

Early school leaving in the Netherlands

Policy and research

Kristof De Witte

Top Institute for Evidence Based Education Research, Maastricht University
Faculty of Business and Economics, KU Leuven

EIPPEE - Frankfurt

March 5, 2013

We use the case of research on early school leaving in the Netherlands to explore facilitators and use of evidence informed policy.



Problem statement

→ Lisbon European Council (2000):

Halve the year 2000 number of school dropouts by 2012



Extensive policy in the Netherlands organized by 'projectdirectie voortijdig schoolverlaten' within the Ministry of Education

→ National target: halve the number of *new* early school leavers from 71.000 in 2002 to 35.000 in 2012 (and 25.000 in 2016)

Note: denominator = all students in a given year

→ EU based target: 8% early school leavers by 2020

Note: denominator = all people younger than 23 years old

→ This presentation:

Dutch policy on early school leaving, *and* its effectiveness

A. What happened in the Netherlands?

→ Policy, effectiveness and lessons for evidence informed policy

1. National registration
2. Regional accountability
3. School accountability (monetary incentives for schools)
4. Qualification Law (increased compulsory education age)

B. Accounting for economic influences in school dropout

Dropout prevention

Improved registration



How do you know whether they left school (without diploma)?
→ Registration of students is the start of policy making

→ Basis Register Onderwijs Nummer (BRON)

→ Data set of *all* Dutch students at secondary education

→ Started in school year 2004/2005

→ Includes postcode of pupil, school number ('brin'), parental information (e.g., one-parent family), social situation (e.g., living in poor area)

→ Can be matched with data from Statistics Netherlands and municipal registration ('Gemeentelijke Basis Administratie')

→ Registration in BRON on October 1.

Early school leaver = A student younger than 23 who does not have a higher secondary diploma and is not enrolled in school on October 1, *while he/she was last year*

→ Note: still a lot of discussion on the definition, but at least a very good start

→ These national data can be used for research and policy

Clear facilitator for evidence informed policy!

**Lesson 1 for evidence informed policy:
We need data, and preferably data which
can be matched to existing databases**



Dropout prevention

Improved registration

We show, however, that data inaccuracy exists after a school-age of 18, suggesting a poor follow-up of post-compulsory students enrolled in secondary education but with retention in grade

- e.g. because of a lower sense of urgency to research or a bad connection with the student and/or parents;

Due to the lack of inaccurate data:

The data issues make evidence informed policy for this subgroup difficult!

→ there is, basically, no convincing evidence for this group!

**Lesson 2 for evidence informed policy:
We need *accurate* data**

A. What happened in the Netherlands? -- Policy and effectiveness

1. National registration
2. Regional accountability
3. School accountability
4. Qualification Law

B. Accounting for economic influences in school dropout

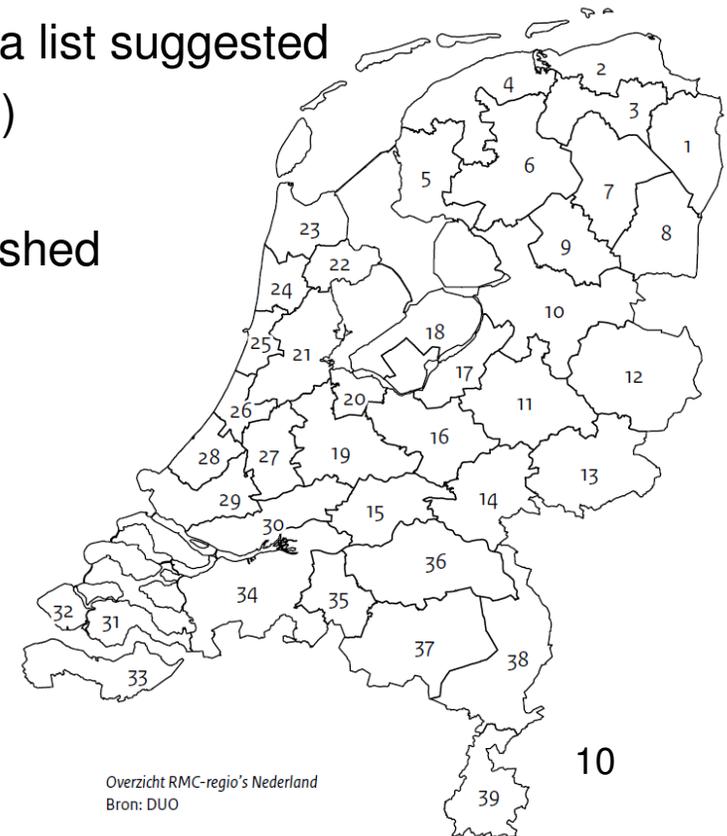
Dropout prevention

Regional accountability

→ Dropout prevention in the Netherlands (total budget of 313 million euro in 2008)

Regional accountability

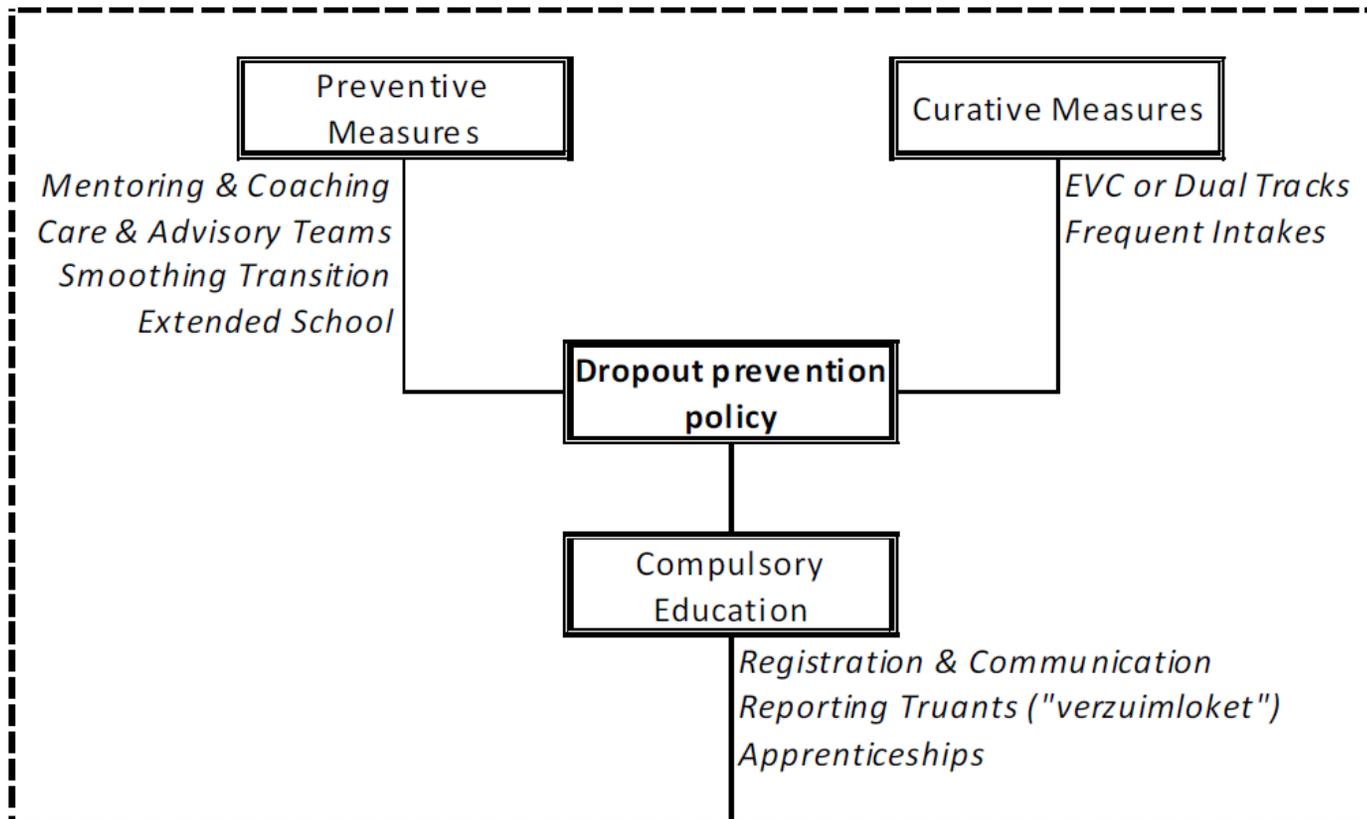
- 39 regions to coordinate dropout prevention measures
- Regions can select policy measures out of a list suggested by the Ministry of education ('the covenant')
- Chosen 'covenant items' are published on the website



Dropout prevention

Regional accountability

→ Regional accountability: the 'covenant'



Dropout prevention

Regional accountability

→ Which of the prevention measures go along with lower dropout?

→ Quantile regression controlling for regional fixed effects, a time trend, student and parental characteristics, neighborhood characteristics, and school type

Impact of dropout prevention	0.25 quantile			0.5 quantile			0.75 quantile		
Initial implementor	0.001	0.001		-0.001	0.001		0.000	0.001	0.962
Number of implemented prevention items	0.004	0.001	***	0.005	0.001	***	0.004	0.001	0.001 ***
Care and advisory team	0.000	0.004		0.000	0.005		0.002	0.004	0.683
Mentoring and coaching	-0.008	0.002	***	-0.008	0.003	***	-0.006	0.002	0.009 ***
Changing subject	-0.003	0.003		-0.006	0.004	*	-0.005	0.003	0.119
Optimal track or profession	-0.001	0.002		-0.003	0.002		-0.006	0.002	0.008 ***
Apprenticeship	-0.005	0.003	*	-0.005	0.003		-0.006	0.003	0.037 **
Frequent intakes	-0.007	0.003	**	-0.007	0.003	**	-0.003	0.003	0.298
Extended school	-0.011	0.003	***	-0.011	0.004	***	-0.010	0.003	0.003 ***
Reporting truants	-0.008	0.002	***	-0.005	0.002	*	-0.001	0.002	0.489
Curative projects	-0.005	0.002	*	-0.008	0.003	***	-0.010	0.003	0.000 ***
Time fixed effects	Yes			Yes			Yes		
Region fixed effects	Yes			Yes			Yes		

→ We reported our finding to the ministry, who made the following observations:

1. Too many tables! What is the outcome now?

**Lesson 3 for evidence informed policy:
Present your research in a comprehensive way**

→ We reported our finding to the ministry, who made the following observations:

2. These are correlations, not causal effects

**Lesson 4 for evidence informed policy:
Researchers can be triggered by policy makers
with research experience**

→ Unfortunately, we could not distinguish a proper control group

**Lesson 5 for evidence informed policy:
Make sure that policy is designed in such a way
that a control group can be defined**

Dropout prevention school accountability

→ Driven by this observation and to narrow the gap between research and policy, we started with a 'Master on Evidence Based Policy and Evaluation' (www.dtpa.nl).

→ Last wave 15 participants, this wave 10 participants

→ Extremely fruitful for both participants and researchers!



A. What happened in the Netherlands? -- Policy and effectiveness

1. National registration
2. Regional accountability
3. School accountability
4. Qualification Law

B. Accounting for economic influences in school dropout

Dropout prevention school accountability

→ Monetary incentive for school of 2,500 euro per dropout less in comparison to base year 2005-2006

Note that the incentive is unfair if

- Some schools had dropout prevention schemes before 2005
- Background characteristics of the students differ

→ We tested the latter for the difference in school dropout between Amsterdam and Rotterdam; and for disadvantaged municipalities in Flevoland (e.g. Almere and Lelystad)

Conclusion:

If not properly accounted for the student characteristics, the monetary incentives are unfair.

→ We reported our finding to the ministry, which has changed the rule.

**Lesson 6 for evidence informed policy:
Policy makers need to be open for research evidence**



A. What happened in the Netherlands? -- Policy and effectiveness

1. National registration
2. Regional accountability
3. School accountability
4. **Qualification Law**

B. Accounting for economic influences in school dropout

Dropout prevention Qualification law

→ Qualification law (2007):

→ Students have to obtain a 'starter qualification' (= higher secondary diploma)

→ In practice: increase in compulsory education age for vwo and mbo students

Dropout prevention Qualification law

→ Thanks to qualification law:

Decrease of early school leaving by 2.52 percentage points,
but effect is mainly driven by non-liable pupils leaving school (i.e., groenpluk)

Policy has adverse and unexpected effects

**Lesson 7 for evidence informed policy:
Complex situations and incentives of different actors
do not always allow for proper ex ante evaluation**

A. What happened in the Netherlands? -- Policy and effectiveness

1. National registration
2. Naming and shaming
3. Regional accountability
4. School accountability
5. Qualification Law

B. Accounting for economic influences in school dropout

Policy versus economy

Some economic and education characteristics significantly correlate to national early school leaving rates (Eurostat data from 2004-2011):

- the higher the GDP → the lower esl
- the higher GDP growth → the lower esl
- the higher youth unemployment → higher esl
- educational funding as percentage of GDP → no significant correlation
- higher compulsory education age → lower esl
- more grade retentions → higher esl
- higher minimum wage → lower esl
- ability grouping → no significant correlation

Policy versus economy

Early school leaving rate (left figure) is heavily influenced by the economic cycle.

- We 'removed' economic influences, institutional differences and population differences from the gross figure (based on Eurostat data)
- Result (right figure): 'net' policy effect

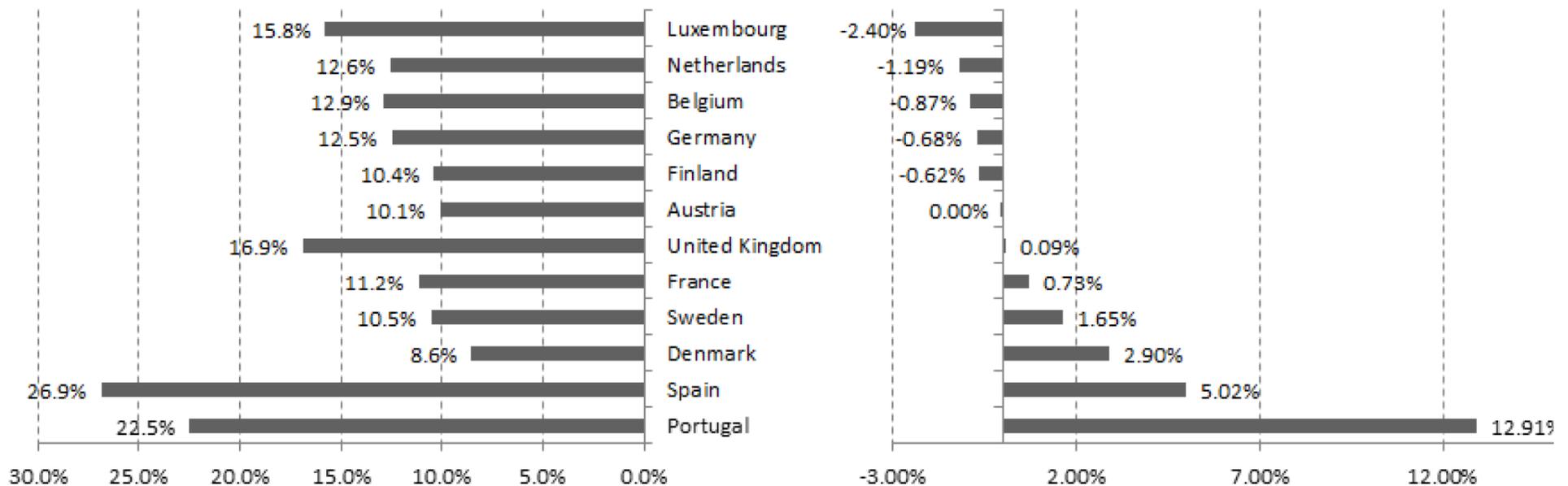


Figure 3: Naming and shaming based on policy influences

Conclusion

There is much to learn from early school leaving policy in the Netherlands:

1. Make sure that policy can be evaluated. Do not implement a policy in all schools at the same time, but allow for an experimental and evidence based set-up!
2. Introduce data systems that can combine data from different sources
3. Make sure that policy makers have some experience with research.

References

- De Witte, K. and Rogge, N. (2012), Dropout from secondary education: all's well that begins well. *European Journal of Education* 47 (4), 1-20.
- De Witte, K. and Van Klaveren, C. (2012), Comparing students by a matching analysis – on early school leaving in Dutch cities. *Applied Economics* 44 (28), 3679-3690.
- Cabus, S. and De Witte, K. (2011), Does School Time Matter? On the impact of compulsory education age on school dropout. *Economics of Education Review* 30, 1384-1398.
- De Witte, K. and Cabus, S. (2013), Dropout prevention measures in the Netherlands, an evaluation. *TIER Working Paper Series 10/19. Educational Review*. In Press.
- De Witte, K. and M. Csillag (2012), Does anybody notice? On the impact of improved truancy reporting on school dropout. *Education Economics*. In Press.
- Cabus, S. and De Witte, K. (2012), Naming and shaming in a fair way. On disentangling the influence of policy in observed outcomes. *Journal of Policy Modeling* 34, 767-787.

Early school leaving in the Netherlands

Policy and research

www.personeel.unimaas/k-dewitte

www.econ.kuleuven.be/kristof.dewitte

Kristof.dewitte@econ.kuleuven.be

EIPPEE Frankfurt
March 5, 2013

