltz Juventa.
- Brändle, T., & Lengfeld, H. (2015). Erzielen Studierende ohne Abitur geringeren Studienerfolg? Befunde einer quantitativen Fallstudie [Do students without a general qualification for university entrance show lower academic performance? Findings from a quantitative case study]. *Zeitschrift für Soziologie*, *44*(6), 447–467. <https://doi.org/10.1515/zfsoz-2015-0605>
- Brändle, T., & Lengfeld, H. (2017). Drifting apart or converging? Grades among non-traditional and traditional students over the course of their studies: A case study from Germany. *Higher Education*, *73*(2), 227–244. <https://doi.org/10.1007/s10734-016-0010-3>

- Dahm, G., Becker, K., & Bornkessel, P. (2018). Determinanten des Studienerfolgs nicht-traditioneller Studierender – zur Bedeutung der sozialen und akademischen Integration, der Lebensumstände und des Studienkontextes für die Studienabbruchneigung beruflich qualifizierter Studierender ohne Abitur [Determinants of study performance of non-traditional students – the relevance of social and academic integration, personal living conditions, and study context for drop-out intention of vocationally qualified students without general qualification for university entrance]. In P. Bornkessel (Ed.), *Erfolg im Studium: Konzeptionen, Befunde und Desiderate* (pp. 108–174). wbv Media GmbH & Co. KG. <https://doi.org/10.3278/6004654w>
- Dahm, G., & Kerst, C. (2016). Erfolgreich studieren ohne Abi? Ein mehrdimensionaler Vergleich des Studienerfolgs von nicht-traditionellen und traditionellen Studierenden [Studying successful without general qualification for university entrance? A multidimensional comparison of study performance of non-traditional and traditional students]. In A. Wolter, U. Banscherus, & C. Kamm (Eds.), *Ergebnisse der wissenschaftlichen Begleitung des Bund-Länder-Wettbewerbs Aufstieg durch Bildung: offene Hochschulen: Vol. 1. Zielgruppen Lebenslangen Lernens an Hochschulen* (pp. 225–265). Waxmann.
- Dahm, G., Kerst, C., Kamm, C., Otto, A., & Wolter, A. (2019). Hochschulzugang und Studienerfolg von nicht-traditionellen Studierenden im Spiegel der amtlichen Statistik [Access to higher education and academic success of non-traditional students – an analysis based on official statistics]. *Beiträge zur Hochschulforschung*, 41(2), 8–32.
- Diller, F., Festner, D., Freiling, T., & Huber, S. (2011). *Qualifikationsreserven durch Quereinstieg nutzen: Studium ohne Abitur, Berufsabschluss ohne Ausbildung* [Making use of qualification reserves through lateral entry. Study without general qualification for university entrance, professional qualification without vocational training]. Bertelsmann.
- Egerton, M. (2000a). Monitoring contemporary student flows and characteristics: secondary analyses using the Labour Force Survey and the General Household Survey. *Journal of the Royal Statistical Society. Series A. Statistics in Society*, 163(1), 63–80. <https://doi.org/10.1111/1467-985X.00157>
- Egerton, M. (2000b). Pay differentials between early and mature graduate men: The role of state employment. *Journal of Education and Work*, 13(3), 289–305. <https://doi.org/10.1080/713676996>
- Egerton, M. (2001a). Mature graduates I: Occupational attainment and the effects of labour market duration. *Oxford Review of Education*, 27(1), 135–150. <https://doi.org/10.1080/03054980124365>
- Egerton, M. (2001b). Mature graduates II: Occupational attainment and the effects of social class. *Oxford Review of Education*, 27(2), 271–286. <https://doi.org/10.1080/03054980125679>
- Elman, C., & O’Rand, A. M. (2004). The race is to the swift: Socioeconomic origins, adult education, and wage attainment. *American Journal of Sociology*, 110(1), 123–160. <https://doi.org/10.1086/386273>
- Freitag, W. K. (2012). *Zweiter und Dritter Bildungsweg in die Hochschule* [Second- and third-chance education for higher education]. Hans-Böckler-Stiftung.
- Friebel, H. (1978). Weiterbildungsmotivation: Dimensionen und Determinanten [Motivation for further education: Dimensions and determinants]. In H. Friebel (Ed.), *Studierende Erwachsene im Zweiten Bildungsweg: Soziale Herkunft, Studienerfahrungen und Lernprobleme* (pp. 121–145). Westermann.
- Glocker, D., & Storck, J. (2012). Uni, Fachhochschule oder Ausbildung – welche Fächer bringen die höchsten Löhne? [University, university of applied sciences or vocational education – which disciplines have the highest wages?]. *DIW Wochenbericht*, 79(13), 3–8.

- Hällsten, M. (2011). Late entry in Swedish tertiary education: Can the opportunity of lifelong learning promote equality over the life course? *British Journal of Industrial Relations*, 49(3), 537–559. <https://doi.org/10.1111/j.1467-8543.2010.00784.x>
- Hartung, D., & Kraiss, B. (1990). Studierende, die aus dem Beruf kommen: Auswirkungen von Praxiserfahrungen auf Studium und akademische Berufstätigkeit [Students coming from vocation. Impact of practical experience on studies and academic employment]. In N. Kluge, W.-D. Scholz, & A. Wolter (Eds.), *Vom Lehrling zum Akademiker. Neue Wege des Hochschulzugangs für berufserfahrene Erwachsene* (pp. 117–160). Bibliotheks- und Informationssystem.
- Kamm, C., & Otto, A. (2013). Studienentscheidungen und Studienmotive nicht-traditioneller Studierender [Study decisions and study motives of non-traditional students]. *Zeitschrift für Beratung und Studium*, 8(2), 40–46.
- Kamm, C., Spexard, A., & Wolter, A. (2016). Beruflich Qualifizierte als spezifische Zielgruppe an Hochschulen: Ergebnisse einer HISBUS-Befragung [Vocationally qualified students as a specific target group at institutions of higher education. Results of a HISBUS-survey]. In A. Wolter, U. Banscheraus, & C. Kamm (Eds.), *Ergebnisse der wissenschaftlichen Begleitung des Bund-Länder-Wettbewerbs Aufstieg durch Bildung: offene Hochschulen: Vol. 1. Zielgruppen Lebenslangen Lernens an Hochschulen* (pp. 165–196). Waxmann.
- Kultusministerkonferenz (KMK) (2009, March 6). *Hochschulzugang für beruflich qualifizierte Bewerber ohne schulische Hochschulzugangsberechtigung. Beschluss der Kultusministerkonferenz vom 06.03.2009* [Opening higher education for vocationally qualified applicants without general qualification for university entrance]. [https://www.kmk.org/fileadmin/veroeffentlichungen\\_beschluesse/2009/2009\\_03\\_06-Hochschulzugang-erful-qualifizierte-Bewerber.pdf](https://www.kmk.org/fileadmin/veroeffentlichungen_beschluesse/2009/2009_03_06-Hochschulzugang-erful-qualifizierte-Bewerber.pdf)
- Manzoni, A., Harkonen, J., & Mayer, K. U. (2014). Moving On? A growth-curve analysis of occupational attainment and career progression patterns in West Germany. *Social Forces*, 92(4), 1285–1312. <https://doi.org/10.1093/sf/sou002>
- Mucke, K. (1997). „Der Hürdenlauf“ – eine Spezialdisziplin Berufserfahrener im tertiären Bereich? Ergebnisse von Interviews mit Studienplatzbewerbern ohne schulische Hochschulzugangsberechtigung [“The steeplechase” – a special discipline of applicants for a place to study without general qualification for university entrance]. In K. Mucke & B. Schwiedrzik (Eds.), *Studieren ohne Abitur. Berufserfahrung – ein „Schrittmacher“ für Hochschulen und Universitäten* (pp. 31–49). Bertelsmann.
- Müller, W., & Gangl, M. (2003). *Transitions from education to work in Europe: The integration of youth into EU labour markets*. Oxford University Press.
- Müller, W., & Pollak, R. (2010). Weshalb gibt es so wenige Arbeiterkinder in Deutschlands Universitäten? [Why are there so few working-class children at Germany’s universities?]. In R. Becker & W. Lauterbach (Eds.), *Bildung als Privileg? Erklärungen und Befunde zu den Ursachen von Bildungsungleichheit* (pp. 305–344). Springer.
- Müller-Benedict, V., & Tsarouha, E. (2011). Können Examensnoten verglichen werden? Eine Analyse von Einflüssen des sozialen Kontextes auf Hochschulprüfungen [Are grades in exams comparable to each other? The impact of social context on grading in higher education]. *Zeitschrift für Soziologie*, 40(5), 388–409. <https://doi.org/10.1515/zfsoz-2011-0505>
- Neugebauer, M., & Weiss, F. (2018). A transition without tradition: Earnings and unemployment risks of academic versus vocational education after the Bologna process. *Zeitschrift für Soziologie*, 47(5), 349–363. <https://doi.org/10.1515/zfsoz-2018-0122>
- Ordemann, J. (2018). Soziale Herkunft, Statusreproduktion und Studium ohne Abitur [Social origins, status reproduction and non-traditional students]. *Sozialer Fortschritt*, 67(4), 269–282. <https://doi.org/10.3790/sfo.67.4.269>

- Ordemann, J. (2019). *Studium ohne Abitur: Bildungserträge nichttraditioneller Hochschulabsolventen im Vergleich* [Studying without general qualification for university entrance. Comparing educational returns of non-traditional alumni]. Springer.
- Rau, E. (1997). Neue Gruppen von Studierenden als Herausforderung an die Universität [New groups of students as a challenge for universities]. In K. Mucke & B. Schwiedrzik (Eds.), *Studieren ohne Abitur. Berufserfahrung – ein „Schrittmacher“ für Hochschulen und Universitäten* (pp. 71–89). Bertelsmann.
- Richter, G. (1995). *Abiturienten und Nichtabiturienten im Hochschulstudium* [High-school graduates and non-high-school graduates during studies]. Universität Osnabrück.
- Rzepka, S. (2018). Labor market returns to college education with vocational qualifications. *Education Economics*, 26(4), 411–431. <https://doi.org/10.1080/09645292.2018.1440532>
- Scholz, W. D. (2006). *Vom Meister zum Magister, von der Erzieherin zur Diplomandin. Berufliche Weiterbildung als Schlüssel zum Hochschulstudium in Niedersachsen* [From masters to master, from child care worker to degree candidate. Advanced professional training as key to higher education in Lower Saxony]. BIS-Verlag der Carl von Ossietzky Universität Oldenburg.
- Scholz, W. D., & Wolter, A. (1984). Hochschulzugang als lebensgeschichtlicher Einschnitt: Ein empirischer Beitrag zu Studienmotiven und Studierenerwartungen von Berufstätigen ohne traditionelle Studienberechtigung [Access to higher education as biographical cut. An empirical contribution to study expectations of vocationally qualified without traditional university entrance qualification]. In P. Kellermann (Ed.), *Klagenfurter Beiträge zur bildungswissenschaftlichen Forschung: Vol. 15. Studienaufnahme und Studienzulassung: Aspekte des Wandels im Zugang zu den Hochschulen* (pp. 129–159). Kärntner Druck- und Verlagsgesellschaft.
- Scholz, W. D., & Wolter, A. (1986). Ergebnisse der Studierendenuntersuchung [Results of a student survey]. In Bundesminister für Bildung und Wissenschaft (Ed.), *Beruf und Studium. Studierenerfahrungen und Studierenerfolg von Berufstätigen ohne Reifezeugnis* (pp. 19–125). Bock.
- Schroeter, K. R. (1998). *Studium ohne Abitur: Studienverlauf und Studierenerfolg von Studierenden ohne schulische Hochschulzugangsberechtigung* [Studies without general qualification for university entrance. Course of studies and study performance of students without general qualification for university entrance]. C.A.U.S.A.
- Schuetze, H. G. (2014). From adults to non-traditional students to lifelong learners in higher education: Changing contexts and perspectives. *Journal of Adult and Continuing Education*, 20(2), 37–55. <https://doi.org/10.7227/JACE.20.2.4>
- Schuetze, H. G., & Slowey, M. (2002). Participation and exclusion: A comparative analysis of non-traditional students and lifelong learners in higher education. *Higher Education*, 44(3–4), 309–327. <https://doi.org/10.1023/A:1019898114335>
- Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics*, 87(3), 355–374. <https://doi.org/10.2307/1882010>
- Statistisches Bundesamt (1993–2018). *Studienanfänger nach Art der HZB ab SJ 93* [Beginning students per university entrance certificate since academic year 1993]. Wiesbaden.
- Statistisches Bundesamt (1997–2018). *Bestandene Prüfungen nach Art der HZB* [Passed graduations per university entrance certificate]. Wiesbaden.
- Stigler, G. J. (1962). Information in the labor market. *Journal of Political Economy*, 70(5), 94–105.
- Tieben, N. (2020). Non-completion, transfer, and dropout of traditional and non-traditional students in Germany. *Research in Higher Education*, 61(1), 117–141. <https://doi.org/10.1007/s11162-019-09553-z>
- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, 45(1), 89–125. <https://doi.org/10.3102/00346543045001089>



- Wolter, A., Dahm, G., Kamm, C., Kerst, C., & Otto, A. (2015). Nicht-traditionelle Studierende in Deutschland: Werdegänge und Studienmotivation: Ergebnisse eines empirischen Forschungsprojektes [Non-traditional students in Germany: Pathways and motivation to study]. In U. Elsholz (Ed.), *Beruflich Qualifizierte im Studium: Analysen und Konzepte zum Dritten Bildungsweg* (pp. 11–33). wbv Media GmbH & Co. KG.
- Wolter, A., & Reibstein, E. (1991). Studierfähig durch Beruf und Weiterbildung? Eine empirische Fallstudie anhand der Bildungs- und Berufsbiographien von Erwachsenen [Ability to study through vocation and further training? An empirical case study on the basis of vocational biographies of adults]. In A. Wolter (Ed.), *Die Öffnung des Hochschulzugangs für Berufstätige. Eine bildungspolitische Herausforderung* (pp. 35–97). BIS.

**Corresponding authors**

Tobias Brändle

Institute for Educational Monitoring and Quality Development (IfBQ), Hamburg, Germany.

E-mail: tobias.braendle@ifbq.hamburg.de

Jessica Ordemann

German Centre for Higher Education Research and Science Studies (DZHW), Hannover, Germany

E-mail: ordemann@dzhw.eu