

# Labour market policies in Denmark

Torben M. Andersen  
Department of Economics and Business Economics  
Aarhus University

January 2019

## **Abstract:**

Labour market reforms in Denmark are reviewed. Over the last decade, the reform intensity in Denmark has been high, addressing both structural issues pertaining to the number of people in work ages being dependent on public transfers as well as the challenges arising from increasing longevity and an ageing population. . Maintaining a high employment rate is essential for social, distributional and public finance reasons. The reforms implemented have both tightened eligibility conditions for various elements of the social safety net, not least for early retirement and pensions as well as social assistance, and increased incentives for work via benefit adjustments and tax reforms.

The report is prepared for the Norwegian expert group of the employment commission.

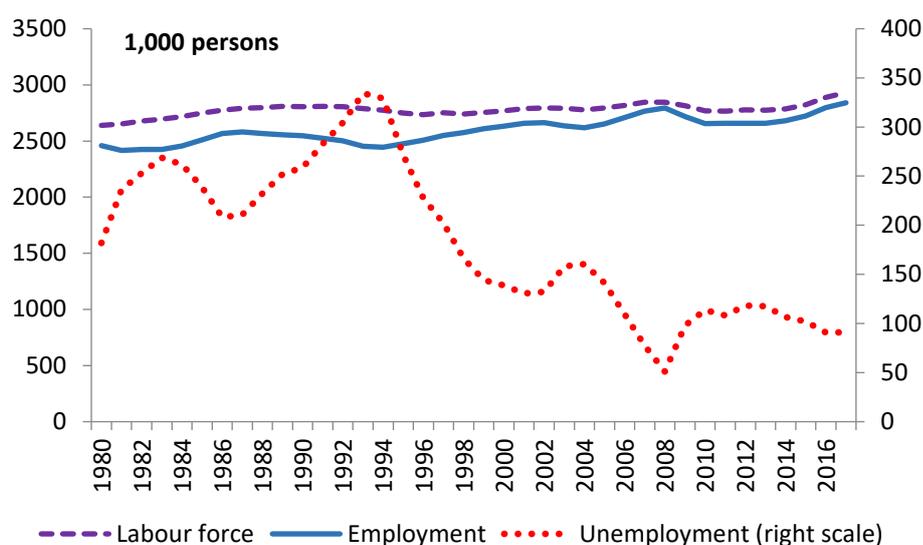
## Contents

1. Macroeconomic background .....	3
2. Economic policy strategies .....	6
3. Work incentives - Making work pay .....	8
3.1. The social safety net – social assistance .....	8
3.2. Unemployment benefits .....	10
3.3. Tax incentives .....	11
4. Activation .....	13
4.1 Wage subsidies and job rotation .....	16
5. The young .....	18
5.1. Study grants .....	18
5.2. Youth package .....	18
6. The old .....	21
7. Disability/flexible retirement/sickness .....	23
8. Immigrants .....	24
9. Life-long learning .....	27
10. Implementation of labour market policies – job centres .....	28
11. Concluding remarks .....	29
References .....	30

## 1. Macroeconomic background

The Danish labour market is characterized by a high employment rate and a low structural unemployment rate, see Figure 1. The level of job-turnover is high, and therefore most unemployment spells are relatively short. Long-term and youth unemployment are also relatively low. This is associated with the so-called flexicurity model, and the favourable performance indicators are largely the result of a sequence of reforms from the mid-1990s; for an overview see Andersen and Svarer (2007)<sup>1</sup>.

**Figure 1: Labour force, employment and unemployment, 1980-2017**



Note: Unemployment is unemployed entitled to unemployment insurance.

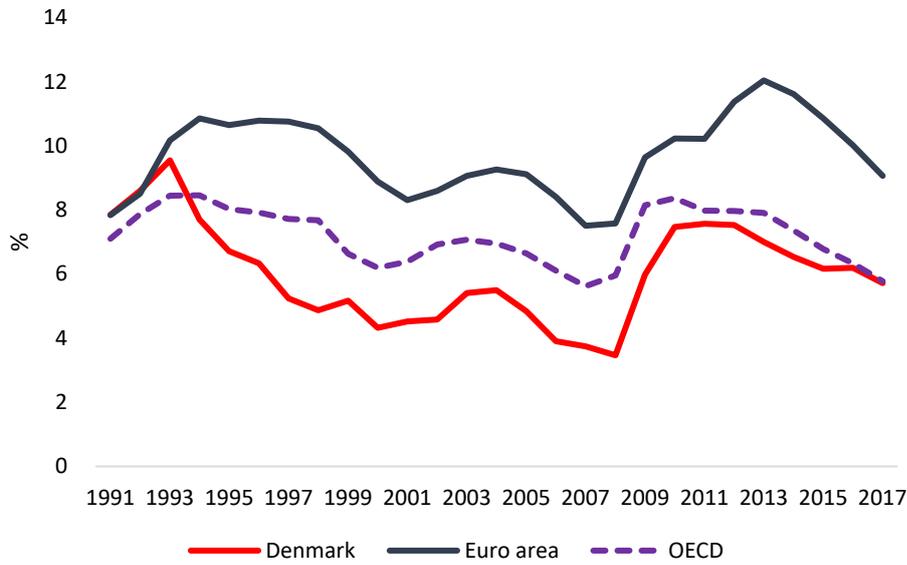
Source: Adam Databank, Statistics Denmark.

Although the Danish economy was severely hit by the financial crisis, in part due to an overheating economy already showing signs of a downturn at the eve of the financial crisis, unemployment has remained consistently below the EURO-area and OECD average – see Figure 2 - and long-term unemployment has not increased significantly. Although the recovery has been slow, the employment rate is now at a level close to the peak level before the financial crisis (despite a population increase largely driven by immigration).

Employment rates are high for both men and women, but working hours are relatively low in comparison to OECD countries. The latter is partly due to a relatively high share working part-time. Employment rates show the usual inverted U-shape, see Figure 3. While employment rates for prime age groups are close to the highest in the OECD, they are closer to the average OECD levels for the young (especially males) and for the old.

<sup>1</sup> For accounts of developments in the Danish labour market see e.g. Andersen (2012, 2015a,b,2017b), Madsen (2013), Svarer (2015), OECD (2016).

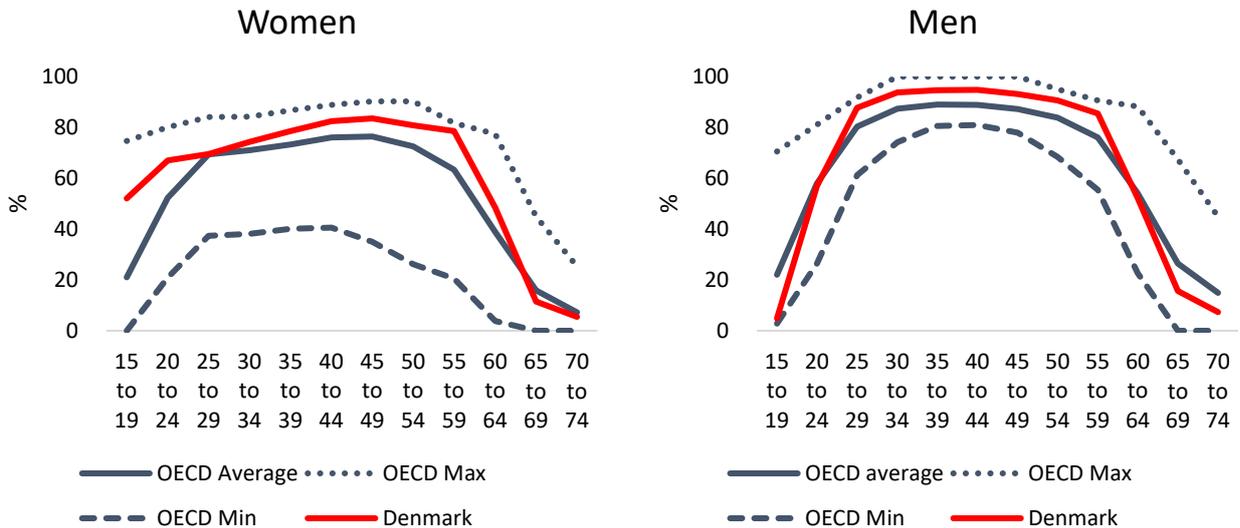
**Figure 2: Unemployment rate, Denmark, Euro-area and OECD, 1991-2017**



Data source: [www.oecd-ilibrary.org](http://www.oecd-ilibrary.org)

Employment rates display strong gradients in education and ethnicity, see Figure 4. However, even for unskilled, employment rates are higher than the OECD average. While the employment rate for immigrants from low-income countries is at the same level as in other EU countries, there is a large gap to the population average, especially for women.

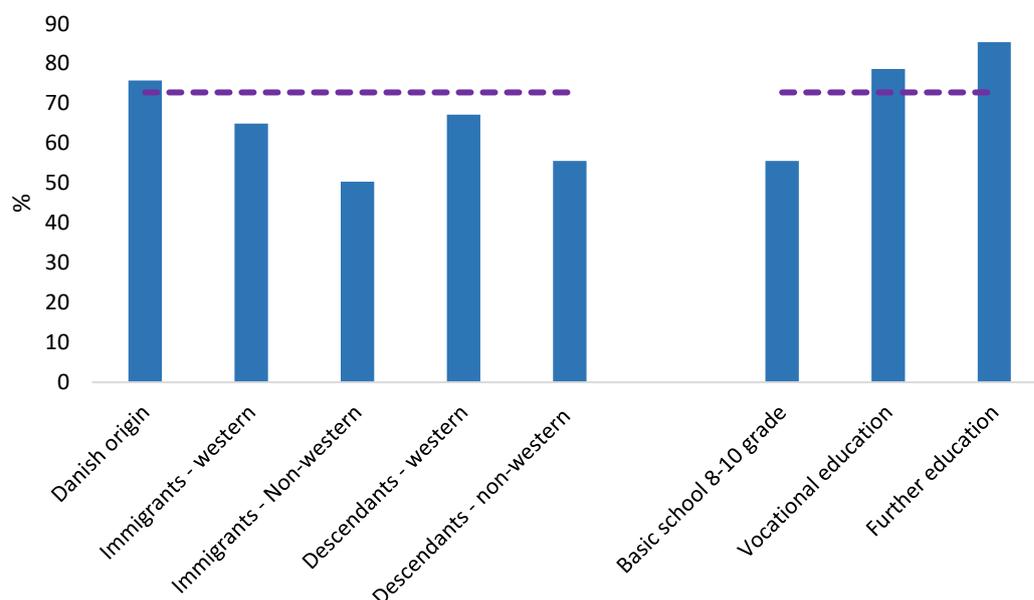
**Figure 3: Age-dependent employment rates, women and men, OECD and Denmark 2016**



Note: Max and min are the highest or lowest value observed for any OECD country for the age group.

Source: [www.oecd-ilibrary.org](http://www.oecd-ilibrary.org)

**Figure 4: Employment, immigrants and education, 2015**



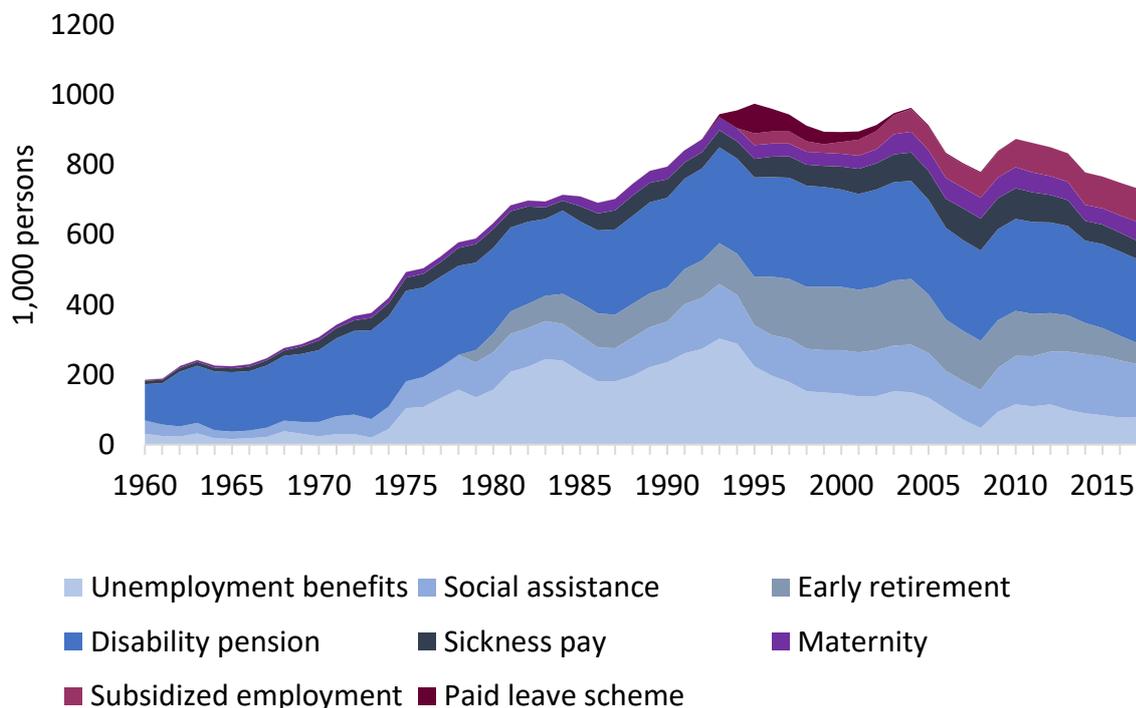
Note: Immigrants and descendants are categorized depending on whether they have a western or non-western origin country.

Datasource: Statistics Denmark.

In a welfare state like the Danish, most non-employed are entitled to some form of income transfer. Figure 5 shows the development in the number of benefit recipients (in the work age group). The increase until the mid-1980s is partly the result of expanded welfare arrangements (e.g. maternity leave, early retirement) and partly the rising unemployment problem, see Velfærdskommissionen (2006). Since the mid-1980s there has been a trend decline partly reflecting cyclical factors and partly as a result of reforms in the mid-1990s. The group of benefit recipients is rather heterogeneous (Økonomisk Råd (2017A)), ranging from people on maternity leave or short-term sickness pay to individuals on disability pensions or social assistance with only a marginal attachment to the labour market. While the number of benefit recipients has been declining recently, and a large part can be attributed to the improved employment situation, the number of people not in job, education or receiving public support has increased by about 30.000 persons between 2020 and 2017, see e.g. Arbejderbevægelsens Erhvervsråd (2018).

This report is organized as follows. The overall strategy in economic reforms in recent years is discussed in Section 2. Measures to increase the economic incentive to work are presented in Section 3. Activation policies attached to unemployment insurance and social assistance are addressed in Section 4. The specific groups, the young, the old, the sick/disabled, and immigrants, are discussed in Sections 5-8. Section 9 reviews life-long learning policies, and Section 10 the implementation of labour market policies. Section 11 offers a few concluding comments.

**Figure 5: Recipients of social transfers, 1960-2017**



Note: Recipients between 16 and 64 years, exclusive study grants.  
Source: Statistics Denmark.

## 2. Economic policy strategies

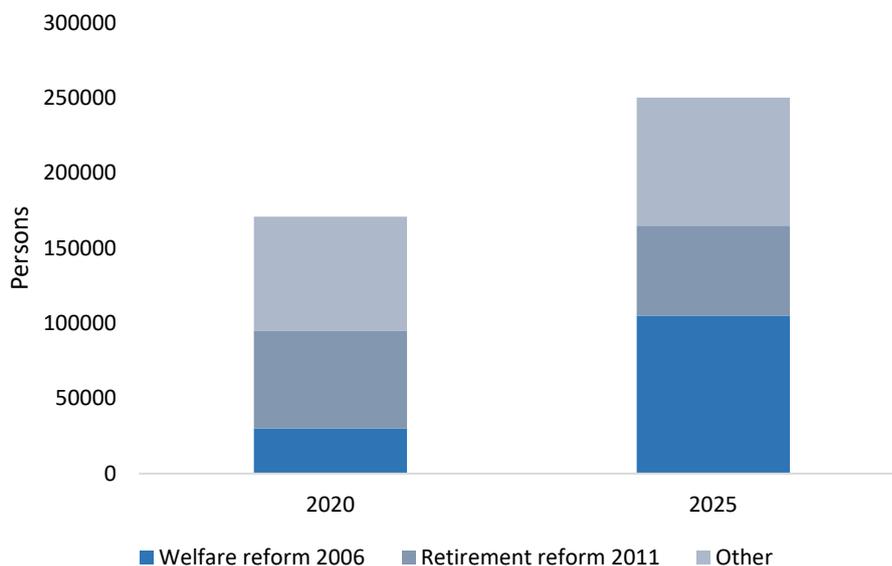
A series of reforms during the last half of the 1990s were crucial in bringing unemployment down (see Figure 2) and laying the foundation for the favourable labour market performance associated with the so-called Danish flexicurity model. The main thrust of these reforms was a shift from a passive focus on income protection to a more active focus on job search and employment. The policy tightened eligibility for unemployment benefits and shortened their duration, as well as introduced workfare (activation) elements into unemployment insurance and social policies in general. The early 2000s saw few major economic reforms, but there was some fine-tuning of policies, not least the active labour market policies. The debate increasingly turned to the implications of an ageing population and the fiscal implications hereof. Projections showed that a systematic imbalance between public expenditures and revenues would gradually develop as a result of an ageing population. In short, welfare arrangements were not fiscally sustainable and reforms were needed (Velfærdskommissionen (2006)). Since neither tax increases nor retrenchment of welfare arrangements were politically acceptable solutions, attention turned to reforms to increase labour supply and hence employment. Since the welfare state is extended, public finances are highly sensitive to the employment level. An increase in the structural employment level significantly affects public finances and thus contributes to solve the fiscal sustainability problem.

Major reforms were undertaken by the “welfare reform” in 2006 and the “retirement reform” in 2011 increasing the statutory ages for eligibility for early retirement and public pensions, as well as reducing the early retirement period (for details see below). These reforms came as a response to increasing longevity

being the main driver behind the ageing problem. Increases in retirement ages alongside increases in longevity were motivated by a need to ensure a balance between the number of years an average person contributes to and benefits from welfare arrangements. These reforms could be said to mainly affect core workers – those already in the labour market being asked to postpone retirement. The issue of labour market attachment, qualification etc. to extend the working career of this group is not the major issue. Subsequently, economic policy debates increasingly focused on the number of persons of working age being on various forms of public transfers, and all major elements in the social safety net have been reformed in recent years with a focus on strengthening labour supply and employment, see e.g. Økonomisk Råd (2017A). This is more challenging, since it includes groups which for various reasons have been marginalized in the labour market, and various barriers need to be overcome to make work possible. In summary, labour market reforms in the last decade have aimed at making the young enter early with appropriate education/skills, the elderly stay longer in the labour market, and increasing employment rates for all those in between.

This reform agenda was not significantly affected by the financial crisis, although there were some discussions of the rationale for supply-oriented reforms in a business cycle downturn, and also some postponement of implementation of reforms, e.g. for unemployment insurance, see below. More generally, concerns have also been raised as to whether increases in labour supply would translate into an increase in employment. However, as developments have shown this to be the case, this concern has muted.

**Figure 6: Employment effects of economic reforms since 2006**



Note: Measured in full time equivalents. Official assessments by the Ministry of Finance.  
Source: Ministry of Finance.

The order of magnitude of these reforms is large. Reforms made over the period 2006-2016 are projected by the Ministry of Finance to increase structural employment by 171,000 persons in 2020 and by 250,000 persons in 2025, corresponding to 8-9 percentage points in 2025 (structural GDP increases by 7.3% until 2020 and 9.9% until 2025, respectively), see Figure 6. The welfare reform from 2006 and the “retirement

reform” from 2011 are the quantitatively most important reforms, and changes in retirement ages are important elements of both reforms, see below. Importantly, the reforms imply that fiscal sustainability is ensured despite an ageing population, see Finansministeriet (2017a) and Økonomisk Råd (2018S).

While reforms have aimed at increasing labour supply along both the intensive and extensive margin, experience shows an important difference. Changes in eligibility conditions give more direct effects than measures relying on behavioural responses to changes in economic incentives, e.g. altering the retirement age vs. lower marginal tax rates. Related, measures targeted core groups have larger and more immediate effects compared to measures targeting marginalized groups. It should be noted that the following primarily focuses on reform effects on employment (and indirectly public finances), but the reforms may have crucial effects in other dimensions – intentional or unintentional – which are not discussed.

### 3. Work incentives - Making work pay

Policy discussions have questioned whether there is an (sufficient) incentive to work? The concern is whether social benefits in combination with taxation make the gain from work too low, affecting primarily low income groups on the extensive margin and other groups on the intensive margin. A number of reforms have had the common denominator of making work pay (more).

#### 3.1. The social safety net – social assistance

The ultimate floor of the social safety net is social assistance (kontanthjælp). All individuals (“Lov om aktiv socialhjælp”) are entitled to support if they have become unable to support themselves and their family. The purpose of the support is to enable the recipient to become self-supporting, and the recipient thus has an obligation to use and develop his/her individual work capabilities and to participate in activation programmes. Social assistance is means-tested on a family basis, and can be supplemented by housing support, child allowances and support for special needs, see e.g. Hansen and Schultz-Nielsen (2015).

The social assistance scheme has been reformed numerous times, and it is beyond the scope of this paper to detail all the changes. The following highlights some major elements or conditionalities built into the system with the purpose of targeting support and strengthening work incentives.

Various entitlement conditions have been introduced in the system to target the support and to strengthen incentives for education and work. The key elements are:

- **Residence:** Eligibility for social assistance for non-EU/EØS citizens requires residence in Denmark for 7 of the last 8 years (from 2019, 9 of the last 10 years<sup>2</sup>). If this condition is not met, “integration-benefit” is available, which constitutes about 50-80% of the social assistance, depending on the family situation (introduced<sup>3</sup> in 2002<sup>4</sup> and abolished in 2012, reintroduced in 2015).

---

<sup>2</sup> For unemployment benefits and flexjob etc., it has been proposed that eligibility requires residence for 7 of the last 8 years.

<sup>3</sup> The scheme has a predecessor in a scheme introduced in 1999, the “introduction benefit”, targeted all immigrants, but it was abolished in 2000 as it was found discriminatory.

<sup>4</sup> When introduced in 2002, there was a distinction between introduction benefits and start aid, the former being available the first three months after arrival conditional on participation in an introduction programme, after which start aid was available. The level of benefits was basically the same in the two schemes.

- **Age and education:** For individuals below age 30 not having a labour market relevant education, there is an “education duty” to commence education, and for those having an education, the activation requirements are tougher than for older age groups (introduced in 2016<sup>5</sup>), see below.
- **Employment:** At least 225 hours in (non-subsidized) work within the last 12 months is required to receive full benefits, otherwise benefits are reduced or lost<sup>6</sup> (introduced in 2006 and removed in 2012, and reintroduced in 2015). In addition (from 2019) 2 ½ years of employment within the last 10 years is required.
- **Cap on support:** Upper cap on the total amount of benefits a family/person can receive - social assistance/education cash benefits, housing supplements, and special allowances<sup>7</sup> (introduced in 2014).
- **Activation:** Benefit receipt depends on fulfilling various activation requirements, see Section 4. Failure to comply with these requirements is sanctioned.

Two general points about all transfers are worth noting. First, all transfers are taxable income (gross-principle), and the disposable income can thus not be assessed solely by considering benefit levels. Second, transfers are wage indexed<sup>8</sup> based on wage developments in the private sector<sup>9</sup>. This maintains the value of transfers relative to the incomes of workers. As a consequence of a tax reform from June 2012, transfers are regulated according to price inflation over the period 2016-2023. Hence, there is a general reduction of transfers relative to wages (difference between wage and price inflation) over this period. This is motivated by “making work pay”.

Assessments of the effects of these elements in the social safety net are discussed below. There has been some discussion on the effect of the employment criterion and the benefit cap, and whether recent declines in the number of benefit recipients can be interpreted as a result of the reforms. In response to this, it has been announced that the Ministries of Employment and Finance will prepare a new assessment.

The labour market consequences of social benefits depend critically on the reason for non-employment. Employment can be constrained from the supply side due to insufficient economic work incentives, or from the demand side due to lack of demand or if the individual does not possess relevant qualifications or is unable to provide the needed effort for firms to hire at the going wage level (minimum wage). The wage structure (minimum wage) depends on market forces but also institutional and distributional factors, in particular the objective of avoiding working poor. The wage level itself, in turn, depends on the level of

---

<sup>5</sup> A similar change was made for youth below the age of 25 in the youth package in 1996.

<sup>6</sup> The employment criterion introduced in 2006 required 2½ years of employment within the seven year period. It was introduced on 12 July 2006 and abolished on 1 January 2012, and hence did not really take effect. In 2003 a condition was introduced for couples such that social assistance was reduced (by 500 DKK per month) if one of the partners had been receiving social assistance for more than six months. This rule was abolished in 2012. In 2006 an “hour rule” was introduced for couples where one of the partners would lose social assistance if a) the couple had received social assistance in the last two years, and b) one of the partners had not been in regular work for at least 300 hours within the last two years. In 2011 the requirement was changed to 450 hours of ordinary work. This rule was abolished in 2012.

<sup>7</sup> In 2010-2012 there was a cap on the total transfer to be received for persons who had been receiving public support for six consecutive months.

<sup>8</sup> Except the study grant and the child allowance being price indexed.

<sup>9</sup> Specifically, the adjustment depends on wage increases two years earlier. If the wage increases are above 2%, 0.3% of the regulation is reserved for social purposes.

social benefits. These complex interdependencies are not further discussed below, but it should be noted that most assessments are partial in nature in the sense of not taking these effects into account (general equilibrium effects). Gautier et al. (2018) show how taking into account the spill-over effects arising in general equilibrium (participants vs non-participants) may overturn conclusions from partial analyses focussing on the effects on participants in a given programme.

When reducing the number of people being on various social transfers, an important question of flows and stocks arises. It is very difficult to bring persons with insufficient qualifications and/or long periods out of work into regular work. Early intervention in order to prevent people from ending up in long-term unemployment may have more positive effects in the long run. Such a shift from repairing to preventing problems from arising can be identified in labour and social policies. Increasing focus on inducing more young to acquire a labour market relevant education and early intervention are underlying many policy changes in recent years.

### 3.2. Unemployment benefits

Unemployment insurance is an add-on insurance requiring membership of an unemployment insurance fund and payment of contributions (unemployment funds are also subsidized by the state, depending on the level of unemployment<sup>10</sup>). Claimants of unemployment benefits are required to be actively searching for jobs and to participate in various activation programmes, see below. The benefit level is the minimum of 90% of the previous income and a cap<sup>11</sup> (2018: DKK 18,403 per month – taxable income). The cap is indexed to wages (but price indexed over the period 2016-23, see above). The cap implies that the replacement rate is declining with income. For the average worker, the replacement rate is 50%-60%, see Økonomisk Råd (2014A) and Dagpengekommissionen (2015b).

Eligibility for unemployment insurance benefits requires a sufficiently strong employment history before the commencement of a benefit spell (since 2012, one year of work within the last three years). When unemployment benefits expire, unemployed transit to social assistance. The drop in compensation depends on the family situation, since social assistance is means-tested on a family basis<sup>12</sup>. Hence, some unemployed may not even be entitled to social assistance if the spouse is having a sufficiently high income.

In recent years there have been two major reforms affecting benefit eligibility and duration.

First, a shortening of the maximal benefit period from four to two years (2010), and a tightening of the employment history required to regain unemployment benefits from 26 weeks to 52 weeks of employment within the preceding three years (2012). When the reform was launched, the business cycle was expected to improve. However, the recovery turned out to be slower than expected, raising concerns that many unemployed would lose their entitlement to unemployment benefits and get the lower means-tested social benefits. To avoid this, several ad hoc measures were implemented to prevent the decline in compensation after a two-year unemployment spell, see Økonomisk Råd (2014A).

---

<sup>10</sup> At current levels of unemployment, about 80% of the expenditures are covered by membership fees.

<sup>11</sup> Newly educated can enter the scheme, but they face a lower cap: 82% of the cap for individuals with breadwinner obligations and 71.5% without. For youth below the age of 25, it is 50% of the cap.

<sup>12</sup> For a single, the social assistance is 11,282 DKK (2018) compared to the unemployment benefit cap of 18,403 DKK.

Second, based on proposals from Dagpengekommisionen (2015a), the scheme has been changed in order to increase the incentive to accept jobs which either have short duration or a lower wage than the previous job<sup>13</sup>. The new scheme – fully implemented during 2017 - measures benefit use on an hourly basis, and by employment it is possible to extend the benefit period from two to three years. Specifically, all unemployed have a so-called employment account. When a benefit spell is initiated, the balance is 3,848 hours, corresponding to a two-year benefit period. Actual unemployment reduces the balance on an hourly basis. The balance can be improved on a 1-2 basis by work (i.e. working for 20 hours increases the balance by 40 hours) within a cap of 962 hours, corresponding to benefits for one year (1924 hours). It is not possible to restart a new two-year benefit period in this way. The benefit level is computed on the basis of the wage income in the 12 months with the highest income within the last 24 months. A supplementary reform – with effect from July 2018 - addresses the problem of unemployment insurance for atypical workers, self-employed etc. The main element is that income from both paid work and self-employed work is counted in relation to the employment eligibility condition, as well as determining the benefit level.

A few studies have assessed the effects of the reduction of the benefit period from four to two years. While there is a clear change in benefit duration, the ad-hoc measures to avoid large dropout rates from unemployment benefits (reduced the decline in benefits) make it impossible to identify the direct effect of the shorter benefit period. The reform effects have been studied by means of duration analyses (see Økonomisk Råd (2014A), Hermansen (2014), Jonassen (2014), Dagpengekommisionen (2015b) and Beskæftigelsesministeriet (2015)), but the studies differ in how they handle the fact that most unemployment spells are shorter than the maximum duration, and that the same person can have frequent in- and outflows from the benefit system. Moreover, there is a complicated issue of interaction with other policy elements. All the studies mentioned find that the shorter benefit period moves forward in time the spike in the transition from unemployment to employment, and there is also indication of some expectation effect, namely that the exit rate at a duration shorter than the two years increases. Økonomisk Råd (2014A) assesses the effect of the reform to be a long-term improvement in structural employment by about 0.5 percentage points (15,000 persons).

### 3.3. Tax incentives

The taxation of labour income includes a gross labour market contribution (8%) and an income tax with two tiers (three tiers before 2009). The base tax rate (*bundskat*) is about 40% and is made up of a municipal tax, health tax, and state tax. For incomes above a certain threshold (2018: 498,900 DKK), there is an additional top tax (*topskat*) of 15%.

The overall direction in tax reforms since the mid-1980s has been to broaden tax bases and reduce marginal tax rates. Important reforms include the tax reform in 2004-07, introducing the earned income tax<sup>14</sup> (and increasing the income threshold so as to lower marginal tax rates for middle-income groups). The reform “Lower Taxes on Work” in 2008 and 2009 lowered taxes in general and stopped the trend increase in the number of top tax payers. The 2009 tax reform (*Forårspakken*) lowered taxes at the bottom, abolished the middle-tier (*mellemskat*) and increased the income threshold for the top tax. Similarly, a 2010 reform froze the income threshold for the top tax. A tax reform in 2012 increased the earned income

---

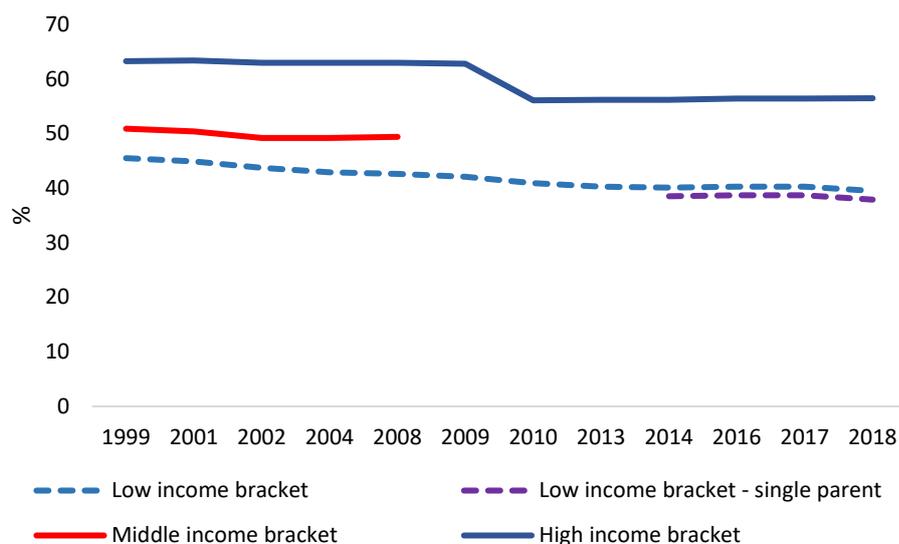
<sup>13</sup> After a benefit spell of four months, one day of benefit entitlement is lost.

<sup>14</sup> Originally, 2% of the wage income up to a cap, and later raised a number of times. In 2018 it is 9.50 %, and the cap is 34,300 DKK.

tax (and included a special provision for single parents), increased the income threshold for the top tax and changed indexation of all transfers, cf. above.

The overall motivation has been to “make work pay” both along the intensive and extensive margin. Figure 7 shows that there has been a downward trend in marginal taxes relevant for decisions along the intensive margin. For the extensive margin, the income gain when moving from receiving transfer to working is relevant. This is measured by the net replacement rate, that is, the after tax value of the transfer relative to the after tax value of income from work. The higher the net replacement rate, the more the social safety net protects against income loss in case of unemployment or other events precluding work, but it also reduces the incentives to return to work. It has been a political objective to make work pay, i.e. to reduce the net replacement rate. Figure 8 shows the share of the work age population having a net-replacement rate either above 80% or 90% (the average net-replacement rate is about 60%), and the effects of the reforms mentioned above are clearly seen. As already noted, incentives to work can not be judged solely from the net replacement rates. There are a number of conditionalities tied to receiving the various benefits, and transfers are therefore not passive in the sense that they can be claimed unconditionally, see below.

**Figure 7: Marginal income tax rate, 1999-2018**

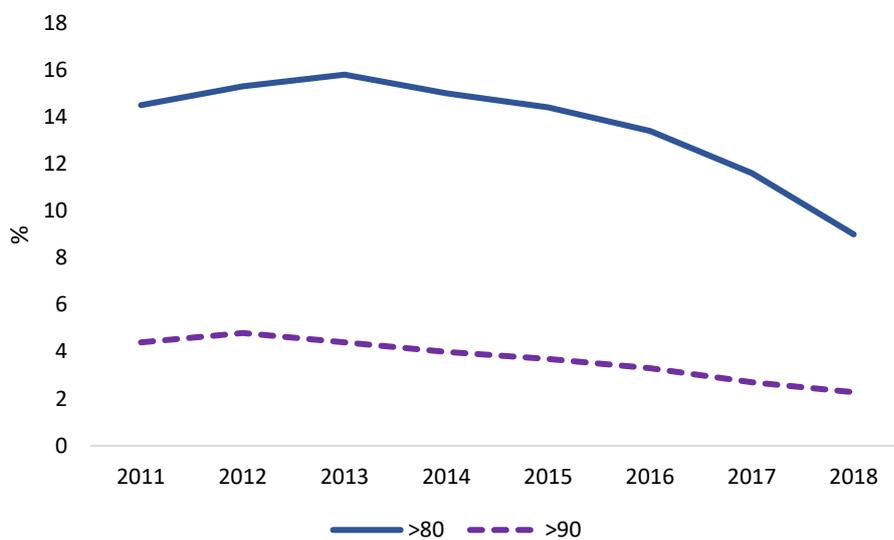


Note: The taxation system has three (since 2009 tow) income brackets with different tax rates.

Source: skm.dk

Labour supply elasticities are crucial for the responses to tax changes. Frederiksen et al. (2001) estimate compensated labour supply elasticity across income deciles for men and women based on survey data, and find, in accordance with international evidence, higher elasticities for women (around 0.15 and significant for most deciles) than for men (around 0.05, but not significant for all deciles). More recent studies analyse the elasticity of taxable income, see e.g. Kleven and Schultz (2014), Schultz (2011) and Bækgaard (2012). These elasticities are generally higher, but may be affected by tax shifting. The Ministry of Finances uses an elasticity of 0.1 (0.04 for men and 0.13 for women) when assessing labour supply responses to tax changes, see Finansministeriet (2012).

**Figure 8: Net compensation rate – share of benefit recipients with net-replacement rates above 80% and 90%, 2011-2017**



Note: Age group 18-64 years. The net replacement rate is the after tax value of benefits relative to the after tax value of wage income. For individuals without job the latter is imputed based on education, experience etc. The replacement rate is applies for non-employed on either social assistance or unemployment benefits.

Source: For 2011-2012: Økonomi- og Indenrigsministeriet: Familiernes økonomi 2014; for 2013, 2017, 2018, Skatteministeriet: Familiernes økonomi 2016.

A few studies attempt to assess more targeted measures to make work pay. Hansen et al. (2013) analyse a tax-free job-premium (4% of the wage income up to 600 DKK per month) available between January 2011 and December 2011 targeted single parents. The subsidy increased the gain from work to low income groups by about 70%. The study finds a significant positive effect corresponding to six weeks additional employment, corresponding to an annual increase in employment by 450-900 persons (fulltime equivalents). Kolodziejczyk and Arendt (2017) also study this scheme as well as a similar scheme targeting long-term unemployed, but do not find a significant employment effect. Carstensen and Schultz (2016) analyse the effect of an extra earned income tax for single parents (fully implemented in 2014) of 5.6% (max 5,250 DKK – after tax value), and they find that employment increased by 3-5% compared to singles without children.

#### 4. Activation

Activation policies are an integral part of the Danish flexicurity model, and Denmark is the OECD country spending most on active labour market policies (2017: 2.1% of GDP). The specific design of the active labour market policy has changed in light of the labour market situation and new evidence, see e.g. Andersen and Svarer (2012).

Until a reform in 2015, the rules for activation were rather rigid and detailed based on a distinction between contact and activation. An unemployed (whether on unemployment benefits or social assistance) had to make a CV available on the job centre website within the first four weeks as unemployed, and participate in interviews on job-search and labour market availability at the job centre at least every 3rd

month. Unemployed had a right and duty to activation after 9 months of unemployment (variable duration), and thereafter every 6 months. For youth (below age 30) there were similar detailed but more demanding rules, see e.g. Andersen and Svarer (2012) and Ekspertgruppen om udredningen af den aktive beskæftigelsesindsats (2014). This system was criticized for being too rigid and focusing more on meeting the formal requirements rather than finding the programme activities most effective for the unemployed. Moreover, the quality of many activation programmes were considered low and the content in some cases even meaningless.

The intention of the 2015 reform is to make active labour market policies more flexible and directed towards labour market needs, and it entails a more individual focus relying more on job-search/matching as well as incentives to ensure a quick return to employment. For the first part of the unemployment spell (3 months for persons below the age of 30, 6 months for persons aged 30 to 49, and 3 months for persons above age 50), the main intervention is meetings and counselling to strengthen and target job-search, and this is then followed by (right-and-duty) programme participation. There is no longer a right-and-duty to participate in a second activation spell. In addition, all unemployed have a right (also possible before the reform) to participate in an education programme with a duration of up to six weeks (individually chosen from a short list). The pendula has thus swung from very rigid activation policies to more flexible policies. Since these changes are relatively recent, they have not been evaluated.

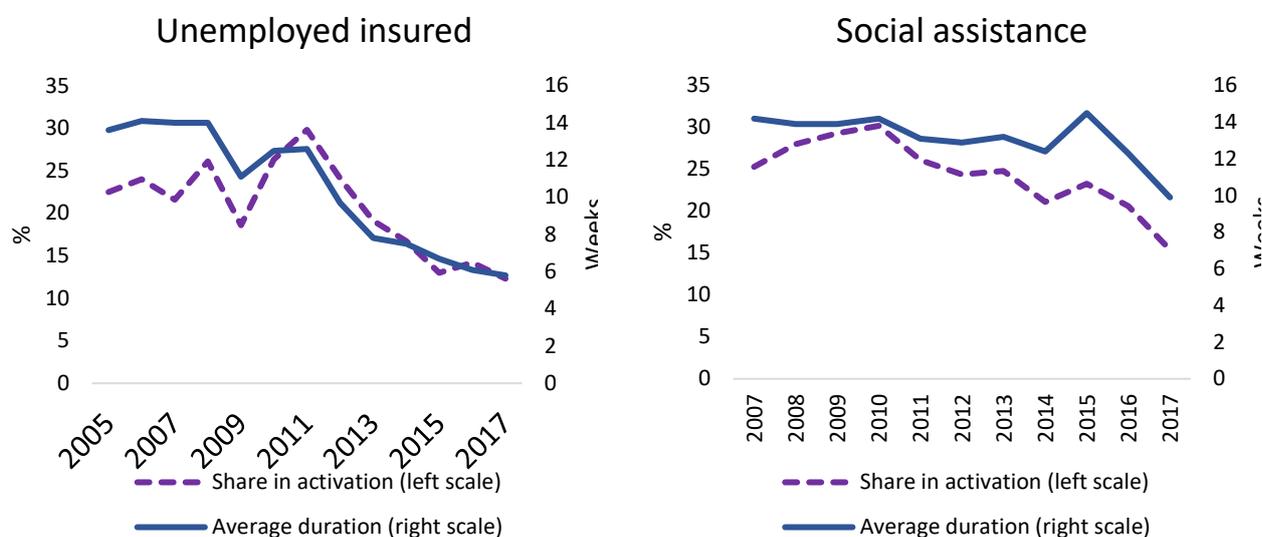
Until 2013 recipients of social assistance were categorized in three so-called match-groups<sup>15</sup>: I) Job-ready - individuals with no problems except unemployment, available for a job and with scope to become self-supportive within 3 months. II) Ready for activity - individuals who are not at present ready to start working, but are capable of participating in a programme activity aiming at later employment. III) Temporarily passive - individuals neither ready for a job nor for participation in a programme activity aiming at later employment. The grouping serves to better target the measures to the situation of the individual. This system was abolished in 2013 and replaced by a system distinguishing between those being capable of education/ordinary jobs (*uddannelsesparat/jobparat*) and those who should be activated (*aktivitetsparat*).

The developments in activation policies is illustrated in Figure 9, showing the share of recipients of unemployment and social assistance in activation (left hand scale), and the duration of the activation activity (right hand scale). There is a downward decline in both the share in activation and its duration for both groups, but strongest for recipients of unemployment benefits. The decline should be seen in the light of an increasing inflow into unemployment and social assistance due to the financial crises. For the most recent years – where the business cycle has normalized – the decline is more directly related to the policy shift. A new reform is going to simplify the rules further and give more freedom at the local level to design the most appropriate forms of programmes.

---

<sup>15</sup> Earlier there were five groupings.

**Figure 9: Share of recipients of unemployment benefits and social assistance in activation, and duration of activation, 2005-2017**



Datasource: [www.jobindsats.dk](http://www.jobindsats.dk)

It is difficult empirically to discern the effects of activation policies. Most studies tend to focus on the direct effect in terms of locking-in effects and post-programme effects on employment. While these elements are important, activation also has crucial indirect (general equilibrium) effects, see Andersen and Svarer (2013). Activation is part of the eligibility conditions for social transfers (unemployment benefits and social assistance) and thus serves to attach stronger requirements to receiving benefits. This may in turn have an incentive effect lowering the reservation requirements to jobs (type of job, location, employer, wage etc.). This is sometimes termed a threat or motivation effect. There is a related screening effect, since activation makes it more difficult to claim benefits while not being interested in work or working in the black sector. Related to the above, there may also be a wage effect, since activation not only has a direct effect on participants but also affects the fall back position of employed if they become unemployed. Under standard assumptions, this leads to wage moderation. Hence, a proper assessment of the effects of activation is very difficult, and care should be taken in making conclusions from partial analyses.

Various assessments have been made of ALMP in Denmark (see e.g. Ekspertgruppen om udredningen af den aktive beskæftigelsesindsats (2014)), and the general findings are matching findings from studies for other countries, see e.g. Kluve (2006) and Card et al. (2010, 2018). Private job training and counselling have the most clear effects, while the effect of public job training and education is more unclear. In Rosholm and Svarer (2008) it is shown that in general activation has a locking-in effect. Private job training and education improve qualifications, while there is no statistical significant effect from public job training and other forms of activation. This study also finds a threat/motivation effect from all forms of activation that tend to shorten the duration of unemployment spells. Overall, it is assessed that when taking into account the locking-in, the qualification, and the motivation effect, activation contributes to higher job finding rates and thus lower duration of average unemployment spells.

Økonomisk Råd (2007) considers the motivation, locking-in, and qualification effect of all forms of activation. In general, activation has a locking-in effect. There is a positive employment effect due to improved qualifications from private job training, but a negative effect from other forms of activation. In addition, a positive motivation effect is found. The study is not able to find any positive effects of educational activation, not even 5-6 years after participation. Positive long-run employment effects from private job training are also found in Jespersen et al. (2008), while there is no such effect from public job-training or educational activation programmes.

Educational activation programmes are analysed in Christensen and Jacobsen (2009) with particular focus on the locking-in and motivation effect, see also Arendt and Pozzoli (2014a) for a survey. There is no short- or long-run (5 years) positive employment effect from ordinary education for persons becoming unemployed in 2002. However, positive effects are found for persons who became unemployed in 1995. This difference may arise due to a different business cycle situation or the horizon for the effect to show up. For both groups there are positive effects of private job training. It is also found that the effects of all forms of activation are better when unemployment is low (less locking-in), but the direct effect of the programme is not different across business cycle situations. For counselling and targeted education programmes, there is evidence of negative locking-in effects and positive programme effects, but the net effects are uncertain or possibly negative, see Arendt (2014). Svarer (2011) studies the effects of benefit sanctions in cases where the activation requirements are not met, and finds that even moderate sanctions increase the transition from unemployment to work. There is indication that immigrants - especially men - react more than ethnic Danes to such measures.

The programme "Early start" (*Hurtigt i gang*) has made it possible to make an experimental design of the effects of active labour market policy. In this programme, half the participants received the activation offers as prescribed by the rules, while the other half received an early and more intensive intervention. The programme was launched in 2005-6 and repeated in 2008-09 to allow for a more specific evaluation of the applied activities. The general finding is that the early intervention has contributed to enhance employment prospects, corresponding to a shortening of the duration of unemployment spells by 3 weeks (see Graversen et al. (2007), Rosholm (2008), and Rosholm and Svarer (2009)). Cost benefit analyses show that the increased employment can cover the costs of running the programme.

#### 4.1 Wage subsidies and job rotation

Hiring with a wage subsidy is a possibility for unemployed in activation, and the purpose is to provide qualifications, experience and a network to increase the prospects of finding a job on regular terms. The wage subsidy is available for jobs in both the private and public sector, but the rules differ. Special rules also apply to newly educated and people on disability or sickness payment.

Generally, a wage subsidy cannot be received unless the unemployment spell has lasted at least 6 months (possibly shorter for persons above age 50, single parents and persons with no labour market relevant education). The maximum duration for a job with wage subsidy is 6 months.

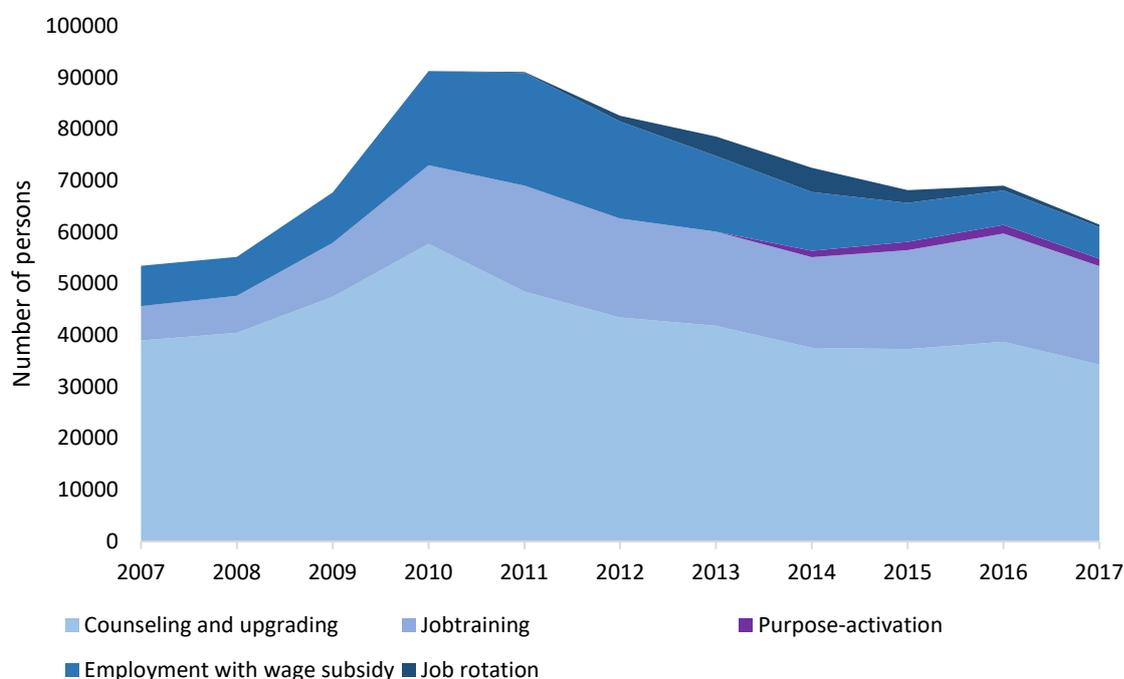
In the private sector the hiring and thus pay is in accordance with the collective agreement, and the firm gets a subsidy (2018: 78.12 DKK per hour, for comparison the minimum wage of a metal worker is 122 DKK per hour). In the public sector the hourly wage is given (2018: 126.32 DKK per hour), corresponding to the

maximum benefit to be received as unemployed, and the workplace gets a subsidy (2018: 113.46 DKK). For persons in job training, the employer has no wage expenditure.

A job rotation scheme gives employers an incentive to upgrade the qualifications of employees and at the same time allow unemployed to gain work experience and establish a network. An employer can thus have an employee in further education and a temporary replacement by hiring an unemployed. The employee in education receives the normal wage during the entire duration of the education programme, and the temporary replacement is hired in accordance with the collective agreements in the relevant area. The replacement must have been unemployed for at least 6 months and be approved by the job centre. The employer – both private and public - gets a subsidy (2018: 188.73 DKK per hour)

For vocational education programmes there are trainee periods in firms (or in schools as a fall-back option), but there is in general a shortage of such options. All firms have an interest in a well-educated labour force, but some firms free ride on the educational activities of other firms. To ensure an equal burden sharing in providing work placements of trainees, all firms contribute (proportional to the number of employees) to a scheme (*AUB: arbejdsgivernes uddannelsesbidrag*), and firms accepting trainees are compensated from the fund. The compensation covers the salary of the trainee when attending school. As a result of a tripartite agreement, all firms are required (2018) to have trainees (1 per 25 full time employed with vocational training), and if not meeting this norm, an extra contribution has to be made to the scheme. Firms exceeding the norm receive a bonus.

**Figure 10: Number of people in activation by type, 2007-2017**



Note: Number of people on activity in the respective years (the stock). Does not include flexjobs.

Source: [www.statistikbanken.dk](http://www.statistikbanken.dk)

## 5. The young

Various efforts have been made both to increase the level of education as well as making students complete their education on time. Most young commence an education, but drop-out rates are high for some groups, and about 1/6 of a cohort does not obtain a labour market relevant education. Moreover, there has been a tendency to commence education later, and to delay completion. This reduces the social gains from education, and therefore efforts have been made to change this situation.

### 5.1. Study grants

A reform of study grants from 2013 strengthens eligibility conditions and provides economic incentives to start studying earlier and to complete education on time (bonus). This reform has not been assessed, and there are only few empirical studies on the effects of the Danish study grant system. A couple of papers exploit a reform in 1988 making the system slightly more generous to analyse how study grants affect enrolment, drop-out rates and completion. These studies find that increased subsidies increase enrolment, but the effects are small, possibly reflecting that subsidies are already high at the outset, see Nielsen et al. (2010) and Mattana (2018). Subsidies tend to reduce dropout rates for students with a relatively disadvantaged background, but there is no effect for other groups (Arendt (2013)). Subsidies also reduce students' spare time jobs, but do not have any general effect on the speed at which students complete their education, see Arendt (2013).

There is an ongoing discussion on the design of the student support scheme, including the split between grants and loans, see Økonomisk Råd (2018S)

### 5.2. Youth package

A tension arises between the social safety net and educational incentives. While study grants are relatively generous, they are significantly below wage income, also for unskilled. From an education perspective, this is motivated by education being an investment, and the low income while studying is compensated by higher income later in life. The social safety net for people in the working-age group is designed to offer income support or insurance in case of failure to support oneself in case of unemployment, sickness etc. The level of benefits is thus determined to ensure a given replacement rate, and the level of benefits is therefore significantly above study grants.

Income insurance and educational incentives are thus at a possible conflict. As an example, the study grant constituted (pre recent reforms) about 50% of the social assistance to a single person. An educational "trap" may arise for non-educated youth, since commencing an education would in the short run lead to a fall in income compared to receiving social assistance benefits. In combination with habit formation in relation to living standards and/or myopia related to the assessment of future gains from education, this may be an obstacle to education.

Related, it has been argued that the insurance, and thus the level of social assistance, provided for the young should differ from that offered to more mature individuals, since the insurance should be seen relative to what one could expect as young and relative to the income of peers (in education). This is related to the debate on whether the incentive to be in work is sufficiently strong. In short, how to balance insurance and incentives of welfare arrangements for youth in relation to both education and work is far from trivial.

A first step towards addressing this problem was made in 1996, implying a differentiation for youth below the age of 25. Activation requirements were tightened (with a large focus on training) and benefits reduced to a level closed to the level of study grants for those who do not participate in education. The overall idea is that training/education should never be economically less attractive than being on benefits.

A large reform of the social assistance (cash benefit) scheme took effect in January 2014 to strengthen work incentives, see Section 3 and Andersen (2017a). The part applying to youth introduced both an age and an education contingency into the eligibility conditions in the basic part of the social safety net.

The reform makes an age distinction at 30. Different and stricter rules apply to individuals below the age of 30. For individuals below age 30, a further distinction is made between those holding a labour market relevant education and those who do not. For the former group, social assistance benefits are as for those above the age of 30, but more strict activation requirements apply, see below.

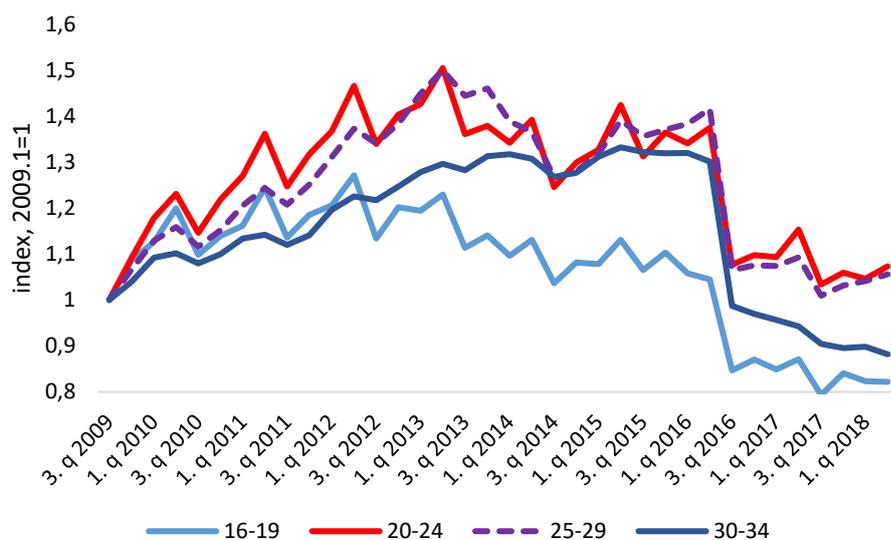
Persons in the age group below 30 without a labour market qualifying education are no longer eligible for the normal social assistance, instead they are eligible for a so-called education assistance (education cash benefits), which is at the level of study grants. As an example, for a single, the benefit was reduced by almost 50% compared to benefits available before the reform (less for parents with dependable children). Moreover, there is full-time activation in the form of education - an "education mandate" - which means that ordinary education should be commenced (unless becoming employed). If there is an interim period until ordinary education can be commenced, the individual must be in full time activation during that period. Individuals not considered ready to commence an education are, as a rule, offered schemes to prepare them for undertaking and completing an ordinary education within one year. For those not considered capable of completing a labour market relevant education, a special programme is offered (*nytteaktivering*). Recipients neither ready for education nor employment may receive a so-called activity supplement when participating in activation programmes.

A key motivation for the reform is to strengthen economic incentives both for work and education. The reduced benefit level aims to strengthen work incentives. Removal of short-run economic disincentives to education as well as activation in the form of ordinary education is intended to reduce the group of youth without a labour market relevant education. The flipside of these initiatives is the reduced income support to youth without a job.

The activation part includes the usual motivation, locking-in and programme effects, see Section 3. Using ordinary education as an activation programme (effectively mandatory education) is a new element in activation policies, where specific short-term courses and programmes targeted unemployed were usually applied. If programme participants succeed in obtaining a labour market relevant education, this likely provides a more robust platform than the various short-term courses. Mandatory education raises a number of questions. If youth have abstained from education due to habit formation or myopia, a mandated education may work. However, in most cases individuals belonging to the target group (age group 25-29) have been enrolled in an education at some point in time, but failed to complete the education. Whether drop-out is due to lack of motivation or weak proficiencies is unclear, but in either case it is not clear whether a mandate would overcome those barriers. It is easy to make people enrol in education if it is a take-it-or-leave-it offer, but it is difficult to bring it to a successful completion.

For the age group 25-29, the immediate effect of the reform was a shift of a substantial part of the group from being on cash benefits to receiving education benefits, and therefore into “education activation”. A direct effect of the reform was that youth below the age of 30 without a qualifying education could no longer obtain social assistance. Around the time of the reform implementation in 2016 (which was announced with a lead-time of about eight months), there was a noticeable decline in the total number of persons in the target group on benefits. Figure 11 shows the post-financial crisis development in the number of recipients of social assistance or education cash benefits among different young age groups. The trend decline for the age group 16-19 matches the trend increase in education intake. For the age group 30-34, there has been a steady increase over this period. For the age groups 20-24 and 25-29, the developments have been more volatile, but very similar. There is a visible decline in the number of persons claiming social or education cash benefits in 2016 (see Figure 11), indicating an increased outflow into either employment or ordinary education. Whether this is mirrored in more completing education has not been analysed.

**Figure 11: Number of claimants of social and education assistance, 2009.1- 2016.4. (index 2009.3 =1)**



Note: Non seasonally adjusted data

Data source: [www.jobindsats.dk](http://www.jobindsats.dk)

Note that for all age groups, there is a marked decline in the total number of benefit recipients after 2016. The main reason is the employment criterion required to qualify for full benefits. This reform element has thus accomplished a fall in expenditures on social benefits, and more have commenced education.

There are a few studies exploring the effects of the reform for the age group 25-29 that exploit individual data. Both the Ministry of Employment (2014, 2016) and the Økonomisk Råd (2015A) find that the reform reduced the inflow to and the outflow from the group of benefit recipients. The largest effect on outflow is

into education, but there is also evidence of a positive employment effect. These studies focus on the effects immediately after the implementation of the reform.

The later experience, especially the fact that the developments for the age groups 20-24 and 25-29 have been very similar both before and after the reform, suggests that the reform has not caused a major trend change in the number of youth claiming benefits. A key aim of the reform is to make more youth complete qualifying education or attain a more stable employment relationship, but it is premature to assess whether the reform has succeeded in achieving this.

## 6. The old

Among the many reforms, the most quantitatively important reforms measured in terms of employment effects are those affecting retirement ages, cf. above. These reforms should be seen in perspective of both the early retirement scheme introduced in the late 1970s and the increasing longevity.

Historically, employment rates for the age group in the early 60s have been low in international comparison, see Figure 3. This has mainly been attributed to an early retirement scheme introduced in 1979 to allow workers with hard physical work to retire up to 5 years earlier than the statutory retirement age. It was also a motivation that the early retirement of old would facilitate the entry of youth into the labour market. The scheme has been vividly discussed over the years, as it turned out to be used more widely (and thus to be more costly) than originally expected. Therefore, a sequence of reforms have restricted eligibility and made the scheme less attractive (by making the system contribution-based (though still subsidized), by lowering the benefit level, and by offering premiums to those who abstain from using the scheme).

The major elements in recent reforms – the “welfare reform” (2006) and the “retirement reform” (2011) – are changes in the statutory retirement ages for both early retirement and public pensions<sup>16</sup>. The first element of the reform package includes step increases in the early retirement age from 60 to 62 years over the period 2014-17, a shortening of the early retirement<sup>17</sup> period from five to three years over the years 2018-19 and 2022-23 (implying an early retirement age of 64 in 2023), and step increases in the pension age from 65 to 67 years over the period 2019-22. The second element is an indexation of the early retirement age and pension age to the development in life expectancy at the age of 60 in order to target

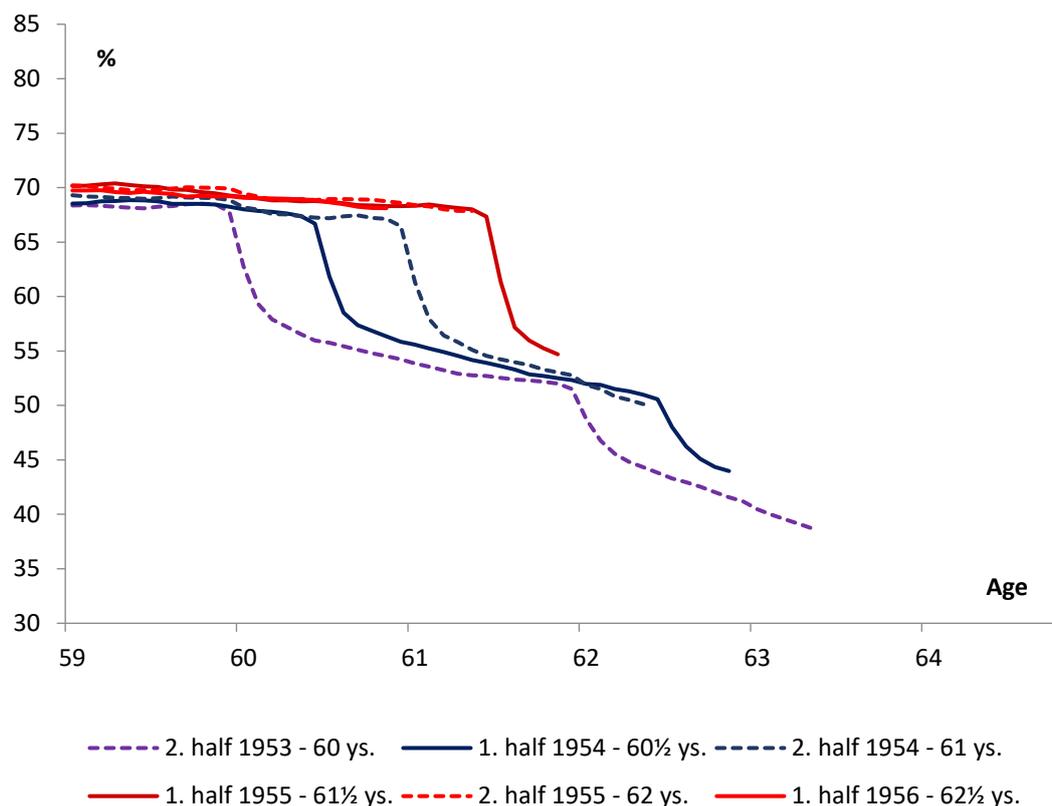
---

<sup>16</sup> The public pension consists of a base pension plus supplements. All above the pension age are entitled to the base pension (work tested), but the supplements are means-tested. The base pension thus comes close to a universal transfer available to all satisfying the age criterion. The public pensions should be seen together with private pension arrangements. Many are covered by a labour market pension arrangement to which comes voluntary private pension saving and other forms of saving. The labour market pensions are funded schemes where the contributions and returns on investment determine the future pension.

<sup>17</sup> The early retirement scheme is contribution-based (but with public subsidies) and allows the individual to leave the labour market earlier (early retirement was originally available between the age of 60 and 65). Early retirement is a possibility of retirement prior to the statutory pension age for persons who have contributed to the scheme for at least 30 years

the expected pension period to 14.5 years<sup>18</sup> (17.5 including early retirement) in the long run<sup>19</sup> (currently about 18.5/23.5 years). While the expected pension period has been growing for a number of years due to given statutory retirement ages and increasing longevity, these reforms will reverse this trend and in the long run ensure an expected pension period of 14.5 years. A senior disability scheme has been introduced targeting persons close to the pension age having impaired working capabilities, see Section 7.

**Figure 12: Cohort-specific age-dependent employment rates**



Source: Economic Council (2017A).

Numerous empirical studies have considered the actual retirement behaviour in Denmark. The tapering of the age dependent employment rates in the late 50s rather than early 60s in e.g. Norway and Sweden has been attributed to the early retirement scheme, see e.g. Velfærdskommissionen (2006), Økonomisk Råd (2017A), Arnberg and Stephensen (2013, 2015), Gupta et al. (2004, 2010), and Larsen and Pedersen (2013). These findings are in accordance with international evidence documenting that the statutory retirement ages (early retirement and pensions) play an important role for retirement decisions, implying a bunching of retirement around the statutory retirement age, see e.g. Gruber and Wise (2004). The effects of recently

<sup>18</sup> This implies that the retirement period relative to the length of the work period is declining, also in the long run. This is a more harsh indexation than the “proportional” model adopted in Finland and Sweden, where increases in longevity are shared between work and retirement.

<sup>19</sup> The system is semi-automatic since a change has to be approved in parliament every fifth year. The changes are smoothed since the change in the pension age can never be below 6 months and above 12 months. Changes in the pension ages are announced with a lead time of 15 years, implying that the first change decided in 2015 will be implemented in 2030 (2027 for early retirement).

implemented reforms are already discernible from the data, cf. Figure 12 showing age dependent employment rates for various cohorts differing in birth by six months intervals. The developments are rather stunning and show the strong effect of changes in statutory retirement ages on actual retirement behaviour. In the early 2000s, the number of persons on early retirement peaked at about 180,000 persons (with an annual inflow of about 40,000 persons); in 2017 it had been reduced to 72,000 persons (with an annual inflow of 15,000 persons). It should be noted that a different education composition across cohorts also contributes to increase the effective retirement age. In a forward perspective – with the large implied increases in the statutory pension age following from the indexation scheme – it is an open question how actual retirement behaviour will respond. An increasing number of households have accumulated significant pension wealth via mandatory labour market pensions, and this increases the scope for voluntary retirement. Another issue is the fact that while increasing longevity is so-called healthy ageing for the average person, this is not so for all, and this may create a tension between the increasing pension age and the recent tightening of health/work conditions to be eligible for disability pension (see below).

## 7. Disability/flexible retirement/sickness

In case of sickness, all employed, self-employed and unemployed are eligible to sickness pay. Individuals with severe loss of work capability can obtain a disability pension, and so-called flex-jobs are available to allow individuals to use their remaining work capability. These schemes have recently been reformed, not least in light of the increasing number of persons receiving disability pensions (the reason for granting disability pension shifting from physical to psychological diagnosis), see Figure 5. The active focus also applies to individuals with reduced work capabilities. The aim is to identify realistic job possibilities to exploit the remaining work ability.

The sickness pay system was reformed in 2014/2015 including both earlier monitoring and assessment of possibilities of returning to work and a possibility to prolong sickness payment if a return to job is likely. Sickness pay compensates for the income loss during sickness (in 2018 up to a cap of 4,200 DKK per week), and can only be received for 22 weeks within the preceding 9 months. Before ceasing sickness pay, the municipality is obliged to assess the situation of the individual, and it is possible to prolong sickness pay up to 134 weeks if a medical examination shows that it is likely that return to work will become possible. If not, the individual enters a programme to settle the future scope for returning to work. There is an elaborate system of early contact and monitoring to follow the individual, and this system has been changed in the direction of earlier intervention.

A large reform of the disability scheme was implemented in 2013. The general direction of the reform is to make use of the individual's ability to work, even if it is impaired. The new system distinguishes between persons below and above the age of 40. As a rule, disability pensions cannot be granted to individuals below the age of 40, unless the individual is incapable of work. For individuals below 40 years, a flex-job is offered for up to five years, upon which the ability to work has to be reassessed. A flex-job is intended to make use of the person's remaining capability to work, and may thus be with reduced hours of work over the week, or specific job functions. The wage is in accordance with collective agreements, and the employer pays only for the work provided. The municipality pays a supplement to the individual to ensure a sufficient total income. The supplement corresponds to the maximum unemployment benefit and is

reduced against wage income<sup>20</sup>. The sum of the wage income and the supplement cannot exceed the wage income corresponding to full-time work in the job.

Rehabilitation is offered when other forms of activity or intervention according to the employment system have proven insufficient. The benefit during rehabilitation depends on age, family situation, health situation, and previous income. The target group are those who, to some extent, have realistic prospects of returning to the labour market.

A senior disability pension (introduced in 2014) is available for individuals with reduced work capability making self-support via ordinary work or a flex-job impossible (same criterion as for disability pension) and having less than five years to retirement (and minimum 25 years of full-time employment). Under this scheme, the individual is exempted from participation in the job clarification programme. So far few have used this scheme.

There is evidence supporting that focus on early intervention increases employment. Phillip et al. (2016) find that the disability reform has effects primarily for youth, leading to employment or education, while flex-jobs have not improved the attachment to the labour market. Rosholm et al. (2016) find that the reform of sickness pay has had some timing effect on the transition out of sickness pay, in particular that the anticipation of early intervention has improved the transition rate into employment (see also Deloitte (2017)). It should also be noted that tightening of eligibility criteria for some benefit types may spill over in higher take-up rates for other types of benefits, see e.g. Økonomisk Råd (2017A). An aspect which is not captured by most analyses.

## 8. Immigrants

Migrants, especially from non-western or so-called low-income countries, play an important role in policy debates. As shown in Section 1 employment rates of immigrants and descendants from low-income countries are much lower than for ethnic Danes, both for men and women. It should be noted that while the employment gap of immigrants from low income groups is high in Denmark – and the other Nordic countries – the employment level is on par with what is seen in other countries, see e.g. EEAG (2016).

The high employment rates for both men and women are setting the bar high for employment rates for immigrants. This should be seen relative to the structure of the welfare model. While, on the one hand, it supports a high employment rate for both men and women through various channels, on the other hand it critically relies on achieving high employment rates. With a generous tax financed social safety net, it follows that public finances are very sensitive to the employment rate. Ensuring a high employment rate is thus a precondition for the financial viability of the welfare model. Numerous studies have been made on how immigration affects public finances, see e.g. Velfærdskommissionen (2006), Hansen et al. (2015), and Finansministeriet (2017b). The general lesson from these studies is that it is very difficult to generalize on how migration affects public finances. The group of immigrants is very heterogeneous along many dimensions, which means that the issue cannot meaningfully be condensed in one conclusion. It is also

---

<sup>20</sup> The supplement is reduced depending on the wage income from the flexjob (and possible other income). The taper rate is 30 % up to income before tax (2018) kr.14.398 and 55% for income above this threshold. The supplement cannot exceed 98% of the maximal unemployment benefits, (2018) kr. 18.260.

clear from these studies that the public finance consequences unsurprisingly depend on the employment rates of the various groups of immigrants. It follows that if immigrant groups have employment rates below the average, it has a negative effect on public finances, and vice versa. Hence, immigration from high-income countries (higher share of migrant workers, students, well-educated etc.) may improve (be neutral) public finances, while immigration from low-income countries (more asylum seekers, family reunification, lower qualifications etc.) tends to worsen public finances.

The large employment gap for immigrants from low-income countries has spurred a debate whether this is due to lack of qualifications<sup>21</sup>, insufficient incentives to be in work, different cultures (including language) or norms with respect to e.g. gender roles or discrimination<sup>22</sup>. Two aspects have in particular been in focus. One is whether the compressed wage structure and high minimum wages make labour market entry particularly difficult for this group. The other is whether the generosity of welfare benefits<sup>23</sup> – especially if the living standard is seen relative to the country of origin – is reducing work incentives. The policy debate on immigration has been intense in Denmark, and various policy initiatives have been undertaken.

First, immigration rules have been tightened. International conventions and EU-rules limit the room for manoeuvre. There has been tightening as regards the possibilities of family unification. For voluntary migrants from outside EU, there are selection criteria depending on qualifications, job opportunities etc. The latter follows an international trend with a “race to the top” to attract the best qualified labour. It falls outside the scope of this paper to review these changes; for an account see e.g. Schultz-Nielsen (2016).

Second, there have been several changes in the social safety net prompted by immigration issues. The welfare model builds on the principle of universality; that is, equal rights for all independent of past history (employment, tax payments etc.). However, various conditionalities have been built into the system motivated by migration both as a deterrent (welfare migrants) and to strengthen work incentives. The main elements are the residence principle, the employment requirement and the cap on transfers, see Section 3. There has been frequent policy changes in this area, reflecting the sensitivity of the issue and the divided political views. However, the trend in recent years has been towards a tightening of the rules on both immigration and access to the social safety net.

While those changes are general and therefore apply to all, they affect immigrants more due to their larger dependence on social assistance. In 2017, slightly more than 25% of the recipients of social assistance are immigrants from non-western countries, while their share of the population is about 7-8%. In 2006 immigrants constituted 81% of those receiving start aid, 93% of those affected by the 300-hours rule and 68% of those reaching the ceiling for total social assistance, see Dahl et al. (2009). A large share of those falling under the poverty line are on social assistance. There is an overrepresentation of individuals with no or very low employment, among whom there are many immigrants from low-income countries, see Ekspertudvalg om fattigdomsgrænse (2013). Similar conclusions are found when considering living standards and deprivation, see Benjaminsen et al. (2016). Moreover, it should be noted that these

---

<sup>21</sup> The qualifications acquired in the country of origin are either not usable or used to an insufficient degree, see Andersen (2013) and Arendt et al. (2012).

<sup>22</sup> Gupta and Kromann (2014) find that second-generation immigrants with a high-school or primary school education, in particular females, perform as well or better than their ethnic counterparts with similar parental characteristics and informal network quality.

<sup>23</sup> Migrants from non-western countries are overrepresented among recipients of benefits (also after control for various background factors), see Andersen (2013).

additional eligibility criteria imply that some may not be entitled to any form of social benefits<sup>24</sup>. As noted above, an increasing number of people are neither in jobs, education or receiving some social benefit<sup>25</sup>.

Thirdly, there has been various measures to ease the transition into ordinary employment for immigrants. The reasoning was captured by the so-called staircase model by which the gap the immigrant is facing in relation to meeting the labour market requirements to be employed on ordinary terms should be closed in four steps: a) counselling and qualifications, b) job training, c) employment with wage subsidies, and d) employment at ordinary terms, see e.g. Velfærdskommissionen (2006). The specific elements and instruments have varied over time. The important elements of the current system are:

An integration programme – agreement between the government and municipalities - ensuring that all immigrants receive a job-directed offer in the form of either job-training or employment with a wage subsidy no later than one month after arrival.

A tripartite three-year agreement called IGU (*integrationsgrunduddannelse*) made in 2016 aims at reaching an employment rate of 50% for refugees/immigrants from low-income countries. The focus is on early clarification of individual qualifications and competencies and thus realistic job opportunities. All refugees are considered so-called “job-ready” (*job-parate*), implying that focus is on how to bring the person in employment (or need for education to make employment possible). All refugees in the age group 18 to 40 years can be offered a two-year programme, including both job training and education, depending on the individual’s education and experience. Importantly, firms can hire at a wage corresponding to apprentice pay, which is below the minimum wage.

From the start in mid-2016 to mid-2018, about 1,500 persons have been enrolled in the scheme. It is too early to assess the consequences of these recent changes. The changed approach of considering all refugees “job-ready” has obviously implied an increase in the registered number of job-ready but unemployed refugees. Recently, there has been some increase in the employment rate for refugees, but this may be attributed to a longer period of residence among the population of refugees and the business cycle up-turn rather than the change in the rules, see Økonomisk Råd (2018S).

While the changes in the social safety net are general, they have been motivated by migration, and it is therefore of relevance to assess the effects of the reforms on this target group. A number of studies exploit the quasi-experimental setting arising from the launch of introduction benefits in 2002, making it possible to construct a treatment group of those arriving just after the change and a control group with those arriving just prior to the change (arrival time can reasonably be expected to be unaffected by the policy change). Moreover, control is made for various background factors, see Huynh et al. (2007, 2010), Andersen et al. (2012) and Rosholm and Vejlin (2010). In Andersen et al. (2012) the relation between the employment rate and the duration of residence is considered both to assess the impact effect (in 2003) and the long-term effect (in 2006). After 16 months the employment rate for the treatment group is 14%, compared to 8 % for the control group (a difference of about 75%). After 52 months the employment rate

---

<sup>24</sup> For couples where both are on social assistance, the employment criterion implies that they not both can receive social assistance.

<sup>25</sup> From April 2016 to October 2017 about 63.700 persons exited from social assistance (*kontanthjælp*). About 20.000 persons became employed, 13.700 persons enrolled in education, 16.600 persons were on a different type of social benefit, and 4.100 persons died or migrated. Hence, about 9.300 persons do not have any form of official income source and hence likely depending on family/friends for economic support.

is 42% for the treatment group and 30% for the control group. The reform thus has a statistically significant effect on the employment rate. For both groups, employment rates increase with the duration of the stay, and the difference narrows. There is no difference in the type of jobs the two groups find. Andersen et al. (2012) also find that a larger share of the treatment group has ceased receiving benefits for other reasons than transiting to employment.

Whether these effects are large or small is open for discussion. First, they may be taken to reflect that labour market possibilities for this group are more constrained by insufficient qualifications in the broad sense rather than work incentives. Second, the findings highlight that benefit reductions involve a trade-off between the gains to those finding a job and the costs to the rest ending up with lower benefits and thus living standards. This may also be associated with implied dynamic effects, which could be positive for children growing up in families where the parents are in work and negative for those children growing up in families close to or below the poverty line. Jakobsen et al. (2017) consider the effect of benefit reduction on educational outcomes of the children, but do not find an effect. Moreover, children of refugees affected by the reform do not work more in their youth to compensate for lower family income

A number of studies have considered the effects of activation programmes of various types on immigrants from low-income (non-western) countries, see Arendt et al. (2016), Clausen et al. (2009), Graversen and Jensen (2010), Graversen and Weise (2011), Heinesen et al. (2011), Kjærsgaard and Heinesen (2012), Rosholm and Svarer (2009) and Staghøj et al. (2010). These programmes involve elements specifically targeted this group (like the introduction programme) and general policies (see Section 3) also affecting this group. For the latter the effects may be different for this group than other groups. Arendt and Pozzoli (2014b) provide a survey of the abovementioned studies and related international studies, and the findings are generally in line with the general effects of activation discussed in Section 3. The overall finding is that there are positive effects of wage subsidies for private jobs, and these are possibly larger for immigrants from non-western countries. Wage subsidies for public jobs have a locking-in effect and a positive programme effect, making the net effect positive. Activation in private firms has a positive effect, while the effect of educational activation is less clear. For the specific integration programmes, Clausen et al. (2009) find that language training does not have a positive programme effect, activation in private firms has a positive effect, while the effect is negative or zero for the public sector.

## 9. Life-long learning

A rather elaborate system provides possibilities for life-long learning either to compensate for lack of education earlier in life or to up-date qualifications, possibly redirecting the focus to areas with better employment prospects. From the supply side, one can distinguish three levels: i) basic training which mainly aims at ensuring sufficient proficiency in reading, writing, math etc., ii) job-specific training, and iii) further education leading to qualifications at a higher level (typically within the ordinary education system). A tripartite agreement in 2017 aims to strengthen life-long learning, and further funding has been provided. The design of life-long learning policies is currently being debated, see Ekspertgruppe for voksen-, efter-, og videreuddannelse (2017).

The core element in the system is the job-specific training, in which AMU-courses (*arbejdsmarkedsrettede uddannelser*) are the dominant part. Such courses are typically short (on average 4 days) and targeting

specific skill requirements for unskilled or professionally trained. There are both public and private providers of such courses. The courses receive state support, but user payment applies (unemployed are exempted). Employers will typically compensate workers for participation.

The entitlement to participate in life-long learning varies. Most collective agreements include contributions to provide a financial basis for participation in training/education programmes (*kompetencefonde*). A worker can apply for participation, typically for a duration of maximum 2 weeks per year. As noted above, unemployed who are entitled to unemployment insurance are entitled to six weeks' training per year of their own choice.

These programmes have recently been evaluated, see Bolvig et al. (2017). The effects differ across activities and participants, as should be expected given the heterogeneity of participants and the variety of activities. Generally, the AMU-courses are found to have a positive return, though with large variations. Other types of activities have positive effects on skills and education, which may have long-run effects on employment and wages.

## 10. Implementation of labour market policies – job centres

The implementation of labour market policies has been decentralized. The current system is a result of a larger reform in 2009 establishing job centres (in most of the 98 municipalities) responsible for all types of unemployed and persons sick-listed. In the preceding system, the State (AF-system) was responsible for all insured unemployed, while the municipalities were responsible for all others. The new system is based on a one-stop-shop principle that all unemployed are handled by the same authority. This is intended to be a more simple and cost effective organization, which at the same time is beneficial to the unemployed. The new job centres are municipal entities with responsibility for employment-related issues.

The rules and regulations leave discretionary power to the job centre on how to implement and prioritize labour market policies. The work of the centres is affected through many channels, among which the reimbursement scheme is particularly important. While the job centres/municipalities are responsible for the activities, the State shares the financing burden with the municipalities via both a lump-sum transfer and reimbursement of a share of particular expenditures. The core element is the refunding of benefit expenditures. Until a reform in 2016, the reimbursement scheme was very detailed with reimbursement rates depending on the type of transfer, the duration of the unemployment spell and the specific activities offered the unemployed. This system was very complicated, and it was criticized for creating unclear incentives for the job centres, see Ekspertgruppen om udredningen af den aktive beskæftigelsesindsats (2014). The system thus created incentives for municipalities to fulfil certain targets or make unemployed transit into less expensive schemes, rather than to initiate the measures most likely to bring the unemployed back into employment. The funding reform implemented in 2016 increased the lump sum transfer and decreased the activity-based reimbursement. The reimbursement rates are now the same across all types of transfers and decreasing in the duration of the unemployment spell (80% the first 4 weeks, 40% between week 5 and 26, 30% between week 27 and 52, and 20% onwards). This reform is expected to lead to a more transparent and effective system, creating incentives for job centres to use the most effective measures adopted to the individual unemployed. The declining refunding rates are intended to increase the effort on early intervention. The consequences of this reform has not yet been evaluated.

## 11. Concluding remarks

In a comparative perspective, the Danish labour market stands out by having a high employment rate and a low unemployment rate. In- and outflow levels to jobs are high, and most unemployment spells are short. At the same time the number of recipients of various social benefits is high, reflecting that most non-employed are eligible to some form of economic support. This system is challenged by changes in labour markets driven by new technologies and globalization as well as demographic changes, including ageing and immigration from low-income countries.

Labour market reforms in the recent decade have aimed at reducing the number of people in the working age group receiving transfer by strengthening labour supply and employment and by preparing for an ageing population. Current assessments thus find that the fiscal sustainability of welfare arrangements is ensured despite an ageing population. The main reform direction has been to tighten eligibility conditions for various types of social benefits. Quantitatively most important are the changes related to retirement – a higher pension age and a reduced early retirement period. Eligibility conditions have also been tightened for social assistance via residence and employment criteria, and the main motivation for these changes have been immigration. The eligibility conditions in the social safety net have thus become less universal in the sense that the history of the individual – residence and employment – matters for the social coverage. The incentive structure has also been changed to strengthen work incentives – this runs both via changes in benefit levels and taxes to increase the economic gain from work both along the extensive and intensive margin. The balance has also changed from prevention rather than repairing. There is increased focus on ensuring that younger cohorts enter the labour market with sufficient and relevant qualifications as well as ensuring that people with impaired work capabilities use their remaining work capability rather than being on permanent disability pensions.

## References

- Andersen, L. H., 2013, Forklarende analyse af ikke-vestlige indvandreres arbejdsmarkedstilknytning. København: KORA. Det Nationale Institut for Kommuner og Regioners Analyse og Forskning.
- Andersen, L.H, H. Hansen, M.L. Schultz-Nielsen and T. Tranæs, 2012, Starthjælpens betydning for flygtninges levevilkår og beskæftigelse.
- Andersen, T. M., 2012, A flexicurity labour market in the Great Recession: The case of Denmark. *De Economist*, 160:2, 117–140.
- Andersen, T.M., 2015, The Danish flexicurity labour market during the great recession, *De Economist*, 163, 473-490.
- Andersen, T.M., 2015a, A flexicurity labor market during recession, *IZA World of Labor*, 2015:173.
- Andersen, T.M., 2017, Youth education and employment – recent Danish reform experiences, *CESifo Forum*.
- Andersen, T.M., 2017, The Danish labour market, 2000-2017, *IZA World of Labor*.
- Andersen, T.M. and M. Svarer, 2007, Flexicurity - Labor market performance in Denmark, *CESifo Economic Studies*.
- Andersen, T.M. and M. Svarer, 2012, Active labour market policies in a recession, *IZA Journal of Labour Market Policy*, 2012, 1:7, 1-19.
- Andersen, T.M. and M. Svarer, 2013, The Role of Workfare in Striking a Balance Between Incentives and Insurance in the Labour Market, *Economica*, 2014, 81, 86-116.
- Arbejderbevægelsens Erhvervsråd, 2018, 160.000 personer er ikke i job eller uddannelse og får ikke understøttelse, *Analyse, København*.
- Arendt, J. N., 2013, The effect of public financial aid on dropout from and completion of university education: evidence from a student grant reform, *Empirical Economics*, 44(3), 1545-1562.
- Arendt, J. N., 2014, Effekter af vejledning og særligt tilrettelagt opkvalificering til ledige. En litteraturoversigt over danske og internationale studier, *Copenhagen: KORA*.
- Arendt, J. N., I. Bolvig, J.C. Pedersen and C. Kolodziejczyk , 2016, Kommunernes integrationsindsats på beskæftigelsesområdet, *Copenhagen: KORA*.
- Arendt, J. N., C. P. Nielsen and V. Jakobsen, 2012, Sammenhængen mellem medbragte og danske kvalifikationer og deres effekt på beskæftigelsesstatus, *Working-paper, KORA, Det Nationale Institut for Kommuner og Regioners Analyse og Forskning*.
- Arendt, J. N. and D. Pozzoli, 2014a, Effekter af ordinær uddannelse til ledige. En litteraturoversigt over danske og internationale studier, *Copenhagen: KORA*.

Arendt, J. N. and D. Pozzoli, 2014b, Effekter af beskæftigelses- og uddannelsesrettede indsatser for ikke-vestlige indvandrere. En litteraturoversigt over danske og internationale studier, Copenhagen: KORA.

Arnberg, S. and P. Stephensen, 2013, Pension og tilbagetrækning - ikke-parametrisk estimation af heterogenitet, DREAM Working paper, 2013:2, Copenhagen.

Arnberg, S. and P. Stephensen, 2015, Økonomiske incitamenter, nedslidning og tilbagetrækning – semi-parametrisk estimation af heterogeneity og aldersbetingede ønsker om tilbagetrækning, DREAM Working paper, 2015:1, Copenhagen.

Benjaminsen, L., M. H. Enemark and J. F. Birkelund, 2016, Fattigdom og afsavn - Om materielle og sociale afsavn blandt økonomisk fattige og ikke-fattige, SFI analysis, 16:05.

Beskæftigelsesministeriet, 2015, Beskæftigelseseffekterne af en kortere dagpengeperiode, Copenhagen.

Bolvig, I., N. Kristensen and L. Skipper, 2017, Effektevaluering af voksen- og efteruddannelsesindsatsen, KORA.

Bækgaard, H., 2012, Elasticiteten af skattepligtig arbejdsindkomst, Nationaløkonomisk Tidsskrift, 150 (2012), 119-143.

Card, D., J. Kluve and A. Weber, 2010, Active Labour Market Policies: A Meta Analysis, Economic Journal 120: F452–F477.

Card, D., J. Kluve and A. Weber, 2018, What works? A meta analysis of recent active labor market program evaluations, Journal of the European Economic Association. 16, (3), 894–931.

Carstensen, C.L. and E.A. Schultz, 2016, Evaluering af ekstra beskæftigelsesfradrag for enlige forsørgere, Rapport udarbejdet for Skatteministeriet.

Clausen, J., E. Heinesen, H. Hummelgaard, L. Husted and M. Rosholm, 2009, The effect of integration policies on the time until regular employment of newly arrived immigrants: Evidence from Denmark, Labour Economics, 16(4), 409-417.

Dagpengekommissionen, 2015a, Dagpengekommissionens samlede anbefalinger, Copenhagen.

Dagpengekommissionen, 2015b, Dagpengemodellen – teknisk analyserapport, Copenhagen.

Dahl, C., D. Le Mair and J.R. Munch, 2013, Wage dispersion and decentralization of wage bargaining, Journal of Labor Economics, 31:3, 501-533.

Deloitte, 2017, Evaluering af det fremrykkede revurderingstidspunkt, København.

EEAG, 2016, The EEAG report on the European economy, CESifo, Munich.

Ekspertgruppen om udredningen af den aktive beskæftigelsesindsats, 2014, Veje til job – en arbejdsmarkedsindsats med mening, Copenhagen.

Ekspertgruppen om udredningen af den aktive beskæftigelsesindsats, 2015 – Nye veje mod job – for borgere i udkanten af arbejdsmarkedet, København.

Ekspertgruppe for voksen-, efter-, og videreuddannelse, 2017, Nye kompetencer hele livet – Fremtiden voksen-, efter- og videreuddannelse, København.

- Ekspertudvalg om fattigdom, 2013, En dansk fattigdomsgrænse og forslag til opgørelsesmetoder, Copenhagen.
- Finansministeriet, 2012, Regneprincipper og modelanvendelse i Finansministeriet, Copenhagen.
- Finansministeriet, 2017, Denmark's Convergence Programme, København.
- Finansministeriet, 2017b, Økonomisk analyse: Indvandreres nettobidrag til de offentlige finanser, Copenhagen.
- Frederiksen, A., E.K. Graversen and N. Smith, 2001, Overtime work, dual job holding and taxation, Working Paper.
- Gautier, P., B. van der Klaauw, P. Mueller, M. Rosholm and M. Svrarer, 2018, Estimating Equilibrium Effects of Job Search Assistance, *Journal of Labor Economics*, 36 (4), 1073-1125.
- Graversen B. K., B. Damgaard and A. Rosendahl, 2007, Hurtigt i gang - evaluering af et forsøg med en tidlig og intensiv beskæftigelsesindsats for forsikrede ledige. SFI rapport 07:10.
- Graversen, B. K. and P. Jensen, 2010, A reappraisal of the virtues of private sector employment programmes, *Scandinavian Journal of Economics*, 112(3), 546-569.
- Graversen, B. and H. Weise, 2001, Effekter af aktiveringsindsatsen over for kontanthjælpsmodtagere, Working paper, 02:2001, Copenhagen, Socialforskningsinstituttet.
- Gruber, J. and D. Wise (eds.), 2004, *Social Security Programs and Retirement around the World: Micro-Estimation*, Chicago, The University of Chicago Press, 153-234.
- Gupta, N.D and L. Kromann, 2014, Differences in the labor market entry of second-generation immigrants and ethnic Danes, *IZA Journal of Migration*, 3:16, 2014.
- Gupta, N.D., P. Bingley and P.J. Pedersen, 2004, The impact of incentives on retirement in Denmark, in J. Gruber and D. Wise (eds.), *Social Security Programs and Retirement around the World: Micro-Estimation*, Chicago, University of Chicago Press, 153-234.
- Gupta, N.D., P. Bingley and P.J. Pedersen, 2010, Social security and the employment of the young in Denmark, in J. Gruber and D. Wise (eds.), *Social Security Programs and Retirement around the World: The Relationship to Youth Employment*, Chicago, University of Chicago Press, 99-117.
- Gupta, N.D. and B.J. Christensen, 2015, Retirement and health in the Nordic welfare state, *Nordic Economic Policy Review*, 2, 173-195.
- Hansen, A.O., M. Rosholm, M. Svarer and E.A. Schultz, 2013, Evaluering af jobpræmieordningen for enlige forsørgere, Rapport udarbejdet til Styrelsen for Arbejdsmarked og Rekruttering.
- Hansen, H., and M.L. Schultz-Nielsen, 2015, Kontanthjælpen gennem 25 år, Rockwool Fondens Forskningsenhed/Gyldendal.
- Hansen, M.F., M.L. Schultz-Nielsen and T. Tranæs, 2015, The impact of immigrants on public finances – A forecast analysis for Denmark, *Journal of Population Economics*. 26(2), 405-435.
- Heinesen, E., L. Husted and M. Rosholm, 2011, The effects of active labour market policies for immigrants receiving social assistance in Denmark, IZA Discussion Paper No. 5632, Bonn: IZA.

- Hermansen, M., 2014, En foreløbig evaluering af dagpengereformer, Økonomisk Råds Sekretariat.
- Huynh, D.T., M.L. Schultz-Nielsen and T. Tranæs, 2007, Employment effects of reducing welfare to refugees, Rockwool Fondens Forskningsenhed, Copenhagen.
- Jakobsen, K.T., N. Kaarsen and K. Vasiljeva, 2017, Does reduced cash benefit worsen educational outcomes of refugee children? *Nordic Economic Policy Review*, 55-90, 185-210.
- Jespersen, S., J. R. Munch and L. Skipper, 2008, Costs and Benefits of Danish Active Labour Market Programmes, *Labour Economics* 15, pp. 859-884.
- Joensen, J., 2013, Timing and Incentives: Impacts of student aid on academic achievement, Mimeo, Stockholm School of Economics.
- Jonassen, A. B., 2014, Konsekvenser af dagpengeperiodens halvering – en kvantitativ undersøgelse af effekten for de ledige, SFI, 14:21, Copenhagen.
- Kleven, H. J. and E.A. Schultz, 2014, Estimating taxable income responses using Danish tax reforms, *American Economic Journal: Economic Policy*, 6(4), 271-301.
- Kluge, J., 2006 The Effectiveness of European Active Labor Market Policy, IZA Discussion Paper, 2018.
- Kolodziejczyk, C. and J.N. Arendt, 2017, Effekter af to jobpræmieordninger for ledige, KORA.
- Kjærsgaard, L. and E. Heinesen, 2012, Effects of consecutive active labor market programs. Evidence for immigrants in Denmark. In: *Empirical Essays of Active Labor Market Policy on Employment*, PhD dissertation, Aarhus University.
- Larsen, M. and P.J. Pedersen, 2013, To work, to retire – or both? Labour market activity after 60, *IZA Journal of European Labor Studies*, 2:21.
- Madsen, P.K., 2013, Shelter from the storm: Danish flexicurity and the crisis, *IZA Journal of European Labor Studies*, 2(6), 1–19.
- Maibom, J., M. Rosholm and M. Svarer, 2014, Can active labour market policies combat youth unemployment? *Nordic Economic Policy Review*, 215-261.
- Mattana, E., 2018, Literature review on financial aid to university students, Baggrundsnotat, De Økonomiske Råds Sekretariat.
- Ministry of Employment, 2014, Evaluation of the youth initiatives in the social assistance reform 2014 (Effektevaluering af ungeinitiativerne i kontanthjælpsreformen 2014), Copenhagen.
- Ministry of Employment, 2016, Effect study of the social assistance reform for youth between age 25 and 29 (Effektanalyse af kontanthjælpsreformen for unge mellem 25-29), Copenhagen.
- Nielsen, H.S., T. Sørensen and C. Taber, 2010, Estimating the effect of student aid on college enrollment: Evidence from a government grant policy reform, *American Economic Journal: Economic Policy*, 2 (2), 185-215.

OECD, 2014, *Employment Outlook*, Paris, France: Organisation for Economic Cooperation and Development Publishing.

OECD, 2016, *OECD Economic Surveys – Denmark*, Paris.

Pedersen, P.J. and M. Larsen, 2013, To work, to retire - or both? Labor market activity after 60, *IZA Journal of European Labor Studies*, 21(2).

Philip, U.N., F. Duvarci and A.M. Glenny, 2016, Effekter af førtidspensions- og fleksjobreformen for unge i kontanthjælpsystemet og på ressourceforløb, *Beskæftigelsesministeriet, Analyseenheden*.

Rosholm, M., L. Skipper and K.L. Sørensen, 2016, Effektevaluering af sygedagpengereformen, *Beskæftigelsesministeriet*.

Rosholm, M. and M. Svarer, 2009, *Kvantitativ evaluering af alle i gang*, Arbejdsmarkedsstyrelsen, Copenhagen.

Rosholm, M., M. Svarer and J. Vikström, 2013, The effectiveness of active labor market policies: Evidence from a social experiment using non-parametric bounds, *Labour Economics*, 24, 58-67.

Rosholm, M. and R. Vejlin, 2010, Reducing income transfers to refugee immigrants: Does starthelp help you start?, *Labour Economics*, 17(1), 258-275.

Schultz, E. A., 2011, *Baggrundsnotat: Estimation af elasticitet af skattepligtig arbejdsindkomst*, Working paper, De Økonomiske Råd.

Schultz-Nielsen, M.L., 2016, *Arbejdsmarkedstilknytningen for flygtninge og indvandrere – ankomsten til Danmark i perioden fra 1997 til 2011*, Rockwool Fondens Forskningsenhed, Syddansk Universitetsforlag.

Schultz-Nielsen, M.L., 2017, Labour market integration of refugees in Denmark, *Nordic Economic Policy Review*, 55-90.

Staghøj, J., M. Svarer and M. Rosholm, 2010, Choosing the best training programmes: Is there a case for statistical treatment rules?, *Oxford Bulletin of Economics and Statistics*, 72(2), 172-200.

Svarer, M., 2011, The effect of sanctions on exit from unemployment: Evidence from Denmark, *Economica*, 78, 751-778.

Svarer, M., 2015, Labour market policies in Denmark: A story of structural reforms and evidence-based policy, in Andersen, T.M., U. M. Bergman and S.E. Hougaard Jensen: *Reform Capacity and Macroeconomic Performance in the Nordic Countries*, Oxford University Press.

Velfærdskommissionen, 2006 *Fremtidens velfærd – kommer ikke af sig selv*, Analyserapport og debatoplæg, Velfærdskommissionen

Økonomisk Råd, various issues, *Dansk Økonomi* (S=spring report, A=autumn report).