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MEETING AND ACTIVATING THE NEWLY UNEMPLOYED

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— HOW MUCH IS ENOUGH?[*]

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Exposing newly unemployed workers to intensive activation aims to enhancing individual employment through its effects on search incentives and skills. However if the incentive effect is missing, activation may reduce the job search activity of many employable individuals by locking them in a time-demanding activity. As intensive activation is usually accompanied by intensive search monitoring, it is important to disentangling the contribution of the costly activation programs from that of caseworker meetings. Using Danish data for the period 2010-13, the paper shows that requiring newly unemployed intensive activation, contrary to job search meetings, reduces employment and increases sickness benefit claims.

Most OECD governments require unemployed workers periodic contacts with caseworkers and training programs to improve their self-sufficiency through employment (OECD, 2013). As unemployment insurance (UI) may reduce labour supply (Moffitt, 1985; Katz and Meyer, 1990; Meyer, 2002), the enforced character of such activities may encourage unemployed and employed individuals to staying out from the duties associated to UI.

The short-in duration interviews with caseworkers potentially play a key role in reducing moral hazard, as these contacts are mainly devoted to job search monitoring, orienting UI benefit claimants on their rights and obligations, labor market availability assessment, search guidance, and job referring.

Whereas there is relative consensus that contacts with caseworkers and activation may improve the balance between assistance and incentives, it is still not well understood in what extent intensive activation contributes to reducing moral hazard, and therefore it is not clear in what extent newly

unemployed workers should be exposed to such time-demanding program. Crucially for the success of intensive activation is its ability to motivate individuals to find a job before they actually start the program, since otherwise the pool of participants is much larger and untargeted than if activation programs are offered later on during the unemployment spell.

As the mechanisms of activation and monitoring meetings against moral hazard differ,[2] the relative impact of both measures on individual employment is of key interest to a better understanding of moral hazard among UI benefit claimants. In addition, as activation programs are much more expensive that work search oriented interviews, the separate contribution of both tools is of key importance for designing more cost-effective labor market policies.

The evaluation literatures on job search assistance and monitoring (see the review studies of Fay, 1996; Heckman *et al*., 1999; Martin and Grubb, 2001; Kluve and Schmidt, 2002) and activation programs (see the review studies of Heckman *et al*., 1999; Kluve 2010, Card *et al*., 2010) tend to find that job search enhancing contacts have more positive effects than activation. However, as unemployed workers targeted by such policies may differ it is not possible to conclude on the relative success of both policies from evaluations that only consider one of these policies or consider the simultaneous application of more intensive versions of meetings and activation.

As both measures are increasingly used to reduce moral hazard, their relative contribution strongly depends on effects that take place *ex ante* of the actual celebration of such activities (see for example Black *et al*., 2003; Geedersen, 2006; Rosholm and Svarer, 2008; or Bergemann *et al*., 2011).[3] However, as UI benefit claimants are generally exposed to activation after being oriented by caseworkers on future meeting and activation duties, the *ex ante* effects of activation are difficult to separating from the *ex post* effects of first meetings and from the *ex ante* effects of later meetings.

The closest piece of evidence to this paper is Pedersen *et al*. (2012). This study assess with randomised trial data the impact of different intensive policies on Danish UI benefit claimants. This study finds that intensive meetings are effective, while early activation has only moderate effects on male workers. As the impacts of both policies were estimated with data from very different municipalities, different individual characteristics, designs of meetings and activation programs, and

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[2] Earlier meetings aims to limit moral hazard behavior by imposing a minimum job search activity and reducing asymmetric information between UI benefit claimants and caseworkers, while earlier and longer activation aims to reducing moral hazard behavior by increasing price of insurance requiring a more time-demanding activity earlier on the unemployment spell.

[3] Moral hazard effects may also take place once the individual starts participation and therefore it is in practice very difficult to disentangle *ex post* moral hazard effects from ex post effects on employability.

different business cycle conditions (Lechner and Wunsch, 2009) may confound the comparison of separate contributions of both instruments.[4]

The paper contributes to the empirical literature by disentangling the contribution of intensive activation from that of intensive job search enhancing meetings on the same sample of newly UI benefit claimants. Concretely, the paper compares the relative effectiveness of different labor policy mixes in terms of meetings and activation intensities with Danish micro-data for the period 2010 January – 2013 February. The identification of causal intention to treat effects relies on three "natural experiments" and one "quasi-experiment" generated by different age discontinuities in the risk of intensive meeting and the risk of intensive activation.

The main finding of the paper is that intensive activation is ineffective to motivating employment *ex ante*, increases lock-in effects and moral hazard on the short-run and tends to have negative effects also on the long-run. The second main finding of the paper is that the advancement of meetings with the caseworker very early in the unemployment spell increases employment rates and reduce sickness benefit claims permanently, this suggesting that imposing a minimum search behavior and reducing information asymmetries between individuals and caseworkers is a more effective mechanism against moral hazard than increasing the price of UI in terms of foregone leisure and foregone time to job search. Finally, the paper does not find evidence on bunching into unemployment inflow to avoid intensive meetings and activation, this suggesting that the more intensive labor market policy has very limited ability to prevent individual unemployment. Overall, the results of this paper demonstrate that the cost-effectiveness of labor market policy may be increased by reducing activation intensity and increasing the intensity of cheaper and effective job search monitoring contacts with caseworkers.

The remainder of this study is organized as follows: Section 1 describes the institutional framework and the natural experiments. Section 2 describes the data, Section 3 provides evidence on sorting behavior, and Section 4 presents the results. Section 5 concludes. Additional tables including evidence on sorting behavior.

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[4] The effect of intensive meetings was estimated with data collected in different municipalities pertaining to Copenhagen capital region and Zealand Region, while the impact of intensive activation was assessed with data from the municipality of Aarhus, where the recession starting at the end of 2008 was 1 year shorter than in Copenhagen.

1. Institutional framework

Approximately 80% of all Danish labour active force is member of an UI fund.[5] The duties associated to UI benefit claims include periodic meetings at UI funds[6] where labor market availability is assessed and search activity is monitored and assisted and a range of job search activities.[7] In addition to these activities, the individual is required to periodically meet caseworkers from municipal jobcentres and participate in activation programs.

Differently from the UI fund contacts, the start of the meeting sequence depends on exact age. Whereas individuals younger than 30 have the right and duty to meet a caseworker for first time not later than one month in unemployment, individuals who are at least 30 years old have the right and obligation to start the meeting sequence not later than 3 months. These meetings take place every 3 months irrespective of individual's age. At each of these meetings, the individual has to document at least two job vacancies, and the caseworker guides the jobless individual to applying for such vacancies. In addition, the caseworker informs the individuals on their rights and duties along the unemployment spell.

These meetings are used to discussing and planning future activation program. The Danish unemployment insurance system, as in other countries like Germany (Jacobi and Kluve, 2007) incentivises individual proactivity. Thus, unemployed workers participate in the design of the future activation program.[8]

The activation program consists on guidance, education/training programs, work practice or subsidised work at private and public workplaces. Individuals under 30 have the right and duty to a six-months-long first activation program starting not later than 3 months after unemployment start, while older workers have the right and obligation to a 1-month-long first activation program not later than 9 months after unemployment start. All unemployed workers independently on their age, have

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[5] All UI individuals entering unemployment before (after) July 2010, that had worked full-time at least 26 (52) weeks within the last 3 years were eligible for full UI benefit. From July of 2010, the length of full UI benefit was reduced from 4 to 2 years.

[6] The start-up meeting with the UI fund takes place 3 weeks after unemployment start, and is used to assisting the elaboration of a CV with concrete job ambitions and associated plan to achieving the aims of the CV. Afterwards, every 3 months, the UI fund checks individual's labour market availability and monitors work search.

[7] Concretely, all individuals must register as unemployed at the jobcentre their first jobless day, must reside in Denmark, and must document job search and accept jobs in which their productivity is not fully exploited. In addition, insured unemployed individuals must update their CVs and make them public on jobcentres websites, and must confirm their job searching activity on a weekly basis.

[8] For example, jobless individuals may propose caseworkers their activation as subsidized employees in particular workplaces after previous agreement with employers.

the right and duty to a one-month-long activation every 6 months in unemployment after the last activation program.

Figure 1 shows that individuals with ages at unemployment start between 29.65 and 29.95 are exposed to different activation in terms of both timing and length. The figure shows that the first activation program starts about 15 weeks after unemployment start for workers at most 29.65, and about 26 weeks after unemployment start for workers at least 29.95 years old. The figure also shows that intensity in timing and length of the first activation declines with age for individuals with ages between 29.65 and 29.95, a pattern directly generated by the discontinuity in the rights and duties to activation for individuals who become 30 years old, such that individuals with ages increasingly close to the threshold for the standard policy, are increasingly exposed to the standard policy and not the intensive one.
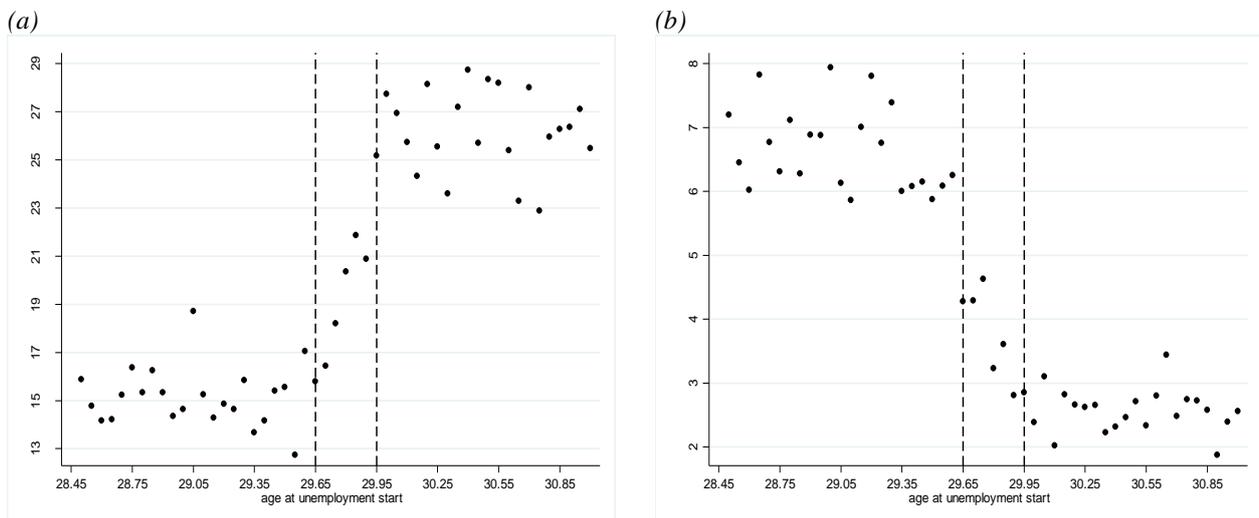
Fig. 1 *Observed start week of 1ˢᵗ activation and length of uninterrupted first activation spell. (a) Start week of the 1ˢᵗ activation program (b) Number of consecutive weeks participating in the first activation program*
Notes. The Figure shows the average timing for the first activation program and the average number of consecutive weeks participating in the first activation program. The vertical lines are the threshold for most intensive policy (29.65) and for the standard policy (29.95).

Figure 2 shows the start week for the first three meetings with municipal caseworkers.[9] The panels a and b of this figure show that individuals entering unemployment younger than 29.95 meet caseworkers from municipal jobcentres for first and second time systematically earlier than those that are at least 29.95 when become jobless. The panel c reveals that individuals between 29.65 and 29.85 meet for third time later than those younger than 29.65, but earlier than older workers. The panel d shows that irrespective on their age, the last contact with a municipal

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[9] See next section.

caseworkers takes place about 3.5 weeks before the start of activation.[10] This illustrates that, because of activation planning, the start of activation is coordinated with the last meeting. In addition, this figure reveals that many individuals have time to react to the risk of activation program, and therefore suggests that in the context of this paper, empirical strategies based on unconfoundedness (Rosenbaum and Rubin, 1983) or no anticipation of treatment (Abbring and Van den Berg, 2003) may lead to biased inferences.
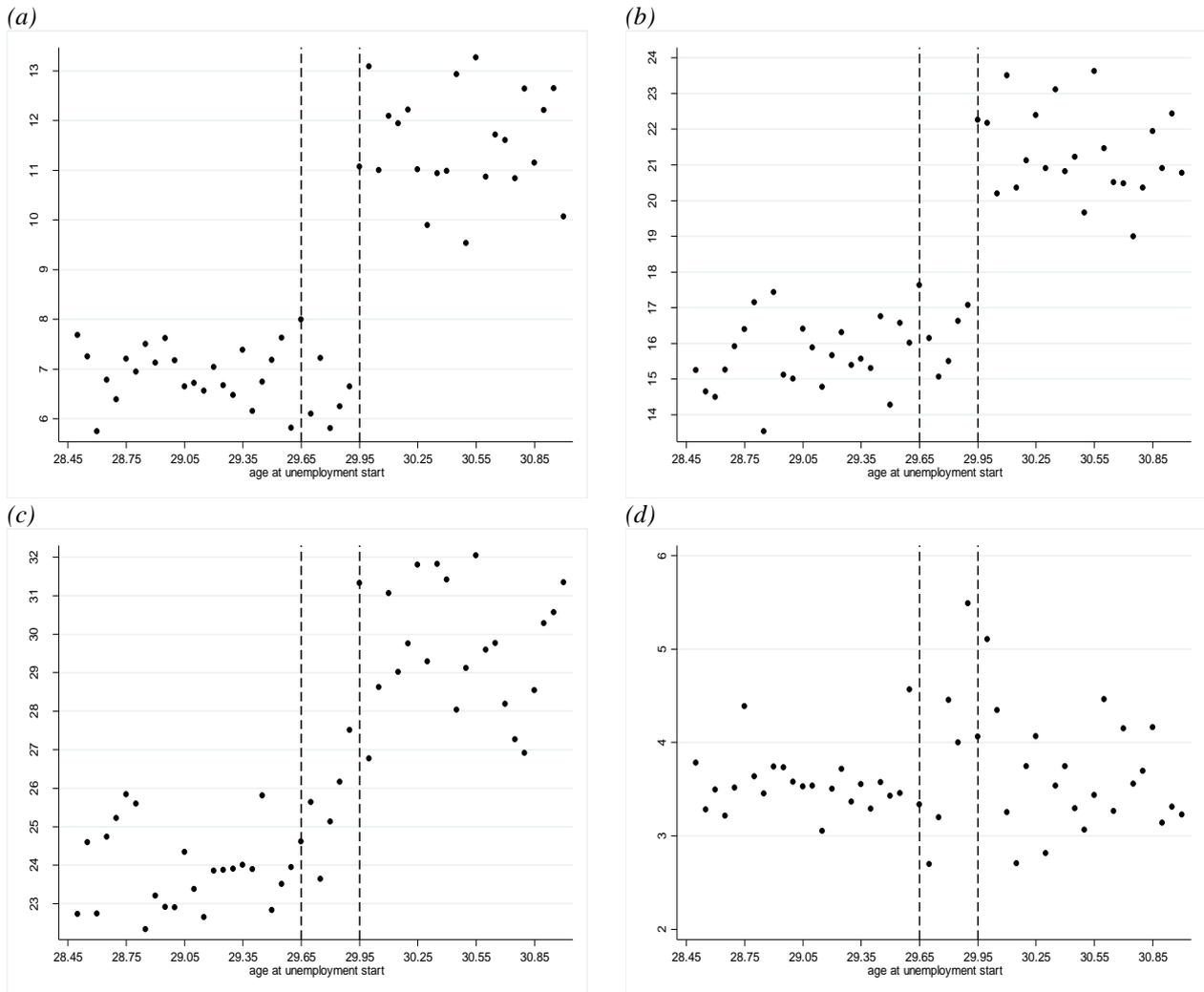
Fig. 2 *Observed start week for 1st, 2nd and 3rd municipal jobcentre meetings (a) Start week for the 1st meeting; (b) Start week for the 2nd meeting; (c) Start week for the 3rd meeting and (d) Times between last meeting and first activation program*

Notes. The figure shows the average timing for the first three meetings with caseworkers from municipal jobcentres after unemployment start and the average time interval between the last meeting and the start of the activation program. The vertical lines are the threshold for most intensive policy (29.65) and for the standard policy (29.95).

Finally, the comparison of figures 1 and 2 reveals that the upward slope trend in the timing of the third meeting coincides with the upward trend in the start week of the first activation

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[10] The figure also shows that the time span between meeting and activation is more noisy for individuals at least 29.65.

program, this suggesting that the precise timing of meetings taking place while individuals are under activation or afterwards are affected by the timing of activation.

2. Data

The data set used in this paper is mainly extracted from the event history data set developed by the Danish National Labour Market Authority. This data set is constructed on the basis of different administrative registers providing information on weekly payments of all types of public income transfers like passive UI benefits, UI benefits under participation in activation, or sickness benefits. The data set also includes information on the week where individual meet municipal caseworkers. Thus, the data set allows to determining on a weekly basis whether individuals are passively receiving UI benefits, in activation, temporary disable or do not receive any type of income transfer. In addition the data set includes the age of the individual in week 13 of 2013, this making possible to recovering the exact age of individual at unemployment start, which determines the risk of being exposed to different policy mixes.

The available data set at the collection moment includes the history on public income transfer events for all individuals that have resided in Denmark and obtained a public income transfer up to February 2013. As nearly all non-working individuals in Denmark receive some kind of public income transfer, an individual is considered to be ordinary employed if the person does not receive any type of public transfer at a particular week.

The paper considers the relative effectiveness of meetings and activation on moral hazard behavior by comparing the incidence of sickness benefit claims among UI benefit claimants exposed to different policies. The Danish unemployment insurance system allows individuals to avoiding the participation in activation and meetings by filling sickness benefit claims. In addition, when individuals stay at least 6 weeks as sickness benefit claimant, the length of UI benefit is prolonged in 6 months. Thus, evidence that exposing individuals to a particular combination of meetings and activation increases (reduces) sickness benefit claims will be interpreted as this policy mix increase (reduce) moral hazard behavior.

The paper uses difference-in-differences (DID), regression discontinuity (RD) and regression kink (RK) design methods, and is based on different data sets. The analysis sample for the DID analysis includes all unemployed UI benefit claimants individuals entering unemployment between 29 and 31 years old. In addition, the sample is restricted to unemployment

inflows between the first week of 2010 and the 34th week of 2011, a sample frame that allows measuring individual outcomes up to 78 weeks after unemployment start. I further restrict the sample to individuals who enter unemployment with a full UI benefit period. As the timing of the different policies depends on cumulated UI benefits, imposing full UI benefit upon unemployment start ensures that the intensity of the policy faced by the individual is determined by the exact age of the individual at unemployment start.[11] The final analysis sample for the DID includes 7,223 new UI benefit claimants where:

1) 2,347 29.95-31 years old exposed to "*standard policy*";

2) 1,103 29.6-29.90 years old exposed to "*intensive meetings and intensive activation*"; and

3) 3,773 29-29.65 years old exposed to "*intensive meetings and very intensive activation*".

The figure 3 shows the employment rates for these three groups. As the analysis sample includes only newly unemployed that have been mostly employed or under education during the last 52 weeks before unemployment start, the figure shows employment trends for these groups during 56-80 weeks 56 before unemployment start. The figure reveals that the youngest cohort given the younger age of individuals exposed to more intensive activation.
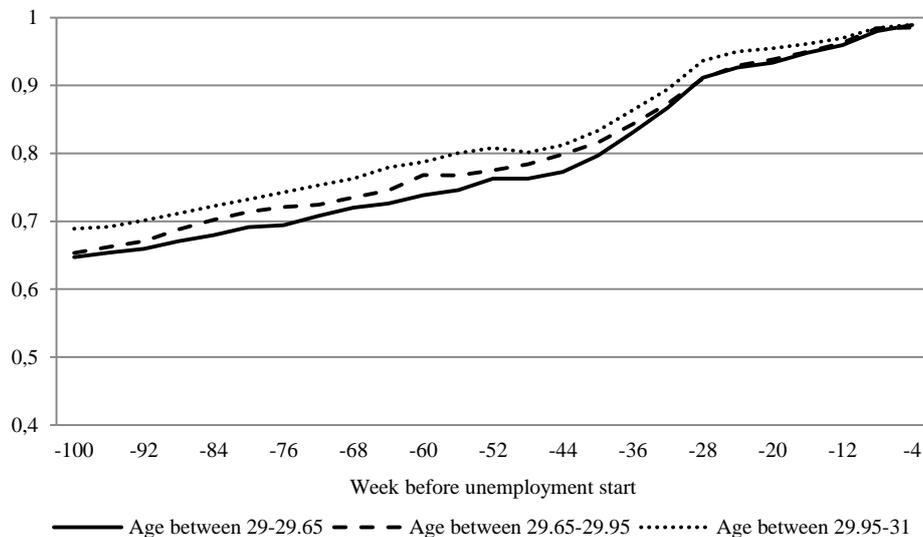
Fig. 3 *Employment rates before unemployment start for individuals exposed to different intensive meetings and activation policies.*
Notes. The Figure shows the employment rate for individuals who enter unemployment at ages between 29 and 29.65 (solid line); at ages between 29.65 and 29.95 (dashed line); and at ages between 29.95 and 31 years old (dotted line).

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[11] In order to discard those individuals whose observable first week in unemployment does not coincide with the first week of activation period I select those individuals who enter unemployment after 26 weeks in ordinary employment or education (if they enter unemployment before July 2010) and 52 weeks in ordinary employment or education. In any case, full UI benefit eligibility requires ordinary employment during the last month before unemployment, and therefore I impose such condition too.

The analysis of sorting behavior and the contribution of intensive meeting effects is based on regression discontinuity and kink design analysis, and therefore considers a much homogenous sample in terms of ages. The analysis sample used for the RD analysis includes 4,670 individuals with ages 29.30-30.60 centered around the threshold age 29.95. This narrow bandwidth is selected to minimize the influence of the discontinuity at 29.65.

Table 1 presents summary statistics for unemployed workers that enter unemployment around their 30th birthday. The table reports means and standard deviations for three groups: individuals exposed to very intensive policy, e.g. ages between 29.35 and 29.65, individuals exposed to more intensive policy, ages between 29.65 and 29.95; and those affected by the standard policy regime. The table shows that the three groups are relatively similar in their size and characteristics, and does not suggest the presence of bunching behavior, which should be reflected in significant differences in covariates. The sample includes slightly more females than males, a high proportion of individuals with vocational education (around 41% of all sample) followed by a relatively big group of higher educated individuals (around 34%). There is a relatively higher presence of unemployed workers from construction and the public sector. The table also shows that about 77% of the newly unemployed workers were employed 53 weeks before unemployment start, and at that period the incidence of sickness claims among these workers was very low.

Table 1

Summary statistics for UI benefit claimants that enter unemployment around their 30th birthday

| | Age at unemployment start | | | | | |
| | [29.35-29.65) | | [29.65-29.95) | | [29.95-30.25) | |
baseline covariates	mean	st.dev.	mean	st.dev.	mean	st.dev.
female	0.57	0.49	0.59	0.49	0.58	0.49
immigrant	0.12	0.33	0.12	0.33	0.15	0.35
residence at the Capital region	0.33	0.47	0.35	0.48	0.35	0.48
residence at the Zealand region	0.10	0.31	0.11	0.32	0.11	0.31
residence at the South Denmark region	0.21	0.41	0.20	0.40	0.21	0.40
residence at the Central Jutland region	0.25	0.43	0.23	0.42	0.22	0.42
residence at the North Jutland region	0.11	0.31	0.10	0.30	0.11	0.32
basic and secondary education	0.20	0.40	0.22	0.42	0.23	0.42
professional education	0.42	0.49	0.40	0.49	0.40	0.49
higher education	0.34	0.47	0.34	0.47	0.33	0.47
employed at the private sector	0.59	0.49	0.60	0.49	0.59	0.49
employed at the municipal sector	0.15	0.36	0.13	0.34	0.14	0.34
employed at the industry	0.07	0.26	0.08	0.28	0.08	0.27
employed at the construction	0.15	0.36	0.14	0.35	0.15	0.36
employed at trade. communication or IT	0.13	0.33	0.12	0.32	0.12	0.32
employed at the service sector	0.08	0.27	0.09	0.28	0.09	0.28
employed at the public sector	0.16	0.37	0.16	0.37	0.14	0.35
annual wage earnings (10^3 DKK 2013)	244	147	245	152	240	152
payments to ATP pension	2,145	1243	2,148	1264	2,110	1275
employment rates 53 weeks before	0.76	0.41	0.77	0.39	0.78	0.39
sickness benefits rate 53 weeks before	0.01	0.08	0.01	0.09	0.01	0.11
observations		1,181		950		1,041

Note. The columns corresponding to [*a*;*b*) report means and standard deviations for the cohort of new UI benefit claimants that enter unemployment at age between *a* and *b* years old.

3. Testing for sorting behavior

The objective of this part of the empirical analysis is to determining the presence of sorting due to expected intensive activation and meetings. As shown by the equilibrium search model analysis of Andersen and Svarer (2014), more intensive workfare policies may reduce *ex ante* moral hazard behavior associated to generous unemployment insurance by requiring individuals who enter unemployment participation in meetings and intensive activation programs.

The empirical strategy follows from the fact that individuals entering unemployment at ages close to the thresholds for intensive policy (29.65) and standard policy (29.95) have highest incentives to avoiding earlier and longer activation measures by influencing the precise date (and therefore the exact age) when they enter unemployment. To test for the presence of such behavior the paper uses two tests applied by the regression discontinuity (see Hahn *et al*. 2001 and Lee and Lemieux 2008) and kink design (see Nielsen *et al*. 2010 and Card *et al*. 2012) literatures to assessing the validity of such quasi-experimental designs. In order to maximize the precision of these tests, I use bigger samples to testing for discontinuities in the number of observations and the baseline covariates than that use for the RD analysis of meeting intensity.[12]

The first test assess the smoothness of the density of new UI claimants at the eligibility thresholds (see McCrary, 2008 and Card *et al*., 2012). The panels *a* and *b* of figure 4 visualise the number of new UI benefit claimants in half-month age bins together with a polynomial regression line. The figure shows that there are 180 new full UI benefit claimants in each narrow age interval and that the number of observations is very stable across the support of the assignment variable. Thus, the visual inspection of the conditional density of new unemployed workers with age does not indicate the presence of clear discontinuities at the different thresholds. To test the absence of manipulation I fit polynomial functions of age bins on both sides of the thresholds and I do not find any evidence of a discontinuity at the thresholds in the distribution of unemployed workers.[13]

(a) *(b)*
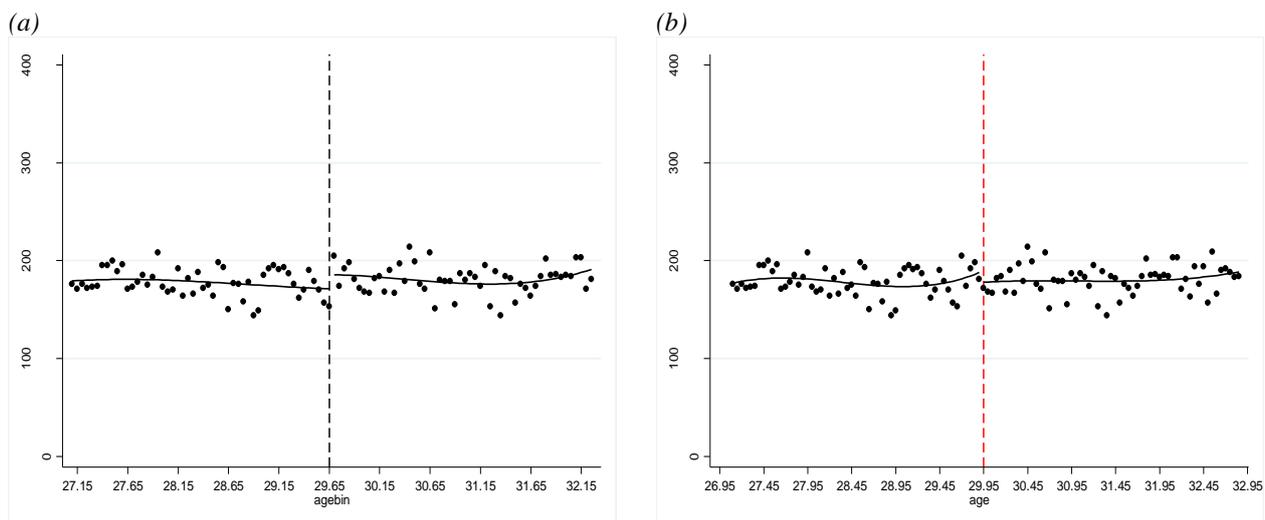
Fig. 4 *Distribution of UI benefit claimants around the intensive policy eligibility thresholds. (a) intensive policy threshold (b) standard policy threshold.*

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[12] Concretely I use all individuals with ages 27.05-32.35 centered around the thresholds 29.65 ((22,293 observations)) and a sample of individuals with ages 27.05-32.85 centered at 29.95 (24,640 observations).
[13] See table A1 of the appendix.

The second test assess whether the conditional distribution of individual characteristics before unemployment start is smooth at the thresholds (see Lee and Lemieux 2010; Card *et al.* 2012). Evidence on covariate changes will indicate the presence of selection. As an informal assessment of covariate changes, table 1 does not report significant differences in means and standard deviation of covariates for individuals exposed to different policies. A more formal test is obtained by running regression discontinuity and regression kink local linear regressions of each baseline covariate on the functions of age at unemployment start. Table A2 at the appendix presents the results of these regressions. Of the 33×4 tests, there are only two covariate, the indicators for employment at the construction sector and employment at the services sector, which has a statistically significant discontinuity at the 10% level at the threshold 29.65.

Overall, the evidence obtained in this section clearly rejects that the risk of intensive activation and meetings affects unemployment inflow.

4.   Empirical analysis

4.1 Empirical strategies

I now turn to estimating the effect of the different policy mixes in terms of meeting and activation intensity. I use a similar empirical strategy than De Giorgi (2005) which use a policy discontinuity with individual's age at a six-month unemployment duration to studying the *ex ante* effect of New Deal. Differently from De Giorgi's study, I split the pool of newly UI benefit claimants according with their age at the start of unemployment spell, this generating the groups 1), 2) and 3) exposed to different policy mixes. With these three groups I first analyze the contribution of activation intensity by comparing the two more intensive policies in terms of activation 1) and 2) with the standard policy 3). As both 1) and 2) increase simultaneously activation and meeting intensity with respect 3), such comparison provides an indirect way to assessing the role of activation program. In addition, I asses the separate contribution of intensive activation by comparing the employment rates and sickness benefit rates of groups 1) with 2). As both groups are exposed to intensive meetings, the

main difference between them is that a higher proportion of individuals of group 1 are exposed to the most intensive activation program.

In order to control for unobservable confounding characteristics I use a difference-in-difference strategy, by subtracting the employment level or sickness benefit rate of the control group from the level of the group exposed to more intensive activation and then comparing this difference between individuals who are exposed to a policy with more intensive activation and workers who are exposed to a policy with less intensive activation. Formally, I quantify the effect by estimating the following regression (Imbens and Wooldridge, 2009):

$$Y_{it} - Y_{i0} = \alpha_t + \beta_t I_i + \vartheta_t Y_{i0} + \theta_t W_{i0} + \epsilon_{it} \qquad (1)$$

where Y_{it} is the outcome measured for person i at time t, where t is an indicator of the week running from 4 to 76 weeks after the start week of unemployment, and Y_{i0} is the outcome measured 26 weeks before unemployment start. I_i is a dummy variable taking the value 1 if person i has been exposed to the policy with more intensive activation and 0 if the person i has been exposed to the control policy. W_{i0} is a set of baseline covariates measured before unemployment start. [14]

The separate analysis of intensive meetings is performed with a RD design. As shown I the previous subsection individuals do not manipulate the date of unemployment start around the threshold for the standard policy. Thus, it is realistic to assuming that a sample of individuals becoming jobless at ages on both sides of the age of 29.95, approximates a randomized trial for the "intent-to-treat" effect, where all unobservable characteristics can be controlled for with a smooth function of the exact age, denoted X_i. Then, the intention to treat effects of more intensive meetings can be estimated with the following local linear regression in the neighborhood of the threshold for intensive meeting risk, $X_i - c \leq 29.95 \leq X_i + c$:

$$Y_{it} = \alpha_t + \beta_t I_i + \varphi_{1t}(X_i - 29.95) + \varphi_{t2}(X_i - 29.95)I_i + \theta_t W_{i0} + \epsilon_{it} \qquad (2)$$

where $I_i = 1\{X_i \leq 29.95\}$ is the indicator for eligibility to the policy with higher intensive meeting risk.

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[14] It turns out that our results do not depend on including this vector of control variables.

I begin by comparing the effects of more intensive labor market policies 1) and 2) which expose jobless individuals to earlier meetings and more intensive activation than the control group 3). Figure 3 clearly showed that pre-unemployment outcomes of the three groups have common trending behavior, where individuals exposed to standard policy have a slightly higher employment rate before unemployment start than the other two groups.

Thus, the difference-in-difference specification (1) deals with such pre-treatment differences by controlling for lagged outcomes under the premise that unemployment event quasi-randomises individuals into three different policy regimes. The absence of sorting behavior around the eligibility thresholds suggest that such assumption is realistic and therefore β_t can be interpreted as the causal effect of increasing activation intensity. The underlying idea is that people do not intentionally affect the exact date of unemployment to influence their duties as UI benefit claimant. In terms of the application of this paper this implies that the treatment groups are assumed to follow the same trends in outcomes as the group exposed to the standard policy. This is not directly testable, but under the common trend hypothesis one should expect the development in employment rates and sickness benefit rates to be similar before unemployment start.

Figure 5 presents the estimates of β_t for cumulated employment rates. The graph shows that newly unemployed workers exposed to more intensive meetings and a moderate increase in activation have significantly higher employment than individuals exposed to standard meetings and standard activation. Significant effects are concentrated at two different phases of the unemployment spell, during the first three months, and between months 9-14 after unemployment start. In order to determining the role of activation, it is necessary to compare these effects (solid line) with those of comparing the standard policy 3). The figure shows that exposing UI benefit claimants to the most intensive activation policy has lower effects than the one that exposes individuals to the same meeting intensity and slightly less intensive activation.

One possible explanation for the lack of employment effects during the first three months is the presence of *ex ante* lock-in effects. As individuals exposed to very early activation are most likely to have planned the contents of the program at the first meeting with the caseworker, the risk of very participation may reduce their job search activity. One possible explanation of the higher longer-term employment effects of the policy with moderate increase of activation suggests that the most intensive activation program harms the relative job search efficiency of individuals exposed to longer training programs. However, the fact that both treatments include more intensive meetings difficult the interpretation.

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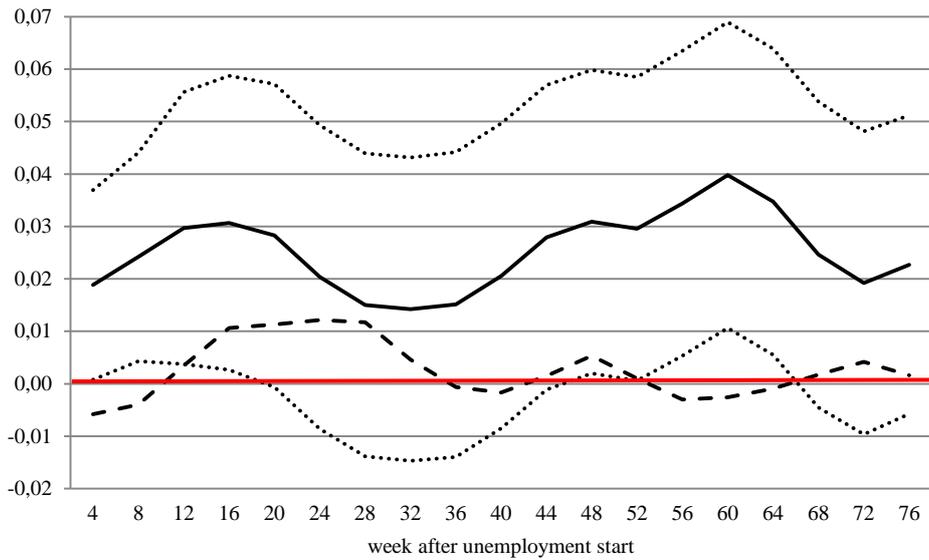
Fig. 5 *Employment effects of earlier meetings and more intensive activation*
Notes. The figure compares the cumulated effect on employment rates of 'earlier meetings and more activation' (solid line) with those of "earlier meetings and intensive activation (dashed line). Dotted lines denote 95% confidence bands around estimated effects of 'earlier meetings and intensive activation'.
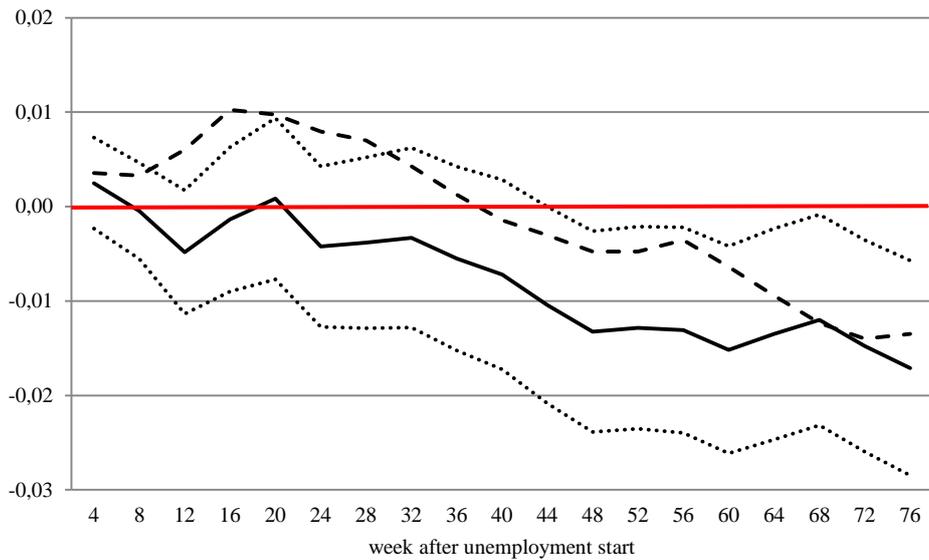
Fig. 6 *Sickness benefit effects of earlier meetings and more intensive activation*
Notes. The figure compares the cumulated effect on sickness benefit rates of 'earlier meetings and intensive activation' (solid line) with those of "earlier meetings and more activation (dashed line). Dotted lines denote 95% confidence bands around estimated effects of 'earlier meetings and intensive activation

Figure 6 shows the cumulated effects on sickness benefit rates. This graph reveals two different patterns. On the short-run the policy with most intensive activation increases sickness benefit rates around the potential start of the early activation program, this suggesting that some individuals

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exposed to the most intensive policy move to sickness benefit claims motivated by the risk of intensive activation. Thus, the most intensive policy unintendedly increases the frequency of sickness claims without increasing employment. The clear pattern that emerges from this figure is that on the long-run both intensive treatments reduce sickness benefit claims. Thus, whereas the most intensive policy increases moral hazard on the short-term, on the long-term intensive meetings and activation reduce moral hazard behavior.

In order to disentangle the role of activation from that of intensive meetings I now compare the groups 1) and 2) exposed to intensive policies. Figure 7 shows that the policy which exposes to individuals to most intensive activation in terms of timing and length 1) has negative employment effects at the start of unemployment spell, this confirming the presence of ex ante lock-in effects, and has negative effects during the start of the second year in unemployment.
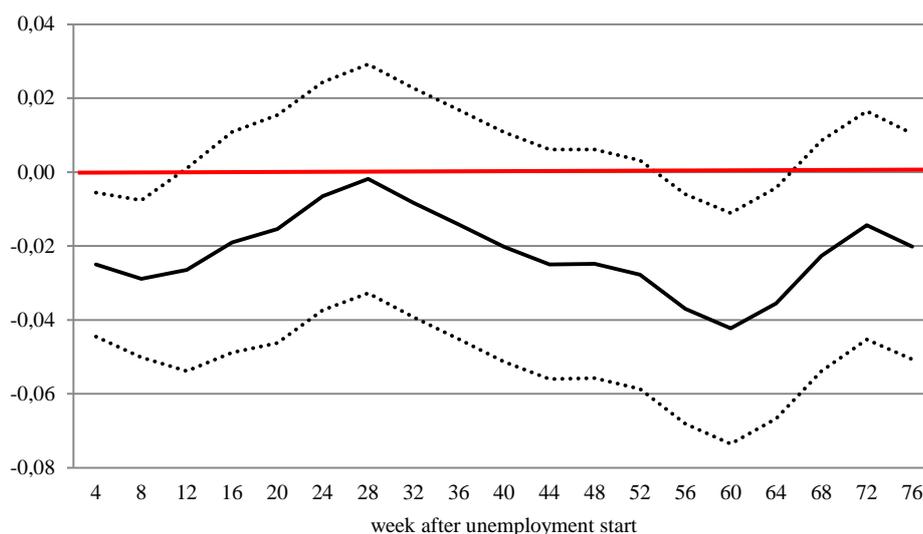
Fig. 7 *Employment effects of more intensive activation*
Notes. The figure shows the cumulated effect on employment rates of 'more intensive activation' (solid line). Dotted lines denote 95% confidence bands.

In figure 8 I investigate the separate role of intensive meetings. The estimates reported by this figure are obtained with RD design approach (2) on the basis of a relatively smaller sample than the one used to exploring the effects of intensive activation. In spite of the lower precision of the estimates of meeting effects, the graph clearly shows that advancing the start of job search monitoring meetings has a lasting effect on employment rates. Another pattern that clearly

emerges by comparing figures 6, 7 and 8 is that the long-term increase of employment rates due to early meetings is truncated by negative effects of intensive activation.
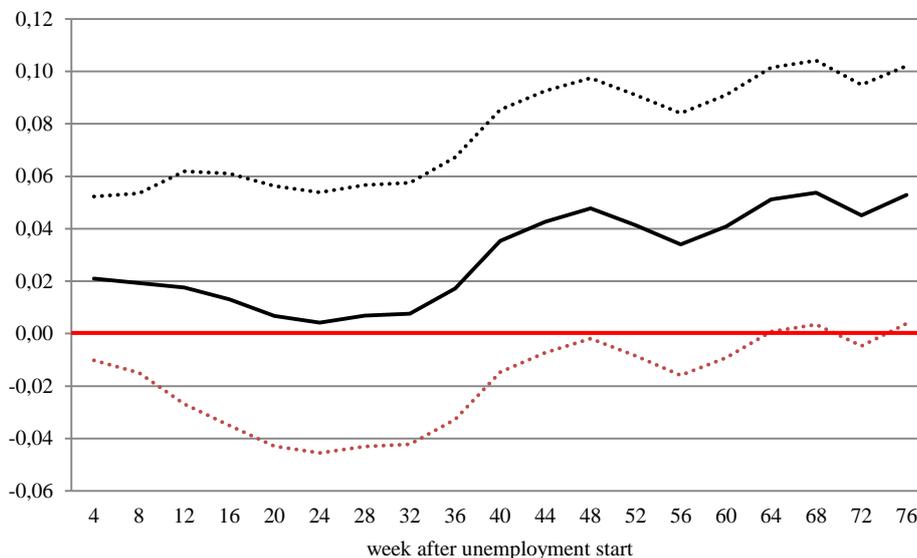
Fig. 8 *Employment effects of earlier meetings*
Notes. The figure shows the cumulated effect on employment rates of 'earlier meetings' (solid line). Dotted lines denote 95% confidence bands.

Figures 9 and 10 present the separate effects on sickness benefit rates of more intensive activation and more intensive meetings. Figure 9 shows that increasing the intensity of activation is responsible for the increase in sickness benefits revealed by figure 6. The figure shows a sharp increase in the incidence of temporary disability just before the start of early activation program, a pattern that can only be explained by moral hazard behavior. The figure shows that the positive effects on sickness claims are significant up the first 6 months, and then decline smoothly, to vanish on the long-run.

Figure 10 shows investigate the contribution of intensive meetings to reduce moral hazard behavior. The figure shows that contrary to activation, earlier meetings with caseworkers not only reduces sickness benefit claims on the short-run but it also does so on the long-run. On explanation for this result, is that starting job search monitoring already very early on the unemployment spell reduces valuable hidden information for the caseworker on unemployed worker job search behavior. Thus, differently from intensive activation that fights moral hazard by increasing the price of insurance through foregone leisure, advancing job search monitoring seems to provide a much cheaper and effective mechanism to reduce unemployment.
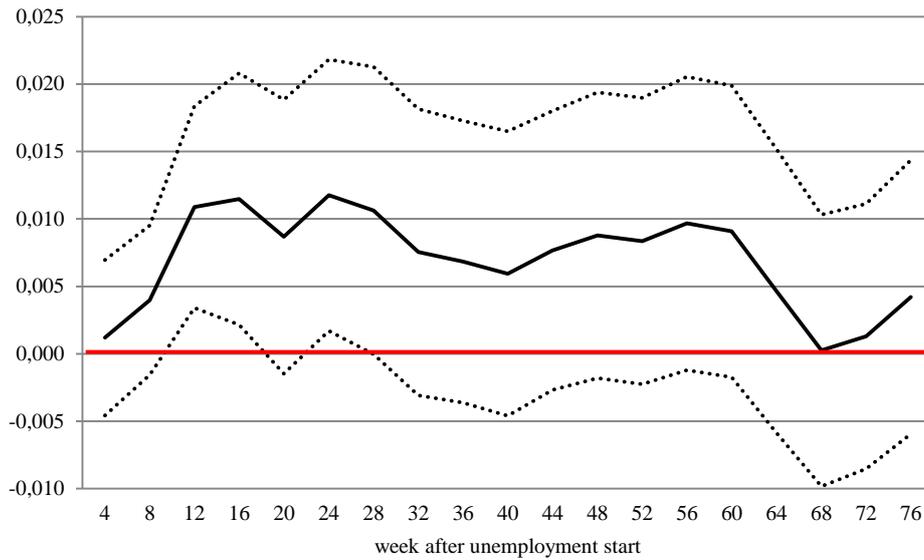
Fig. 9 *Sickness benefit effects of more intensive activation*
Notes. The figure shows the cumulated effect on sickness benefit rates of 'earlier meetings' (solid line). Dotted lines denote 95% confidence bands.
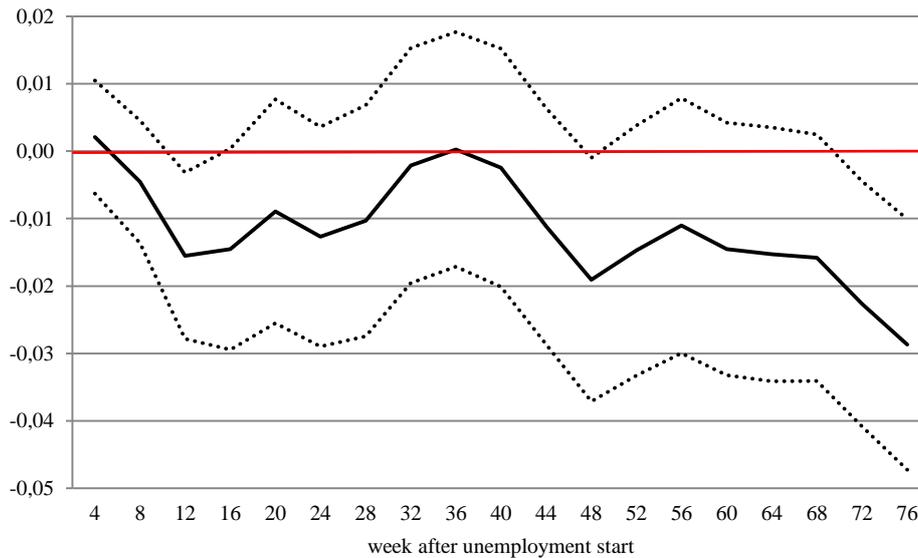
Fig. 10 *Sickness benefit effects of earlier meetings*
Notes. The figure shows the cumulated effect on sickness benefit rates of 'earlier meetings' (solid line). Dotted lines denote 95% confidence bands.

6. Conclusion

This paper has proposed and implemented the joint and separate evaluation of intensive monitoring job search meetings and intensive activation programs, the main ingredients of active labor market policies in most OECD countries. The central idea of the paper is that due to much

costly activation programs, it is very important to separate the sole contribution of both policy tools.

In particular, the paper has showed that given the important role of moral hazard in the design of such policies, there is room for anticipation behavior, this discarding unconfoundedness (see Rosenbaum and Rubin 1983) or no anticipation (see Abbring and van den Berg 2003) identification strategies to estimating the effects of activation. Thus, the paper has analyzed the joint and separate effects of intensive meetings and intensive activation on similar UI benefit claimants with DID and RD regressions.

Overall, the results of this paper provide evidence on the lack of effectiveness of exposing newly unemployed workers to intensive activation. Exposing newly UI benefit claimants to intensive activation has lock-in effects and increases moral hazard on the short-term and on the longer-term tends to have negative employment effects.

Contrasting with the negative contribution of activation, advancing job search monitoring meetings to the start of the unemployment spell has lasting positive effects on employment rates and reduces moral hazard permanently.

References

Abbring, J. H., & G. J. Van den Berg (2003). The nonparametric identification of treatment effects in duration models. *Econometrica* 71(5), 1491-1517.

Andersen, T. M., & Svarer, M. (2014). The role of workfare in striking a balance between incentives and insurance in the labour market. *Economica*, *81*(321), 86-116.

Bergemann, A., M. Caliendo, G.J. van den Berg & K.F. Zimmermann (2011). The threat effect of participation in active labour market programs on job search behavior of migrants in Germany. *International Journal of Manpower* 32(7), 777-795.

Black, D.A., J.A. Smith, M.C. Berger & B.J. Noel (2003) Is the Threat of Reemployment Services more Effective Than the Services Themselves? Evidence from Random Assignment in the UI system. *American Economic Review* 93, 1313-1327.

Card, D., J. Kluve, & A. Weber (2010) Active Labour Market Policy Evaluations: A Meta‐Analysis*. *The Economic Journal* 120(548), F452-F477.

Card, D., D. Lee, Z. Pei & A. Weber (2012) Nonlinear Policy Rules and the Identification and Estimation of Causal Effects in a Generalised Regression Kink Design. *National Bureau of Economic Research* No. w18564.

Fay, R.G. (1996). *Enhancing the effectiveness of active labour market policies: Evidence from programme evaluations in OECD countries* (No. 18). OECD Publishing.

Geerdsen, L.P. (2006) Is There a Threat Effect of Labour Market Programmes? A study of ALMP in the Danish UI system. *Economic Journal* 116, 738.750.

Giorgi, G. (2005). The New Deal for Young People Five Years On*. *Fiscal Studies*, *26*(3), 371-383.

Hahn, J., P. Todd & W. van der Klaauw (2001) Identication and estimation of treatment effects with a regression-discontinuity design. *Econometrica* 69, 201-209.

Heckman, J.J., R.J. Lalonde & J.A. Smith (1999) The economics and econometrics of active labour market policies. *O. Ashenfelter en D. Card (red.), Handbook of Labour Economics* 3.

Imbens, G. W., & Wooldridge, J. M. (2009). Recent Developments in the Econometrics of Program Evaluation. *Journal of Economic Literature*, *47*(1), 5-86.

Jacobi, L., & Kluve, J. (2007). Before and after the Hartz reforms: The performance of active labour market policy in Germany. *Zeitschrift für ArbeitsmarktForschung-Journal for Labour Market Research*, *40*(1), 45-64.

Katz, L.F. & B.D. Meyer (1990). The impact of the potential duration of unemployment benefits on the duration of unemployment. *Journal of Public Economics* 41(1), 45-72.

Kluve, J. (2010) The Effectiveness of European Active Labour Market Programs. *Labour Economics* 17, 904-918.

Kluve, J. & C.M. Schmidt (2002) Can training and employment subsidies combat European unemployment? *Economic Policy* 17(35), 409-448.

Lechner, M. & C. Wunsch (2009) Are training programs more effective when unemployment is high? *Journal of Labour Economics* 27(4), 653-692.

Lee, D.S. & T. Lemieux (2010) Regression Discontinuity Designs in Economics. *Journal of Economic Literature* 48, 281-355.

Martin, J.P. & D. Grubb (2001) What Works and for Whom: A Review of OECD Countries' experiences with active labour market policies (No. 2001: 14). *Working Paper, IFAU*-Institute for Labour Market Policy Evaluation.

McCrary, J. (2008) Manipulation of the running variable in the regression discontinuity design: A density test. *Journal of Econometrics* 142(2), 698-714.

Meyer, B.D. (2002) Unemployment and workers' compensation programmes: rationale, design, labour supply and income support. *Fiscal Studies* 23(1), 1-49.

Moffitt, R. (1985) Unemployment insurance and the distribution of unemployment spells. *Journal of Econometrics* 28(1), 85-101.

Nielsen, H.S., T. Sørensen & C. Taber (2010) Estimating the Effect of Student Aid on College Enrollment: Evidence from a Government Grant Policy Reform. *American Economic Journal: Economic Policy*, 185-215.

OECD (2013). Employment Outlook.

Pedersen, J.M., Rosholm, M., & Svarer, M. (2012). *Experimental evidence on the effects of early meetings and activation* (No. 6970). Discussion Paper Series, Forschungsinstitut zur Zukunft der Arbeit.

Rosenbaum, P., and D. Rubin, (1983) The Central Role of the Propensity Score in Observational Studies for Causal Effects. *Biometrika* 70, 41-55.

Rosholm, M. & M. Svarer (2008) The Threat Effect of Active Labour Market Programmes. *Scandinavian Journal of Economics* 110(2), 385-401.

On line appendix

Table A1
Testing for sorting behavior

	Threshold for risk to intensive meetings and activation		Threshold for risk to standard meetings and activation	
	Coef	SE	Coef	SE
Agebin	6,675	10,570	3,518	9,868
Agebin^2	−222.75	341.39	−116.70	318.73
Agebin^3	2.47	3.67	1.29	3.43
$I_i \times$ Agebin	320.19	984.02	172.21	918.71
$I_i \times$ Agebin^2	−22.01	66.43	−11.72	62.02
$I_i \times$ Agebin^3	0.38	1.12	0.20	1.05
Constant term	−66,396	109,070	−35,175	10,1830

Table A2
Testing for the discontinuity at the baseline covariates (*p* values)

Covariates before unemployment start	threshold for risk to intensive meetings and activation		Threshold for risk to standard meetings and activation	
	continuous mean level	continuous mean slope	continuous mean level	continuous mean slope
female	0.80	0.65	0.92	0.27
immigrant	0.90	0.12	0.28	0.12
residence at the Capital region	0.43	0.38	0.36	0.76
residence at the Zealand region	0.74	0.12	0.26	0.81
residence at the South Denmark region	0.61	0.58	0.46	0.86
residence at the Central Jutland region	0.90	0.98	0.59	0.31
residence at the North Jutland region	0.50	0.61	0.66	0.66
basic and secondary education	0.19	0.98	0.10	0.26
professional education	0.35	0.24	0.97	0.33
higher education	0.79	0.38	0.24	1.00
employed at the private sector	0.69	0.53	0.72	0.66
employed at the municipal sector	0.39	0.81	0.72	0.56
employed at the industry	0.57	0.16	0.47	0.77
employed at the construction	0.24	0.08	0.21	0.46
employed at trade. communication or IT	0.72	0.57	0.99	0.61
employed at the service sector	0.06	0.17	0.13	0.62
employed at the public sector	0.90	0.34	0.57	0.40
annual wage earnings (10^3 DKK 2013)	0.86	0.99	0.99	0.21
payments to ATP pension	0.49	0.66	0.83	0.28
employment rate week -56	0.50	0.38	0.60	0.30
employment rate week -60	0.50	0.96	0.54	0.87
employment rate week -64	0.40	0.44	0.92	0.32
employment rate week -68	0.43	0.92	0.80	0.73
employment rate week -72	0.73	0.71	0.88	0.58
employment rate week -76	0.99	0.45	0.46	0.91
employment rate week -80	0.92	0.34	0.22	0.72
sickness benefits rate week -56	0.21	0.78	0.86	0.62
sickness benefits rate week -60	0.51	0.99	0.90	0.57
sickness benefits rate week -64	0.88	0.71	0.87	0.55
sickness benefits rate week -68	0.90	0.37	0.52	0.42
sickness benefits rate week -72	0.71	0.29	0.75	0.83
sickness benefits rate week -76	0.36	0.29	0.26	0.57
sickness benefits rate week -80	0.54	0.17	0.15	0.39

Notes. The columns contain the *p* values of a test for the no significance of a RD gap or a RK gap at the covariate.