

Complexity and Administration in Public Programs

Henrik Jacobsen Kleven, University of Copenhagen, EPRU, and CEPR

Wojciech Kopczuk, Columbia University and NBER

Background: Two Welfare State Models

The coverage and generosity of social benefits have increased substantially in the United States and in European countries since World War II. Most governments in this region spend very large amounts on various forms of social benefits. The programs include unemployment insurance, social assistance, in-work benefits, health insurance, food and nutrition programs, housing programs, child care support, and cash benefits for the aged, blind, and disabled.

There are several striking differences in the design of social programs across countries. One difference lies in relative importance of universalism and targeting in the design of public programs. Universal benefits are characterized by equal access for all citizens irrespective of income, assets and other individual characteristics, whereas targeted benefits are given only to certain groups that are viewed as ‘truly deserving.’ The definition of ‘truly deserving’ is politically determined and would typically be related to aspects such as income, assets, marital status, kids, immigration status, health and nutritional condition.

There exists no pure versions of universal or targeted welfare states, since all countries combine aspects of the two models to some extent. Nevertheless, the Scandinavian welfare state model is usually seen as corresponding roughly to the universal model, whereas the Anglo-Saxon welfare state is a targeted one. A case in point is public health insurance. In Denmark, health care is free and fully accessible to all citizens in the country, whereas health care in the United States — the *medicaid* program — relies on a large number of criteria and can be quite hard to get (Moffitt, 2003).

A second (related) difference lies in the way social programs are administered and in their degree of complexity. Welfare programs in the targeted tradition tend to be characterized by a high degree of complexity and administrative hassle (Currie, 2004). The complexity of welfare programs arises from detailed and sometimes opaque eligibility criteria, rigorous documentation requirements, difficult and time-consuming forms, interactions between programs, and the fact that the applicant may have to make several trips to the program office for interviewing and testing. Moreover, some programs involve frequent re-certification to continue to receive the benefit, and applicants are frequently rejected because they fail to fulfill the administrative requirements within the required time. In contrast to this, welfare programs in the universal

tradition are simple and transparent. Indeed, there is no need for complexity in universal programs as everybody is eligible anyway.

A third difference lies in the *take up* of social benefits. A concern about public programs in targeted welfare states is that not all intended recipients take up the benefits. This is especially the case in the United States and the United Kingdom, where the participation rate among eligibles is very low in some programs. The presence of low take up is problematic because it undermines the essential goal of the program to provide support for those in need.

We can summarize the discussion so far in the following way. Anglo-Saxon countries tend to be characterized by highly targeted, highly complex public programs involving substantial non-participation among the eligible population. In Northern Continental European countries and in Scandinavia, universal programs are more common and the programs that do involve targeting tend to rely on fewer and simpler eligibility criteria (typically low income and assets).¹ Complexity and administrative hassle in social programs seem less important there, and low take up is a non-issue.

Why do we observe these differences in welfare state models across countries? How do we evaluate the political choice between different welfare state models? These are the research questions which we will attempt to answer in this project.

Related Literature

Two strands of literature are relevant to this project. First, there is a theoretical literature on the optimal design of welfare programs. The most important paper in our context is probably the important contribution by Akerlof (1978) analyzing the case for targeted redistribution policies. He focused specifically on targeting based on *exogenous* individual characteristics, i.e. aspects which the individuals cannot affect through their decisions about labor supply, education, retirement, savings, etc. The use of exogenous variables in welfare policy has been labelled *tagging*.

By relying on exogenous individual characteristics instead of choice variables, public policies can avoid effects on incentives, behavior and economic efficiency. Moreover, if it is possible to identify exogenous characteristics which are correlated with income, they can be used to redistribute income from rich to poor in an efficient way. For example, we observe that being a single parent is correlated with being poor, and that newly arrived immigrants tend to be poorer than the average citizen. Hence, a possibility would be to make eligibility to welfare benefits contingent on criteria such as these so as to reduce the efficiency loss from social policies.²

¹Immervoll et al. (2006) provide a description of transfer policies across the fifteen pre-2004 expansion member countries of the European Union.

²Of course, aspects such as kids, marital status and immigration are in fact choices and therefore not completely

While Akerlof (op. cit.) showed that it may be possible to achieve efficiency improvements by using tagging, he also pointed out that a disadvantage of tagging — which must be weighed against its higher target efficiency — is its complexity and high costs of administration. But since he did not model complexity in his analysis, he was not able to say anything conclusive about this trade-off between target efficiency and complexity.

A second related literature is the empirical work on the take up of social benefits. This literature has centered mostly around the United States and has tried to explain the presence of low take-up rates in some programs. The empirical literature hypothesizes three possible explanations for low take up: welfare stigma, transaction costs, and imperfect information. The most well-known work on take-up behavior is Moffitt's (1983) analysis of welfare stigma, hypothesizing that participation in public programs can be costly to recipients by being viewed as demeaning and shameful.

The stigma story is consistent with other types of costs associated with welfare program participation. As discussed above, applying for welfare benefits in the United States involves large transaction costs arising from application processes being complex, tedious and time-consuming (Moffitt, 2003; Currie, 2004). Empirical research has shown that such transaction costs do in fact have negative effects on program enrollment (e.g., Aizer, 2003, 2004), and that these effects may be more important than stigma (Currie, 2004).

Project Description

Despite the fact that issues pertaining to complexity and administration seem to be very important for the effects of public policies in general, and for the take up of social benefits in particular, we are not aware of previous work modeling the complexity of public policy. Instead, policy-oriented research has focused on statutory rates (the size of benefit and tax rates) along with simple eligibility criteria (typically the size of earned income). If complexity is discussed at all, it tends to be mentioned very briefly as a negative side-effect of certain types of public policy programs, or as a flaw of practical program design that calls for remedial policy action.

In this project, we will formulate an explicit model of the complexity of welfare policies in order to understand their effects and design. We go beyond viewing complexity simply as a negative side-effect of targeted welfare policies, and view it instead as an integrated part of program design. Because complexity has an effect on participation in public programs, it is a policy instrument that may be used to screen welfare applicants in an environment of imperfect information, and hence complexity itself may have some desirable effects. On the exogenous. However, there is reason to believe — and evidence to support it — that these criteria are a very insensitive to economic incentives, and therefore can be seen as almost exogenous.

other hand, complexity may also discourage eligible individuals from enrolling in the program, which undermines its basic purpose. By implication, high complexity and incomplete take up should be viewed as equilibrium outcomes of situations where imperfectly informed policy makers, constrained by a limited budget, want to alleviate poverty among the truly needy in a cost effective way.

A crucial aspect in the model will be the trade-off between the different kinds of error in the provision of welfare benefits. The literature has distinguished between two types of error. Errors can occur because some of those who are eligible for a benefit do not take it up (so-called type I errors), or errors can occur because ineligible end up getting the benefit because they are able to disguise themselves as deserving (so-called type II errors). In this project, we want to make an additional distinction between two different kinds of type I error. This type of error can occur either because eligible individuals do not find it worthwhile applying (type Ia) and it can occur because eligible applicants are denied benefits by the program administrators due to the imperfection of the test (type Ib).

For a government wanting to alleviate poverty (and illness, malnutrition, etc.) among those who are truly needy, being constrained by a limited budget, it is desirable to minimize all sources of error. A high occurrence of type Ia and type Ib errors undermine the goal of poverty-alleviation, while a high occurrence of type II errors make the program too expensive. Hence, the choice of parameters in a welfare program — complexity, the size of benefits, and eligibility rules — reflects the ability of each parameter to reduce the different kinds of error.

This project will consist of a combination of theoretical modelling and numerical computer simulation. Having developed a model incorporating the features described above, we want to set up carefully calibrated simulations in order to solve for program design as a function of the characteristics of the targeted population and political preferences. The goal is to be able to evaluate different types of programs within countries (say, health care versus cash benefits to the poor) as well as programs across countries characterized by different political preferences and populations.

Contribution

Our contribution is two-fold. First, our work may be seen as a first step to incorporating complexity/administration as a choice variable in the analysis of public policy, and to view it as an equilibrium outcome of situations where governments operate in environments of imperfect information. We contribute to the literature studying the optimal design of welfare programs and to the theory of optimal screening more generally. We believe that the integration of administrative aspects into the optimal policy literature is an important step to bring this —

often extremely theoretical — literature closer to real-life policy situations and make it more relevant as a guide to policy action.

Second, our project will be the first to integrate the analysis of type I and type II errors into a single framework. So far, the two types of error have been studied separately: the take-up literature has focused exclusively on the occurrence of type I errors, whereas the optimal screening literature has considered the occurrence of type II errors and the incentives created for the non-deserving to reveal themselves truthfully. From the perspective of the optimal screening literature, it is always desirable to implement policies that minimize type II errors, whereas from the perspective of the take up literature it is always good to reduce type I errors. Instead, we will argue that policies can be better understood by considering the trade-off between the different types of error.

Policy Relevance in a Danish Context

Because of the size and importance of the Danish welfare state, it is important to develop tools to evaluate the design of public programs. Since the choice of targeting versus universalism and of the degree of complexity are among the most striking differences in program design across countries, it seems to particularly important to evaluate these aspects of public policies. The economics literature has focused almost exclusively on the size of benefits, but these other aspects may be just as important for the efficacy of the welfare state.

The choice of the degree of targeting and complexity may be especially important in Denmark at the present moment. For some time, we have been discussing welfare reform aimed at making the Danish welfare state long-run sustainable in a situation of population ageing along with additional pressures from globalization, increasing demand for publicly provided health services and education, and changed norms. This discussion will undoubtedly continue in the years to come. As reflected by for example *Velfærdskommissionens* reports, one of the key issues in discussions on welfare reform is the desirability of moving the Danish Welfare State in a more targeted direction. However, our knowledge of the implications of doing so is still lacking, in part because there exists no systematic work on the associated effects on complexity and administration.

Publication

We believe this project has the potential to deliver an important contribution to our understanding of public policy and that it may receive substantial attention among our peers. In fact, several prominent authors (e.g. Slemrod, 1990; Slemrod and Yitzhaki, 2002) have argued that the incorporation of administrative aspects into the theory of public sector economics would be

one of the most important contributions one can make to this literature.

We believe this paper has a shot at being published in the *American Economic Review* or alternatively in the *Review of Economic Studies*. A fall-back journal for this paper would probably be the *Journal of Public Economics*.

Time Schedule

Wojciech Kopczuk and I plan to work on this project during the Spring of 2007 when I visit Columbia University. To be able to go through with this visit, I apply for funds to buy off 3 months of teaching in the next Spring semester.

References

Aizer, Anna, “Low Take-Up in Medicaid: Does Outreach Matter and for Whom?,” *American Economic Review Papers and Proceedings*, May 2003, 93 (2), 238–41.

—, “Advertising, Medicaid and Child Health,” March 2004. Brown University, mimeo.

Akerlof, George A., “The Economics of "Tagging" as Applied to Optimal Income Tax, Welfare Programs, and Manpower Planning,” *American Economic Review*, March 1978, 68 (1), 8–19.

Currie, Janet, “The Take Up of Social Benefits,” Working Paper 10488, National Bureau of Economic Research May 2004.

Immervoll, Herwig, Henrik J. Kleven, Claus T. Kreiner, and Emmanuel Saez, “Welfare Reform in European Countries: A Microsimulation Analysis,” Working Paper 4324, Centre for Economic Policy and Research March 2004. Forthcoming in *The Economic Journal*.

Moffitt, Robert, “An Economic Model of Welfare Stigma,” *American Economic Review*, December 1983, 73 (5), 1023–35.

Moffitt, Robert A., ed., *Means-Tested Transfer Programs in the United States*, University of Chicago Press, 2003.

Slemrod, Joel, “Optimal Taxation and Optimal Tax Systems,” *Journal of Economic Perspectives*, Winter 1990, 4 (1), 157–78.

— **and Shlomo Yitzhaki**, “Tax Avoidance, Evasion and Administration,” in Alan Auerbach and Martin S. Feldstein, eds., *Handbook of Public Economics*, Vol. 3, Amsterdam; New York: Elsevier/North Holland, 2002.