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Good Practices in Social Security

Good practice in operation since: 2006

Development of a Customer Profiling model to assist in case management and activation

A case of the Department of Social and Family Affairs

Special mention, ISSA Good Practice Award – Europe competition 2010

Department of Social and Family Affairs
Ireland

Summary

Research has shown that the prevention of long-term unemployment is important from both economic and social perspectives. Long-term unemployed individuals suffer from skill erosion and encounter difficulty in re-entering employment. In the wider economy, welfare payments and lost revenue mean that long-term unemployment entails substantial financial costs.

In cooperation with the Economic and Social Research Institute (ESRI), the Department of Social and Family Affairs (DSFA) in Ireland, has through a longitudinal study commenced in 2006, been working to research and introduce a model of 'profiling' focused on early identification of those most at risk of becoming long-term unemployed.

The accuracy and predictive capacity of the model developed is high by international standards. It is particularly accurate in predicting outcomes at 12 months. At the 80 per cent cut off point (ie those estimated to have an 80 per cent chance of remaining unemployed) the model is 83 per cent accurate for males and 85 per cent accurate for females.

When operational, "model-based" customer profiling will result in more efficient, effective and economic interventions and a reduction in the length of time a person is unemployed.

CRITERIA 1:

What was the issue/problem/challenge addressed by your good practice?

Long-term unemployed individuals suffer from skill erosion and frequently encounter difficulty in re-entering employment. For the wider economy, welfare payments and lost revenue mean that long-term unemployment entails substantial financial costs.

For some time, therefore, early identification of those most at risk of becoming long-term unemployed through the use of "model-based" customer profiling has been an aim of the Department of Social and Family Affairs (DSFA) in Ireland.

Development and introduction of this type of profiling system has been dependent on identifying those characteristics which most influence employability for men and women across the country, and accurately calculating a score for each characteristic which reflect their relative importance. The strength (or predictive capacity) of this type of profiling model depends crucially on the quality of the data used and the inclusion of the appropriate factors that capture the risk of long-term unemployment.

While economic conditions have changed radically since the data were collected, it is unlikely to undermine the accuracy and predictive power of the profiling model. This is because the principal factors found to drive the risk of long-term unemployment, specifically, low levels of education, history of long-term unemployment, literacy/numeracy problems, etc., do not vary with labour market conditions.

CRITERIA 2:

What were the main objectives and the expected outcomes?

The objective of the research was to develop a customer profiling model which was sufficiently accurate to be used on a national basis. This has been achieved.

Over a 13 week period, between September and December 2006, each person making an unemployment claim across the national network of over 100 Social Welfare offices was asked a set of questions from questionnaire that was specially designed to capture information on factors known to influence long-term unemployment risk (e.g. educational qualifications, age, health status, unemployment history, etc.). This information was given voluntarily as, at that time, there was no legal requirement to provide it. The information was gathered from over 45,000 new claimants and was linked to other data captured as part of the claim taking process, to form the complete list of characteristics to be included in a statistical profiling model.

In the 18 months following the profile data capture phase of the study, the unemployment claim status of each of the 45,000 customers was monitored. In addition, detailed records were kept of those referred to the Public Employment Service (FÁS)¹ for activation under the National Employment Action Plan (NEAP) and of the outcomes in each case.

The accuracy and predictive capacity of the model developed is high by international standards. It is particularly accurate in predicting outcomes at 12 months. At the 80 per cent cut off point (ie those estimated to have an 80 per cent chance of remaining unemployed), the model is 83 per cent accurate for males and 85 per cent accurate for females.

CRITERIA 3:

What is the innovative approach/strategy followed to achieve the objectives?

The approach involved detailed research over a period of two years, involving over 45,000 customers.

In co-operation with the Economic and Social Research Institute (ESRI), the DSFA commenced a longitudinal study in September 2006. Its aim was to develop a model which would be accurate enough to facilitate the introduction of a National Profiling system in Ireland. Over a 13 week period, between September and December 2006, each person making an unemployment claim across the national network of over 100 Social Welfare offices was asked a set of questions from questionnaire that was specially designed to capture information on factors known to influence long-term unemployment risk (e.g. educational qualifications, age, health status, unemployment history, etc.). This information was given voluntarily as, at that time, there was no legal requirement to provide it. The information was gathered from over 45,000 new claimants and was linked to other data captured as part of the claim taking process, to form the complete list of

¹ Ireland's national employment and training agency.

characteristics to be included in a statistical profiling model. (Note: Legislative provision for capturing profile data and for its use in selecting customers for intervention was later made within the Social Welfare Pensions Act 2009).

In the 18 months following the profile data capture phase of the study, the unemployment claim status of each of the 45,000 customers was monitored. In addition, detailed records were kept of those referred to the Public Employment Service (FÁS)² for activation under the National Employment Action Plan (NEAP) and of the outcomes in each case.

Once introduced, the profiling system can be updated on an ongoing basis using the data captured for calculating individual scores and outcomes in relation to exits to employment.

CRITERIA 4:

Have the resources and inputs been used in an optimal way to implement the practice?

The introduction of customer profiling, using the model which has been developed, will facilitate the focusing of resources on categories of customer based on their probability of becoming long-term unemployed. The categories chosen can be tailored to the levels of resources available at any given time. The model can also be used to measure performance i.e. to measure outcomes against those predicted by the model.

CRITERIA 5:

What impact/results have been achieved so far?

Critically, profiling will facilitate referral for intervention very early in the claim cycle, particularly for those with a high risk of becoming long-term unemployed, as reflected in their calculated risk score. The flow of clients referred for intervention can be regulated simply by adjusting the probability threshold i.e. if it is not possible to cater for all those who have a greater than 80 per cent probability of being unemployed for twelve months or over, the probability threshold can be raised to e.g. 85 per cent or 90 per cent until the flow equals the resources available. In this way, at all times, the limited resources available are focused on those most in need of assistance

Following the research and pilot phase, the model is due to be put in place in 2010.

² Ireland's national employment and training agency.

CRITERIA 6:**What lessons have been learned from the introduction of this good practice?**

In developing the model, a very clear understanding of the range of issues affecting exits to the labour market and their precise relative impacts has been generated.

There are many benefits to be derived from profiling in this manner. Apart from reductions in programme costs, the benefits include:

- more efficient and effective focusing of resources on those who need the most support;
- earlier intervention with those who need it;
- reduction in the length of time a person is unemployed; improving the possibility of obtaining sustainable employment and not returning to unemployment in the future;
- prevention of long-term unemployment; avoiding the social, financial, health and other associated impacts;
- better control systems - through early identification of those who have remained on the Register of Unemployed longer than suggested by their profile and their selection for review or further intervention;
- improved performance management tools.

CRITERIA 7:**To what extent would your good practice be appropriate for replication by other social security institutions?**

The approach to developing the model is one which could be used elsewhere. Although the "weightings" within the model are specific to Ireland, the characteristics affecting exits to the labour market may be shared in other countries.