

Welfare Receipt and the Intergenerational Transmission of Work-Welfare Norms*

Juan D. Barón

The World Bank

Deborah A. Cobb-Clark

Melbourne Institute of Applied Economic and Social Research,
University of Melbourne and
Institute for the Study of Labor (IZA)

Nisvan Erkal

Department of Economics
University of Melbourne

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Abstract

This paper investigates the role of welfare receipt in shaping norms regarding work and welfare using unique Australian data from the Youth in Focus (YIF) Project. We begin by incorporating welfare into a theoretical model of the transmission of work-welfare norms across generations. Consistent with the predictions of this model, we find evidence that youths' attitudes towards work and welfare may be influenced by socialization within their families. Young people are more likely to oppose generous social benefits and to believe that social inequality stems from individual characteristics if i) their mothers support these views; ii) their mothers were employed while they were growing up; and iii) their families never received welfare. Finally, youths' work-welfare norms appear to be unrelated to their neighbors' welfare receipt suggesting that socialization occurs primarily within families rather than within neighborhoods.

JEL-Classification: I38, H31, Z1, J00

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1 Introduction

Social assistance programs affect behavior by altering the economic incentives to get a job, pursue educational or training opportunities, and adopt particular family structures. They may also influence behavior by changing preferences and social norms. Of particular concern is the possibility that growing up in welfare-reliant families or neighborhoods weakens children's work ethic by reducing the costs associated with welfare receipt. In effect, the welfare system itself may lead to a culture of dependence that results in welfare receipt being passed from one generation to the next. This notion of welfare culture has its antecedents in theories of poverty from the 1960s and largely attributes welfare dependency to the values and norms that children learn from their parents and neighbors (see Duncan et al., 1988; Patterson, 1986; Corcoran, 1995; Gottschalk, 2005; Bartholomae et al., 2004). As such, intergenerational welfare dependency represents a form of cultural transmission in which preferences, beliefs, and norms of behavior develop through social interactions both across and within generations.¹

Our objective is to investigate how young people's perspectives on work and welfare are shaped by their mothers' work-welfare norms and their family's welfare history. We are particularly interested in the following questions. How are the work-welfare norms of mothers and their adult children related? Does this relationship depend on the family's previous interaction with the welfare system or on the welfare profile of the surrounding neighborhood? To address these questions, we first present a theoretical model of the transmission of work attitudes across generations. Our goal is not to provide a formal test of the theoretical model, but rather to use it as the basis for specifying the determinants of young people's work-welfare norms and to generate empirical predictions. Estimation is then conducted using data from the Youth in Focus Project, which interviewed approximately 2,400 pairs of young Australians (aged 18) and their mothers about their attitudes towards work, welfare, and what it takes to get ahead in life. These Australian

¹See Bowles (1998) and Bisin and Verdier (2010). For empirical evidence on cultural transmission, see, for example, Fernandez and Olivetti (2004) on gender role attitudes, Ribar and Wilhelm (2006) on elder support attitudes, Patacchini and Zenou (2007) on educational outcomes, Wilhelm et al. (2008) on generosity, and Dohmen et al. (2012) on risk attitudes.

survey data are linked to almost twelve years of administrative welfare data for these families, providing a unique opportunity to assess the role of welfare histories in shaping youths' work-welfare norms.

Understanding how work-welfare norms are formed is important. A vast literature documents that welfare receipt is correlated across generations.² While some of this intergenerational correlation in social assistance receipt is almost certainly spurious, there is also evidence of a causal link (see Gottschalk, 1996; Pepper, 2000; Beaulieu et al., 2005). Whether or not causality arises because welfare receipt affects the formation of work norms remains an open question. Parents can reduce moral hazard by instilling a strong work ethic in their children (Gradstein, 2009; Lindbeck and Nyberg, 2006). However, Lindbeck and Nyberg (2006) argue that parents' incentives to invest in their children's work norms are weakened by generous social insurance institutions. They find empirical support for this proposition using variation in social expenditures across OECD countries. They are unable, however, to observe the socialization of work norms within families. In contrast, we make an important contribution in directly linking youths' work-welfare norms to those of their mothers, to their family welfare history, and to the welfare profile of their neighborhood.

We find evidence that youths' attitudes towards work and welfare may be shaped by socialization within their families. Young people are more likely to oppose generous social benefits and adopt an internal view of social inequality if i) their mothers support these views; ii) their mothers were employed while they were growing up; and iii) their families never received welfare. Finally, youths' work-welfare norms appear to be unrelated to their neighbors' welfare receipt, suggesting that socialization occurs primarily within families rather than neighborhoods.

²See, for example, Duncan et al. (1988), Antel (1992), Moffitt (1992), Gottschalk (1990, 1992, 1996), Borjas and Sueyoshi (1997), Pepper (2000), Beaulieu et al. (2005), Levine and Zimmerman (2005), Pech and McCoull (1998, 2000).

2 A Model of the Intergenerational Transmission of Norms

Our conceptual framework is based on Bisin and Verdier (2001). We assume that children are shaped by their parents as well as their neighborhoods, and focus our attention on preferences for work versus leisure as the foundation of individuals' work ethic.³ Preferences for work versus leisure are closely linked with individuals' beliefs about the sources of social inequality, one of the work-welfare norms we focus on in the empirical analysis. That is, those with a strong work ethic are also likely to believe that success depends on factors within individual control, such as hard work. We also assume that individuals' work ethic is closely related to their views on unemployment benefits, which is the second work-welfare norm we use in the empirical analysis. In the interest of space, we do not formally model the link between work ethic and preferences for redistribution, but this can be done by expanding the model to include voting.⁴

2.1 Transition probabilities and parents' utility function

Suppose each family consists of one parent and a child. There are two types of parents. Type L has a high marginal utility of leisure, (i.e., low work ethic), and type H has a low marginal utility of leisure (i.e., high work ethic). Parents have a total time endowment of one unit which they allocate to labor supply (l_i) and leisure ($1 - l_i$).

We assume that parents do not know the exact wage rate they will face in the labor market when they make their labor supply decisions. This allows us to capture the effect of exogenous labor market shocks on outcomes. The uncertainty regarding wages is resolved after the labor supply choice is made. Each parent independently draws a wage w from a common distribution F with support in $[\underline{w}, \bar{w}]$ and density f .

Parents are expected utility maximizers. The expected utility a parent of type i

³Lindbeck and Nyberg (2006), Doepke and Zilibotti (2008), and Corneo (2012) consider alternative models of socialization by parents, but there is no neighborhood or peer effects in those models.

⁴Fong (2001), Corneo and Gruner (2002), and Alesina and Ferrara (2005) provide evidence that individuals who believe in the role of hard work support less redistribution.

receives from consumption and leisure can be written as

$$\int_{\underline{w}}^{\bar{w}} c_i(w) f(w) dw + (1 - \gamma_i) Z(1 - l_i)$$

where $c_i(w)$ stands for the consumption level of type $i \in \{L, H\}$ for a given wage rate w , l_i captures the parent's labor supply choice, and $\gamma_i \in [0, 1]$ denotes the parent's work ethic. The utility received from leisure is given by $(1 - \gamma_i) Z(1 - l_i)$, which is a strictly concave and increasing function with $Z'(0) = \infty$ and $Z'(1) = 0$. We assume that $\gamma_H > \gamma_L$ which is consistent with parents with a higher work ethic having a lower taste for leisure.

Parents also care about their children's utility. Children are born without any inclinations and are shaped by their parents and the environment. Let q_{ij} for $i, j \in \{L, H\}$ be the probability that a child with a parent of type i has values of type j . We assume that four things affect children's values: parental labor supply (l_i), parental work ethic (γ_i), the parent's experience with the welfare system, and the proportion of people in the neighborhood with a strong work ethic (σ). Parents are successful in passing a strong work ethic on to their children with a probability that is proportional to their labor supply choice. However, a working parent with a weak work ethic is less convincing than a working parent with a strong work ethic. This may be because those parents with a weak work ethic complain more about work, which makes them less effective in passing a strong work ethic on to their children. Moreover, we assume that parents who have received welfare find it more difficult to transfer a high work ethic to their children irrespective of their own work ethic.⁵

Specifically, for a parent of type i , where $i \in \{L, H\}$, the probability of passing a strong work ethic is given by $\delta^k \gamma_i l_i$, where $k \in \{s, ns\}$ denotes whether the family has ever received support (s) or not (ns). We assume that $\delta^s < \delta^{ns} = 1$. If the parent is not successful in passing on a strong work ethic (with probability $1 - \delta^k \gamma_i l_i$), then the child

⁵This may be because welfare dependency reduces the stigma attached to welfare receipt and thus reduces the value of having a strong work ethic. This issue could be dealt with more explicitly in a model where individuals care about their economic performance with respect to their reference group (of which their own family is a part). Thus, children growing up in families with welfare dependency may have lower aspirations than children growing up in families with no welfare dependency since they see welfare receipt as more acceptable. See Lindbeck et al. (2003) and Ljunger (2012) for models where the non-monetary cost of taking up welfare benefits depends on the behavior of the previous generation.

is randomly matched with somebody in the neighborhood. In this case, the greater the proportion of people in the neighborhood with a strong work ethic (σ), the higher the chances the child will develop a strong work ethic. Thus, the child's overall probability of having a strong work ethic is given by

$$q_{HH}^k = \delta^k \gamma_H l_H + (1 - \delta^k \gamma_H l_H) \sigma \quad (1)$$

if the parent has a strong work ethic and

$$q_{LH}^k = \delta^k \gamma_L l_L + (1 - \delta^k \gamma_L l_L) \sigma \quad (2)$$

if the parent has a weak work ethic. The child will have a weak work ethic if both the parent and society were unsuccessful in passing a strong work ethic on to the child. This occurs with probability

$$q_{HL}^k = (1 - \delta^k \gamma_H l_H) (1 - \sigma) \quad (3)$$

$$q_{LL}^k = (1 - \delta^k \gamma_L l_L) (1 - \sigma) \quad (4)$$

for the type H and type L parent, respectively.

As in Bisin and Verdier (2001), parents are altruistic, but in a paternalistic way. That is, they correctly anticipate their children's future labor supply behavior, but they evaluate their children's future utility from their own perspective. Let $V_{ij}(\gamma_i, l_j^{C*})$ for $i, j \in \{L, H\}$ represent the expected altruistic utility a parent of type i receives if her child is of type j . Since the utility of the child is evaluated from the perspective of the parent, V_{ij} is a function of the parent's taste parameter, γ_i , and the child's optimal labor supply choice, l_j^{C*} . It is defined as

$$V_{ij}(\gamma_i, l_j^{C*}) = \int_{\underline{w}}^{\bar{w}} c_j^{C*}(w) f(w) dw + (1 - \gamma_i) Z(1 - l_j^{C*}),$$

where $c_j^{C*}(w)$ stands for the optimal consumption choice of the child for a given wage

rate w . If the parent and the child are of the same type (i.e., have the same work ethic), then the child's labor supply choice, l_j^{C*} , maximizes the parent's altruistic utility. Hence, $V_{ii}(\gamma_i, l_i^{C*}) - V_{ij}(\gamma_i, l_j^{C*})$ reflects the parent's expected utility gain if her child has the same work ethic as herself.

We can now write the expected utility of a parent of type i as

$$EU_i = \int_{\underline{w}}^{\bar{w}} [c_i(w) + q_{ii}^k V_{ii} + q_{ij}^k V_{ij}] f(w) dw + (1 - \gamma_i) Z (1 - l_i) \quad (5)$$

where $i, j \in \{H, L\}$ and $k \in \{s, ns\}$ as above. Note that q_{ii}^k and q_{ij}^k may take on different values depending on the realization of w since the parent may receive welfare in some states of the world but not in others.

Parents maximize their expected utility by choosing l_i subject to their budget constraint. We assume that individuals automatically qualify for (and receive) welfare if their income falls below \tilde{y} . With a means-tested benefit system and a taper rate of b , the level of welfare received is equal to $b(\tilde{y} - l_i w)$. A parent who has chosen a high level of labor supply may still receive welfare if the wage realization is sufficiently low. As a result, for a given choice of l_i , the budget constraint is given by

$$\begin{aligned} c_i &= l_i w && \text{if } l_i w > \tilde{y} \\ c_i &= l_i w + b(\tilde{y} - l_i w) && \text{if } l_i w < \tilde{y}. \end{aligned}$$

2.2 Analysis

The transition probabilities defined in equations 1-4 imply that the likelihood that a child will have a strong work ethic is increasing in the amount of time the parent works. In other words,

$$\frac{\partial q_{HH}^k}{\partial l_H} > 0; \quad \frac{\partial q_{LH}^k}{\partial l_L} > 0; \quad \frac{\partial q_{HL}^k}{\partial l_H} < 0; \quad \frac{\partial q_{LL}^k}{\partial l_L} < 0.$$

For a given labor supply choice, however, a parent who has received welfare is less likely to have a child with a strong work ethic ($q_{iH}^{ns} > q_{iH}^s$) and is more likely to have a child with a weak work ethic ($q_{iL}^{ns} < q_{iL}^s$) because $\delta^s > \delta^{ns}$. Hence, type L parents who want

their children to share their values care less about welfare receipt than do type H parents.

We show in the Appendix that type H parents will always choose a higher labor supply level than type L parents: $l_H^* > l_L^*$. This implies (i) children who have parents with a strong work ethic are more likely to have a strong work ethic themselves than are children who have parents with a weak work ethic, and (ii) parents with a low work ethic are more likely to be on welfare than are parents with a high work ethic.

We can also investigate how the transition probabilities are affected by a change in the proportion of people in the neighborhood with a strong work ethic (σ). In the Appendix, we show that an increase in σ (i) has an ambiguous impact on q_{HH}^{ns} and q_{HL}^{ns} , and (ii) causes q_{LH}^s to increase and q_{LL}^s to decrease. This is because a unilateral increase in the neighborhood work ethic increases the probability that children develop a strong work ethic. However, cultural substitution implies that as work ethic strengthens in the neighborhood, type H parents respond by reducing their own labor supply and consuming more leisure. This reduces the probability that their children acquire a strong work ethic, making the overall impact of a change in σ on q_{HH}^{ns} and q_{HL}^{ns} ambiguous. Cultural complementarity, on the other hand, leads type L parents to increase their labor supply, raising q_{LH}^s and reducing q_{LL}^s .

2.3 Empirical predictions

To summarize, the key feature of the model is that children's work-welfare norms are shaped by socialization both inside and outside the family. We find that parents with a strong work ethic are more likely to have children with a strong work ethic. Children are also more likely to have strong work ethic if their parents work more and/or do not receive welfare. Moreover, although a stronger neighborhood work ethic has an ambiguous impact on the norms of the children of parents with a strong work ethic, it increases the probability that parents with a weak work ethic have children who also develop a strong work ethic. We use these insights to specify the empirical model and to provide a framework for interpreting our results.

3 The Data

3.1 The Youth in Focus Data

We use data from the Youth in Focus Project (YIF) to estimate the relationship between young Australians' work-welfare norms and those of their mothers, taking into account the family's welfare history, the mother's employment status, and the welfare receipt of their neighbors. The YIF data are unique in providing detailed information about a range of educational, health, employment, and demographic outcomes, welfare histories, and family background for a matched sample of mothers' and their 18-year-old children.

Specifically, the YIF Project uses Australian administrative records to identify all young people born in the six-month period between October 1987 and March 1988 who ever had contact with the social security system between 1993 and 2005 (see Breunig et al., 2007). The Australian social security system is nearly universal for families with children with some payments, such as the Child Care Benefit, having no income test at all and others, such as the Family Tax Benefit, being denied only to families in the top quintile of the income distribution (Centrelink, 2013). At the other extreme are welfare payments that are targeted towards low-income parents (mainly single parents) or unemployed individuals which are also subject to income, asset and/or activity tests. Young people can appear in the administrative data if they receive benefits themselves. Most, however, appear in the data because a family member (usually a parent) received a payment at some point between 1993 and 2005 which depended in part on his or her relationship to the youth. Comparisons of the number of young adults in these administrative data to census data suggests that over 98 percent of young people born between October 1987 and March 1988 are represented in the administrative data (Breunig et al., 2007). Consequently, these social security records provide high-quality, fortnightly data on the level and type of payments received for a birth cohort of young Australians whose families received a wide range of social benefits.

These administrative data were used to categorize youths and their parents into one of six groups depending on the recency and intensity of the family's welfare receipt. A stratified random sample of young people and a corresponding parent or guardian—in

96.5 percent of cases the biological mother—was then selected from the administrative data for interview. Data from separate phone interviews with youths and their parents as well as a self-completion questionnaire administered to youths were then matched to the administrative social security data (Breunig et al. 2007).⁶

The Australian government does not consider either the Family Tax Benefit or the Child Care Benefit to be welfare payments as they are essentially tax concessions to families. Similar benefits in the U.S. are provided through the tax system in the form of standard deductions for dependent children and child care rebates. Thus, we do not classify these payments as welfare, leaving 40.9 percent of the young people in the administrative data with no history of parental welfare receipt. The most common welfare payments in this population are payments to low-income parents (Parenting Payment Single or Parenting Payment Partnered) or unemployment benefits (Newstart Allowance). Unemployment benefits are both income- and asset-tested, are funded out of general tax revenue, and are not related to individuals' earnings or employment histories.⁷

We compare the norms of three groups: youth who have no family history of welfare receipt, youth whose families received moderate (i.e., less than six years) welfare (31.6 percent), and youth whose families received intensive (i.e., six or more years) welfare (27.5 percent) while they were growing up. We have necessarily made a number of sample restrictions. We drop 74 pairs in which the responding parent was not the biological mother and 286 pairs in which either the youth or mother provided incomplete information. Consequently, our estimation sample consists of 2,070 pairs of youth and their mothers who both have complete survey data for the variables of interest. In some cases, the sample is 1,364 observations due to missing data on mothers' norms. Summary statistics are in Appendix Table B1.

⁶The response rate was 34.2 percent for parents, and 34.7 percent for youth—73.1 percent of whom also completed the self-completion questionnaire. More than 96 percent of youth and 92 percent of parents completing the survey consented to linking their survey and administrative data. Response rates varied somewhat by welfare history, but this stemmed primarily from disparity in contact rather than refusal rates (Breunig et al., 2007). Homel et al. (2012) demonstrate that school completion rates, school enrollment, and socio-economic disadvantage constructed from YIF, Australian Census, and Longitudinal Surveys of Australian Youth (LSAY) data are similar.

⁷Single parents can receive up to \$683.50AUD per fortnight, while the basic rate of Newstart Allowance for partnered individuals is \$448.70AUD per fortnight (Centrelink 2013).

3.2 Work-Welfare Norms and Welfare History

Young people and their mothers were asked for their views about the government's role in supporting the unemployed and what it takes to get ahead in life. Specifically, respondents were asked whether the government or unemployed individuals (and their families) themselves should mainly be responsible for ensuring that the unemployed have enough to live on, and whether current unemployment benefits are too high or too low. Individuals were also asked about the importance of having 1) well-educated parents, 2) a good education themselves, 3) ambition, and 4) a job in getting ahead in life (see Appendix Table B2). Finally, mothers were also asked about the importance of coming from a wealthy background.

Responses to these questions form the basis of our indicators of work-welfare norms since unemployment benefits are an important component of the Australian welfare system. Specifically, Sabbagh and Vanhuyse (2006) argue that norms regarding the welfare state can be understood in the context of two competing ideological frameworks; one based on markets and the other based on a welfare state. The market-based perspective is associated with a strong work ethic, a focus on individual responsibility, and a view that social inequality is driven primarily by individuals' actions. In contrast, the welfare-statist perspective is characterized by a desire for egalitarian redistribution, support for universal benefits, and a view that social inequality stems from unconstrained market forces rather than individual characteristics. Drawing upon this conceptual framework, we begin by creating a series of seven indicator variables which take the value of one for responses that are consistent with the market-based frame and zero for responses that are consistent with the welfare-state frame (see Appendix Table B2).⁸ Weighted means, standard deviations, and p-values on tests for differences in mothers' and youths' mean responses are presented in Table 1.

Mothers are significantly less likely than their 18 year-old children to believe that unemployment benefits are too high and that individuals (and their families) are

⁸For simplicity, the results in Table 1-3 are based on this simple (0/1) indicator. In the estimation model, however, we use the full variation across all response categories.

responsible for looking after the unemployed (see Table 1). Almost two-thirds (62.0 percent) of mothers think that having a good education is very important in getting ahead, although only half (50.3 percent) of young people share this view. Rather, 18 year-olds are significantly more likely to believe that it is having well-educated parents that leads to success in life. Mothers and youth differ most in their views of the value of having a job in getting ahead in life with mothers being significantly more likely than their children (81.0 versus 59.0 percent) to regard having a job as very important. Both agree, however, that one's own ambition is very important in getting ahead. Finally, only 5.5 percent of mothers believe that success is closely tied to coming from a wealthy background.

[Table 1 here]

It is also interesting to begin to consider how norms regarding work versus welfare might be correlated within families. Table 2 reports youths' norms conditional on those of their mothers. For example, 67.9 percent of young people believe that unemployment benefits are too high when their mother reports believing the same. Only 46.1 percent of youth think that unemployment benefits are too high when their mothers disagree with this viewpoint. This difference is highly significant. Overall, the correlation in mother and youth norms ranges from 0.322 (the level of unemployment benefits) to 0.098 (the importance of a job in getting ahead).

[Table 2 here]

Finally, work-welfare norms are related to welfare receipt (see Table 3). Mothers and their 18 year-old children are both less likely to say that unemployment benefits are too high, and that individuals and their families should look after the unemployed if the family has received welfare at some point in the past. At the same time, youths' perceptions of what it takes to get ahead in life do not depend on their families' exposure to the welfare system. Mothers with a history of welfare receipt, however, are significantly more likely to believe that having a good education, having a good job, and coming from a wealthy background are very important in getting ahead.

[Table 3 here]

4 The Empirical Framework

4.1 The Econometric Model

Our challenge is to make the best use of our multiple indicators of each individual’s latent norm towards work versus welfare. Many economists in similar situations aggregate the multiple indicators into a single index and then adopt an estimation strategy suitable for the latent-variable nature of the problem. In our case, however, the weights underpinning the index would necessarily be ad hoc given that we have no information about the contribution that each indicator makes in predicting norms regarding work versus welfare. Unfortunately, estimation results are likely to be sensitive to the weights we choose.⁹ Alternatively, others analyze each indicator separately (see, for example, Dohmen et al. (2012)). The difficulty with this single-equation, ‘indicator by indicator’ approach is that it treats the data as though each survey question provides information about a separate concept. Moreover, we may be able to improve the precision of our estimates by combining the information from several indicators.

Consequently, we use multiple YIF survey responses as related indicators of youths’ and mothers’ latent norms. We focus on and estimate the determinants of two alternative work-welfare norms. The first captures support for generous social benefits (i.e., views about the level of unemployment benefits and the appropriate role of the government in supporting the unemployed), while the second captures individuals’ beliefs about the determinants of social inequality (i.e., the relative importance of own and family-background characteristics in life success).¹⁰ Given the parameterization of the underlying indicator variables (see Appendix Table B2), the first outcome measure in-

⁹For example, the effect of mothers’ work-welfare norms on those of their children is 2.5 times higher when equal weights are assigned than when highly unequal weights are assigned.

¹⁰We distinguish between these two work-welfare norms because analysis revealed that our data are not adequately described by a single norm. Moreover, this distinction is consistent with Sabbagh and Vanhuyse (2006), who also suggest that preferences for redistribution can be differentiated from beliefs about the sources of social inequality. Piketty (1995) shows how individual mobility experiences may cause individuals to form different expectations about the determinants of social mobility which shape their political views on redistribution.

forms us about the extent to which young people support the public provision of generous unemployment benefits, while the second outcome measure sheds light on the extent to which young people believe that social inequality is driven by factors that are internal to individuals and their families. We refer to the first as the “social benefit” norm and to the second as the “social inequality” norm.

Our estimation model consists of two parts. The first is a single behavioral (structural) equation characterizing youths’ work-welfare norms based on the insights derived from the theoretical model set out in Section 2. The second is a series of measurement equations which relate our observed responses (indicators) to the underlying latent work-welfare norms (see Skrondal and Rabe-Hesketh, 2005; and DePolt et al., 2009). The determinants of the behavioral and measurement equations are then estimated jointly—once for social benefit norms and once for social inequality norms. We discuss each part of the model in turn.

4.1.1 Behavioral (Structural) Equation

According to our theoretical model, youths’ work-welfare norms are a function of their family circumstance (i.e., the welfare history, labor supply, and norms of their parents) and the neighborhoods in which they live. Consequently, we assume youths’ norms are given by

$$\eta_c^* = \mathbf{w}'\boldsymbol{\alpha} + \gamma\eta_p^* + \theta L + \pi N + \mathbf{x}'\boldsymbol{\beta} + \varepsilon, \quad (6)$$

where \mathbf{w}' is a vector capturing the welfare history of the youth’s family, η_c^* and η_p^* are the latent, continuous work-welfare norms of youths and mothers, respectively, and L is mothers’ labor supply choice (i.e., employment status when the youth was aged 14). Unfortunately, our data do not provide a measure of work-welfare norms in the surrounding neighborhood. Instead, we control for the proportion of parents currently living in the neighborhood who received no welfare between 1993 and 2005 (N). \mathbf{x}' is a vector of covariates that contribute to the formation of youths’ work-welfare norms (i.e., gender, immigrant status, aboriginal status, family background, and parental education). We do

not control for youths' current education and employment choices in the norms equation because they are likely to be endogenous. Instead, we account for previous events that may have had a role in shaping current attitudes.¹¹ Specifically, \mathbf{x}' includes controls for a young person leaving home before age 16, dropping out of school before age 16, and having parents who regularly attended school committee meetings while the youth was growing up. Finally, conditional on \mathbf{x}' , \mathbf{w}' , L , N , and η_p^* , ε is a normally distributed error term with mean 0 and variance σ_ε^2 , while the remaining parameters are coefficients to be estimated. We also assume that $\eta_p^* \sim N(0, \sigma_p^2)$ and that η_p^* is uncorrelated with the other independent variables.¹² Section 5.4 discusses robustness to alternative assumptions.

This behavioral model highlights the relationships of interest and allows us to test the main propositions of our theoretical model. In particular, we expect youths' work-welfare norms to be positively related to those of their mothers, and growing up in a family with a history of welfare receipt or in which the mother did not work to be associated with having norms that are less consistent with the market-based frame. In contrast, the welfare profile of other people in the neighborhood has a theoretically ambiguous effect on a youth's norms regarding work versus welfare.

4.1.2 Measurement Equations

Responses to multiple YIF survey questions are used as indicators of latent work-welfare norms (see Appendix Table B2). The nature of these questions implies that responses do not form continuous indicators of work-welfare norms. Rather, the data result in ordered, discrete variables reflecting respondents' views on either (i) the role of the government in assisting the unemployed (social benefit norm) or (ii) the importance of individual and family-background characteristics in getting ahead in life (social inequality norm).

To take into account the ordered, discrete nature of our indicators, we assume

¹¹We control for demographic characteristics including indicators for whether the youth is female and indigenous/TSI, and parental characteristics including immigrant indicators, indicators for whether the youth lived with both parents at the age of 14, whether parents attended school committees, indicators for mother and father education, whether youth left home before turning 16 years old, and whether youth dropped out of school before the age of 16.

¹²Higher values of η_p^* and η_c^* represent support for market-based norms (i.e., less support for generous unemployment benefits and a belief that individual and family-background characteristics are important in driving social inequality). Lower values are consistent with more support for the welfare state.

that both youths' and mothers' latent work-welfare norms (η_c^* and η_p^*) determine an associated set of latent continuous indicators which we denote by y_{cj}^* and y_{pk}^* . Here, $j = 1, \dots, J$ and $k = 1, \dots, K$ index the specific attitudinal questions answered by the youth and the mother, respectively, while J and K are the number of indicators used to account for youths' and mothers' latent work-welfare norms. Each indicator is then imperfectly related to individuals' unobserved work-welfare norms in the following way:

$$y_{cj}^* = \lambda_{cj}\eta_c^* + v_{cj} \ ; \ j = 1, 2, \dots, J \quad (7a)$$

$$y_{pk}^* = \lambda_{pk}\eta_p^* + v_{pk} \ ; \ k = 1, 2, \dots, K \quad (7b)$$

where v_{cj} and v_{pk} are idiosyncratic components, assumed to be uncorrelated with each other and with the error term (ε) in the behavioral equation. The λ parameters are coefficients (factor loadings). Higher values of λ_{cj} indicate that youths' latent work-welfare norms (η_c^*) are highly relevant for understanding youths' responses to questions about a particular belief j , such as the one on the level of unemployment benefits for example. The interpretation of the λ_{pk} parameters is analogous.

As discussed, we do not observe these continuous indicators (y_{cj}^*, y_{pk}^*). Instead, we observe individuals' discrete, ordered responses to each associated survey question (y_{cj}, y_{pk}). By assuming that each v_{cj} and v_{pk} in (7a) and (7b) is distributed standard normal, we can model each indicator variable using either a bivariate or ordered probit model depending on the number of possible response categories. Error terms are also assumed independent of all covariates in the behavioral equation. Formally, the categorical observed indicators (y_{cj}, y_{pk}) are related to the latent continuous ones (y_{cj}^*, y_{pk}^*) by

$$y_{ij} = \begin{cases} 0 & \text{if } -\infty < y_{ij}^* \leq \delta_{1j}, \\ 1 & \text{if } \delta_{1j} < y_{ij}^* \leq \delta_{2j}, \\ \vdots & \vdots \\ M & \text{if } \delta_{Mj} < y_{ij}^* < \infty \end{cases} \quad (8)$$

for $i = \{c, p\}$. In these expressions, the δ s are threshold parameters satisfying the restric-

tion that $\delta_{1j} < \delta_{2j} < \dots < \delta_{Mj}$ while M denotes the number of categories for an indicator. The value of M is different for the social benefits norm and the social inequality norm. For the social benefit norm $M = 2$ for all indicators, while for the social inequality norm $M = 4$ for youth and $M = 5$ for mothers because mothers were allowed an additional category in their possible answers.

4.2 Estimation Strategy

Our model results in a system of J (ordered) probit equations – one equation for each of the observed indicators of youths’ work-welfare norms. To see this, substitute (6) into (7a) to get

$$y_{cj}^* = \lambda_{cj} \mathbf{w}' \boldsymbol{\alpha} + \lambda_{cj} \gamma \eta_p^* + \lambda_{cj} \theta L + \lambda_{cj} \pi N + \lambda_{cj} \mathbf{x}' \boldsymbol{\beta} + \lambda_{cj} \varepsilon + v_{cj} \quad ; \quad j = 1, 2, \dots, J. \quad (9)$$

This system, however, imposes cross-equation restrictions on some of the parameters. Moreover, each equation includes a common error term ε in addition to the common latent norm for the mother η_p^* (which was assumed to be independently normally distributed with mean 0 and variance σ_p^2).

We use the software *aML* to generate Maximum Likelihood estimates of the parameters in the system and their robust standard errors. Since the latent norm variables have no intrinsic units of measurement, we normalize one λ parameter in the system of equations for the youth (expression 7a) and one λ parameter in the system of equations for the mother (expression 7b) to one. This identification restriction allows us to estimate all other parameters. Our model produces estimates of 1) the determinants of youths’ work-welfare norms ($\boldsymbol{\alpha}, \gamma, \theta, \pi, \boldsymbol{\beta}$); 2) the variance of the latent parental norm index (σ_p^2), and 3) the factor loadings in the measurement equations ($\lambda_{cj} \forall j = 1, \dots, J - 1, \lambda_{pk} \forall k = 1, \dots, K - 1$).

5 The Determinants of Work-Welfare Norms

5.1 Results from the Measurement Equations

We begin by considering whether the measurement equations set out in (7a) and (7b) yield estimates that are consistent with our view that high values of the latent variables η_c^* and η_p^* can be interpreted as representing a high latent work ethic (little support for the welfare state), while low values reflect a low latent work ethic (strong support for the welfare state). Recall that we have coded each of our categorical observed indicators (y_{cj}, y_{pk}) so that higher values are consistent with the market-based frame and lower values are consistent with the welfare-state frame (see Sabbagh and Vanhuyse, 2006, and Appendix Table B2). This interpretation of η_c^* and η_p^* will be born out by the data, however, only if all λ parameters are strictly positive after we have imposed the identification restrictions.

Table 4 reports Maximum Likelihood estimates of these parameters ($\hat{\lambda}$) for both the social benefits and social inequality models.¹³ Although the parameters for the behavioral and measurement equations of the model are estimated jointly, for simplicity, Table 4 reports only the estimates from the measurement equations. We consider two specifications. The first is the baseline specification previously discussed (columns 1 and 3). The second adds interactions for i) mothers' norms and intensive welfare receipt; ii) mothers' norms and an indicator of whether the youth lived with both parents at age 14; and iii) mothers' labor supply and youths' gender (columns 2 and 4). Heteroscedasticity-robust standard errors are given in parentheses. The estimated standard deviation of mothers' latent norms ($\hat{\sigma}_{\eta_p^*}$) and the implied standard deviation of youths' latent norms ($\hat{\sigma}_{\eta_c^*}$) are also presented.¹⁴ These will be useful in calculating marginal effects from the behavioral equation.

[Table 4 here]

¹³Estimates of the factor loadings ($\lambda_{cj}, \lambda_{pk}$) reflect the weight (loading) that the common latent norm (either η_c^* or η_p^*) has on responses to the associated survey question (see DePolt et al., 2009).

¹⁴We calculate $\hat{\sigma}_{\eta_c^*}$ by calculating the variance of equation 6 using the parameter estimates, the variance of the error term (ε), and the variances and covariances of all regressors. For the social benefits (social inequality) model, $\hat{\sigma}_{\eta_c^*} = 1.054$, ($\hat{\sigma}_{\eta_c^*} = 1.288$).

The results in Table 4 indicate that our latent measures of youths’ and mothers’ work-welfare norms are significant and positively related to all of our observed indicators. Thus, the results are strongly supportive of our interpretation that higher values of η_c^* and η_p^* are consistent with having a high latent work ethic and a low preference for welfare. Increases in η_c^* and η_p^* , for example, are associated with youths ($\hat{\lambda} = 0.418$) and their mothers ($\hat{\lambda} = 0.877$) being more likely to report that unemployed individuals and their families have the primary responsibility for looking after themselves. Similarly, higher values of η_c^* and η_p^* correspond to a higher probability that youths and their mothers believe that one’s own ambition, having a job, and having well-educated parents are important in getting ahead in life. These estimated factor loadings from the baseline model are nearly identical to those obtained from the interaction model. Finally, it is interesting to note that the estimated factor loadings vary considerably between youths and their mothers. This implies that although η_c^* and η_p^* affect y_{cj} and y_{pk} in the same direction (thus we can interpret youths’ and mothers’ latent work-welfare norms in a similar fashion), the relative importance of these norms in shaping responses to the survey items underlying our categorical indicators differs across generations.

5.2 Results from the Behavioral Equation

Having established that interpreting our latent norm variables as “work ethic” is consistent with the data, we now consider the estimated determinants of youths’ norms regarding work versus welfare. It is very difficult, however, to interpret the magnitude of the estimated coefficients in the behavioral equation because the latent norm variables (η_c^* and η_p^*) do not have intrinsic units of measurement. Fortunately, our estimation strategy provides estimates of the standard deviation of mothers’ latent work ethic and we can calculate the standard deviation of youths’ latent work ethic that is implied by our estimates (see Table 4). These calculations can then be used to transform estimated coefficients into marginal effects, which are interpreted in terms of standard deviation (std.) changes in youths’ latent work ethic. Table 5 presents these marginal effects while the underlying coefficients and robust standard errors are given in Appendix Table B3.

The results indicate that youths' work-welfare norms are related to the welfare histories of their families. Young people who grow up in families that never received welfare are significantly more likely to oppose the public provision of generous unemployment benefits than are young people growing up in families with a history of intensive welfare receipt. Specifically, youth in families receiving intensive welfare have a propensity to oppose generous unemployment benefits that is 0.400 std. lower than that of youth in non-welfare families.¹⁵ This is consistent with the view that a history of welfare receipt contributes to producing an intergenerational culture of welfare dependency by lowering the work ethic of children. At the same time, youth in families with a more moderate interaction with the welfare system do not differ significantly from youths in non-welfare families in their support for generous unemployment benefits. Thus, it may be the intensity, rather than the

incidence, of welfare receipt which is most important in understanding the potential for a welfare culture to develop.

Welfare receipt has only a weak impact on young people's norms regarding the source of social inequality. Those in families with a history of intensive welfare receipt have the same views about getting ahead in life as those with no exposure to the welfare system at all. Youths with a history of modest welfare receipt are somewhat less likely than those in non-welfare families to believe that social inequality stems from one's own effort and family background. This effect, however, is small in magnitude (0.166 std.) and only marginally significant. Clearly, the link between youths' views of welfare and their families' welfare histories depends on the dimension of work-welfare norms considered.

[Table 5 here]

We also find support for the transmission of work-welfare norms across generations. Young people are significantly more likely to oppose the public provision of generous unemployment benefits and believe that social inequality is the result of one's individual effort or family background as their mothers' support for these positions increases. Specifically, a 1 std. increase in mothers' opposition to the public provision of

¹⁵This is the ratio of the estimate (-.422) to the standard deviation of youths' norms ($\hat{\sigma}_{\eta_c^*} = 1.054$).

generous unemployment benefits is associated with an increase in youths' propensity to oppose unemployment benefits of 0.489 std. in the baseline model. This is slightly larger than the estimated effect of experiencing intensive welfare receipt on youths' support for unemployment benefits (0.400 std.). Similarly, a 1 std. increase in mothers' propensity to believe that getting ahead in life is driven by one's family background, educational attainment, and employment status is associated with a 0.110 std. increase in youths' propensity to believe the same. This effect is substantially smaller than the estimated effect of having a history of moderate welfare receipt (0.166 std.). It is also substantially smaller than the effect of mothers' norms on their children's views about unemployment benefits. Thus, intergenerational transmission from mothers to their children appears to be relatively more important in understanding support for the public provision of generous unemployment benefits than in shaping beliefs about the source of social inequality. Simply put, young people and their mothers are much less likely to have similar views about what it takes to get ahead in life than they do about social support for the unemployed.

Interestingly, there is no statistically significant interaction between a mother's work-welfare norms and having an family history of intensive welfare receipt (see columns 2 and 4 in Table 5). In other words, the effect of having a mother who supports (rather than opposes) generous unemployment benefits or who believes that getting ahead is driven by something other than one's individual and family-background characteristics is not compounded by a history of intensive welfare receipt. Conversely, the negative effect of a family history of welfare on youths' work ethic is also not mitigated if welfare mothers have a strong work ethic themselves. Moreover, the relationship between the norms of mothers and their 18-year old children also does not depend on whether or not young people were living with their fathers at age 14. This suggests that intergenerational transmission of norms from mothers to children does not appear to be affected by the presence of fathers in the household.

Consistent with our theoretical predictions, we find that youths' norms regarding work versus welfare are influenced by their mothers' employment status when the youth

was aged 14. At the same time, there is no evidence that mothers' work histories differentially affect the norms of young women as opposed to young men (see columns 2 and 4). These results suggest that both the presence of welfare and an absence of work within the family are important in understanding young people's work-welfare norms.

Although our theoretical framework implies that young people's work-welfare norms are shaped by those of their neighbors, the direction of this effect is theoretically ambiguous. We find no evidence that young people's norms regarding work versus welfare are driven by the welfare experiences of those in their current neighborhoods (as defined by post codes). Specifically, the proportion of families in a youth's current neighborhood that have never received welfare is unrelated to young people's views about unemployment benefits and social inequality.¹⁶ This finding is particularly striking given that we are unable to account for any endogenous selection into neighborhoods. If mothers who support generous unemployment benefits (or who believe that social inequality does not stem from individual and family characteristics) live in neighborhoods with a relatively high proportion of welfare recipients, our results are an over-estimate of the true effect of the neighborhood's welfare profile on youth norms. Accounting for this endogenous selection would reduce our estimates even further. Overall, it appears that in the case of work-welfare norms, socialization occurs within families rather than neighborhoods.

Finally, work-welfare norms are related to both individual and family background characteristics. There is evidence, for example, that young women are less likely than young men to oppose a system of generous unemployment benefits. This effect (0.145 std.) is only marginally significant. Immigrants from non-English-speaking backgrounds (0.289 std.) and Aboriginal or Torres Strait Islanders (0.484) are both significantly less likely to oppose the public provision of generous unemployment benefits. In fact, the effect of being indigenous is on the same order of magnitude as having a history of intensive welfare receipt. Moreover, indigenous youth are also significantly more likely to believe that getting ahead in life depends on individual or family-background characteristics. This effect is much larger than that associated with mothers' norms or welfare history

¹⁶We find similar results when we instead include a measure of the proportion of youths in the neighborhood, who, after turning 16 years old, have never received benefits.

and is of the opposite sign. Finally, young people are also more likely to believe that getting ahead stems from individual and family-background characteristics when they have a highly educated father (0.234 std.).

5.3 Summary

Taken together these results provide support for our intergenerational transmission model of work-welfare norms. Youths are much more likely to oppose the public provision of generous unemployment benefits and believe that social inequality stems from individuals' characteristics or family background if their mothers share these views and have a history of employment. Work-welfare norms are also shaped by welfare histories, although there is evidence that welfare intensity may be more important than welfare incidence and that the strength of this relationship depends on which dimension of work-welfare norms we are considering. Still, there appears to be a potential for welfare receipt to produce a welfare culture by reducing the work ethic of children. At the same time, we find no evidence that youths' work-welfare norms are related to the welfare profiles of others in their neighborhoods.

5.4 Robustness Testing: Is the Effect of Welfare History Causal?

In order for the intergenerational transmission of a weak work ethic (welfare acceptance) from welfare parents to their children to result in a culture of welfare dependence, it must be the case that welfare receipt as a child causes one to be more accepting of welfare and less inclined to work. The results stemming from our social benefits model do indicate that young people's propensity to oppose the public provision of generous unemployment benefits is significantly lower if their families have a history of intensive welfare receipt. This relationship can be interpreted causally only if the identifying assumptions of the estimation model hold. It is therefore important to assess the robustness of our results to alternative assumptions.

It is arguably reasonable to assume that children's views are molded by those of

their mothers, but that the reverse is not true. This intergenerational ordering assumption has been used in previous research to rule out reverse causality and to identify the causal effect of welfare exposure on youth outcomes (see Gottschalk, 1996; Pepper, 2000; Beaulieu et al., 2005), and is arguably a reasonable approach to use here also. However, it must be acknowledged that since youths' and mothers' welfare attitudes are measured contemporaneously, we cannot be certain.

We are much more concerned about the validity of our conditional independence assumption. In particular, we have assumed that a family's welfare history (\mathbf{w}) is uncorrelated with the error term (ε) in the youth's work-welfare norm equation, raising concerns about the potential bias from omitted factors that drive outcomes at a family level. We investigate this issue in two ways.

First, we provide a robustness check by estimating a series of models increasing in controls. The first specification estimates the unconditional effect of family welfare history on youths' work-welfare norms, while subsequent specifications sequentially control for mothers' norms, youth characteristics, parental characteristics, and the neighborhood's welfare profile (see Table 6). The results indicate that the estimated effect of family welfare history on youths' norms is relatively stable. The estimated marginal effect of intensive welfare receipt in reducing opposition to social benefits varies from 0.572 to 0.400 standard deviations, while the marginal effect ranges from 0.102 to 0.139 standard deviations in the social inequality model. Similarly, there is little change in the estimated effect of having a history of moderate welfare receipt as we add additional controls. The stability of these results provides some reassurance that our results are not completely driven by an omitted variable bias.

Second, our data provide us with limited information about the characteristics of grandparents. In particular, we know whether the mother's family took annual vacations when she was age 14. We use this information as an instrument in a model in which it is assumed that the socio-economic status of the older generation affects the outcomes of their children (i.e. mothers' welfare histories) but not the outcomes of their grandchildren (i.e. youth's work-welfare norms). As usual, this is a maintained assumption that cannot

be tested. However, as parents are the primary decision makers and role models for their children, we believe it is reasonable to assume that grandparents' socio-economic status influences children's outcomes only through their parents' characteristics. In a similar way, Maurin (2002) also uses information about grandparents to estimate the effect of parental income on children's schooling.¹⁷ Our instrument is a significant predictor of the mother's propensity to have received intensive welfare ($p = 0.019$), but it is not particularly powerful ($F = 5.48$). Despite this, we continue to find a large negative effect of intensive welfare on the propensity of young people to oppose generous unemployment benefits. However, the magnitude of the IV estimate (-0.263) is, as expected, somewhat smaller than the estimate which results from treating family welfare history as exogenous (-0.349) and not quite significant at the 10 percent level in a one tailed test ($p = 0.113$). Our instrument also predicts whether the family has ever received welfare ($p = 0.005$ with $F = 7.73$). However, we find no evidence that receiving welfare as a child reduces the propensity to adopt an internal view of social inequality once we instrument for the family's welfare history.

[Table 6 here]

6 Conclusions

This paper investigates the process underpinning the intergenerational transmission of norms regarding work, welfare, and personal responsibility. We find evidence in support of the transmission of work-welfare norms across generations. Consistent with our theoretical model, young people's views of work versus welfare appear to be shaped through socialization within their families. Specifically, those growing up in a family with a history of welfare receipt are less likely to oppose the public provision of generous unemployment benefits and to believe that social inequality stems from individual effort and family background than those growing up in non-welfare families. Young people are also more

¹⁷We implement the IV estimation by re-estimating the baseline model after dropping moderate welfare receipt in the social benefit model, and combining intensive and moderate welfare (i.e., including an indicator of any welfare) in the social inequality model. Results are available upon request.

likely to oppose generous social benefits and adopt an internal view of social inequality if their mothers support these views and have a history of being employed. Finally, youths' norms towards welfare appear to be unrelated to their neighbors' welfare receipt, suggesting that socialization occurs primarily within families rather than neighborhoods.

What do these results tell us then about the potential for the intergenerational transmission of a weak work ethic—alternatively welfare acceptance—from mothers to children to result in an intergenerational culture of welfare dependence? On the one hand, we do find that a family history of welfare receipt significantly affects the work-welfare norms of 18-year olds, although welfare intensity may be more salient than welfare incidence and the size of the impact depends on the specific dimension of work-welfare norms being considered. This is in a sense a necessary condition for the development of a welfare culture.

On the other hand, we remain a long way from establishing that the sufficient conditions for a welfare culture exist. The stability of our results provides some reassurance that the estimated link between work-welfare norms and family welfare histories is not completely the result of omitted variable bias. Moreover, the negative effect of intensive welfare receipt as a child on youths' propensity to oppose generous social benefits (i.e., favor work) generally remains even after we do our best to account for the potential endogeneity of family welfare history. Still, we do not find a corresponding effect of welfare histories on norms towards social inequality, suggesting that welfare does not necessarily affect all dimensions of work-welfare norms equally.

It is also the case that we are unable to disentangle the effects of welfare receipt *per se* from the effects of broader socio-economic disadvantage or particular family structures which lead families to require welfare in the first place. Thus, we are unable to say whether it is receiving social assistance in and of itself that shapes young peoples' views or it is their social and economic circumstances more generally.

Even more importantly, while welfare receipt as a child appears to have an independent effect on the views of young adults regarding the public provision of generous unemployment benefits, it is not at all clear that these norms can be linked to those out-

comes which are relevant for welfare receipt. Greenwell et al. (1998), for example, present evidence for the United States that individuals' "willingness to use welfare" is not related to their employment outcomes. Given that social assistance is linked to bad outcomes—not bad norms—future research will need to investigate which norms are most relevant for understanding young people's educational, labor market, and health outcomes.

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Table 1: Means of Work-Welfare Indicator Variables^(*)

<i>Indicator^(a)</i>	Youth			Mother			Equality of means [<i>p-value</i>]
	<i>Mean</i>	<i>Std. Dev.</i>	<i>Obs.</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Obs.</i>	
1. Unemployment benefits are too high	.572	(.495)	2151	.518	(.500)	1866	.000
2. Unemployed should care for themselves	.564	(.496)	2251	.519	(.500)	2059	.003
3. Parental education is very important	.150	(.357)	2351	.106	(.308)	2348	.000
4. Own education is very important	.503	(.500)	2347	.620	(.486)	2347	.000
5. Own ambition is very important	.762	(.426)	2347	.769	(.421)	2342	.546
6. Having a job is very important	.590	(.492)	2356	.810	(.392)	2356	.000
7. Having a wealthy family is very important	n.a.	n.a.	n.a.	.055	(.228)	2356	n.a.

Notes: (*) Standard deviations in parentheses. Sample weights used.

^(a) Variables 3 to 7 were transformed into binary variables as follows: variables take value 1 if person answered "Extremely important" and 0 otherwise. n.a.: not available.

Source: Authors' calculations based on the Youth in Focus Data, wave 1.

Table 2: Mean Youth Work-Welfare Indicators Conditional on Mother's Indicators

<i>Youth's Indicator Variables</i> ^(a)	<i>Mother: Disagrees</i>			<i>Mother: Agrees</i>			Equality of means <i>p-value</i>
	<i>Mean</i>	<i>Std. Dev.</i>	<i>Obs.</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Obs.</i>	
1. Unemployment benefits are too high	.461	(.499)	906	.679	(.467)	806	.000
2. Unemployed should care for themselves	.514	(.500)	981	.608	(.488)	992	.000
<i>To get ahead in life...</i>							
3. Parental education is very important	.182	(.367)	266	.146	(.354)	2077	.152
4. Own education is very important	.532	(.499)	1473	.458	(.499)	865	.001
5. Own ambition is very important	.776	(.417)	1802	.715	(.452)	532	.005
6. Having a job is very important	.602	(.490)	1918	.539	(.499)	438	.017

Notes: (*) Standard deviations in parentheses. Sample weights used.

^(a) Variables 3 to 6 were transformed into binary variables as follows: variables take value 1 if person answered "Extremely important" and 0 otherwise.

Source: Authors' calculations based on the Youth in Focus Data, wave 1.

Table 3: Means of Work-Welfare Indicators for Youths and Mothers by Family Welfare History^(*)

<i>Indicator Variables</i> ^(a)	Youth's Indicators			Mother's Indicators		
	<i>No receipt</i>	<i>Any receipt</i>	<i>Equality of means (p-value)</i>	<i>No receipt</i>	<i>Any receipt</i>	<i>Equality of means (p-value)</i>
1. Unemployment benefits are too high	.628 (.484)	.518 (.500)	.000	.618 (.486)	.422 (.494)	.000
2. Unemployed should care for themselves	.598 (.491)	.532 (.499)	.004	.550 (.498)	.489 (.500)	.012
3. Parental education is very important	.152 (.359)	.148 (.355)	.798	.095 (.293)	.117 (.321)	.109
4. Own education is very important	.518 (.500)	.487 (.500)	.169	.598 (.491)	.640 (.480)	.058
5. Own ambition is very important	.775 (.418)	.749 (.434)	.175	.763 (.426)	.776 (.417)	.499
6. Having a job is very important	.587 (.493)	.592 (.492)	.799	.794 (.405)	.825 (.380)	.083
7. Having a wealthy family is very important	n.a.	n.a.	n.a.	.041 (.199)	.068 (.252)	.007

Notes: (*) Standard deviations in parentheses. Sample weights used.

(a) Variables 3 to 7 were transformed into binary variables as follows: variables take value 1 if person answered "Extremely important", and 0 otherwise. n.a.: not available.

Source: Authors' calculations based on the Youth in Focus Data, wave 1.

Table 4: Parameter Estimates and Standard Errors for Measurement Model

<i>Indicator's loading factors (λ_s)</i>	Work-ethic Model		View of Social Inequality Model	
	<i>Baseline</i>	<i>Interaction</i>	<i>Baseline</i>	<i>Interaction</i>
<i>Youth's latent variable indicators</i>				
Unemployment benefits are too high ^(a)	1.000 ^(d)	1.000 ^(d)		
Unemployed should care for themselves ^(a)	.418*** (.145)	.436*** (.152)		
To get ahead in life ^(b) ...				
own education is important			1.000 ^(d)	1.000 ^(d)
own ambition is important			.229** (.091)	.236** (.093)
having a job is important			.165** (.083)	.173** (.087)
parental education is important			.481* (.275)	.506* (.249)
<i>Parent's latent variable indicators</i>				
Unemployment benefits are too high ^(a)	1.000 ^(d)	1.000 ^(d)		
Unemployed should care for themselves ^(a)	.877*** (.319)	.904*** (.332)		
To get ahead in life ^(c) ...				
own education is important			1.000 ^(d)	1.000 ^(d)
own ambition is important			.418*** (.112)	.417*** (.114)
having a job is important			.501*** (.112)	.500*** (.113)
parental education is important			2.669*** (.857)	2.695*** (.895)
having a wealthy family is important			1.346*** (.200)	1.339*** (.200)
Youth Equation ($\hat{\sigma}_\varepsilon$)	.867	.837	1.259	1.216
Latent Mother ($\hat{\sigma}_{\eta_p^*}$)	1.111	1.095	.486	.486
Latent Youth ^(e) ($\hat{\sigma}_{\eta_c^*}$)		1.054		1.288
<i>Log-likelihood ('000s)</i>	-3.591	-3.590	-15.536	-15.535
Observations	1364	1364	2047	2047

Notes: Although the model is estimated jointly, for clarity this table only presents estimates of the parameters in the measurement model. Heteroskedasticity-robust standard errors in parentheses.

***, **, and * denote significance at 1%, 5%, and 10%.

^(a) This variable takes value 1 if the individual *agrees* with the statement and 0 if he or she disagrees.

^(b) These variables take four values each (1-4). High values indicate that the individual *strongly agrees* with the statement in the table, low values indicate disagreement.

^(c) These variables take five values each (1-5). High values indicate that the individual *strongly agrees* with the statement in the table, low values indicate disagreement.

^(d) Set to 1.

^(e) We calculate this by taking the variance of equation 6, the behavioral equation. To do this we use the parameter estimates in the behavioral equation, the variance of the error term (ε), and the variances and covariances of all regressors.

Table 5: The Determinants of Youth's Work-Welfare Norms, Standardized Estimates

<i>Variable</i>	Work-ethnic Model ^(a)		View of Social Inequality Model ^(a)	
	<i>Baseline</i>	<i>Interaction</i>	<i>Baseline</i>	<i>Interaction</i>
Intensive welfare history	−.400**	−.392**	−.139	−.137
Moderate welfare history	−.097	−.102	−.166*	−.160*
Mother attitudes (high values = work-ethnic)	.489***	.503**	.110***	.205**
Mother attitudes × Intensive welfare history		.063		−.260
Mother attitudes × Youth lived with both parents		−.049		.163
Mother worked when youth was 14 y.o.	.204**	.117	.008	.008
(Mother worked when youth was 14 y.o.) × Female		−.142		−.030
% of people in the post-code NOT receiving welfare	.232	.216	−.101	−.101
Youth is female	−.145*	−.245	−.003	−.014
Immigrant (non-English speaking background)	−.289*	−.287*	.164	.165*
Immigrant (English speaking background)	−.180	−.184	−.002	−.002
Youth lived with both parents when 14 y.o.	.003	.004	−.056	−.052
Youth is indigeneous/TSI	−.484**	−.480**	.442**	.428**
Parents attended school committees more than a year	−.001	.000	−.003	.001
Mother has bachelor's degree or above	−.006	−.006	.086	.082
Father has bachelor's degree or above	−.161	−.160	.234**	.228**
Youth left home before age 16	.150	.140	.315	.286
Youth dropped out of school before age 16	−.001	.004	−.220	−.204
<i>Observations</i>	1364	1364	2047	2047

Notes: The figures in this table are calculated by dividing the raw coefficient by the standard deviation of the youths' latent norms ($\hat{\sigma}_{\eta_c^*}$), except for the Mother Norms coefficient which is multiplied by $(\hat{\sigma}_{\eta_p^*}/\hat{\sigma}_{\eta_c^*})$.

^(a) Higher values of the dependent variable (youths' norms) are consistent with a higher work ethic.

Heteroskedasticity-robust standard errors in parentheses.

***, **, and * denote significance at 1%, 5%, and 10% of the underlying coefficients and their corresponding (robust) standard errors (see Appendix Table B3).

Table 6: Robustness of Welfare Estimates (α), Baseline Models

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>	<i>Model 5</i>
<i>Work-Ethic Model</i>					
Intensive welfare history					
Standardized coefficient, $\hat{\alpha}_1/\hat{\sigma}_{\eta_c^*}$	-.572	-.477	-.456	-.418	-.400
Estimated coefficient, $\hat{\alpha}_1$	-1.170	-.537	-.456	-.439	-.422
s.e.	(1.070)	(.167)	(.145)	(.168)	(.168)
Moderate welfare history					
Standardized coefficient, $\hat{\alpha}_2/\hat{\sigma}_{\eta_c^*}$	-.199	-.132	-.134	-.107	-.097
Estimated coefficient, $\hat{\alpha}_2$	-.408	-.148	-.134	-.112	-.102
s.e.	(.411)	(.118)	(.108)	(.113)	(.114)
$\hat{\sigma}_{\eta_c^*}$	2.047	1.125	1.000	1.050	1.054
<i>View of Social Inequality Model</i>					
Intensive welfare history					
Standardized coefficient, $\hat{\alpha}_1/\hat{\sigma}_{\eta_c^*}$	-.102	-.124	-.145	-.130	-.139
Estimated coefficient, $\hat{\alpha}_1$	-.189	-.177	-.208	-.169	-.179
s.e.	(.133)	(.107)	(.108)	(.120)	(.121)
Moderate welfare history					
Standardized coefficient, $\hat{\alpha}_2/\hat{\sigma}_{\eta_c^*}$	-.167	-.170	-.173	-.160	-.166
Estimated coefficient, $\hat{\alpha}_2$	-.310	-.244	-.248	-.208	-.214
s.e.	(.167)	(.110)	(.117)	(.116)	(.118)
$\hat{\sigma}_{\eta_c^*}$	1.858	1.427	1.430	1.296	1.288
<i>Controlling for:^(a)</i>					
Mother Norms	—	✓	✓	✓	✓
Demographics	—	—	✓	✓	✓
Parental characteristics	—	—	—	✓	✓
Neighborhood welfare use	—	—	—	—	✓

Notes: High values of the dependent variable (youths' norms) are consistent with higher work ethic. Robust standard errors in parentheses. In each case, $\hat{\sigma}_{\eta_c^*}$ is calculated by taking the variance of the behavioral equation (equation 6) and then using parameter estimates, the variance of the error term in that equation (ε), and the covariances of covariates.

^(a) Mother Norms includes only the variables of the mother (treated as a latent variable); Demographics include indicators for whether the youth is female and indigenous/TSI; Parental Characteristics include immigrant indicators, indicators for whether the youth lived with both parents when 14y.o., whether parents attended school committees, indicators for mother and father education, whether youth left home before turning 16 years old, and whether youth dropped out of school before the age of 16. Neighborhood Welfare Use refers to the proportion of people in the post code who have never received welfare benefits.

APPENDIX

Appendix A: Theoretical Model

Optimal labor supply choices

After substituting for the transition probabilities and the budget constraint in equation 5, the expected utility of a parent of type H can be written as

$$\begin{aligned}
 EU_H = & \int_{\underline{w}}^{\tilde{y}} \left[l_H w + b(\tilde{y} - l_H w) + (\delta^s \gamma_H l_H + (1 - \delta^s \gamma_H l_H) \sigma) V_{HH} \right. \\
 & \left. + (1 - \delta^s \gamma_H l_H) (1 - \sigma) V_{HL} \right] f(w) dw \quad (10) \\
 & + \int_{\tilde{y}}^{\bar{w}} [l_H w + (\gamma_H l_H + (1 - \gamma_H l_H) \sigma) V_{HH} + (1 - \gamma_H l_H) (1 - \sigma) V_{HL}] f(w) dw \\
 & + (1 - \gamma_H) Z(1 - l_H)
 \end{aligned}$$

Similarly, the expected utility function of a parent of type L can be written as

$$\begin{aligned}
 EU_L = & \int_{\underline{w}}^{\tilde{y}} \left[l_L w + b(\tilde{y} - l_L w) + (\delta^s \gamma_L l_L + (1 - \delta^s \gamma_L l_L) \sigma) V_{LH} \right. \\
 & \left. + (1 - \delta^s \gamma_L l_L) (1 - \sigma) V_{LL} \right] f(w) dw \quad (11) \\
 & + \int_{\tilde{y}}^{\bar{w}} [l_L w + (\gamma_L l_L + (1 - \gamma_L l_L) \sigma) V_{LH} + (1 - \gamma_L l_L) (1 - \sigma) V_{LL}] f(w) dw \\
 & + (1 - \gamma_L) Z(1 - l_L)
 \end{aligned}$$

A parent of type H maximizes equation 10 with respect to l_H . Simplifying the first-order condition gives us

$$\begin{aligned}
 0 = & \frac{\tilde{y}}{(l_H)^2} (1 - \delta^s) (1 - \sigma) \gamma_H l_H (V_{HH} - V_{HL}) \quad (12) \\
 & + \int_{\underline{w}}^{\tilde{y}} \{w(1 - b) + \delta^s \gamma_H (1 - \sigma) (V_{HH} - V_{HL})\} f(w) dw \\
 & + \int_{\tilde{y}}^{\bar{w}} \{w + \gamma_H (1 - \sigma) (V_{HH} - V_{HL})\} f(w) dw - (1 - \gamma_H) Z'(1 - l_H).
 \end{aligned}$$

A parent of type L maximizes equation 11 with respect to l_L . Simplifying the first-order

condition gives us

$$\begin{aligned}
0 &= -\frac{\tilde{y}}{(l_L)^2} (1 - \delta^s) (1 - \sigma) \gamma_L l_L (V_{LL} - V_{LH}) \\
&+ \int_{\frac{\tilde{w}}{l_L}}^{\tilde{y}} \{w(1 - b) - \delta^s \gamma_L (1 - \sigma) (V_{LL} - V_{LH})\} f(w) dw \\
&+ \int_{\frac{\tilde{y}}{l_L}}^{\tilde{w}} \{w - \gamma_L (1 - \sigma) (V_{LL} - V_{LH})\} f(w) dw - (1 - \gamma_L) Z'(1 - l_L).
\end{aligned} \tag{13}$$

Let l_H^* and l_L^* stand for the utility-maximizing labor supply choices. We would like to show that $l_L^* < l_H^*$. l_H^* by definition satisfies equation 12. Evaluated at the same labor supply level, it is easy to see that the RHS of equation 13 is smaller than the RHS of equation 12. Hence, it must be the case that $l_L^* < l_H^*$ for equation 13 to be satisfied.

Neighborhood effect

It is first helpful to analyze how their parents' equilibrium labor supply choices vary with σ . Using the implicit function theorem, we have

$$\frac{\partial l_H^{ns}(\gamma_H, \sigma)}{\partial \sigma} = -\frac{-\gamma_H (V_{HH} - V_{HL})}{(1 - \gamma_H) Z''(1 - l_H)} < 0$$

and

$$\frac{\partial l_L^s(\delta^s, \gamma_L, \sigma)}{\partial \sigma} = -\frac{\delta^s \gamma_L (V_{LL} - V_{LH})}{(1 - \gamma_L) Z''(1 - l_L)} > 0.$$

Hence, *ceteris paribus*, an increase in the proportion of people in the neighborhood with a strong work ethic decreases the labor supply of the strong work ethic parents, but increases the labor supply of the weak work ethic parents. This occurs because as the proportion of people in the neighborhood with a strong work ethic decreases, the probability that a child will have a strong work ethic also decreases. Strong work ethic parents try to make up for this by increasing the proportion of time they allocate to work. This implies cultural substitution in the terminology of Bisin and Verdier (2001). Weak work ethic parents, on the other hand, exhibit cultural complementarity and choose to work

less. This is because the marginal utility of labor for them is increasing in σ : $\frac{\partial^2 EU_L}{\partial L \partial \sigma} > 0$.¹⁸

Substituting the optimal labor supply choices into the transition probabilities results in

$$\begin{aligned} q_{HH}^{ns} &= \gamma_H l_H^{ns}(\gamma_H, \sigma) + (1 - \gamma_H l_H^{ns}(\gamma_H, \sigma)) \sigma \\ q_{HL}^{ns} &= (1 - \gamma_H l_H^{ns}(\gamma_H, \sigma)) (1 - \sigma) \\ q_{LH}^s &= \delta^s \gamma_L l_L^s(\delta^s, \gamma_L, \sigma) + (1 - \delta^s \gamma_L l_L^s(\delta^s, \gamma_L, \sigma)) \sigma \\ q_{LL}^s &= (1 - \delta^s \gamma_L l_L^s(\delta^s, \gamma_L, \sigma)) (1 - \sigma). \end{aligned}$$

The results on the impact of a change in σ follow from investigating the following expressions.

$$\begin{aligned} \frac{\partial q_{HH}^{ns}}{\partial \sigma} &= \gamma_H (1 - \sigma) \frac{\partial l_H^{ns}(\gamma_H, \sigma)}{\partial \sigma} + (1 - \gamma_H l_H^{ns}(\gamma_H, \sigma)) - \text{ambiguous} \\ \frac{\partial q_{HL}^{ns}}{\partial \sigma} &= -\gamma_H (1 - \sigma) \frac{\partial l_H^{ns}(\gamma_H, \sigma)}{\partial \sigma} - (1 - \gamma_H l_H^{ns}(\gamma_H, \sigma)) - \text{ambiguous} \\ \frac{\partial q_{LH}^s}{\partial \sigma} &= \delta^s \gamma_L (1 - \sigma) \frac{\partial l_L^s(\delta^s, \gamma_L, \sigma)}{\partial \sigma} + (1 - \delta^s \gamma_L l_L^s(\delta^s, \gamma_L, \sigma)) > 0 \\ \frac{\partial q_{LL}^s}{\partial \sigma} &= -\delta^s \gamma_L (1 - \sigma) \frac{\partial l_L^s(\delta^s, \gamma_L, \sigma)}{\partial \sigma} - (1 - \delta^s \gamma_L l_L^s(\delta^s, \gamma_L, \sigma)) < 0 \end{aligned}$$

¹⁸To understand this, note that a marginal increase in the labor supply choice of a weak work ethic parent increases the likelihood that the child will have a high work ethic. This decreases the parent's utility by an amount proportional to $(V_{LL} - V_{LH})$. This can be seen in the second and third terms of equation 13. However, the parent will only suffer this disutility if the neighborhood was also unsuccessful in passing a high work ethic to the child. The probability that the neighborhood is unsuccessful is $(1 - \sigma)$. As σ increases, this probability decreases, which reduces the cost of increased labor supply choice for the type L parent.

Appendix B: Additional Tables

Appendix Table B1: Descriptive Statistics by Family Welfare Receipt^(*)

	No welfare		Intensive welfare receipt		Moderate welfare receipt	
	<i>Mean</i>	<i>Std. Dev.</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Mean</i>	<i>Std. Dev.</i>
Youth is female	.524	(.500)	.531	(.499)	.512	(.500)
Youth Immigrant	.051	(.221)	.064	(.245)	.077	(.267)
Youth Immigrant (English speaking background)	.035	(.185)	.025	(.157)	.024	(.152)
Youth Immigrant (non-English speaking background)	.016	(.126)	.039	(.193)	.054	(.225)
Parent Immigrant	.319	(.466)	.358	(.480)	.368	(.482)
Youth is indigeneous/TSI	.016	(.126)	.072	(.259)	.027	(.162)
Immigrant (English speaking background)	.166	(.373)	.191	(.394)	.207	(.405)
Immigrant (non-English speaking background)	.153	(.360)	.166	(.373)	.161	(.368)
Mother has bachelor's degree or above	.273	(.446)	.095	(.294)	.172	(.378)
Father has bachelor's degree or above	.251	(.434)	.104	(.305)	.165	(.372)
Mother has less than year 12	.455	(.498)	.706	(.456)	.586	(.493)
Father has less than year 12	.290	(.454)	.586	(.493)	.419	(.494)
% of youth receiving income support in the Post-Code	.237	(.098)	.298	(.111)	.262	(.102)
Parents attended school committees less than a year	.721	(.449)	.575	(.495)	.632	(.482)
Parents attended school committees more than a year	.596	(.491)	.416	(.493)	.528	(.500)
Mother worked when youth was 14 y.o.	.813	(.391)	.559	(.497)	.725	(.447)
Lived with both parents when 14 y.o.	.938	(.241)	.424	(.494)	.751	(.432)
Youth left home before age 16	.002	(.038)	.031	(.172)	.009	(.093)
Youth dropped out of school before age 16	.026	(.160)	.133	(.340)	.069	(.254)
Observations		680		752		924

Notes: (*) Standard deviations in parentheses. Sample weights used.

Source: Authors' calculations based on the Youth in Focus Data, wave 1.

Appendix Table B2: Parameterizing Work-Welfare Norms

<i>Question Number</i>	<i>Exact wording of the question</i>	<i>Coding for tables of descriptive statistics</i>
Question 1.	Opinions differ about the level of benefits for unemployed people. Which of these two statements comes closest to your own view? <ul style="list-style-type: none"> • Benefits for unemployed people are too low and cause hardship • Benefits for unemployed people are too high and discourage them from finding jobs 	1 = too high, 0 = too low
Question 2.	Who do you think should be mainly responsible for ensuring that people have enough to live on if they become unemployed? <ul style="list-style-type: none"> • Mainly the government • Mainly a person themselves or their family 	1 = persons themselves or their family, 0 = the government
	Now, we have some questions about how people get ahead in life. For each question, I would like you to tell me whether it is “extremely important”, “fairly important”, “not too important”, “doesn’t matter at all”, or “undesirable, a bad thing”. [†]	
Question 3	To get ahead in life, how important is it to have well educated parents?	1 = extremely important, 0 = otherwise.
Question 4.	How important is it for a person to have a good education?	”
Question 5.	How important is a person’s own ambition?	”
Question 6.	How important is it for a person to have a job?	”
Question 7.	How important is it to come from a wealthy family? (<i>only asked to parents</i>)	”

Notes: [†] Youth were not given the option to answer “doesn’t matter at all.”

Appendix Table B3: The Determinants of Youth's Norms (Model Estimates)

	Work-ethic Model ^(a)		View of Social Inequality Model	
	<i>Baseline</i>	<i>Interaction</i>	<i>Baseline</i>	<i>Interaction</i>
Intensive welfare history	-.422** (.168)	-.413** (.165)	-.179 (.121)	-.176 (.118)
Moderate welfare history	-.102 (.114)	-.107 (.111)	-.214* (.118)	-.206* (.116)
Mother attitudes (high values = work-ethic)	.464*** (.122)	.484** (.193)	.292*** (.110)	.542** (.241)
Mother attitudes × Intensive welfare history		.066 (.170)		-.335 (.260)
Mother attitudes × Youth lived with both parents		-.052 (.171)		-.210 (.264)
Mother worked when youth was 14 y.o.	.215** (.107)	.123 (.145)	.010 (.090)	.010 (.124)
(Mother worked when youth was 14 y.o.) × Female		.150 (.148)		.013 (.165)
% of people in the post-code NOT receiving welfare	.245 (.342)	.228 (.336)	-.130 (.289)	-.130 (.279)
Youth is female	-.153* (.090)	-.258 (.163)	-.004 (.117)	-.018 (.118)
Immigrant (non-English speaking background)	-.305** (.159)	-.302* (.157)	.211 (.131)	.212* (.129)
Immigrant (English speaking background)	-.190 (.122)	-.194* (.120)	-.002 (.099)	-.003 (.097)
Youth lived with both parents when 14 y.o.	.003 (.114)	-.004 (.115)	-.072 (.104)	-.067 (.102)
Youth is indigeneous/TSI	-.510** (.228)	-.506** (.224)	.569** (.265)	.551** (.262)
Parents attended school committees more than a year	-.001 (.093)	.000 (.092)	-.004 (.098)	.001 (.096)
Mother has bachelor's degree or above	-.006 (.127)	-.006 (.124)	.111 (.103)	.106 (.100)
Father has bachelor's degree or above	-.170 (.127)	-.169 (.124)	.301** (.142)	.294** (.138)
Youth left home before age 16	.158 (.352)	.148 (.351)	.406 (.438)	.369 (.433)
Youth dropped out of school before age 16	-.001 (.188)	.004 (.187)	-.283 (.214)	-.263 (.209)
<i>Log-likelihood ('000s)</i>	-3.591	-3.590	-15.536	-15.535
Observations	1364	1364	2047	2047

Notes: Heteroskedasticity-robust standard errors in parentheses.

***, **, and * denote significance at 1%, 5%, and 10%.

Higher values of the dependent variable (youths' norms) are consistent with a higher work ethic. Although the model is estimated jointly, for clarity this table does not present estimates of the measurement part of the model (see Table 4).