



Kumulative Dissertation zum Themengebiet:

**The Economics of Personality, Motives and Well-Being in
the Labor Market**

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Introduction and Overview

Organizations in both the public and private sectors follow a mission, which may be defined as the role that the organization fulfills in society (Carpenter and Gong, 2016) and can be also regarded as the organization's financial goals (Cassar, 2016). One of the main missions of the public sector is serving the community (e.g., Brewer, 2003; Perry and Wise, 1990). Therefore, a job in the public sector creates a sense that there are employees, such as nursery school teachers, policemen, or physicians, who contribute extensively to society's functioning and well-being (e.g., Houston, 2006; Wright, 2007). This contribution is also possible for jobs in the private sector, albeit not to the same extent, because serving the community is a primary mission of the public sector, and this is directly experienced in the job activities of that sector (e.g., Brewer and Selden, 1998; Perry and Hondeghem, 2008; Vandenabeele, 2008; Van Witteloostuijn et al., 2017). Another feature of the public sector is the high job security (e.g., Dohmen and Falk, 2010; Lewis and Frank, 2002; Roszkowski and Grable, 2009): There is virtually no risk of bankruptcy, less competition, and an opportunity to become a life-time civil servant. Particularly in Germany, the principle of permanency especially applies for civil servants (Luechinger et al., 2010a). A further property of the public sector is its greater codetermination compared with the private sector. Thus, the large positioned works and personnel councils have a considerable positive influence on the quality of the working conditions. Therefore, the working conditions of the public sector are generally regarded as more favorable than those of the private sector (Bellante and Link, 1981).

In contrast to the public sector, the main mission of the private sector is profit maximization. Therefore, the private sector generates higher profits and follows the principle of autonomy. Thus, a position in the private sector is accompanied by higher salaries, especially for highly qualified employees and top managers. Furthermore, the private sector enables the possibilities for individuals to negotiate their wages; it provides many promotion possibilities and exit

options because of the large number of companies (e.g., Ghinetti, 2007; Rainey and Bozeman, 2000).

The characteristics of both sectors raise the following questions: What is it that attracts people to work in the public or private sector? More precisely, what are the determinants that drive individuals to work in their chosen sector? Furthermore, do individuals randomly choose to work in the public or private sector, or are there certain factors that lead to sorting patterns into a specific sector? *One of the central aims of this doctoral thesis is to address this question.*

This issue of sector choice is examined extensively in the economic literature by means of motives¹. Thus, ample empirical evidence indicates that different motives predict an individual's choice of public versus private sector employment. By using data from several surveys, many studies have determined that especially prosocial motives², which have a similarity to the construct of public service motivation (PSM),³ and thus to intrinsic motivation, predict public sector employment (e.g., Crewson, 1997; Houston, 2000; Lewis and Frank, 2002). All of these studies, which have used one of these constructs, have shown that there is an association between several survey measures that cover altruistic motives or behavior (such as 'helping others', 'serving the community', 'doing important work that provides a feeling of accomplishment', 'donation of blood or money', 'volunteer work,' etc.) and public sector employment (e.g., Brewer, 2003; Brewer et al., 2000; Buurman et al., 2012; Frank and Lewis,

¹ According to Dowling and Sayles (1978, p.16, cited by Grant, 2008), motives are an "an inner desire to make an effort." Making an effort can be triggered through intrinsic or extrinsic motivation (Frey and Osterloh, 2002). An understanding of motivation is important for explaining individual and organizational behavior.

² Prosocial motivation is "the desire to benefit other people" (Grant, 2008, p. 48). Research on prosocial motivation has essentially concentrated on altruism (e.g., Khalil, 2004; Konow, 2010).

³ PSM is a similar construct to prosocial motivation and has a common focus on motives that are "largely, but not exclusively, altruistic and are grounded in public institutions" (Perry and Hondeghem, 2008, p. 3-4). Therefore, it is also linked to intrinsic motivation (Bozeman and Su, 2015; Crewson, 1997; Houston, 2000; Lyons et al., 2006), and it is described as a "general, altruistic motivation to serve the interests of a community of people, a state, a nation or humankind" (Rainey and Steinbauer, 1999, p. 20). Bozeman and Su (2015) provide an overview of several definitions of PSM.

2004; Houston, 2000, 2006; Naff and Crum, 1999; Rainey, 1982).⁴ In contrast, some of these studies have determined that extrinsic motives, such as ‘high income’ and ‘advancement opportunities’ etc., predict private sector employment (e.g., Crewson, 1997; Frank and Lewis, 2004; Houston, 2000).

Yet, the previous studies suffer from potential endogeneity bias (Perry et al., 2010) because most of them have considered individuals who have already entered the labor market by using cross-sectional datasets. This approach can cause socialization effects, which means that motives tend to change during employment in a specific sector (e.g., Dur and van Lent, 2018; Kjeldsen and Jacobsen, 2013). Therefore, subsequent research has focused on individuals before labor market entry to screen for possible selection effects (individuals with specific motives are sorted into a specific labor market sector) into the public versus private sector, finding that more prosocial individuals or individuals who score high in PSM self-select into the public sector (e.g., Carpenter et al., 2012; Clerkin and Cogburn, 2012; Dur and Zoutenbier, 2015; Georgellis et al., 2011; Gregg et al., 2011; Holt, 2018).

Further sorting patterns into the public sector are found for the motive of security or the tendency to avoid risks. Thus, risk-averse individuals sort themselves into the public sector (e.g., Dur and Zoutenbier, 2015; Pfeifer, 2011). Moreover, laziness predicts public sector employment, especially for employees with long work experience (Dur and Zoutenbier, 2015).

So far, no study has examined whether civic virtue⁵ is associated with public sector employment, and thus, leads to sorting into the public sector.⁶ While altruism captures the

⁴ Perry et al. (2010) give an overview of this literature.

⁵ Civic virtue covers one of the measures of the construct of organizational citizenship behavior (OCB) and is also known as civic engagement (Organ, 1988): “OCB represents individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization” (Organ, 1988, p. 4).

⁶ Two exceptions are the studies of Grund and Thommes (2017) and Luechinger et al. (2010b). However, they considered another outcome variable.

motive to be there for others nearby (e.g., Becker et al., 2012; Dur and van Lent, 2018), civic virtue describes the motive of contributing to society as a whole. Civic virtue is crucial to good government because it represents a strong and common motivation and should not be neglected in the research field of public economics (Bowles and Hwang, 2008). *Therefore, the first paper of this doctoral thesis aims to fill this research gap by considering whether civic virtue leads to sorting into a specific labor market sector.*

In sum, it is worth noting that many studies have identified motivational differences between public and private sector employees. Yet, it is not only motives that predict public versus private sector employment; rather, the combination of motives and personality⁷ are also expected to play a potential role in influencing individuals' sector choices. Thus, motives have a strong connection to personality, as they influence the relationship between personality and several outcomes (e.g., Barrick and Ryan, 2003; Gellatly, 1996; Johnson, 2003). Therefore, the existing literature stresses the consideration of motives by understanding how personality relates to several workplace outcomes (Barrick and Ryan, 2003).

Like psychologists, in recent years, economists have expressed an increasing interest in examining non-cognitive skills. Personality has become an important driver in the labor market because it has been found that personality attributes are powerful predictors of economic and behavioral outcomes (e.g., Borghans et al., 2008; Fletcher, 2013; Heckman et al., 2006). Consequently, several studies have shown that the most common model of personality - comprising the Big Five personality traits (openness, conscientiousness, extraversion, agreeableness, and neuroticism) - is related to job and life satisfaction (Judge et al., 1998, 2000,

⁷ Personality traits are defined as “patterns of thoughts, feelings, and behavior” (Borghans et al., 2008, p. 974). Economists use the term non-cognitive skills as a synonym for personality traits (e.g., Borghans et al., 2008; Cobb-Clark, 2015). This dissertation also adopts this approach.

2002; Steel et al., 2008), job performance (Barrick and Mount, 1991, 1993; Judge and Bono, 2001), and even predicts wages (Mueller and Plug, 2006; Nyhus and Pons, 2005).

This doctoral thesis considers another form of non-cognitive skills, namely locus of control. The inventor (Rotter, 1966) of this personality construct distinguishes between internal and external locus of control. Those with an internal locus of control believe that they are able to influence and control outcomes through their actions, decisions, and behaviors. In contrast, those with an external locus of control primarily attribute outcomes to fate, chance, luck, or to other powerful people (e.g., Cobb-Clark et al., 2014; Rotter, 1990; Stiglbauer, 2017). In addition to motives, locus of control has also been found to be important for selection patterns. Therefore, existing research has determined that individuals with an internal locus of control sort themselves into jobs with performance appraisals (Heywood et al., 2017).⁸ Moreover, the first study in this thesis uses locus of control as a control variable, finding that an internal locus of control has a small positive association with public sector employment (Ayaita et al., 2018). Other studies concentrate on diverse non-cognitive skills, such as reciprocity or the Big Five, finding that these personality traits influence the occupational/sector choice (e.g., Dohmen and Falk, 2010). Yet, these studies do not consider whether motives moderate the relationship between non-cognitive skills and the labor market sector. *Therefore, to strengthen the central aim of this dissertation, the second paper of this thesis focusses on whether the combinations of intrinsic versus extrinsic motives and locus of control lead to sorting patterns into the public versus private sector.* The question that arises now is as follows: Why is it important to consider whether motives moderate the role between locus of control and sector choice? One might respond by noting that existing literature stresses that understanding personality, especially in the workplace, is a “very complex undertaking” (Mount et al., 2003, p. 326). Therefore, it is

⁸ Locus of control has also been found to predict several behavioral and labor market outcomes (e.g., Buddelmeyer and Powdthavee, 2016; Cobb-Clark, 2015; Cobb-Clark et al., 2014; Martin et al., 2005; Mendolia and Walker, 2014; Ng et al., 2006).

necessary for studies to account for motives when investigating relationships between personality and several outcomes. Thus, for example, several studies have determined that motives are an explanatory mechanism when investigating the association between personality and performance (e.g., Barrick et al., 2003; Johnson, 2003). These studies emphasize that much research inadequately accounts for motives. Furthermore, Cullen and Sackett (2003) argued that specific motives can explain the relationship between personality and counterproductive work behavior. *Therefore, this doctoral thesis attaches importance to this issue, and thus, the second paper tries to elucidate whether motives can also explain the relationship between locus of control and the choice of labor market sector.*

In sum, it is necessary to discuss why it is important to examine selection patterns of individuals into a specific labor market sector. This topic is of high relevance for both employers and employees: If employers know the motives and personalities of their potential employees, they will have the opportunity to attract and retain suitable candidates, and thus, can offer them adequate work areas (or job/career positions) with appropriately designed incentive structures (Delfgauw and Dur, 2007, 2008, 2010). From the employees' point of view, it is important to know which type of labor sector, or more precisely, which mission (followed by the sectors) fits their motives and personality best to allow them to gain returns on their investments. Thus, the right match between an employer and an employee increases several work and behavioral outcomes that may be advantageous for both sides. Consequently, several studies have shown that better matched workers exert more effort, perform better, and show an organizational effectiveness and commitment, as well as higher worker productivity (e.g., Besley and Ghatak, 2005; Carpenter and Gong, 2016; Fehrler and Kosfeld, 2014; Francois, 2000; Perry and Wise, 1990) than mismatched workers do. Furthermore, the right match reduces work-related stress and quit intentions (e.g., Gould-Williams et al., 2015; Steijn, 2008). Moreover, the existing literature has also determined that optimal matching leads to a

utility premium, as better matched workers exhibit higher job and life satisfaction than their mismatched counterparts do (e.g., Fahr, 2011; Kim, 2012; Liu et al., 2015; Luechinger et al., 2006; Naff and Crum, 1999; Wright and Pandey, 2008).

Yet, not only the right match or sorting patterns of individuals into a specific labor sector predict well-being⁹ but also another large number of determinants (e.g., Clark, 1997; Clark et al., 2008; Oswald, 1997; Stutzer, 2004). Like the research on personality, the research on well-being is central to the discipline of psychology (Frey and Stutzer, 2002b; Frijters et al., 2004). In addition, in recent years, economists have developed an increasing interest in studying happiness. Indeed, “since the late 1990s, economists have started to contribute large-scale empirical analyses of the determinants of happiness in different countries and periods” (Frey and Stutzer, 2002b, p. 404). In particular, economists have been interested in establishing the relationships between incomes, unemployment, gender, age, education, marriage, inequality, job insecurity, quit behavior, working conditions, unions, etc. and well-being.¹⁰ Thus, well-being has been found to be an important economic outcome (e.g., Kahneman and Krueger, 2006; Luechinger et al., 2010b). Based on cross-sectional or longitudinal data, there is a firm consensus that employees who are satisfied with their jobs are less absent (Drago and Wooden, 1992; Sagie, 1998; Scott and Taylor, 1985), less likely to quit (e.g., Clark, 2001; Clark et al.,

⁹ Well-being, also known as happiness, is understood as a combination of different dimensions of satisfaction. Therefore, it can be used interchangeably when investigating job satisfaction, life satisfaction, pay satisfaction, health satisfaction, and other forms of satisfaction (see also Clark, 1996; Clark et al., 2009a; Di Tella et al., 2003; Ferrer-i-Carbonell, 2005; Gardner and Oswald, 2007; Powdthavee, 2010; Van Praag et al., 2003). According to Blanchflower and Oswald (2004), happiness or well-being is the degree to which an individual judges the overall quality of his or her life as favorable.

¹⁰ The size and depth of the economic literature on happiness has increased at an exponential rate (Kahneman and Krueger, 2006). Thus, many contributions in this field can be consulted (see Bender et al., 2005; Bjørnskov et al., 2013; Blanchflower and Oswald, 2004; Böckerman and Ilmakunnas, 2012; Böckerman et al., 2011; Borjas, 1979; Bryson et al., 2004; Cai and Park, 2016; Card et al., 2012; Clark, 1996, 1997, 1999, 2001; Clark and Oswald, 1994, 1996; Clark et al., 1996, 1998, 2008, 2009b; Cornelißen, 2009; Danna and Griffin, 1999; Di Tella et al., 2001, 2010; Di Tella and MacCulloch, 2006; Diener et al., 1999; Easterlin and Plagnol, 2008; Fahr, 2011; Ferrer-i-Carbonell and Frijters, 2004; Frey and Stutzer, 2000; Green and Heywood, 2008; Green, 2010; Heywood and Wei, 2006; Heywood et al., 2002; Luechinger et al., 2010a, 2010b; McBride, 2010; Origo and Pagani, 2009; Oswald, 1997; Powdthavee, 2010; Proto and Rustichini, 2015; Senik, 2009; Stutzer, 2004; Van Praag et al., 2003; Vendrik and Woltjer, 2007; Verme, 2009; Winkelmann and Winkelmann, 1998; Wright and Davis, 2003).

1998; Delfgaauw, 2007; Gielen and Tatsiramos, 2012), and among older workers, less likely to retire (Mein et al., 2000; Wang and Shultz, 2010). Furthermore, empirical evidence shows that women are happier at work, especially those women who have lower expectations to the job (Clark, 1997) and those who are employed in female-dominated workplaces (Bender et al., 2005). Moreover, a U-shaped relationship has been found between age and well-being (Blanchflower and Oswald, 2008; Clark et al., 1996; Stone et al., 2010). In addition, job satisfaction predicts job performance and productivity (e.g., Böckerman and Ilmakunnas, 2012; Judge et al., 2001), as well as organizational commitment (e.g., Markovits et al., 2010; Panaccio and Vandenberghe, 2009). Better working conditions or preferred job characteristics have also been found to increase employees' well-being. (e.g., Clark, 1996, 2001; Clark and Senik, 2006; Cornelißen, 2009; Fahr, 2011; Hackman and Lawler, 1971). Furthermore, there is a strong consensus that unemployment leads to a substantial loss of well-being (e.g., Clark and Oswald, 1994; Korpi, 1997; McKee-Ryan et al., 2005; Winkelmann and Winkelmann, 1998). However, the consideration of exogenous shocks, such as plant closures, clarifies that the negative effect of unemployment on well-being disappears (Schmitz, 2011); inter alia, this possibly indicates that unsatisfied employees self-select into unemployment. The previous lines of research clearly demonstrate that the list of determinants of well-being is infinitely long and that the existing literature has done groundbreaking research on this topic. These facts also clarify how relevant the research on well-being is for the overall national economy, for the business administration, for companies, for health care systems, and in sum for the whole society.

Yet, the relationship between incomes or wages and well-being has been found to be less clear. Therefore, another aim of this dissertation is shedding further light on the impact of wages, especially minimum wages, on well-being.

One of the most accepted points of view is that income does matter (e.g., Easterlin, 1995; Frey and Stutzer, 2002b; Frijters et al., 2004; Oswald, 1997). Utility theory stresses that more

money is better, and therefore, increases in income are desirable from an individual's perspective. Due to this assumption, the association between income and well-being has become one of the most analyzed topics in the research on well-being since the early 1970s (Frey and Stutzer, 2002a). In this context, many studies have determined that the absolute level of income matters. Accordingly, increases in income have been found to be associated with increases in well-being (e.g., Deaton, 2008; Di Tella et al., 2003; Frijters et al., 2004; Gardner and Oswald, 2007; Kahneman and Deaton, 2010; Pouwels et al., 2008; Van Praag et al., 2003), even at low income levels (Ferrer-i-Carbonell, 2005; McBride, 2001). Consequently, higher income yields higher utility, and thus, "income does buy happiness" (Frey and Stutzer, 2002b, p. 409).¹¹ However, according to the reference income hypothesis¹² (Duesenberry, 1949), which illustrates that utility from income depends on comparisons to a social reference group, a huge amount of literature has determined that well-being depends on relative comparisons to other individuals. Thus, Easterlin puts it in a nutshell by showing that "raising the incomes of all, does not increase the happiness of all" (Easterlin, 1995, p. 36). More precisely, by using cross-sectional or longitudinal data, many studies have found a positive relationship between relative income and well-being (Corazzini et al., 2012; Luttmer, 2005), including job satisfaction (e.g., Brown et al., 2008; Card et al., 2012; Clark et al., 2009b; Ravid et al., 2017), life satisfaction (e.g., Blanchflower and Oswald, 2004; Easterlin and Plagnol, 2008; Ferrer-i-Carbonell, 2005; Kingdon and Knight, 2007; Senik, 2009), and pay satisfaction (e.g., Bygren, 2004; Godechot and Senik, 2015; Groot and Van den Brink, 1999; Rees, 1993; Shapiro and Wahba, 1978; Sweeny et al., 1990).

¹¹ Data for the United States and Europe reveal that individuals with higher incomes are happier (Frey and Stutzer, 2002b, give an overview of these results).

¹² This hypothesis is a "dominant model of income comparison and suggests that individuals care about how their income compares with the norm, or reference income, of a socially constructed comparison group" (Boyce et al., 2010, p. 471). It was established and econometrically tested by James Duesenberry (1949), who found that people look upward when making comparisons.

In addition, well-being is based on an individual's ranked position within a comparison group. Thus, individuals gain utility from occupying a higher ranked position within an income distribution (e.g., Boyce et al., 2010; Brown et al., 2008; Card et al., 2012; Clark et al., 2009a; Powdthavee, 2009). For example, individuals may care whether they are the fourth or fifth most highly paid person in their comparison set (e.g., colleagues of a similar qualification level, family members, friends, neighbors, etc.).

Furthermore, income aspirations¹³ matter when investigating the relationship between income and well-being. Thus, individuals tend to compare their income not only to other individuals' income but also to their own past income (e.g., Clark et al., 2008; Ferrer-i-Carbonell, 2005; Senik, 2009; Sweeny et al., 1990; Van de Stadt et al., 1985). As the income of individuals increases relative to their past income, it also leads to a fulfillment of aspirations, which in turn, increases the individuals' well-being. However, according to the aspiration level theory, the positive well-being effects may decline in the long run because individuals' aspirations change over time (Frey and Stutzer, 2002b). Thus, aspiration level theory provides an explanation for why happiness has stayed virtually constant or even declined in the long run although per-capita income in developed countries like the United States, the United Kingdom, and Japan has increased strongly in recent decades (e.g., Blanchflower and Oswald, 2004; Diener and Oishi, 2000; Easterlin, 1974, 1995; Frey and Stutzer, 2002b).

So far, the issue of income endogeneity in well-being equations has seldom been considered. Thus, it is not always possible to consider a natural experiment or a large-scale randomized experiment where money is randomly assigned to treatment and control groups. However, for testing the direction of causation, the studies of Gardner and Oswald (2007) and Frijters et al. (2004) provide the flavor of a natural experiment. Gardner and Oswald (2007) considered

¹³ Aspiration effects mean that, over the years, the positive effects of increasing income on well-being disappear as individuals adjust their aspirations accordingly (e.g., Easterlin, 2001; Stutzer, 2004; Van Praag and Ferrer-i-Carbonell, 2004).

medium-sized lottery winners as an exogenous source of income, using the British Household Panel Survey (BHPS) to create a setting that was close to a laboratory experiment. They found a significant positive effect in mental well-being for those with small wins, even at two years after winning the lottery, compared with those with no wins. By means of the German Socio-Economic Panel (SOEP), Frijters et al. (2004) determined a considerable increase in life satisfaction for East Germans from an exogenous increase in real income per capita as a result of the German reunification in 1990. Further studies have considered different instrumental variables that correlate with income but not well-being measures, finding that income does matter for well-being (e.g., Knight et al., 2009; Luttmer, 2005; Powdthavee, 2010). As Frey and Stutzer (2002b) commented, “This suggests that causation indeed runs from income to happiness” (p. 410-411).

To further shed light on the causal link between income and well-being, this dissertation exploits a natural experiment by considering whether the introduction of minimum wages increases the well-being of affected individuals. So far, to the best of the author’s knowledge, there is no causal study that has considered a combined set of all theoretical considerations mentioned above, such as whether absolute incomes, relative incomes, ranked positions, and income aspirations influence different dimensions of well-being. These studies solely consider one or two dimensions of the theoretical considerations and solely investigate one dimension of the considered well-being measures. The final paper of this dissertation comprises all these mentioned issues and considers three dimensions of well-being (life, job, and pay satisfaction).

The last paper of this doctoral thesis further contributes to the literature on minimum wages. So far, a huge amount of literature has examined the effects of minimum wages on employment.¹⁴ Yet, little research has investigated the effects of minimum wages on well-being

¹⁴ Multiple studies have considered the effects of minimum wages on employment and either reported modest negative effects (e.g., Bossler and Gerner, 2016; Burkhauser et al., 2000; Gittings and Schmutte, 2016; Lopresti and Mumford, 2016; Machin et al., 2003; Neumark and Wascher, 1992; Rama, 2001; Sabia et al., 2016; Schmitz,

and determined positive effects on job and pay satisfaction (Bossler and Broszeit, 2017; Pusch and Rehm, 2017). Thus, the last paper of this dissertation contributes further to the existing literature by including a broader set of well-being measures. Consequently, it considers life satisfaction in addition to job and pay satisfaction. Including life satisfaction provides a profound understanding of whether minimum wages have positive effects on overall well-being beyond the work domain. Furthermore, solely considering job and pay satisfaction has the disadvantage that one can only consider individuals who maintain their jobs while the inclusion of life satisfaction has the advantage that one can also take into account those who do not remain employed following the minimum wage reform. In addition, the final paper of this dissertation contributes to the literature by exploring whether the effects of the minimum wage on well-being are different in two differently developed regions. This examination is primarily based on the expectation that the wage increase due to the minimum wage is different across regions because of the different wage levels before the reform (e.g., Brenke and Müller, 2013; Falck et al., 2013; Heumer et al., 2013; Kalina and Weinkopf, 2015; Knabe et al., 2014). Thus, the paper distinguishes between the effects of the minimum wages in East Germany and West Germany, which are overall two differently developed regions (e.g., Easterlin and Plagnol, 2008; Frijters et al., 2004; Van Praag et al., 2003). The examination is especially relevant for East Germany, as the well-being of East Germans was lower than that of West Germans before the reunification. Although there was a continual increase in well-being in East Germany until 1999 (Frijters et al., 2004), the well-being of East Germans was still slightly lower than that of the Turkish population in Germany in 2004 (Easterlin and Plagnol, 2008). These facts possibly indicate that the East German population may still be influenced by the experience of socialism. Compared with the existing literature, it is further explored whether the results change if those individuals who do not remain employed after the introduction of the minimum wage are also

2017; Sturn, 2018; Zavodny, 2000) or no negative effects (e.g., Card, 1992; Dickens et al., 1999; Dube et al., 2010; Garloff, 2016; Katz and Krueger, 1992; Machin and Manning, 1994; Stewart, 2004a, 2004b).

included in the analysis. Thus, the paper approximates the effects of the minimum wage on well-being among the group of low earners more comprehensively and considers not only the ‘winners’, who earn more than before, but also the potential ‘losers’ of the reform, who lose their jobs. This investigation is of high relevance because possible negative employment effects (which may occur when minimum wages are introduced) have been an important political argument against the introduction of a minimum wage in Germany (e.g., Möller et al., 2014). Furthermore, as discussed above, existing research has found negative correlations between unemployment and well-being. Consequently, the examination of individuals who do not remain employed after the introduction of the minimum wage will deliver an important and relevant contribution for policymakers. Another contribution to the existing literature is the consideration of whether the well-being effects hold for at least one year after the reform.

In sum, the investigation of the effects of minimum wages on well-being is of high relevance, especially for the national economy, because as mentioned above, several studies have ascertained that wage increases matter for human welfare. As well-being is generally considered an ultimate goal of life (Frey and Stutzer, 2002b), this research topic also indicates how important the results are for society, especially for the poor segments of society, as they are rather affected by the reform.

This examination is also relevant for employees and employers. Employees’ decisions about the labor force participation – whether to stay on in their jobs or to quit – depend, inter alia, on their well-being (e.g., Clark, 2001; Clark et al., 1998; Delfgaauw, 2007). Employers need satisfied employees, who exhibit higher performance and productivity (e.g., Böckerman and Ilmakunnas, 2012; Judge et al., 2001) than unsatisfied individuals do, and thus, can maximize firms’ profits.

Finally, the topic is also relevant for policymakers, especially for political sociology, as this field analyzes the expiration of political decisions and the effects of policy decisions on society. Especially, the German Commission of Minimum Wages should have a great interest in this issue, as they are responsible for the adaption of the minimum wage.

To complete the introduction, the following paragraphs give an overview of the three papers of the doctoral thesis.

The first paper, *Where Does the Good Shepherd Go? Civic Virtue and Sorting into Public Sector Employment (2018)*, co-authored with Adam Ayaita and Philip Yang, investigates whether civic virtue predicts public sector employment in addition to other relevant motives (altruism, risk aversion, laziness and financial motivation). To estimate the effect of motives (especially civic virtue) on the employment sector without a bias by reverse causality, the paper further contributes to the literature by examining whether the association between the considered motives and public sector employment is due to selection. Thus, a subsample is constructed where individuals are observed in the year before they enter the labor market for the first time, and the year before individuals change their current labor market sector is considered. Furthermore, the analysis of selection effects is extended by a fixed-effects analysis, where intra-individual changes in motives (socialization effects) over time during the employment are investigated. Another contribution to the existing research is the investigation of whether the association between civic virtue and public sector employment holds within branches, as the consideration of branches are stressed to be important (e.g., Bright, 2007; Dur and van Lent, 2018). Moreover, existing research has determined that other motives predict entrepreneurship (e.g., Miner and Raju, 2004; Stewart Jr. and Roth, 2001, 2004). Therefore, this paper contributes to the literature by exploring whether civic virtue is also related to self-employment.

By using the longitudinal dataset from the German Socio-Economic Panel (SOEP), with 63,180 observations of 13,683 individuals and controlling for a huge amount of demographics, work experience, and personality measures, the results of probit models reveal that a standardized measure of civic virtue relates significantly and positively to public sector employment beyond – and even more strongly than – altruism, risk aversion, and laziness. The results hold within different branches and are robust across several alternative analyses, such as behavior-based measures of prosocial motivation, occupation-related risk aversion (instead of general risk aversion), differently educated individuals (college vs. non-college graduates), and different work experience levels (< 2 years up to ≥ 20 years).

The results further reveal that the positive relationship between civic virtue and public sector employment is driven by selection at the career start and not socialization (Dur and van Lent, 2018; Gregg et al., 2011). Thus, graduates with higher civic virtue are attracted to the public sector. Furthermore, higher civic virtue also predicts changes to the public sector during the career. Moreover, the results suggest that differences in socialization cannot explain the positive relationship between civic virtue and public sector employment because civic virtue develops negatively in both sectors. This negative trend is in line with the ‘reality shock’ determined in previous studies, with decreasing levels of prosocial motivation over the career (Blau, 1960; Kjeldsen and Jacobsen, 2013).

The exploratory analysis shows that civic virtue is also positively related to entrepreneurship. This result only applies when self-employed workers are compared with employees in the private sector, whereas civic virtue predicts public sector employment more strongly than self-employment does.

Overall, this paper extends the understanding of the link between motives and the employment sector. Thus, it provides implications for employers (especially HR managers) by

attracting and retaining suitable individuals in both sectors. It further supports HR managers to design appropriate incentive structures that help to increase the output of an organization. Another implication for employers is supporting civic virtue during the career, which is especially salient among employees for whom civic virtue is particularly important.

The second paper, *Locus of Control and Labor Market Sorting: The Moderating Role of Motives* (2019) by Filiz Gülal, studies whether intrinsic and extrinsic motives moderate the relationship between locus of control and sorting into public versus private sector employment. This study assumes that individuals with an internal locus of control strategically decide to be employed in a specific sector for several reasons: Internals want to have control over their lives (e.g., Mitchell et al., 1975; Ng et al., 2006; Rotter, 1966) and believe that outcomes depend primarily on their actions and efforts (Krause, 2013; Malik et al., 2015). Furthermore, they are proactive (Buddelmeyer and Powdthavee, 2016) and take responsibility for their life and work outcomes (e.g., Ng et al., 2006; Spector, 1982). Therefore, they seek situations that will supply them with positive feedback (Judge et al., 1998). Moreover, internals believe that they will receive returns on their investments (e.g., Caliendo et al., 2015; Coleman and DeLeire, 2003; Lekfuangfu et al., 2017; Mendolia and Walker, 2014). In contrast, individuals with an external locus of control believe that life outcomes are outside their personal control. Therefore, they value their outcomes as matters of chance, luck, or fate (e.g., Stiglbauer, 2017; Verme, 2009). Thus, this study expects that externals will make less goal-directed decisions in terms of sector selection. As motives are an explanatory mechanism when investigating the association between personality and several outcomes (e.g., Barrick and Ryan, 2003), this paper assumes that motives moderate the relationship between locus of control and public versus private sector employment. Thus, this study contributes to the literature by hypothesizing that individuals with an internal locus of control and intrinsic motivation will sort into the public sector, where they can proactively determine their outcomes by realizing a self-concept. Thus, the job activities of

this sector allow this possibility to a greater extent than the job activities of the private sector do (e.g., Francois, 2000; Perry et al., 2010). Therefore, these individuals believe that, in the public sector, their commitment will be rewarded in the form of intrinsic rewards (e.g., feeling of self-worth, sense of accomplishment). This paper further contributes to the existing literature by hypothesizing that graduates with an internal locus of control and extrinsic motives will self-select to the private sector where they can proactively determine their outcomes by pursuing a utility concept. Thus, compared with the public sector, the private sector provides them many extrinsic rewards, such as promotion possibilities, bonus payment systems etc. Another contribution to the existing research is the consideration of whether the selection patterns hold for revealed preferences, within different occupation groups, and the consideration of the respondents' gender and migration background.

The empirical analysis is based on the German Socio-Economic Panel (SOEP). Thereby, 66,291 observations of 13,047 individuals over the time span 2005-2016 are considered. Typical control variables, such as demographics, personality, region and year dummies, are included in the estimations. The selection analysis is inspired by the first study of this thesis, and therefore, considers graduates the year before they enter into their first employment and the year before employees change their current labor sector.

As hypothesized, the results reveal that motives moderate the association of locus of control with public versus private sector employment. More precisely, graduates with intrinsic motives and an internal locus of control self-select into the public sector. Furthermore, extrinsic motives moderate the relationship between locus of control and private sector employment. Thus, for example, an increase in importance of career by 1 standard deviation, increases the relationship between internal locus of control and entering into the private sector by 3.5 percentage points (pp) on average. Concerning selection patterns during the career, the results demonstrate that

extrinsic motives (especially importance of career) moderate the relationship between internal locus of control and changes from the public to the private sector in comparison to staying in the public sector. The results are largely robust for revealed preferences, hold for the occupation groups of managers and professionals, and are driven by men and individuals without a migration background.

This study contributes to the huge amount of locus of control literature by presenting that the interaction of motives and personality influences the economic decisions of individuals to sort themselves into a particular sector. So far, research has found that locus of control affects a variety of other economic decisions, such as education, job search, risky investments, and further (labor market) outcomes (e.g., Caliendo et al., 2015; Cobb-Clark et al., 2014; Coleman and DeLeire, 2003; Lekfuangfu et al., 2017; McGee and McGee, 2016; Salamanca et al., 2016; Schurer, 2017). Moreover, the results further contribute to the literature by finding that motives not only explain the association between personality and performance but also further work behaviors (e.g., Cullen and Sackett, 2003; Johnson, 2003).

This research stresses the implication that firms should carefully account for non-cognitive skills to motivate workers' behavior, especially for employees with a low locus of control. Moreover, the public sector should attract individuals with extrinsic motives and a high locus of control by exploiting their extrinsic incentives. Simultaneously, the private sector should extend intrinsic incentives to attract employees with intrinsic motives and a high locus of control. Thus, a balanced mixture of both incentives and a high locus of control in both sectors could lead to huge gains concerning labor market outcomes, such as performance and job satisfaction.

The last paper, *The Impact of Minimum Wages on Well-Being: Evidence from a Quasi-Experiment in Germany (2018)*, co-authored with Adam Ayaita, examines whether minimum

wages have an effect on well-being. The reform implemented on January 1, 2015 stipulates a gross hourly wage of at least €8.50 throughout Germany. Based on the representative SOEP data, a difference-in-differences design compares the development of life, job, and pay satisfaction between those who are affected by the reform according to their pre-intervention wages (below €8.50) and those who are not affected because their wages were slightly above the minimum wage in 2014. The main analysis considers the years 2014 (pre-intervention) and 2015 (post-intervention). To test the common trend assumption (whether the treatment and control group develop similarly before the reform) and to explore effects of the minimum wage across a longer time span, the years 2012, 2013, and 2016 (only those respondents who are also part of the main sample in 2014 and 2015) are additionally considered. In line with the scope of the minimum wage reform in Germany, the investigation is restricted to those who are employed, working full-time, part-time, or marginally. The main analysis only includes individuals who are employed in both 2014 and 2015. To increase the precision of the estimates, personal control variables and branch dummies that are not affected by the reform are considered. In the baseline model, the post-intervention wages of the treatment group are not restricted, because this could lead to a biased sample (see also Reeves et al., 2017, p. 642). The control group consists of employees who receive wages just above the threshold in 2014 (between €8.50 and €12.75; see also Pusch and Rehm, 2017). In the final sample, the treatment group consists of 1,057 individuals and the control group of 1,887 individuals. This is a statistically meaningful number (Reeves et al., 2017).

The results demonstrate that the treatment effects on life, job, and pay satisfaction are all significantly positive, meaning that, on average, the well-being of the affected individuals increases significantly more than the well-being of the non-affected individuals does. The minimum wage increases life satisfaction by approximately 0.10 standard deviations, on average (0.15 points on the original ten-point Likert scale). Job satisfaction increases by 0.14

standard deviations and pay satisfaction by 0.16 standard deviations, on average.

To test the common trend assumptions, several placebo tests are conducted. Considering the years 2013 and 2014, the results show no significant differences between the development of the treatment and control group. This indicates that the positive well-being results can be attributed to the reform. Concerning the years 2012 and 2013, the results reveal that, in these years, the life and pay satisfaction of the treatment group develop significantly negatively in comparison with those of the control group, while for job satisfaction, the results show no significant difference. Thus, the treatment group would probably have developed negatively in comparison with the control group in the absence of the reform. The minimum wage reverses this trend, which indicates that the common trend assumption rather leads to an underestimation of the true minimum wage effects.

Several robustness checks (considering an alternative econometric method and an alternative specification of the treatment group, an earlier pre-intervention year to exclude anticipation effects, and a slightly longer time span) reveal that the results are qualitatively equal and highly similar to the main results. Especially, the positive well-being results last for at least one year after the reform.

To explore whether the minimum wage has differential effects on well-being depending on the development of a region, a difference-in-differences estimation is conducted separately for East and West Germany. Life and pay satisfaction increases more in East Germany than it does in West Germany, although wages of low earners do not increase more in East Germany. The discussion section of the paper provides several theoretical explanations for the larger well-being gains in East Germany (e.g., social comparison effects, aspiration levels, perceived income inequality, etc.). Furthermore, the results show positive effects on job satisfaction in East and West Germany, and here, the effect sizes are rather comparable across the two regions.

To provide a more comprehensive view of the well-being effects of the reform, another explorative issue is the consideration of those who do not remain employed in 2015. Here, treatment and control groups are first generated in the same way as in the main groups. Thus, individuals who are employed in 2014 are considered, but there is no restriction anymore with respect to the employment status in 2015. In a first step, these groups are built for all of Germany. In the next step, they are split into East and West Germans. Thereby, only those who remain in East or West Germany in the time span of 2014-2015 are considered. The results demonstrate that the positive well-being effects of the minimum wage hold. They do not change for East and West Germany. In sum, the minimum wage has positive effects on the well-being of affected individuals, even when those who are relatively negatively affected are included in the analysis.

To conclude, as the results reveal positive well-being effects of the minimum wage on affected low earners, even if those who do not remain employed are considered, the study provides reasons in favor of minimum wages. Further positive arguments for minimum wages point to the aspect that the introduction of the minimum wage did not impact overall as well as regular employment negatively (e.g., Ahlfeld et al., 2018; Bonin et al., 2018; Garloff 2018; Link, 2019).¹⁵ Moreover, research even point to positive effects on regular employment (e.g., Garloff, 2018; Holtemüller and Pohle, 2017). Thus, the results contribute to the existing minimum wage literature by further providing no negative effects. Therefore, one might reservedly argue that both dimensions, namely the consideration of well-being effects and labor market effects do record lower disadvantages from the introduction of the minimum wage. In addition, the study leads to the conclusion that organizations might profit from the findings.

¹⁵ Yet, some studies found that the introduction of the minimum wage had especially a negative impact on marginal employment (e.g., Bonin et al., 2018; Caliendo et al., 2018; Garloff, 2018; Holtemüller and Pohle, 2017; Schmitz, 2017) or small negative effects on overall employment (e.g., Bonin et al., 2018; Caliendo et al., 2018; Schmitz, 2017).

Thus, more satisfied employees exhibit higher productivity (e.g., Böckerman and Ilmakunnas, 2012; Judge et al., 2001) and organizational commitment (e.g., Markovits et al., 2010; Panaccio and Vandenberghe, 2009) or show lower quit intentions (e.g., Clark, 2001; Clark et al., 1998; Delfgaauw, 2007). There is potential for further research: In terms of job satisfaction, existing literature has found that the working conditions of the affected employees improved in 2015 (Pusch and Rehm, 2017; this was due, for example, to fewer working hours, higher job complexity, and more appreciation from superiors and colleagues). Therefore, future research may examine further mechanisms that lead to positive well-being effects of the reform. Moreover, a deeper evaluation of minimum wages that goes beyond the effects on low earners with pre-intervention wages below the minimum wage should examine the well-being development of other groups, such as those with higher earnings or apprentices and the self-employed, who are not directly affected by the reform.

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