

**MUTUAL LEARNING PROGRAMME:**  
**PEER COUNTRY COMMENTS PAPER - DENMARK**

**EVALUATION OF LABOUR MARKET POLICIES AND  
PROGRAMMES: THE USE OF DATA-DRIVEN  
ANALYSES – THE DANISH EXPERIENCE**

Peer Review on “Evaluation of Labour Market Policies and Programmes: the use of  
data-driven analyses

Belgium, 19-20 November 2012

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Date: 22/11/2012



*This publication is supported for under the European Community Programme for Employment and Social Solidarity (2007-2013). This programme is managed by the Directorate-General for Employment, Social Affairs and Inclusion of the European Commission. It was established to financially support the implementation of the objectives of the European Union in the employment and social affairs area, as set out in the Social Agenda, and thereby contribute to the achievement of the Lisbon Strategy goals in these fields.*

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# 1 APPROACH TO EVALUATION OF LABOUR MARKET POLICIES AND PROGRAMMES

*This paper has been prepared for a Peer Review within the framework of the Mutual Learning Programme. It provides information on Denmark's comments on the policy example of the Host Country for the Peer Review. For information on the policy example, please refer to the Host Country Discussion Paper.*

With respect to employment policy, the Danish governance structure has three levels.

At the *national* level the Ministry of Employment has the overall responsibility for measures in relation to all groups of unemployed persons. The Ministry has a rather small central department, which mainly acts as a secretariat for the Minister, while the National Labour Market Authority (NLMA) has the direct responsibility for policy implementation and also supports the department with respect to policy design.<sup>1</sup>

At the *regional* level, four Employment Regions, which are part of the state apparatus, supervise and support the 91 jobcentres at the *local* level. The latter are the responsibility of the 98 Danish municipalities, which in a few cases cooperate in running joint jobcentres. The jobcentres have the direct contact with the unemployed and with employers. The Danish tradition is for rather independent municipalities, where the board is elected locally and has the right to collect taxes. Therefore the municipalities also have discretion with respect to the design and implementation of employment policy, and the interplay between the national government and the municipalities is a permanent issue in this and other policy areas.

Important tools for governing the design and implementation of the programmes delivered by the jobcentres are of course legal instruments (rules and regulations) and also economic incentives due to the fact that the state refunds part of the local expenditure for labour market measures. The NLMA has furthermore devised an elaborate statistical system, which allows for detailed monitoring of both the activities of the jobcentres and of their results.<sup>2</sup> By example the monitoring system contains a clustering of the municipalities into groups with similar framework conditions and thus supports the benchmarking of the jobcentres.

## *The shared responsibility for evaluations*

Within this framework, evaluations are conceived as a further important tool for assisting actors at all levels of the system in improving the design and implementation of active labour market policy. Evaluations can be conducted at the national, the regional and the local level.

At the level of the department of the Ministry of Employment, one section (the "analytical unit") is responsible for general labour market monitoring and forecasts and for economic impact assessments of different policy proposals.

However, the most important actor with respect to conducting systematic evaluation activities is the NLMA, where two sections cooperate in designing and implementing evaluations of the various programmes (counselling, wage subsidies, labour market training, etc.). In addition evaluation activities will also take place at the regional and local level.

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<sup>1</sup> In addition the Ministry has a number of other agencies, for instance The Danish Working Environment Authority and the Danish Pensions Agency. For an organisational overview of the Ministry of Employment, see the Ministry's website ([www.bm.dk](http://www.bm.dk)), which has a section in English.

<sup>2</sup> The monitoring system ([www.jobindsats.dk](http://www.jobindsats.dk)) has public access.

The staff involved at all levels include civil servants, typically trained economists. No researchers are employed in the Ministry of Employment itself, in the Employment Regions or the jobcentres.

#### *The increasing emphasis on evidence-based policies*

The NLMA has in recent years put increasing emphasis on evidence-based policy formation and has developed a strategy for strengthening this.<sup>3</sup> The strategy operates with a hierarchy of knowledge going from “strong” or “moderate” evidence over “indications” to situations where there is “conflicting evidence” or “no evidence at all”. The strategy structures a number of existing activities, but also aims at developing new tools, for instance in the form of a “knowledge bank”, which provides meta-evaluations of different measures based on both Danish and international evaluations.

## 2 EVALUATION USING ADMINISTRATIVE DATASETS

Denmark has a long tradition for the use of administrative registers for quantitative research and evaluation. Apart from the dramatic growth in computing capacity, a major driving factor has been the introduction of the personal identification number (CPR-number), which is given to all inhabitants at birth, or when they settle in the country from abroad. The system was introduced in 1968 and is used to identify individuals in all public administrative registers. This therefore allows for the combination of data concerning a specific individual from a wide range of registers including the tax register, the population register, the unemployment register etc.

The use of and access to administrative data is supervised by a special public agency – the Danish Data Protection Agency.<sup>4</sup> The Agency conducts an annual series of inspections of public authorities and private companies that have received the agency’s authorisation to process personal data. The Danish Data Protection Agency inspects whether the processing of data is carried out in accordance with the Act on Processing of Personal Data. Especially when information from different registers is combined, care is taken that individuals cannot be identified.

Within labour market policy, administrative registers are mainly created and maintained at the national level under the auspices of the Ministry of Employment and the National Labour Market Authority (NLMA). Furthermore, since the jobcentres have direct contact with the unemployed and with employers, they play an important role in data entry for the administrative registers.

When it comes to combining the data sets under the auspices of the NLMA with other administrative registers (e.g. tax registers or information on health-related issues) Statistics Denmark plays a key role in giving access to combined data sets in a protected environment. Thus access is only given to the data, while they are still located in Statistics Denmark on a special mainframe with strictly controlled access procedures.

#### *Administrative datasets and their application for evaluations*

As it is well known, administrative datasets can rarely be used directly for evaluations and other sorts of research. First of all the data in the individual registers must be transformed into a format that makes them relevant for the purpose in question. For instance the information about payment of benefits or participation in active labour market programmes at specific points of time for the individual participants must be aggregated into information

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<sup>3</sup> These efforts have probably also been stimulated by a rather strong criticism of the activation programmes for unemployed recipients of social assistance and the lack of systematic evaluations hereof published by the Audit of the State Accounts in October 2010 and April 2011 (see [www.rigsrevisionen.dk](http://www.rigsrevisionen.dk)).

<sup>4</sup> For further information, see the Agency’s website: <http://www.datatilsynet.dk/english/>

about the spells of unemployment or activation. Secondly, the real power of administrative registers is only released, when they are combined, which often causes complex problems of the compatibility of data between different registers. Working with registers thus calls for specialized technical skills and in-depth knowledge of how the data are constructed.

In order to overcome some of these challenges, a number of aggregated databases have been developed over the years, which combines information from several administrative registers into well documented variables at the individual level and over several time periods (longitudinal data).

In the following sections the most important databases are briefly introduced.

#### *DREAM – Danish Register for the Labour Market*

DREAM is a longitudinal database based on data from The Ministry of Employment, The Ministry of Education, the CPR-register and the tax register. The database includes all persons, who have received certain government transfer payments from mid-1991 and onwards. Payment data is available on a weekly basis. From 2008 onwards the database moreover contains employment information from the E-income-register (cf. below).

At present the database contains information on around 5 million persons. The database is administered by the NLMA and updated monthly with only a time-lag of a few months. It is therefore ideal for up-to-date analysis of mobility at the individual level between different positions on the labour market, evaluations of the effects of different instruments of labour market policy and analysis of marginalization. Access is also granted to researchers after a screening process.

#### *The E-income-register*

This register was implemented from January 2008. All companies and public authorities paying salaries, pensions, unemployment benefits, social assistance, student grants and the like must report to this register every month. The information is used by a wide range of public authorities and ensures that the same information is only reported once. For each employee the register contains gross income, gross holiday pay, hours of paid work, income tax and different labor market contributions. The register is also used for analytical purposes by the NLMA.

#### *IDA – Integrated database of the labour market*

IDA was initiated in 1988 as a joint venture between Statistics Denmark and a small group of university researchers. It contains data from 1980 and onwards and is updated on a yearly basis, albeit with two years delay due to the complexity of the data. The unique feature of IDA is that it contains data that (i) connects individuals with establishments, (ii) is longitudinal, and (iii) is universal and thus covers the whole population.<sup>5</sup> Due to the sensitivity of the data, access is only granted after a thorough screening process and under strict conditions set by Statistics Denmark.

#### *Combining register information and survey data*

In a number of cases register-based information has been combined with survey data in order to conduct both basic research and evaluations. By example the NLMA is currently undertaking an evaluation of the effects of labour market training combining a survey among participants giving more detailed information on the kind of training received with register information on the subsequent employment outcomes.

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<sup>5</sup> For a detailed description of IDA in English, reference can be made to Bram Timmermans (2010): *The Danish Integrated Database for Labor Market Research: Towards Demystification for the English Speaking Audience*, DRUID Working Paper No. 10-16 ([www.druid.dk](http://www.druid.dk))

Also, recently a new *Centre for survey and survey/register data (CSSR)* was established under the auspices of the Danish National Institute for Social Research (SFI). CSSR is a researcher-centred network supporting quantitative research in social and health sciences. CSSR is being backed by most of the larger quantitative research environments at Danish universities and research institutions as well as by other key cooperation partners at national and international levels. CSSR will enhance the availability, quality and comparability of data to secure Danish quantitative research at a high scientific level.<sup>6</sup>

### 3 ASSESSMENT OF THE SUCCESS FACTORS AND TRANSFERABILITY

The key success factors identified in the Host Country Discussion Paper are, to a large degree, also relevant in the Danish context. Thus the development of large electronic administrative databases went hand in hand with the access to heavy mainframe computer in the 1960s and 1970s.

A special success factor in the Danish case was the introduction of the uniform personal identification number in 1968, which gave easy access to identifying individuals across different registers.

However it seems that, in contrast to the Flemish case of the Crossroads Bank project, little coordination at the central level of the development of combined registers have taken place.

Thus the IDA register was mainly created “bottom up” by a group of researchers, who in a joint venture with Statistics Denmark at an early stage realized the potential in combining administrative registers into linked employer-employee data sets.

The same goes for the DREAM-register in the NLMA, which was also initiated by a civil servant in the then Ministry of Labour in order to tap into information from the register of unemployed. Over the years, the DREAM-register has then been combined with an increasing number of other administrative data, which now makes it an important common tool for many research and evaluation purposes.

With respect to the issue of the regulation of the protection of privacy, this is in the Danish case - as in other countries - a sensitive subject. In Denmark this is mainly handled by closely monitoring the access of researchers and other users to the data sets. Thus for instance in the case of IDA, researchers can only access the data on the mainframe of Statistics Denmark using a special gateway and passwords. It is hard to assess on the basis of available evidence, whether the Danish regulations are more or less strict than the ones applied in the Flemish case. However it is noted by Danish actors in the field that the monopoly of Statistics Denmark in handling and accessing the data can sometime make the use of the administrative data somewhat cumbersome.

With respect to the priority given to register based evaluations compared to evaluations based on surveys or randomized experiments two developments are noticeable.

One is the increasing use of combined register and survey data in order to get more comprehensive information about not only the hard quantitative facts found in the administrative registers, but also information of a more personal and qualitative nature (as it is also mentioned in the Host Country Report).

The other is the tendency to put more emphasis on randomized experiments. The main point here is to take into account the “unobserved heterogeneity” between individuals –

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<sup>6</sup> For further information, see <http://www.sfi.dk/cssr-7745.aspx>

unobserved in the sense that information on for instance motivation and other personal traits are not reported in the registers. Therefore the randomized experiment is seen as superior.<sup>7</sup>

## 4 QUESTIONS

Following the discussion in section 3, a few questions can be raised in order to make further assessments of the transferability of data driven analysis and evaluation:

- What approaches are taken when it comes to accessing the data in the registers? Who can get access? What are the conditions including the costs to be covered?
- Are there special facilities to support the combined use of register data and surveys or does this take place on an ad hoc basis?
- What is the assessment of evaluations based on administrative registers compared to evaluations based on other sources? How high are they ranked in the hierarchy, when it comes to the credibility of the results?

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<sup>7</sup> Of course one should mention that randomized experiments are not without both the risk of methodological flaws and furthermore poses en number of ethical problems.

## ANNEX 1: SUMMARY TABLE

### Approach to evaluation of labour market policies and programmes

- Evaluations are conceived as an important tool for actors at all levels of the system in improving the design and implementation of active labour market policy.
- The National Labour Market Authority (NLMA) has in recent years put increasing emphasis on evidence-based policy formation.

### Evaluation using administrative datasets

- Denmark has a long tradition for the use of administrative registers for quantitative research and evaluation.
- A major driving factor has been the introduction of the personal identification number (CPR-number) in 1968.
- The use of and access to administrative data is supervised by a special public agency – the Danish Data Protection Agency.
- When it comes to combining the data sets under the auspices of the NLMA with other administrative registers Statistics Denmark plays a key role in giving access to combined data sets in a protected environment.
- A number of aggregated databases have been developed over the years, which combines information from several administrative registers into well documented variables at the individual level and over several time periods (longitudinal data).
- In a number of cases register-based information has been combined with survey data in order to conduct both basic research and evaluations.

### Assessment of success factors

- The key success factors identified in the Host Country Discussion Paper are, to a large degree, also relevant in the Danish context.
- In contrast to the Flemish case of the Crossroads Bank project, little coordination at the central level of the development of combined registers have taken place.

### Questions

- Is there an overall framework for ALMP evaluation research in Belgium in a given period?
- What is the impact of data protection regulations?
- What type of infrastructure, staff resources and expertise are available in the Data Warehouse?
- How difficult is it to link regional PES data to the national Data Warehouse through the national identification number? Can this process be automated?