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The Middle Class and the Swedish Welfare State

How Not to Measure Redistribution

ANDREAS BERGH

Big welfare states, with taxes near 50 percent of gross domestic product (GDP), still exist in the Scandinavian countries. It is widely assumed that bigger welfare states redistribute more income from the rich to the poor. The evidence for this assumption, however, is surprisingly shaky. Furthermore, the fact that taxes and government expenditures remain at very high levels does not necessarily mean that redistribution is constant. There are clear signs that the Swedish welfare state is becoming more beneficial for the middle class, but the standard method that welfare-state scholars in economics, sociology, and political science use to quantify redistribution does not detect this development.1

In this article, I first describe the method typically used to evaluate redistribution. Next, I discuss two problems with this standard approach: first, it does not account for behavioral responses to welfare programs; and, second, it does not detect

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1. By the term middle class, I simply denote those in the middle of the income distribution. Sweden’s egalitarian income distribution entails that the middle class is very big and includes both blue-collar workers with only primary education and many white-collar workers with tertiary education. According to Wolff, the middle class, defined as those with an income between 67 and 150 percent of the median income, includes 79 percent of the Swedish population (1992, 11). The comparable figure is 73 percent in Norway, 63 percent in the Netherlands, and 54 percent in the United States.
how political mechanisms change the structure of the welfare state into something particularly beneficial for the middle class. I illustrate this middle-class bias with several Swedish examples. Before concluding, I discuss publicly financed primary schooling, a welfare-state component with a clear effect on inequality that the standard method does not capture.

The Standard Approach to Measuring Redistribution

The most commonly used approach to measuring welfare-state redistribution is to compare the income distribution before taxes and transfers with the distribution after taxes and transfers and to assume that the welfare state causes the difference. With few variations, this approach is used by Kakwani (1986), Mitchell (1991), Stephens (1995), Korpi and Palme (1998), Solera (2001), Bradley et al. (2003), Moller et al. (2003), Iversen (2005), and Smeeding and Sandström (2005). More than twenty years ago, Uusitalo (1985) identified and analyzed several problems with the standard approach, but because no obvious alternative exists, the approach is still used, notwithstanding the notable risk that the research will give rise to incorrect policy conclusions.

The approach is normally applied as follows. The analyst calculates the Gini coefficient for gross income. The calculation is made for households or (less often) for individuals, usually the adult population. The same calculation is made for net income—that is, income after taxes and transfers have been taken into account. Finally, the analyst calculates the relative reduction in the Gini coefficient to produce a measure of redistribution for use in cross-country comparisons and regressions (see, for example, table A4.3 in Iversen 2005). Variations on the theme include using poverty ratios instead of Gini coefficients, as for example in Moller et al. 2003.

Smeeding and Sandström formulate a typical conclusion from these studies: “[I]n general, the larger and more inclusive the social insurance system, . . . the larger the antipoverty effect” (2005, 7–8). They also state that the systems in Sweden and Germany have the largest effects on poverty among the elderly. This conclusion is reached as follows: the poverty rate based on market income is 93 percent for female-headed elderly households in Sweden and 82 percent for all elderly households; after taxes and transfers, the corresponding poverty rates are 17 and 8 percent, respectively. Thus, the total effect of the system is taken to be that poverty rates are reduced by more 70 percentage points.

It is simply not true, however, that in the absence of public pensions and other transfers, 93 percent of old women in Sweden would be poor. The pension system in Sweden is big, universal, and mandatory, and, most important, people apparently

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2. This section draws and expands on the work in Uusitalo 1985 and Bergh 2005.

3. The Gini coefficient assigns a value between 0 and 1 to an income distribution, where 0 indicates complete equality and 1 indicates that all income is received by a single person.
trust that the pensions will be paid. Therefore, they adjust their behavior accordingly: the public system crowds out the provision of market sources of income.

To evaluate the welfare state’s effect correctly, however, we should compare its outcome with the outcome that would arise in its absence. For several reasons, the gross-income distribution is not the proper counterfactual. Most important, the gross-income distribution reflects people’s behavioral adjustments to the welfare state, as in the preceding example of the Swedish pensioners. If poor people lower their labor supply in response to generous welfare benefits, this action will increase gross-income inequality, and the standard approach will exaggerate redistribution because it does not take this behavioral response into account.

Economists typically do include behavioral responses in their theoretical models of redistribution. However, the analysis of the effect of the entire welfare state is often left to sociologists and political scientists, some of whom seem reluctant to deal with the problem. Two of the previously mentioned sources discuss the issue in identical words:

> Based on conventional economic reasoning, critics of the welfare state contend that generous welfare state benefits . . . available to able-bodied working-age persons increase pre-tax and transfer inequality because they act as disincentives for recipients to seek work. Indeed, it is sometimes argued that, to the extent that generous welfare states reduce post-tax and transfer inequality, they simply make up for the damage done to pre-tax and transfer inequality levels. We are skeptical regarding this argument, as it ignores the fact that generous welfare states are often labor mobilizing and invest heavily in skill formation, particularly under the influence of social democratic parties. (Bradley et al. 2003, 200; Moller et al. 2003, 27)

Note how this description creates a straw man by stating that “it is sometimes argued” that welfare-state redistribution only makes up for the damage done to the market-income distribution. To be sure, this extreme position is probably wrong in most cases, but it does not follow that behavioral responses may safely be ignored. Even if behavioral responses to taxes and transfers are small in absolute terms, they probably vary among different countries because the structure of taxes and transfers varies among countries. The actual implications of conventional economic reasoning are analyzed in Bergh 2005, and the results are intuitive:

- Flat-rate benefits reduce labor supply, and the effect is bigger for low-income earners.
- Progressive taxes reduce labor supply for high-income earners.

Even if these effects are small—estimates of labor-supply elasticities are indeed small for men but greater for women—the implication is that the standard approach will indicate large redistribution when taxes are close to proportional and benefits are
flat rate, but small redistribution when taxes are progressive and benefits are positively income related. Yet the country that scores highest according to the standard approach is not necessarily the one with the greatest net redistribution.

Behavioral responses are likely to be larger when taxes and benefits are high, and the data confirm that the standard approach seems to be more biased in high-tax countries. For example, with data from the Deininger-Squire dataset (based on the Luxembourg income study) one can illustrate some peculiar effects of the standard approach.\footnote{Data available at http://www.worldbank.org/research/inequality/data.htm.} Between 1975 and 1981, both gross-income and net-income inequality decreased in Sweden, yet the standard approach indicates that the system became less redistributive. Between 1979 and 1986, redistribution in Norway decreased drastically, according to the standard approach, but almost nothing happened to net-income inequality. For the United States, however, higher redistribution according to the standard approach seems to be correlated with lower net-income inequality.

In addition to labor-supply responses, the welfare state causes other behavioral changes that bias the standard approach in measuring redistribution. For example, pensions schemes replace private savings that would otherwise occur at least to some extent, and short-term social insurance replaces similar insurance bought on the market. As previously noted, although most of these problems with the standard approach have been known for more than twenty years, they have had little impact on research and policy conclusions.

**The Middle-Class Bias**

Many welfare-state scholars emphasize that the universal welfare state has a counterintuitive redistributive effect: although low-income earners also pay high taxes and high-income earners also receive the greatest benefits, the net effect is still more redistribution toward the poor, as compared to the redistribution in targeted-welfare states in which benefits are means tested against personal income. At least two mechanisms are said to contribute to this outcome. First, a political economy argument maintains that the universal constructions allow majority support for a bigger government budget, which is beneficial for the poor even if benefits are not targeted to low-income earners (Åberg 1989; Korpi and Palme 1998). Second, a system with proportional taxation and flat-rate benefits equal for all leads by a sheer mathematical principle to smaller relative differences between high-income and low-income earners, as described, for example, in Rothstein 1998.

Without doubt, these arguments are valid. But if political mechanisms imply that big welfare states survive because they are beneficial for the middle class, what stops the middle class from using its political influence to demand further adjustments to
the welfare state, resulting in systems that benefit it disproportionately? The answer is, very little, as Goodin and Le Grand (1987), for example, have documented in detail.

A useful theoretical starting point for analyzing redistribution is to note that whenever the median voter earns less than the average income, a majority of voters will be situated so as to benefit from a redistribution of income from high-income to low-income earners, as described in Meltzer and Richard 1978. To understand whether the redistribution that takes place benefits the poorest of the poor or those with higher income, however, we must take the counterfactual problem into account. Understanding welfare-state support requires that we ask: Does a majority of the population perceive that they are better off under the welfare state than they otherwise would be?

For the very poorest and the very richest, the answer is clear because these groups are great net receivers and net payers, respectively. For the big Swedish middle class, the answer is less clear, and additional factors must be considered. For example, if people value insurance highly, even some net payers to the welfare state may support it, especially if private insurance markets suffer from problems owing to adverse selection (Barr 1992). The upshot is that political support for big government in Sweden hinges on the fact that the crucial middle-class voters continue to support the welfare state. As middle-class voters get richer, they are likely to demand lower taxes unless the welfare state is altered favorably for them.

As we shall see, this middle-class bias is now visible in most major components of the Swedish welfare state. For two parts of the Swedish system—higher-education and labor-market policies—it can actually be argued that low-income earners would be better off without these policies.

**Vouchers**

A specific consequence of middle-class people’s getting richer is that they demand more and higher-quality services from schooling and health care. In welfare states in which these services are almost completely financed by taxes, these demands cause problems: it is expensive to provide universally the high-quality services that the upper middle class demands. If people start to buy their own health care, their willingness to pay a large tax bill will decrease. One solution for the big welfare states, including Sweden, is to rely increasingly on vouchers, thereby directing tax money to private providers of schooling, elder care, and, to a lesser extent, health care.

In Sweden, a public expert commission reported recently that private providers, initially used by only a few, are increasing in number (Socialdepartementet 2002). For example, the share of privately employed workers in the elder-care sector grew from 2 percent to 13 percent between 1993 and 2000, and similar trends apply in day care and

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5. As shown in Fogel 1999, both education and health care have a long-run income elasticity of demand greater than 1. Therefore, as people’s incomes rise, they devote a greater share of their budgets to the purchase of these services.

6. This intuitive claim has empirical support; see Hall and Preston 1998.
health care. Ten years after the introduction of school vouchers in 1992, the reform is seen as uncontroversial: public debate has moved from whether school vouchers should be used to whether some religious schools should be eligible for public funding (as they are today). The share of students attending publicly financed private schools has grown from 0 percent to 5 percent for primary schools and 6 percent for secondary schools.

In addition to these small increases, Blomqvist and Rothstein (2000) show that the share of private providers is typically higher in urban areas and in high-income municipalities and that parents with high income and high education are more likely to send their children to privately provided schools. Thus, this recent development in the welfare state essentially means that members of the upper middle class (increasing in number as incomes increase) have been given greater flexibility and freedom of choice within the tax-funded system—and, in return, they continue to lend their political support to the welfare state, as they did earlier.

### The Pension System

Most redistribution in big welfare states is so-called intraindividual redistribution—that is, redistribution over the lifecycle of a single individual. Estimates vary, but the Swedish Ministry of Finance recently estimated that on average only 18 percent of taxes goes toward redistribution between different persons (Pettersson and Pettersson 2003).

The public pension system is the single biggest transfer and the biggest single reason why government expenditure in Sweden is greater than in other countries. As in other countries, the pension system in Sweden needed to be reformed to cope with lower fertility and increased life expectancy, and in 1998 a reform was implemented. The reform is impressive because it was far-reaching, implemented early, and supported by a broad political majority (Disney 2003; Marier 2005). However, the new pension system also has a clear middle-class bias.

Marier (2005) notes that the people expected to gain from the Swedish reform are those with steady careers and slow wage progression. More specifically, the new system delivers pensions that are roughly proportional to total lifetime income (with compensatory measures for child care, studies, and military service), and the pension age is flexible between sixty-one and seventy years, providing strong economic incentives to postpone retirement. There are, however, two major exceptions. First, yearly incomes above SEK 333,750 (U.S.$42,000) are not covered by the system. Second, there is a minimum-pension guarantee, at SEK 7,000 ($875) monthly, for those with insufficient pension rights, but it is paid only from sixty-five years of age. The consequence is that only income earners between these limits enjoy both the benefits of flexible retirement age and full income coverage. In fact, the rules in the new system seem tailored for male blue-collar workers.

7. In an older study, the estimate is 24 percent; see Departementsserien 1994.
8. Amounts apply for 2006; my source for this information is http://www.forsakringskassan.se.
The Sickness Benefit

Short-term social insurance, such as the sickness benefit, exhibits a distributional pattern similar to the reformed pension system. Elsewhere (Bergh 2004), I have calculated the net monetary benefits from the sickness benefit under the assumptions that the scheme is financed by a proportional 4 percent fee and that benefits cover 80 percent of income losses due to sickness up to the upper limit. As figure 1 shows, low-income and middle-income earners benefit from the system, whereas high-income earners do not have their incomes fully covered. Also, some low-income earners are not entitled to income-related benefits because eligibility requires one month of employment.

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9. These assumptions approximate reality, but the exact rules change from year to year.
The Unemployment Benefit, Unions, and Labor-Market Policies

The unemployment benefit in Sweden shares several characteristics with the pension system and the sickness benefit: it is positively income related, but only up to a certain limit and only for those who have had a steady job for some time, in this case approximately six months. Again, the middle-class bias is visible. The scheme fits best for those who have a job, but one that does not pay very well.

The unemployment benefit, however, has other interesting features. Despite its being financed almost entirely by taxes, membership is voluntary, and the program is administered by labor unions. Furthermore, union membership is subsidized because membership fees are tax deductible, and union strength in Sweden is exceptionally great by international standards, with membership rates of approximately 80 percent, as compared to 13 percent in the United States (European Commission 2004). Finally, employment regulations, such as employment-protection laws, are extensive in Sweden by international standards, as shown by the index recently developed by Potero and colleagues (2004).

These labor-market policies have important consequences for inequality. First, stronger unions tend to lead to a more compressed wage structure, as noted in Bradley et al. 2003. Thus, the prevalence of strong unions is probably an important part of the explanation of the low inequality among Swedish wage earners.

Second, however, Lindbeck and Snower’s (1988) well-known insider-outsider theory suggests that strong unions and employment-protection laws benefit mainly insiders with a strong position in the labor market, at the expense of outsiders, such as youths and immigrants. The increasing rate of unemployment among people under twenty-five years of age (28 percent, compared to the overall average of 8 percent in May 2006) suggests that insider-outsider problems are serious in Sweden. Another indication is that unemployment among immigrants from outside the European Union is more than four times greater than the national average (Statistics Sweden 2004, Dansk Industri 2002). A case can indeed be made that the Swedish labor-market policies have worsened these groups’ employment opportunities if we compare this case to a counterfactual situation involving a more flexible labor market.

Work Incentives for the Middle Class, Poverty Traps for the Poor, and High Marginal Tax Rates for the Rich

Redistribution to support the poorest can be effected in different ways. Sweden and the United States represent two very different strategies. Sweden has opted for large social assistance tied to individual leisure and consumption, and its taxation of low income is very high by international standards. U.S. policymakers have chosen the opposite strategy: the Earned Income Tax Credit essentially subsidizes low-wage employment, but those who do not work receive relatively little public support (OECD 2004).
Elsewhere (Bergh 2004), I have estimated the approximate total effect of taxes and benefits in Sweden for a single income earner in different income intervals. The design of social assistance for the very poorest means that monetary work incentives disappear: greater income is completely offset by lesser benefits.

The income taxes paid to the state and the upper limits in all major transfers systems mean that work incentives for high-income earners are weak, with total effective marginal tax rates well above 50 percent. In comparison, work incentives are relatively strong for the broad middle class, whose members face marginal tax rates of approximately 35 percent.

Because high tax wedges on unskilled labor impede the division of labor, the size of the service sector is much bigger in the United States than in Sweden. This factor also explains why in the United States the poverty debate is focused on the “working poor,” whereas the Swedish debate concerns benefit dependency and separation from the regular labor market.

**Higher Education**

Another way in which the middle class benefits from welfare-state expenditure is through publicly financed higher education. Higher education in Sweden is completely financed by taxes, and there are no tuition fees. One might think that this policy would lead to higher enrollment and a better recruitment of students whose parents lack higher education, but such is not the case. The United States, with often high tuition fees, has slightly higher enrollment than Sweden, and in both countries students with highly educated parents are more likely to enroll. Usher and Cervenan (2005) show that the overrepresentation is actually slightly lower in the United States than in Sweden. The comparison is summarized in table 1.¹⁰

<table>
<thead>
<tr>
<th></th>
<th>Gross Enrollment</th>
<th>Equality of Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>70%</td>
<td>55%</td>
</tr>
<tr>
<td>United States</td>
<td>73%</td>
<td>57%</td>
</tr>
</tbody>
</table>

Source: Based on Usher and Cervenan 2005.

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¹⁰. Gross enrollment according to World Bank 2003. Note that gross enrollment involves some double counting because the same person can enroll several times. Equality of enrollment is the share of the male population ages forty-five to sixty-four with a university credential divided by the share of students whose fathers have a university credential. The value would be 100 percent if there were no overrepresentation of students with highly educated fathers. See Usher and Cervenan 2005.
The similarity between Sweden and the United States in higher-education enrollment may seem surprising given the facts about their education funding. The simple explanation, however, is that enrollment depends for the most part on GDP per capita, regardless of government expenditure on higher education, as shown by cross-country evidence in Bergh and Fink 2006.

A notable consequence is that the tax-funded higher education in Sweden is especially beneficial for households in which the parents are highly educated. Students from families in which the most highly educated parent has a tertiary education of at least three years receive primary schooling worth SEK 19,400 (U.S.$2,425) and higher education worth SEK 18,200 (U.S.$2,275) on average per year. For students whose parents have only primary schooling or less, the amount for primary schooling is almost the same—SEK 19,000—but for higher education the amount is only SEK 2,900 (Swedish Ministry of Finance 1999).

Furthermore, the Swedish higher-education system differs from that of many other countries because there are almost no elite universities. Although the quality of Swedish universities is more than adequate in comparison, for example, to the lower end of the U.S. distribution, the gap between the best institutions in the United States and the best in Europe is substantial.

Therefore, at the very top of the Swedish income distribution are households whose demand for higher education cannot be satisfied within the Swedish system. Thus, the pattern emerges once again: compared to a counterfactual system with lower tax funding and higher tuition fees, the Swedish system for higher education fits perfectly the demands of the middle class, whereas households at the top and the bottom of the income distribution pay taxes for educational services they do not consume. (For primary education, the redistributive effect differs, as discussed in the next section.)

It Isn’t Really This Bad: The Equality Effect of Public Primary Schooling

So far the reader may have gained the impression that the Swedish welfare state has done little, if anything, to decrease inequality and help the poor. That conclusion, however, is not correct. The fact that some parts of the welfare state are especially beneficial for the middle class implies nothing about its total effect.

Without doubt, income inequality in Sweden and the other Scandinavian countries is extremely low by international standards. Studying the income share for the top decile, Roine and Waldenström (2006) demonstrate that most of the decrease in inequality took place before the expansion of many welfare-state programs: by 1950, Swedish top income shares were already lower than in other countries. As shown by Johnson (2006), many welfare-reform programs in Sweden were put in place long ago and may have contributed to the decreasing inequality: the first public-schooling laws
in 1842, sickness insurance in 1891, unemployment insurance in 1906, and workers’ protection in 1912.

In the late 1940s, Sweden implemented yet another educational reform, recently evaluated by Meghir and Palme (2005). This reform serves as an ideal natural experiment: it was implemented gradually, and some cohorts were divided between the old and the new system, enabling Meghir and Palme to avoid the counterfactual problem. The reform increased compulsory schooling to nine years from the previous seven or eight years, abolished achievement-based placement after grade six, and imposed a nationally unified curriculum.

Meghir and Palme evaluate the reform by examining total years of education and annual earnings over the years 1985 to 1996 for students born in 1948 and 1953. The results indicate a positive but small effect on educational attainment and subsequent earnings, with big differences depending on socioeconomic characteristics. For students with unskilled fathers, the reform increased earnings by a statistically significant 3.4 percent. For students with skilled fathers, the impact on earnings was actually negative: −5.6 percent (2005, 420). The authors also show that the impact of the reform on educational attainment was particularly great for students of high ability with unskilled fathers. Thus, a longer mandatory primary school increased educational attainment much more for pupils from households with lower socioeconomic status.

Meghir and Palme’s findings can be explained theoretically. Publicly financed primary education can promote income equality if it leads to a distribution of human capital that is more equal than it would have been without public expenditures. In the counterfactual scenario, other institutions, such as the market and the family, would be the main education providers, and it is reasonable to assume that socioeconomic differences between households would lead to bigger inequalities when education is not financed publicly. In other words, students with highly educated parents and from high-income households would be able to attain the same education despite the absence of public provision, but students from households with lower socioeconomic status would not. Sweden’s first major schooling reform was implemented in 1842, and the theoretical mechanisms just described also apply to this reform.

As I have noted elsewhere (Bergh 2005), public schooling’s equality effect is not registered by the standard approach to measuring redistribution because whereas schooling affects gross-income equality, the standard approach measures only the difference between gross-income equality and net-income equality. Therefore, there is a clear risk that policy advice on how to decrease inequality based on the standard approach will be biased.

Concluding Discussion

Simply put, in the political debate concerning the welfare state, the right dislikes the welfare state because it redistributes from rich to poor, and the left likes it for the same
reason. Both sides are largely wrong. In a welfare state such as Sweden, traditional redistribution from rich to poor is a relatively small part of the welfare state’s activities.

Note well, however, that the middle-class bias discussed here does not necessarily make the poor worse off. The use of vouchers to induce competition among schools, for example, has been shown to have positive effects also for those who remain in public schools (Sandstrom and Bergstrom 2005).

Nevertheless, I have identified two areas in which the distributive consequences of the Swedish welfare state seem to be the opposite of what the welfare state is assumed to produce. People whose children are very unlikely to enter higher education pay taxes to finance tuition-free university education used mainly by students whose parents have higher education and high incomes. And employment-protection laws designed to protect weaker members of the labor force have become employment barriers for many unemployed youths and immigrants. One might argue, of course, that these two areas are not parts of the specifically Swedish welfare state (see, for example, Lindert 2004), but they are indeed parts of the Swedish model in a broader sense.

To evaluate redistribution properly, welfare-state scholars must take the counterfactual problem into account and evaluate different welfare programs separately, using both theory and empirical analysis to assess the scenarios that would arise if the program were abolished. Only when we have a reasonable description of the redistribution that is actually being effected can we have a serious debate regarding whether the Swedish or the U.S. welfare state should be shrunk or expanded.

References


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