22 April 2014

We appreciate the comments of a reader of our paper "Values and Labor Force Participation in the Nordic Countries" and find them most useful in improving the paper.

Our responses to specific comments follow:

The review in the first section can be made shorter. It was made long in the current
version to make the case that beliefs and values matter for economic outcomes. Some of
the references do not apply to the case of women's labor force participation and can be
removed, at least some of them. We appreciate the reader's suggested additional
references.

Moving Section 8 – on the origins of values and beliefs regarding the participation of women in the labor market in the Nordic countries – to precede the current Section 3, that includes the representative agent model, may well improve the paper. We would in this case prefer to move Section 4 – on values in the history of the Nordic welfare state – and Section 5 – on values and institutions in these countries – to also precede the current Section 3. The structure of the paper would then be as follows: First an introduction, then a review of previous work on culture in economics; then the section on values in the history of the Nordic welfare state; then a section on values and institutions; followed by the section on the origins of these values; followed by the use of the representative agent model of labor supply to show that the Nordic values help explain the prediction error.

2. Regarding the choice of a model, the chosen model is quite standard and not picked for convenience. We find our observation that labor supply in a country is high in spite of high rates of taxation to be an interesting one. One response would be to add features into the model, such as subsidized child care. We do cite Ragan (2006) and Rogerson (2007) who make such attempts. We are happy to also cite Del Boca et al. (2009) and Pronzato (2009) also. Our point is that one then needs to explain why institutions differ in these countries: Why, for example, child care is more heavily subsidized.

The paper describes the history of the Swedish welfare state in order to convince the reader that its current form reflects past and current values; that it was the values that came before the institutions. Thus it is not possible to say that the values described by Alva Myrdal almost one hundred years ago reflect the effect of subsidized child care in late 20th century Sweden on women's labor force participation. There is also the result in the last lines of Table 5 that shows that the proportion of children of immigrants in Europe that "disagree" or "strongly disagree" with the statement that "men should have more rights to a job than women when jobs are scarce" indicate that a higher proportion of responders with either the mother or the father coming from one of the Nordic countries disagree with the statement. So it is not obvious that institutional differences account for differences in values. We make the case that it is the other way around. Our emphasis on values does not preclude the effect of institutions such as subsidize child care on women's

labor supply, only that values may have both a direct impact on women's decisions as well as an indirect one through the choice of institutions.

- 3. The econometric part in Section 8 of the current draft can be expanded as the reader suggests.
- 4. Regarding the question of endogeneity of Lutheran values we agree that it is not clear to us whether the current Protestant culture is the offspring of Luther and Calvin and others or whether they simply took on values and beliefs that were already present in their countries. However, from the perspective of this paper it does not really matter which is the case. In both cases the nations that are currently Protestant, in particular Lutheran, have different values and beliefs for reasons that have nothing to do with the current institutional structure when it comes to the labor force participation of women. We agree with the reader that we should make this clearer in a revised version.
- 5. Regarding Norwegians: They share their disagreement with the statement that "men should have more rights to a job..." with other Nordics and disagree more than the Continental Europeans. This also applies to immigrants in other European countries of Norwegian descent. They diverge from the other Nordics in their response to the question about "working mother establishing a warm and secure relationship with her children." The WWS does not report any numbers for Norway for the two remaining questions. We agree that we should comment more on this but we do not believe that the one observation where Norwegians have different responses from the other Nordics is sufficient to refute our thesis.
- 6. People who have religious affiliations are in many cases "not at all religious." In the Nordic countries the vast majority of the populations belong to a Lutheran state church, however many of those individuals would respond by saying that they were not at all religious. The readers comment is, however, useful in that we should omit any comparison of survey responses from Protestants and Catholics who claim not to be religious in Table 6, that is omit the last five lines of the table and the discussion thereof.
- 7. Regarding the reference to Canada and other minor comments, we will correct and take into account.

Overall, we think that the comments help improve the paper but do not put in doubt its main contributions, which can be summarized as follows:

 The Nordic countries have a distinct set of values when it comes to the labor force participation of women, even when controlling for age, sex, marital status and education.

- These values are also found among descendants of Nordic immigrants in other European countries.
- These values are correlated with religious affiliations; they are Protestant rather than Roman Catholic. However, it is left as an open question whether "Protestant-type" ethics and values caused the Protestant Reformation of the 17th century or, alternatively, whether these values trace their origins to that Reformation. Our point is that the Protestant Reformation four centuries ago is exogenous to current institutions, just as other proposed "instruments" proposed in the literature such as the prevalence of plough agriculture.
- Representative agent models that take into account differences in tax rates but not differences in the structure of government spending underpredict labor force participation in the Nordic countries.
- Responses to survey questions related to the labor force participation of women are correlated with the prediction error.
- While it is clear from previous work that adding institutions, such as subsidized child care, into a representative agent's labor supply decision can, at least partly, account for the higher labor force participation rates of Nordic women, this leaves out the question why these institutional differences exist. The paper shows that these values existed before the creation of these institutions and discusses their possible origins.

Sincerely,

Axel Hall and Gylfi Zoega