

Attrition among Police Officers with Immigrant Backgrounds

Abstract

Recruiting police officers with immigrant backgrounds has a limited effect if many of these recruits leave the police service. The dropout and attrition rates among officers with immigrant backgrounds are also an important indicator of the challenges this group faces when joining the police profession. We investigated police education dropout patterns and attrition rates among police students and officers with immigrant backgrounds. Our study is based on detailed longitudinal data with total coverage of the population, which were previously unavailable for police career studies. Using logistic regression and coarsened exact matching, we analysed administrative registry data covering all individuals admitted to the Norwegian police university college (1995–2010, N = 6,570) and all police educated staff employed in the Norwegian police (1995–2014, N = 7,001). Students and police officers with non-Western immigrant backgrounds have a greater tendency to both drop out of education and leave the police service. Prior academic performance can only partly explain these higher educational dropout rates. Female and males with non-Western immigrant backgrounds have similar dropout patterns. Our results provide a rationale for developing policy aimed at not only recruiting, but also retaining police officers with immigrant backgrounds.

Keywords

Police officers, immigrant backgrounds, ethnicity, diversity, dropout, attrition

Introduction

During recent decades, considerable effort has been invested in recruiting police officers with diverse backgrounds (Donohue, 2019). Increasing the proportion of officers with immigrant backgrounds is expected to improve the low levels of trust in the police among minority groups, which will be an advantage for policing a diverse community and increase internal job satisfaction (Alderden, Farrell, & McCarty, 2017). Minority police officers are also expected to be more open to non-traditional policing styles, e.g. community-oriented policing and problem-oriented policing (Black & Kari, 2010).

These effects of recruiting minority officers are not automatic. Increased diversity among sworn officers has been reported not to affect either job satisfaction or perceptions of fair treatment among officers (Alderden et al., 2017). Further, minority recruits seem to have the same motivations for joining the police as their colleagues with a majority background (Raganella & White, 2004), while white female officers may be even more able to assess the policing needs of diverse communities (Black & Kari, 2010). However, several positive effects have been reported, including decreased police misconduct and public complaints (Hong, 2017), increased ability to interact with diverse cultural groups (Black & Kari, 2010) and improved perceptions of fairness among agencies with more diverse leadership (Alderden et al., 2017). Police brutality and violence when encountering minority groups is a contentious topic in the United States (US) as well as several European countries. Hence, recruiting police officers with the ability to police diverse communities is particularly relevant.

Regardless, recruiting more officers with immigrant backgrounds¹ will have a limited effect if many drop out of police education or soon exit the profession. Hence, investigating whether police officers with immigrant backgrounds tend to leave the police service more often is important. Previous research suggests that considering academic performance and gender may nuance and broaden our understanding of dropout and attrition patterns (Nevers, 2019; Todak & Brown, 2019). Thus, the topic of this paper is the careers of police officers with immigrant backgrounds, which we addressed with three research questions: First, do police recruits with immigrant backgrounds drop out from police education and/or leave the profession more often? Second, to what extent can differences in dropout and attrition be explained by academic performance? Third, does the association between immigration background and dropout/attrition differ between female and male recruits?

To answer these questions, we employed a novel approach in police research by using administrative registers with individual-level data. These data cover all individuals admitted to the Norwegian Police University College (NPUC) between 1995–2010 or who were employed by the Norwegian police between 1995 and 2014. Until now, studies of police career trajectories have mostly been based on surveys and/or qualitative research methods (Chan & Doran, 2009; Haarr, 2005; Prenzler, Fleming, & King, 2010; Rabe-Hemp, 2008). Our data are advantageous because they provide total coverage of the population and avoid non-response problems. The relatively long study period allows us to track careers over time in detail (including returns to the police). Nordic registry data have been employed for many influential studies addressing education, employment and careers and have been acknowledged as providing opportunities for high-quality, impactful social science research (Connelly, Playford, Gayle, & Dibben, 2016). Yet they have not previously been used to

¹ Terms like *diverse backgrounds*, *race* and *ethnic minority* have been used often in previous studies. Since our administrative data only provide information about country of birth and parents' country of origin, we prefer the term *immigrant background* (Western/non-Western) herein.

study police careers of officers with immigrant backgrounds. Previous investigators have called for such information on ethnic differences in dropout rates based on official registries (Bjørkelo, Egge, Bye, & Ganapathy, 2015). Hence, the Norwegian police service, which is wholly covered by administrative register data, makes an interesting case for exploring dropout and attrition among officers with immigrant backgrounds.

The Case of Norway

Compared with the US and many other European countries, Norway has a relatively short immigration history (Kjeldstadli, 2003). However, immigration to Norway has increased steadily since the 1970s, especially from 2004 to 2011. Today, 18% of the Norwegian population have immigrant backgrounds. The largest immigrant groups have backgrounds originating from Poland, Lithuania, Sweden, Pakistan, Syria, Somalia and Iraq (SSB, 2020).

National differences in immigration histories and population demographics mean that research on diversity in the police will be based on different groups in different countries. For example, while strategies by the US police mainly focus on recruiting Black, Hispanic and Asian officers who represent groups with a long history in American society (e.g. Haarr, 2005; White, 2008), the minority groups herein will necessarily be either immigrants or the children of immigrants. Although differences among them are important, minority groups in policing in various countries have one important aspect in common: the experience of being newcomers and a numeric minority in a police culture that has been described as predominately white and unified (Hassell & Brandl, 2009; Loftus, 2008).

Familiar questions about ethnic tension and negative attitudes towards immigrants are also present in the Norwegian context. However, Norway can still be characterized as a society with relatively liberal attitudes towards immigrants (SSB, 2020). Diversity has long been an official goal for the Norwegian police, including recruiting and retaining officers

with immigrant backgrounds (Bjørkelo et al., 2015; Politidirektoratet, 2008). The experience of being a police student with a minority background in Norway is still described as challenging, due to an emphasis on unity and a shared police identity, which leaves little room for differentness and unique cultural qualifications (Bjørkelo, Bye, Leirvik, Egge, & Ganapathy, 2020; Bjørkelo et al., 2015). We note that challenges and tensions between the police and members of the ethnic minority public have also been reported in Norway (Sollund, 2007). Despite this, reports of police misconduct have been relatively modest, and the general level of trust in the police is comparatively high in Norway (ESS, 2014).

Compared to other countries, the Norwegian police education is relatively long and academically oriented. The first and third year is academic training on campus, while the second year mostly is practical on-the-job training. Upon completion, the students receive a formal bachelor's degree. However, unlike most 3-year Bachelors' education offered in Norway, the Police university college is under the auspices of the Ministry of Justice, and not the Ministry of Education. Furthermore, only one of the campuses is located on a University campus (Hove & Vallès, 2020). This duality is also reflected in the subject matter at the police university college and the teaching staff – who are a mix of vocational training taught by police-educated staff and more theoretical subjects taught by civilian employees with other educational backgrounds (law, psychology, social science etc.) The admission requirements are extensive, and include comprehensive tests of physical, mental and academic skills (Bjørkelo et al., 2015).

In many regards, the overall Norwegian context parallels that of the US and other European countries; for example, an official diversity goal has been combined with reports of challenges to minority police students and officers in multiple settings (Donohue, 2019; Dowler, 2005; Hassell & Brandl, 2009; Peterson & Uhnou, 2012). Still, we argue that it is reasonable to view Norway as a 'best-case scenario' for exploring police dropout and attrition

among immigrant background groups. The question is whether students and police officers with immigrant backgrounds leave policing even when diverse officer recruitment has been highly promoted and the level of conflict between the police and immigrant background population is relatively modest.

Previous Research

The importance of minority representation in the police has been scrutinized in the extant literature and several explanations have been forwarded regarding the ways in which a representative bureaucracy can benefit minority groups. Some discuss that representative and diverse public organizations are more sensitive to the needs of their clients because the two parties have common values and experiences (Bradbury & Kellough, 2008). Another perspective is that that representative bureaucracies are generally more effective at achieving their goals, as their members do not discriminate against minorities (Andrews, Ashworth, & Meier, 2014; Meier, Wrinkle, & Polinard, 1999). A third line of argument focuses on the symbolic effect of bureaucratic representation – namely, that symbolic representation can produce increased trust in public organizations or a greater willingness to coproduce public services, regardless of bureaucratic actions (Ricucci, Van Ryzin, & Li, 2016).

Hong (2016, 2017) further complements this literature, by focusing *inter alia* on how minorities may improve the integrity of the police service. Hong's perspective highlights that increased representativeness in a public organization can inspire other organization members to take action against prejudiced, or unfair practices that were ignored or overlooked by the previous majority. Although such acts may generate intraorganizational tension, they can ultimately yield greater organizational integrity. Hong's perspective also highlights that, as the proportion of minority members grows, these individuals may have a transformative effect on the actions of their majority colleagues. An important underlying implication of the representative bureaucracy theories for our study is that if minority officers are to contribute

to a representative bureaucracy, this is likely a relatively slow process, which requires both a numerical increase in officers with a minority background, but also that these officers remain employed in police service over a considerable period of time in order to be able to change existing norms, improve integrity and increase effectiveness.

Nevertheless, higher dropout rates among students with ethnic minority backgrounds is a recurrent finding in higher education in several European countries. Racism and less privileged socio-economic backgrounds are among the suggested explanations; the ethnic differences in these rates are smaller when comparing students with a similar socio-economic background (Quinn, 2013). Studies also confirm that attrition rates are higher among ethnic minorities in professions like nursing (Doede, 2017) and teaching (Ingersoll, May, & Collins, 2019), and that turnover intention is higher among public sector employees with minority backgrounds (Groeneveld, 2011).

In the police setting, several studies have focused on minority background officer recruitment (for a recent review, see Donahue, 2019) and experiences among minority police officers (Dowler, 2005; Hassell & Brandl, 2009; Peterson & Uhnoo, 2012). Still, research on dropout and attrition among recruits and officers with minority backgrounds is sparse and limited in scope (i.e., usually sampled from a single police district). Though the few studies on ethnic differences in dropout from the police academy have mostly reported that non-whites have a lower probability of graduating (Haarr, 2005; Wright, Dai, & Greenbeck, 2011), Nevers (2019) did not find ethnic differences in dropout rates. We also note the accounts of white recruits outperforming other ethnic groups at the police academy, although these differences are not striking (Henson, Reynolds, Klahm IV, & Frank, 2010; White, 2008).

Few studies focus on differences in attrition after joining the police service. Among the exceptions, Haarr (2005) found higher attrition rates for minorities during the first 16 months of their policing career in a sample of 446 US police recruits from the Phoenix police

academy. However, that study did not evaluate whether this tendency is present later in policing careers or at other police academies. According to Haarr, the minority recruits who resign highlight personal and family stresses related to police work demands. In an earlier study by Holdaway and Barron (1997), minority officers who have resigned tell a story of exclusion from full membership in the occupational culture. They experience that full membership requires commitment to the dominant assumption of the Caucasian occupational culture, including racial prejudices and discrimination.

The lack of studies on ethnic differences in police attrition is probably due to the lack of available data. While dropout rates from the police education are relatively easy to obtain, longitudinal data covering attrition from the police service have been less available. In their recent review, Todak and Brown (2019) concluded that there has been no research for the past 20 years on how the combined effects of minority and female status affect attrition from the police, characterizing this as “a significant oversight in the literature” (Todak & Brown, 2019, p. 1058). One of the aims of our study was to fill this research gap.

Theoretical Framework

We begin by discussing tokenism and discrimination, explanations that may be relevant toward understanding ethnic differences in both dropout from police education and attrition from the profession. Next, we will discuss factors that specifically explain educational dropout, namely the importance of integration between the student and the educational institution, including academic performance. Finally, we discuss whether and why the association between immigrant background and dropout/attrition may differ between men and women.

Tokenism and discrimination.

Kanter (1977) suggested that minorities risk being regarded as representatives (i.e., 'tokens') of their group rather than as individuals. Being a token has several negative consequences, as tokens face a higher risk of exclusion from important networks and are watched more closely by employers and co-workers. Such experiences are likely to result in higher dropout rates and attrition among students and officers, respectively, of ethnic minority backgrounds constituting a numerical minority.

A main critique of Kanter's theory is that the strong focus on numerical representation disregards both the importance of individual characteristics and societal context. For example, the effect of belonging to the ethnic minority may differ between ethnic groups and in different professions. According to Zimmer (1988), social inferiority could cause negative treatment of a group, not their numerical underrepresentation. This implies that numerical underrepresentation per se does not necessarily cause discrimination. Both Zimmer (1988) and Yoder (1991) stress the importance of societal context: Whether a group will experience the negative consequences of tokenism depends on cultural attitudes towards the group. Accordingly, the degree of negative attitudes towards minorities will determine the degree of negative experiences, not their numerical underrepresentation.

The importance of numerical representation underlying Kanter's theory has been questioned. Lim (2006) has developed a theoretical model which includes several sources to how numerical representation may produce benefits for the minority group. This includes both direct sources: shared values and beliefs, partiality and emphatic understanding, and indirect sources: through influence on the behaviour of other bureaucrats, and through inducing changes in the behaviour of the clients from their own social group. Empirically, Ely and Thomas (2001), has shown how the experiences of the minority group not only

depends on their numerical representation in an organization, but is highly dependent on how cultural diversity is handled in the everyday interactions at the workplace.

In a police setting, the existence of tokenism has been confirmed by Stroschine and Brandl (2011) and Gustafson (2008) in empirical tests of US police departments. Minority officers more often reported visibility/performance pressure, contrasting social isolation and role encapsulation (Gustafson, 2008). Judging from these studies, ethnicity may be a more important cause than gender of token status in policing.

Cumulatively, these previous studies and theories lead us to expect an increased risk of dropout and attrition among police students with immigrant backgrounds. Since most previous studies focused on difficulties encountered by police recruits with ethnic minority backgrounds, we expect the group with non-Western immigrant backgrounds to be distinct from those with Western immigrant backgrounds or the majority background:

Educational dropout.

According to Tinto's (1993) influential theory on educational dropout, its main cause is lack of integration between the educational institution and student characteristics, motivation and expectations. Students who feel socially excluded and have trouble adjusting to the institution are more likely to drop out. In line with Tinto's conclusion, police recruits with immigrant backgrounds can be expected to drop out more often if they are poorly integrated into the institution. This includes social integration, normative congruence and grade performance, which are all processes that may be more difficult for recruits with immigrant backgrounds given reports that the police service is characterized by a predominately white culture (Hassell & Brandl, 2009; Loftus, 2008). White (2008) suggested that police academy curriculum favours the values and characteristics of whites, which may make it more difficult

for minority recruits to excel. This argument parallels work by Pierre Bourdieu (1984), who described the inherent middle class bias of the educational system.

In terms of social position, the extant literature shows that immigrants generally have a low-class background in Norway (Reisel, Hermansen, & Kindt, 2019). The parental educational level of the police students in Norway is quite similar to other student groups (Winnæss & Helland, 2014). As no studies have explicitly investigated how and in which ways Norwegian police students with immigrant background depart from or share this position our models account for the parents' level of education.

However, whether the description of a predominantly white police culture and curriculum is valid across police services, countries and time cannot be assumed. The Norwegian Police University College provides a bachelor's degree (BA) course with academic standards and employs a high proportion of civilian teachers, implying that some of the norms from the street-level police culture may be less present at the university college (Fekjær & Petersson, 2018).² Hence, the importance of immigrant backgrounds should not be assumed.

Students' achievements in higher education can also be an indicator of the educational institution integration Tinto described. In our case, this can be measured by the individual's NPUC grade point average (GPA). We also considered previous academic performance, since failure to complete higher education may be caused by a lack of basic academic skills. Previous research has documented that pupils with immigrant backgrounds have lower academic performance despite their high motivation (Reisel et al., 2019), and there is a correlation between previous academic performance and police university college dropout (Henson et al., 2010; Nevers, 2019). Lacking academic skills may cause dropout both

² Although the norms at the police university college probably differ from the street-level norms, we do note previous research stating that the instructors at the NPUC still feels a strong loyalty to police work and see themselves partly as representatives of the practice field (Eckblad, 2020).

directly, if the student fails, and indirectly, since the cost of completing their education will be higher for those who struggle to maintain their educational performance. Hence, we expect that a possible gap in dropout between students with and without immigrant backgrounds may be partially explained by weaker previous academic performance and weaker academic performance at the police university college.

Added strain due to intersectionality? The situation for female minority students and police officers.

Women with minority backgrounds represent two groups traditionally underrepresented in policing. This double minority status has previously been described as making the experience of being an outsider even more challenging (Todak & Brown, 2019). The concept of intersectionality has been discussed in both the police setting (Todak & Brown, 2019) and more theoretically (Browne & Misra, 2003). Although intersectionality theory developed in the US, the general nature of its core implications makes it applicable to the Norwegian context.

According to the theory of intersectionality, the effects of gender and ethnicity are not separate processes but should be understood as simultaneous and linked. Our starting point is that intersectionality is contingent, not ubiquitous (Browne & Misra, 2003). We do not presume that the outcome will always be jointly determined by gender and ethnicity; rather, we submit that this should be empirically tested. This is especially important, as the implications from an intersectional perspective are context specific. According to the intersectional perspective, resembling the minority population and nondominant gender group leads to an expectation of gendered and ethnic stereotypical behaviour. Individuals with a non-Western immigrant background are seen as less sincere or trustworthy in Norway (Bye, Herrebrøden, Hjetland, Røyset, & Westby, 2014).

Based on the traditional understanding of intersectionality described above, we would expect that simultaneously belonging to two subordinated groups would strengthen the outsider effect. Since this is a well-described mechanism in both the police setting (Todak & Brown, 2019) and theoretically (Browne & Misra, 2003), we could expect that immigrant background would increase the risk of dropout and attrition more among women than men.

However, we also recognize factors that would lead us to expect the opposite: that immigrant status may influence dropout/attrition *less* among women. Most ethnic stereotypes are of men (Bye et al., 2014; Eagly & Kite, 1987). Hence, being ‘off-diagonal’ – for instance, a female officer with a non-Western immigrant background – may create some advantages. Following findings by Ridgeway and Kricheli-Katz (2013), it can be argued that although being ‘off-diagonal’ may create disadvantages in female-typical areas, it may not have the same effect in other contexts. In male-typical areas, such as the police, it may create ‘binds of freedom’ – freedom from the initial negative stereotypes for women. According to this line of argument, we would expect that immigrant background increases the risk of dropout and attrition more among men than women.

Data

This study employs individual-level data from Norwegian administrative registers. Our first set of analyses focus on dropout from the police university college. The analyses include all individuals who were enrolled in police education between 1995 and 2014.³ Over 93% of these individuals completed their education within three years, which is the normal progression. We code individuals who did not complete their education within four years as

³ We did not include completing a police education before 1995 because of the 1995 police education reform. This reform changed the police education fundamentally in ways that is likely to influence the dropout patterns. The students lost their status as employees, and the education was extended to three years, gained status as higher education and introduced transferable credits (Damen & Pedersen, 2021). In addition, limited number of students and very limited proportion of students with immigrant background make it difficult to estimate robust models from the time period before 1995.

dropouts⁴. This limits our subpopulation to individuals who began their police education at the latest in 2010, as our data only spans to the end of 2014 and we cannot observe whether individuals who start their education after 2010 complete it within 4 years.

Next, we turned our attention to attrition from the police occupation. In these analyses, we include all individuals who completed the police university college and were employed in the police and prosecution⁵ for at least one year between 1995 and 2014. Our dependent variable is attrition. We code individuals who worked in a different field for at least two consecutive years as attrition from the occupation.⁶ We exclude individuals past retirement age (i.e., 57⁷). Our analyses capture mainly *avoidable turnover*, as the proportion of death and severe illness was less than 1% in this relatively young, healthy sample. We also expect that the level of *involuntary* attrition was relatively limited, since the Norwegian police service expanded implying an increased need for police educated staff, and the rates of dismissal due to misconduct were moderate (NBIPA, 2018; POD, 2018), during the study period.

Main Independent Variables

Our main independent variable is immigrant background. By combining register information on immigrant background and police education completed, we could identify the proportion with immigrant backgrounds in the police service based on register data, as specifically called for in previous research (Bjørkelo et al., 2020). We distinguish between: (i) majority, native

⁴ We also ran analyses without a time limit for completing police education, with similar results.

⁵ Based on the Norwegian equivalent of International Standard Industrial Classification of all Economic Activities. Although the industry classification is available from 1992, before 1995 we had insufficient non-Western individuals in the data to estimate robust models. In doing so, we exclude 1874 unique individuals.

⁶ We also ran analyses in which dropout was coded as at least one year out of the police, and analyses including all graduates, neither of which substantially altered interpretation of the results.

⁷ The exact retirement age depends on tenure and position, but many Norwegian police officers will have the opportunity to retire from the age of 57 and are obliged to retire when turning 60 (POD, 2018).

born with two native-born parents (baseline: 87.7% of the police university college educated personnel employed in the police service in 2014); (ii) Western immigrant background, including: immigrants or children born to immigrant parents from a European Economic Area (EEA) country, Canada, North America, Australia or New Zealand (10.0%); and (iii) non-Western immigrant background, including: immigrants or born to immigrant parents from non-EEA countries (the Balkans and Russia), Asia (including Turkey), Africa, Latin America or the remainder of Oceania (2.3%).

Our other main independent variable is gender, which was coded as 0 = man and 1 = woman.

Control Variables

In the models for educational dropout, we control for parents' educational background when the individual was 16 years old. We differentiate between individuals with at least one parent who completed: (i) mandatory or upper secondary education, (ii) a BA degree, or (iii) a master's degree.

As previous academic achievements are correlated with educational dropout, we ran additional analyses controlling for GPA. In these analyses, we only include individuals who had completed upper secondary school after 2002 (the start of registry recordings of upper secondary GPA). To control for academic achievements during police education, we also include controls for GPA during police education.

In the analyses of attrition from the police service, we retain the controls for parents' educational level, as a proxy for social background, and include a dummy for whether the individual had children under 18 years old in their care (reference: no children), as a proxy for family obligations. To capture potential labour market heterogeneity, our models include controls for the centrality of the employment municipality (regional centres versus smaller municipalities).

In both model sets, we improve the balance of our covariates by matching individuals on their year of birth using coarsened exact matching (CEM). This is important, as both women and individuals with an immigrant background are younger compared with the traditionally numerically dominating group – men with a majority background. We prefer matching, as it is less model dependent, and consider it appropriate for our data, as it relaxes the functional form assumption (i.e. we do not assume a linear correlation between age and our outcome variables) (Iacus, King, & Porro, 2012). Balance tests and more details regarding our data and variables are included in the appendix.

Estimation Strategy

Our data is in a longitudinal person-year format. As our dependent variables are dichotomous, we estimate logistic regressions and present our overall results as odds ratios. Following the recommendations of Carter and Signorino (2010), we employ a cubic approximation of time to model the inherent time dependency (i.e., including year, year² and year³). As multicollinearity is not a concern with our sample, we consider cubic polynomials advantageous because: (i) we avoid the inefficiency and potential separation issues associated with time dummies; (ii) they commonly capture any hazard shape from parametric models and resemble the shape of semiparametric models as the Cox proportional hazard model; and (iii) they allow us to avoid potential overfitting commonly associated with higher-order polynomials (Carter & Signorino 2010).⁸ We cluster the standard errors on the individual to relax the assumption of independent and identically distributed error terms.

⁸ Multicollinearity was assessed by computing the variance inflation factor (VIF), which yields highly satisfactory results in models with a linear approximation of time, or time dummies (between 1.3 and 1.5). As expected VIF scores are high (between 5 and 10) for the cubic approximation of time. However, the cubic approximation of time offers substantially equivalent results as using time dummies (year fixed effects).

Where appropriate, we discuss our main results as marginal effects at means to better gauge the strength of their implications. We contrast how immigrant groups fare in relation to the majority subpopulations. For categorical variables such as immigration background, the marginal effect at means (MEM) shows how $P(Y = 1)$ changes as the categorical variable changes from 0 to 1, holding all other variables at their means, or mode. That is, for immigration background the marginal effect indicates: $MEM_{immig_k} = Pr(Y = 1 | immig, immig_k = 1) - Pr(y = 1 | immig, immig_k = 0)$. Our full model estimations are presented in the supplementary material.

Results

We first present the descriptive patterns of enrolment in the police university college and service. Thereafter, we present the results for analyses of educational dropout, followed by analyses of attrition from the police service.

During the study period our cohort sizes increased from 253 students in 1995 to 728 in 2010. During this period the proportion of students with non-Western immigrant backgrounds increased from less than 1% before 1995 to around 4% in 2010, as shown in figure 1a. The proportion of students with Western immigrant backgrounds increased from less than 6% to about 11%. The average dropout rate during this period was around 7%. We note comparatively small dropout rates from police education compared with other three-year BA programs, such as nursing (Nedregård & Abrahamsen, 2018).

(insert figure 1a and 1b side by side, around here)

As shown in figure 1b, the share of individuals with a Western and Non-Western immigrant background in the police service has increased somewhat from 1995 to 2014. On average

89% percent of police officers have a majority background. In 1995, 1.3 % of the officers had a non-Western immigrant background. In 2014 this share has increased to approximately 2.3 %. We also note a slight increase of officers with Western immigrant background in this period. The attrition rate fluctuates somewhat in our study period and averages between 10 and 12%. We also note that the attrition rate for individuals with a non-majority background is somewhat higher – averaging at around 16% (somewhere between 50 and 75 officers⁹) for those with a non-Western immigrant background and 12% (somewhere between 100 and 150 officers) for those with a Western immigrant background, compared with around 10% (somewhere around 800 officers) for individuals with a majority background. However, these attrition rates are considerably lower compared with other professions, such as nursing. For instance, in US, Borkowski, Amann, Song, and Weiss (2007) found that around 46% of the nurses considered leaving their occupation.

Educational Dropout

Figure 2 presents the odds ratios for dropping out of police education. These findings show that students with non-Western immigrant backgrounds have a significantly and substantially higher likelihood of dropping out of the police university college, although there is considerable uncertainty around these estimates. More specifically, compared with the students with majority backgrounds, the marginal effect at means of dropping out of the police university college is on average around 8% greater for those with non-Western immigrant backgrounds.¹⁰ Individuals with a Western immigrant background have a dropout odds ratio comparable to the majority. The results also show that women, those who are older

⁹ These numbers should be interpreted with caution, as they are estimated based on 19-year period, where the numerical size of the police services increases, the number of officers with a Western and non-Western background also increases and that the yearly attrition rates fluctuate.

¹⁰ Additional analyses (supplementary material D1) indicate that the differences in dropout between student and officers with and without immigrant backgrounds have been stable, despite a slightly growing proportion of enrolled students with immigrant backgrounds.

and those with children under age 18 years have a somewhat greater probability of dropping out, while the correlation between parental educational level and dropout was not statistically significant.

(insert figure 2 here)

To investigate whether differences between immigrants and the majority can be explained by previous academic performance, we also performed separate analyses of students during 2004–2010, when we were able to control for their GPAs from upper secondary school and the police university college (Figure 2, grey lines with square markers). These results remained substantially unaltered after controlling for GPA, indicating that previous academic performance does not explain the differences in dropout rates between groups with and without immigrant backgrounds.

However, this overall pattern may hide heterogeneity. To further investigate the importance of academic achievement, we estimated the interaction between academic performance and immigration background (supplementary material). Our findings indicate that individuals with a non-Western immigrant background and low upper secondary GPA¹¹ have a significantly higher predicted probability of dropout. However, the attrition rates are comparable between students with and without immigrant backgrounds in the group with upper secondary GPA above 4.0. Hence, although previous academic performance is not the main explanation for differing dropout rates, we note that students with non-Western immigrant backgrounds and low GPAs do seem to have somewhat higher dropout rates.

In Figure 3 we present the interaction between immigrant background and gender with respect to dropout from the police university college.¹² These results show that the interaction

¹¹ Low GPA is defined as < 4.0 on the scale from 1 to 6. Police students have a GPA of 3 or higher due to intake limits.

¹² Interactions between region × gender and region × GPA are included in supplementary material D.

between gender and immigrant background reaches statistical significance only for the majority students. Women with majority backgrounds enrolled in the police university college have a higher predicted probability of dropout compared with majority men. However, as shown both in Figure 3 and supplementary material D3, on average both male and female students with non-Western immigrant backgrounds have a statistically significant higher predicted probability of dropout from the university college compared with their respective male and female counterparts with either majority or Western immigrant backgrounds. We did not find significant gender differences among students with Western immigrant backgrounds.

(insert figure 3 here)

Attrition from the police service

In the following analyses, we focus on attrition from the police service during 1995–2014. In Figure 4 we display the odds ratios for working outside the police service. These results show that individuals with a majority background have the lowest attrition rates. Compared with the majority, those with non-Western immigrant backgrounds have a 4.7% higher predicted probability of exiting the police service, and those with Western immigrant backgrounds have a 1.7% higher predicted probability of leaving the police service.¹³ The results also show that women and individuals employed in regional centres have a higher odds ratio of attrition, while those with children under age 18 have a lower odds ratio of attrition. Those with highly educated parents seem to have the same risk of attrition as those whose parents had lower educational levels (insignificant differences). This finding is in line with previous research

¹³ Additional analyses (supplementary material F1) indicate that the differences in attrition from police service between officers with and without immigrant backgrounds decreases over time, as the proportion of officers with non-Western immigrant backgrounds increases.

finding limited importance of social background among police students (Fekjær, 2014), possibly because the police students are a strongly selected group with many traits in common, including a strong motivation for joining the profession (Chan, Devery, & Doran, 2003).

(insert figure 4 here)

In Figure 5 we present the interaction between immigrant background and gender with respect to attrition from the police service. The results show that the interaction between gender and immigrant background is not statistically significant for all groups. Male and female officers with immigrant backgrounds have an equally increased risk of attrition (supplementary material F2), i.e., immigrant background does not seem to be more strongly associated with attrition among women. However, the estimate for those with non-Western immigrant backgrounds is bound by considerable uncertainty, as the number of women with non-Western immigrant backgrounds is small.

(insert figure 5 here)

Discussion

Our results reveal that students and officers with non-Western immigrant backgrounds tend to drop out of the police university college and leave the police profession more often, compared with those with majority and Western immigrant backgrounds. The previous literature has attributed minority groups' exit from majority-dominated settings to the psychosocial costs of being in the numerical minority (Kanter, 1977). As Zimmer (1988) has pointed out, this will only apply in settings where the numerical minority is also regarded as socially inferior. We do find accounts of negative treatment of minority groups in the police, both internationally (Gustafson, 2008) and in Norway (Bjørkelo et al., 2020; Bjørkelo et al.,

2015), indicating that psychosocial costs of being in the numerical minority may explain the increased dropout and attrition rates among minority students and officers. Belonging to the numerical minority may for example result in insensitive remarks and inappropriate jokes, which the minority is expected to put up with (Rigaux & Cunningham, 2020). Students who have dropped out of the police education have reported difficulties in finding their place and a feeling of being different from the other students as part of the reason for dropping out (Ahlstrand & Hult, 2020). These feelings of being different and not finding one's place are probably stronger among those who belong to a numerically underrepresented group. However, more research on minority students' and officers' experiences and explanations for their exits is needed to firmly determine the accuracy of this explanation. Furthermore, based on Kanter's theoretical framework it would not be unreasonable to expect different patterns of attrition and dropout in periods with a considerably higher share of minority students and officers.

According to Tinto (1993), lack of fit between the educational institution and the students' characteristics, motivation and expectations are the main causes of educational dropout. Hence, the relatively high dropout rates among police students with immigrant backgrounds could be caused by poor integration into the police university college. Since grade performance is one sign of integration, one could have expected that previous academic performance and police university college performance would partially explain non-Western immigrants' increased risk of dropout. Our results do not support this assumption:

Differences in academic performance seem to explain a limited part of the ethnic differences in dropout. Our additional analyses show that in terms of GPA from the police university college, low-performing students have a somewhat higher dropout rate, irrespective of their immigration background. However, we note that students with non-Western immigrant backgrounds and the lowest upper secondary GPA have a somewhat higher risk of dropping

out, indicating that weak previous academic performance may be part of the explanation for the higher dropout rates in this subgroup.

Our finding of higher dropout rates among students with non-Western immigrant backgrounds, even when academic performance is considered, indicates that integration into the educational institution, as measured by academic performance, is not a primary explanation for the higher dropout rates among students with immigrant backgrounds. However, since our data do not contain information about attitudes, preferences and motivation, our ability to test Tinto's theory is limited. Tinto's (1993) original theory of integration into the educational institution is undoubtedly not fully accounted for by measuring only academic performance, without other measures of social integration and normative congruence. More research on integration of students with immigrant backgrounds within the police university college and the students' own explanations for dropout would provide a broader test of this theoretical explanation.

One of the empirical expectations derived from the intersectional theory is that immigrant background would increase the risk of dropout and attrition more among women than among men, caused by the added strains of simultaneously belonging to two underrepresented groups. However, our results do not support this expectation: Although adaption into the police culture may be more difficult for students and officers with an immigrant background¹⁴, we did not find indications of this process being more difficult for women with immigrant backgrounds. Hence, we do not find traces of intersectionality as described in the previous literature (Browne & Misra, 2003; Todak & Brown, 2019), and our results conflict

¹⁴ Previous research has described a culture at the police academy allowing little room for differences (Bjørkelo et al., 2020), and the police culture has been described as predominately white and unified (Hassell & Brandl, 2009; Loftus, 2008).

with the recurring finding of women with immigrant backgrounds seemingly struggling most in the labour market (Heath & Cheung, 2007).

Why did we fail to find the expected interaction effect for immigrant status and gender? One explanation is that other mechanisms may be at play simultaneously, outweighing the added strain of double minority status. Since most ethnic stereotypes are of men (Bye et al., 2014; Eagly & Kite, 1987), being ‘off-diagonal’ (e.g., a female officer with a non-Western immigrant background) may actually create ‘binds of freedom’ (Ridgeway & Kricheli-Katz, 2013): freedom from the initial negative stereotypes of women in male-dominated settings like the police. Similarly, Sidanius and Pratto (2001) suggested that men with minority backgrounds may be more forcefully repressed, because they represent the greatest threat to the dominant white male culture. Police culture has been described as dominated by a white male tradition, which is challenged by official goals of diversity and officers with more diverse backgrounds (Loftus, 2008). Hence, it is not unlikely that compared with female students with immigrant backgrounds, their male counterparts may be more of a threat to the traditional police culture. Nevertheless, our findings do indicate that difference in attrition from police service between majority and minority officers decrease as the share of officers with non-Western background increases. Furthermore, similarly to Alecu & Fekjær (2020) we also find that female officers with a majority background have a higher probability of dropout compared to majority men. We do not find such a difference among minority students.

When our results do not show traces of the proposed “double strain” caused by being a female officer with immigrant background, this could also reflect the national context. Compared to most other European Union countries, Norway stands out with its relatively

small gender gaps and high scores on gender equality measures (Teigen & Skjeie, 2017). Hence, the combination of being female and having immigrant background may be found to cause more strain if tested empirically in other national context.

Occupational closure is another factor which differs between national contexts. As discussed, the police is a highly regulated occupation with demanding entry requirements in Norway. Our results are congruent with other Norwegian studies of occupational closure, which highlight that high requirements to enter the profession may shield incumbents from additional strain or bias. These studies generally show small, or non-existent gender differences in terms of entering the occupation (Alecu & Drange, 2019) and earnings (Drange & Helland, 2019).

Conclusion

Both recruitment and retention strategies are necessary to achieve the official goal of increased representation of police officers with minority backgrounds. Our study confirms that retention of officers with immigrant backgrounds should be a key concern in future police policy and strategies. Higher dropout and attrition rates among students and officers with non-Western immigrant backgrounds give reasons for concern: These rates undermine the effects of recruiting officers with immigrant backgrounds and indicate that this group face more challenging experiences during their police education and after joining the police service.

However, we should also acknowledge that the overall dropout and attrition rates are relatively small. A large majority of students who enter police education graduate from the police university college and choose to continue working in the police service; this is also true of students with immigrant backgrounds. This finding suggests that although integration

into the police profession may be more difficult for students and officers with immigrant backgrounds, the police service nevertheless provides attractive and meaningful careers for most recruits, regardless of immigration background origins.

Basing our results on administrative registry data, we have the advantages of total population inclusion, avoiding non-response problems and detailed tracking of careers over time. However, a major registry data limitation is also evident: We lacked measures of students' motivation and commitment, as well as their subjective experiences at the police university college and after joining the police service. We suggest that further research investigate these factors, which are likely important when individuals decide whether to leave the police service. We, therefore, welcome longitudinal studies linking data on motivations, aspirations and subjective attitudes to registry data which would bridge this gap.

Unfortunately, such data is not currently available in Norway. We also acknowledge the difficulties in collecting and linking longitudinal survey data with registry data, especially when aiming to study under-represented minorities or numerically small groups (such as female officers with a minority background). Not only would the researchers need to ensure adequate sampling to meaningfully represent the group at the aggregate level, but they would also potentially need to over-sample some groups to ensure sufficient numeric representation that allows researchers to include these groups in more complex statistical analyses. While our study draws upon 19 years of data covering the 1995-2014 period, we also welcome studies focusing on the newer developments within the police, as our results cannot inform of how dropout from the police education and attrition from the police service changed after our period of study.

Securing diversity in the police service has been an official policy in Norway for more than forty years (NOU, 1981). Judging from our study, not only recruiting, but also strategies for retaining police officers with immigrant backgrounds will be needed to secure a diverse

future police service. Building on the work of Bjørkelo et al. (2020), recognition of cultural competence by fellow students, teachers, colleagues and leaders is important to retain officers with immigrant background.

In addition to internal recognition, community feedback, especially from the minority population affects the experiences of officers with immigrant background (Rigaux & Cunningham, 2020). If met by a hostile public who considers the police to be racist, the experience of being an officer with immigrant background will certainly be challenging. Hence, policies aimed at ensuring trust in the police and especially at reducing reports of police brutality and violence when encountering minority groups can be important to achieve the official goal of a more diverse police service in the future.

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