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ABSTRACT

Cultural Transmission of Work-Welfare Attitudes and the Intergenerational Correlation in Welfare Receipt*

This paper considers the potential for the cultural transmission of attitudes toward work, welfare, and individual responsibility to explain the intergenerational correlation in welfare receipt. Specifically, we investigate whether 18-year olds' views about social benefits and the drivers of social inequality depend on their families' welfare histories. We begin by incorporating welfare receipt into a theoretical model of the cultural transmission of work-welfare attitudes across generations. Consistent with the predictions of our model, we find that young people's attitudes towards work and welfare are 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 their mothers support these views, if their mothers were employed while they were growing up, and if their families never received welfare. These results are consistent with − though do not definitively establish − the existence of an intergenerational welfare culture.

JEL Classification: I38, H31, Z1

Keywords: cultural transmission, attitudes, intergenerational welfare receipt

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1 Introduction

Social assistance programs affect individual and household behavior by altering the economic incentives to engage in certain labor market activities (e.g., employment or job search), pursue educational or training opportunities, and adopt particular family structures. Welfare may also influence behavior by changing the attitudes or preferences of welfare recipients. This possibility has led to concerns that the welfare system itself may produce a culture of dependence that results in welfare dependency being passed from one generation to the next. In particular, the concern is that growing up in families or in neighborhoods heavily reliant on social assistance alters children's preferences by weakening their work ethic and reducing the stigma associated with welfare receipt. Alternatively, exposure to welfare as a child may reduce the information costs associated with accessing the social assistance system. This notion of a welfare culture has its antecedents in theories of poverty cultures from the 1960s and attributes welfare dependency to the values and attitudes 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]

A vast literature documents that welfare receipt is correlated across generations.[2] However, this is not in itself evidence that parents' welfare receipt causes their children to have a higher probability of accessing the welfare system. Rather this correlation could stem from a correlation in the underlying social, economic, psychological, or geographic factors that lead parents and their children to have similar propensities to be poor—and therefore to need social assistance. Identification of the causal effect of parental welfare receipt is generally achieved through a combination of exclusion restrictions, an intergenerational ordering assumption (i.e., by assuming parents affect children but not the reverse), and the use of information about the timing of benefit receipt and specific outcomes (see Gottschalk, 1996; Pepper, 2000; Beaulieu et al., 2005). The overarching conclusion from previous studies is that while some of the intergenerational

[1] Bowles (1998) and Bisin and Verdier (2008) discuss the process of cultural transmission generally, while Bisin and Verdier (2001) develop a theoretical model of cultural transmission. The empirical evidence on cultural transmission is somewhat limited, but nonetheless suggests that interactions within families and local communities play a role in shaping, for instance, ethnic and religious identities (Bisin and Verdier, 2008), educational outcomes (Edwards et al., 2001; Patacchini and Zenou, 2007), and risk attitudes (Dohmen et al., 2006).

[2] See, 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).

correlation in social assistance receipt is spurious, there is also evidence of a causal link.

Unfortunately, we are left with something of a black box. Previous researchers have not specifically assessed whether any causal effect of parents' welfare use on their children's welfare receipt operates by altering children's preferences for work versus welfare or through some other mechanism. In order for the welfare culture model to find support in the data it must be the case that, first, welfare receipt alters the work-welfare attitudes of parents and/or their children and second, that these attitudes are related to subsequent outcomes. While there is some evidence that welfare receipt is related to psycho-social characteristics like self-esteem (Elliott, 1996) or locus of control (Gottschalk, 2005), it is less clear that people's beliefs or values can be linked across generations or that they can be linked to their subsequent welfare receipt (Greenwell et al., 1998; Edwards et al., 2001; Bartholomae et al., 2004).

Our objective is to investigate whether there is evidence that the cultural transmission of a weak work ethic—or alternatively welfare acceptance—from parents to children could potentially lead to an intergenerational welfare culture. Specifically, we directly assess whether welfare receipt as a child influences the work-welfare attitudes of young adults. We begin by incorporating welfare receipt into a theoretical model of the cultural 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 towards work and welfare and to generate empirical predictions. The resulting structural equation models of youths' attitudes are then estimated 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 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' attitudes. We are particularly interested in the following questions. How are the work-welfare attitudes 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?

We find strong evidence in support of the cultural transmission of work-welfare attitudes across generations. Consistent with our theoretical model, young people's attitudes towards work and welfare appear to be shaped by socialization within their families. In particular, young people are more likely to oppose generous social benefits and adopt an internal view of social inequality if their mothers support these views, if their mothers were employed while they were

growing up, and if their families never received welfare. We find no evidence, however, that youths' work-welfare attitudes are related to the welfare profiles of their neighbors. These results are consistent with — though do not definitively establish — the existence of an intergenerational welfare culture.

2 A Model of the Cultural Transmission of Attitudes

2.1 Transition probabilities and parents' utility function

Our theoretical framework is based on Bisin and Verdier (2001). We assume that children's attitudes are shaped by both their parents and the neighborhoods in which they live. Specifically, 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) while 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 $[\underline{w}, \overline{w}]$ and density f.

Parents are expected utility maximizers. The expected utility a parent of type i receives from consumption and leisure can be written as

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

where $c_i(w)$ stands for the consumption level of type $i \in \{L, H\}$ for a given wage rate w, l_i captures parents' labor supply choice, and $\gamma_i \in [0, 1]$ denotes parents' 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 on to their children irrespective of their own work ethic.

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 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

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

if the parent has a strong work ethic and

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

if the parent has a weak work ethic. Given the assumption that $\gamma_H > \gamma_L$, these expressions imply that it is easier for type H parents to pass a strong work ethic on to their children. 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

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

and

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

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 $V_{ij}\left(\gamma_i, l_j^{C*}\right)$ 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

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

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, $V_{ii}\left(\gamma_i, l_i^{C*}\right) - V_{ij}\left(\gamma_i, l_j^{C*}\right)$ 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

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

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 qualify for (and receive) welfare if their income falls below $\widetilde{y}$. With a means-tested benefit system and a taper rate of b, the level of welfare received is equal to $b(\widetilde{y} - l_i w)$. 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

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

2.2 Analysis

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

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

For a given labor supply choice, however, a welfare parent 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 being on welfare than type H parents do.

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 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 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}. Hence, an increase in the proportion of people in the neighborhood with a strong work ethic has an ambiguous impact on the attitudes of the children of strong work ethic parents, but increases the probability that a weak work ethic parent has a child with a strong work ethic.

2.3 Empirical predictions

To summarize, the key feature of the model is that children's attitudes 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 attitudes of the children of parents with a strong work ethic, it increases the probability that parents with a weak work ethic have children who develop a strong work ethic.

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 people's work-welfare attitudes and those of their mothers taking into account the family's welfare history, the mother's employment status, and the welfare histories of their neighbors.[3] 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 social security 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.[4] 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 payment details 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 ques-

[3] For more information about the project see http://youthinfocus.anu.edu.au.

[4] The Family Tax Benefit is essentially an income tax credit to families with children. Currently, a family with two children would receive a Family Tax Benefit for incomes up to $105,000 AUD. See Centrelink (2007) for more information about the Australian social security system.

tionnaire administered to youths were then matched to the administrative social security data (Breunig et al. 2007). A randomized experiment in the wave 1 pilot demonstrated that incentive payments significantly improved the average response rate and contributed to equalizing response rates across socio-economic groups (Barón et al., 2008). Thus, incentive payments were adopted for all wave 1 respondents.[5]

The Australian government does not consider either the Family Tax Benefit or the Child Care Benefit to be welfare payments — a perspective which we also adopt.[6] Fully 40.9 percent of the young people in the administrative data have no history of parental welfare receipt. The most common welfare payments in this population are unemployment benefits (Newstart Allowance) or payments to low-income parents (Parenting Payment Single or Parenting Payment Partnered). We are particularly interested in comparing the attitudes of young people who have no family history of welfare receipt to those of the 27.5 percent of youth whose families received intensive welfare (i.e., six or more years) and the 31.6 percent of youth whose families received moderate welfare (i.e., less than six years) 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 information for the variables of interest.[7] (Summary statistics are presented in Appendix Table A1.)

3.2 Work-Welfare Attitudes 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

[5]Following best practice (see Groves et al., 2004), approach letters, incentive payments, repeated callbacks, and Computer Assisted Telephone Interviewing (CATI) were all used to maximize response rates. The final survey response rate for the in-scope population was 37.9 percent for parents, and 37.2 percent for youth—73.1 percent of whom also completed the self-completion questionnaire. More than 96 percent of young people and 92 percent of parents completing the survey consented to having this information linked to their administrative social security records. Although the final response rate differed somewhat across strata—ranging from approximately 40 percent in stratum A to 31 percent in stratum B—these differences stem primarily from differences in contact rates rather than refusal rates (Breunig et al., 2007).

[6]To place these payments in context, similar benefits in the United States are provided to families through the U.S. tax system in the form of standard deductions for dependent children and child care rebates.

[7]In some specifications the sample reduces to 1,364 observations due to missing values in some of the mothers' attitudinal variables.

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.[8] 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 attitudes.[9] Specifically, Sabbagh and Vanhuysse (2006) argue that attitudes towards 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 (see Sabbagh and Vanhuysse 2006). 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 A2).[10] 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) have the responsibility to look 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 in life, 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 appear to differ most in their perceptions of the importance 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 see 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 life success is closely tied to coming from a wealthy background.

[Table 1 here]

[8] See Appendix Table A2 for details.

[9] In particular, it is important to note that, unlike in the U.S., in Australia unemployment benefits represent welfare rather than an insurance scheme.

[10] For 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.

It is also interesting to begin to consider how attitudes towards work and welfare might be correlated within families. Table 2 reports youths' views conditional on those of their mothers. Specifically, 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, young people appear to be much more likely to adopt a particular work-welfare perspective when their mothers are of the same opinion with the correlation in mother and youth attitudes ranging from 0.322 (the level of unemployment benefits) to 0.098 (the importance of a job in getting ahead).

[Table 2 here]

Perhaps not surprisingly, individuals' attitudes towards work and welfare also seem to be related to their families' exposure to the welfare system (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. For example, while 62.8 percent of young people in families with no exposure to the welfare system believe that benefits are too high the same is true of only 51.8 percent of youth in families that received welfare at some point in the past. Young people are also significantly more likely to believe that individuals and their families should look after the unemployed if their families have a history of welfare receipt. We observe similar results for mothers. Still, the relationship between welfare history and perceptions of what it takes to get ahead in life is less clear cut. There is no significant relationship between welfare receipt and youths' views about the importance of various factors in achieving life success. In contrast, mothers with a history of welfare receipt 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 primary empirical challenge is to make the best use of the fact that we have multiple indicators of each individual's latent attitude towards work and welfare.[11] Many economists in this situation 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 makes in predicting attitudes toward work and welfare. Moreover, we have no way of knowing whether the weights we would choose for youth are appropriate for their mothers as well. Unfortunately, estimation results are likely to be sensitive to the weights we choose.[12] Alternatively, other researchers prefer to analyze each indicator separately (see, for example, Dohmen et al. 2006). The difficulty with this single-equation, 'attitude by attitude' approach is that it treats the data as though each survey question provides information about a separate, perfectly measured concept. Instead, we want to allow for the possibility that answers to our specific survey questions are only indicators of one or more broader concepts of work ethic and attitudes towards welfare. 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 imperfect indicators of youths' and mothers' latent attitudes. We focus on and estimate the determinants of two alternative dimensions of work-welfare attitudes. The first captures support for unemployment 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).[13] Given the parameterization of the underlying indicator variables (see Appendix Table A2), the first outcome tells about the extent to which young people support the public provision of generous unemployment benefits, while the second outcome sheds light on the extent to which young people believe that social inequality is driven by factors that are

[11] Specifically, there are six for youths and seven for their mothers.

[12] Preliminary estimation revealed that the estimated effect of mothers' work-welfare attitudes on those of their children was 2.5 times higher when equal weights were assigned than in the case when weights were highly unequal. (See Appendix Figure A2.)

[13] We explicitly distinguish between these two dimensions of work-welfare views because preliminary analysis revealed that the variation in the data was not adequately described by a single, latent work-welfare attitude. Moreover, this distinction is consistent with Sabbagh and Vanhuysse's (2006) results which also suggest that preferences for egalitarian redistribution can be differentiated from beliefs about the source of social inequality.

internal to individuals and their families.

Our estimation model consists of two parts. The first is a behavioral (structural) model of youths' attitudes which stems from the theoretical model set out in Section 2. The second is a measurement model which relates our observed responses (indicators) to the underlying latent variables (see Skrondal and Rabe-Hesketh, 2005; Ribar, 2005; and Ribar et al., 2006).[14] We discuss each in turn.

4.1.1 Behavioral (Structural) Model

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

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

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 attitudes 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 attitudes in the surrounding neighborhood. Instead, we control for the proportion of parents in the neighborhood who have never received welfare (N). Moreover, $\mathbf{x}$ is a vector of covariates that contribute to the formation of youths' work-welfare attitudes (i.e., gender, immigrant status, aboriginal status, family background, and parental education). Although youths' current education and employment choices are likely to be endogenous in the attitudes equation, we do account for previous events that may have had a hand in shaping current attitudes.[15] 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 attending 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

[14] The model we estimate is similar to the factor analytical models that Heckman and coauthors use to study the relationship between latent noncognitive abilities and labor market outcomes. See, for example, Heckman et al. (2006).

[15] We 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 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.

that η_p^* is uncorrelated with the other dependent variables.[16] Section 5.4 discusses the robustness of our results 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 that youths' work-welfare attitudes will be positively related to those of their mothers and that growing up in a family with a history of welfare receipt or in which the mother did not work will be associated with having attitudes 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 views about work and welfare.

4.1.2 Measurement Model

Responses to multiple YIF survey questions are used as indicators of latent work-welfare attitudes (see Appendix Table A2). The nature of these questions implies that individuals' responses do not form continuous indicators of work-welfare attitudes. Rather the data result in ordered, discrete variables reflecting respondents' perspectives on either (i) the role of the government in assisting the unemployed (work ethic model) or (ii) the importance of individual and family-background characteristics in getting ahead in life (social inequality model).

To take into account the ordered, discrete nature of our indicators, we assume that both youths' and mothers' latent work-welfare attitudes (η_c^* and η_p^*) determine an associated set of latent continuous indicators which we denote by y_{cj}^* and y_{pk}^*. Here, $j = 1, ..., J$ and $k = 1, ..., K$ 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 attitudes. Each indicator is then imperfectly related to individuals' unobserved work-welfare attitudes in the following way:

$$y_{cj}^* = \lambda_{cj}\eta_c^* + v_{cj} \;\; ; \;\; j = 1, 2, ..., J \tag{7a}$$

$$y_{pk}^* = \lambda_{pk}\eta_p^* + v_{pk} \;\; ; \;\; k = 1, 2, ..., K \tag{7b}$$

where v_{cj} and v_{pk} are idiosyncratic components, all are assumed to be uncorrelated with each other and with the error term (ε) in the behavioral equation. The λ parameters are coefficients

[16] As will be discussed in the results section, higher values of η_p^* and η_c^* represent greater support for market-based values (i.e., less support for generous unemployment benefits and a belief that individual and family-background characteristics are relatively important in driving social inequality). Lower values are consistent with more support for the welfare state.

(factor loadings). Higher values of λ_{cj} indicate that youths' latent work-welfare attitudes (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 other λ 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 equations 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 the latent continuous ones (y_{cj}^*, y_{pk}^*) by the rule

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

for $i = \{c, p\}$. In this expressions, the δs are threshold parameters satisfying the restriction that $\delta_{1j} < \delta_{2j} < ... < \delta_{Mj}$ while M denotes the number of categories for an indicator. The value of M differs between the unemployment benefits and the social inequality models. In the support for unemployment benefits model $M = 2$ for all indicators, while $M = 4$ for youth and $M = 5$ for mothers in the social inequality model because mothers were asked an additional question relating to the importance of family wealth in getting ahead.

4.2 Estimation Strategy

Our model results in a system of J independent (ordered) probit models, one for each of the observed work-welfare attitudinal variables for youth. To see this, substitute equation 6 into 7a to get

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

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 attitudes for

the parent η_p^* (which was assumed to be independently normally distributed with mean 0 and variance σ_p^2). A visual representation is provided in Appendix Figure A1.

We use the software aML to generate Maximum Likelihood estimates of the parameters in the system and their robust standard errors.[17] Since the latent attitude variables have no intrinsic units of measurement, we normalize one λ parameter to one in the system of equations for the youth (expression 7a) and one in the system of equations for the parent (expression 7b). This identification restriction allows us to estimate all other parameters. Our model produces estimates of 1) the determinants of youths' work-welfare attitudes ($\boldsymbol{\alpha}, \gamma, \theta, \pi, \boldsymbol{\beta}$); 2) the variance of the latent parental attitude index (σ_p^2), and 3) the factor loadings in the measurement model ($\lambda_{cj} \forall j = 1, ..., J-1$, $\lambda_{pj} \forall k = 1, ..., K-1$).[18]

This estimation strategy allows us to combine all of the information from multiple (imperfect) measures of work-welfare attitudes for both youths and mothers without imposing an ad hoc weighting of these indicators on overall work-welfare attitudes. Moreover, the procedure allows for differences in the response error associated with each indicator in the measurement model. This is done through the λ parameters which are inversely related to the degree of indicator-specific variance. The disadvantage is that the model is complex and the resulting estimates can be difficult to interpret (Ribar et al., 2006).

5 The Determinants of Work-Welfare Attitudes

5.1 Results from the Measurement Component of the Model

We begin by considering whether the measurement model in equations 7a and 7b yields estimates that are consistent with our view that high values of the latent attitude variables η_c^* and η_p^* can be interpreted as having 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 Vanhuysse, 2006, and Appendix Table A2). 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.

[17] aML uses Gauss-Hermite quadrature to "integrate-out" the common terms in our system of (ordered) probits (Lillard and Panis, 2003).

[18] The strategy also yields estimates of threshold parameters (δs) underlying the measurement model. These parameters correspond to the thresholds in standard ordered or simple probit models. Given our interests and space limitations, these are not reported here, but are available upon request.

Table 4 reports Maximum Likelihood estimates of these parameters ($\hat{\lambda}$) for both the work ethic and social inequality models.[19] Although the parameters for the behavioral and measurement components of the model are estimated jointly, for simplicity, Table 4 reports only the estimates from the measurement component. We consider two specifications. The first is the baseline specification previously discussed (columns 1 and 3). The second adds interactions for i) mothers' attitudes and intensive welfare receipt, ii) mothers' attitudes 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 attitudes ($\hat{\sigma}_{\eta_p^*}$) and the implied standard deviation of youths' latent attitudes ($\hat{\sigma}_{\eta_c^*}$) are also presented.[20] These will be useful in calculating marginal effects from the behavioral component of the estimation model.

[Table 4 here]

The results in Table 4 indicate that our latent measures of youths' and mothers' work-welfare attitudes 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—implying that we can interpret youths' and mothers' latent work-welfare attitudes in a similar fashion—the relative importance of these work-welfare attitudes in shaping responses to the survey questions underlying our categorical indicators differs substantially across generations.

[19] Estimates of the factor loadings $(\lambda_{cj}, \lambda_{pk})$ reflect the weight (loading) that the common latent attitude variable (either η_c^* or η_p^*) has on responses to the associated survey question. The higher $\hat{\lambda}$ is the more of the question-specific variation accounted for by the common latent variable (see Ribar et al., 2006).

[20] We calculate $\hat{\sigma}_{\eta_c^*}$ by calculating the variance of equation 6. To do this we use the parameter estimates, the variance of the error term (ε), and the variances and covariances of all regressors. For the work ethic model $\hat{\sigma}_{\eta_c^*} = 1.079$, while $\hat{\sigma}_{\eta_c^*} = 1.352$ for the social inequality model.

5.2 Results from the Behavioral Component of the Model

Having established that interpreting our latent attitude variables as "work ethic" is consistent with the data, we turn now to consider the estimated determinants of youths' attitudes towards work. It is very difficult, however, to interpret the magnitude of the coefficients in the behavioral component of the estimation model because the latent attitude 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 presented in Appendix Table A3.

The results indicate that youths' work-welfare attitudes are related to the welfare histories of their families. Young people who grow up in family that never received welfare are significantly more likely to oppose the public provision of generous unemployment benefits than young people growing up in families with a history of intensive welfare receipt. Specifically, youth in families receiving intensive welfare have a propensity of opposing generous unemployment benefits that is 0.400 std. lower than that of youth in non-welfare families.[21] 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. Moreover, welfare receipt has only a weak impact on young people's beliefs about 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 young people 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'

[21] This is calculated by dividing the raw estimate ($-.422$) by the standard deviation of youth's attitudes ($\hat{\sigma}_{\eta_c^*} = 1.054$). That is, $-.422/1.054 = -.400$.

attitudes towards welfare and their families' welfare histories depends on which dimension of work-welfare attitudes we are considering.

[Table 5 here]

We also find support for the cultural transmission of work-welfare attitudes 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 one standard deviation increase in mothers' opposition to the public provision of 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 one standard deviation 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' attitudes on their children's views about unemployment benefits. Thus, cultural 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. 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 significant interaction between a mother's work-welfare attitudes 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 attitudes 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 cultural transmission of attitudes 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' attitudes towards work and 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 attitudes 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 views about work and welfare.

Although our theoretical framework implies that young people's attitudes towards work and welfare are shaped by those of their neighbors, the direction of this effect is theoretically ambiguous. Unfortunately, our data do not provide information about work-welfare attitudes in the neighborhoods in which young people grew up. Instead, our estimation model accounts for the welfare profile of the current neighborhood. We find no evidence that young people's attitudes towards work and welfare are driven by the welfare experiences of those in their current neighborhoods.[22] 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.[23] This finding is particularly striking given that we are unable to account for any endogenous selection into neighborhoods. If parents 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 attitudes. Accounting for this endogenous selection would reduce our results even further. Overall, it appears that in the case of work-welfare attitudes, cultural transmission may occur within families rather than neighborhoods.

Finally, work-welfare attitudes 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, however. Immigrants from non-English-speaking backgrounds (0.289 std.) and Aboriginal/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,

[22] Neighborhoods are defined on the basis of post codes.

[23] We 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.

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' attitudes or welfare history 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 cultural transmission model of work-welfare attitudes. 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 ethic is 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 attitudes 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 attitudes 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 cultural 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 model of work ethic 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 if the identifying assumptions of the estimation model hold. It is therefore useful to assess the robustness of this result to alternative assumptions.

We have ruled out reverse causality by maintaining an intergenerational ordering assumption. This strategy has been used in previous research to identify the causal effect of welfare exposure on youth outcomes (see Gottschalk, 1996; Pepper, 2000; Beaulieu et al., 2005) and is a sensible approach here. More concerning is the reasonableness 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 attitude equation raising concern about the potential effect of omitted factors that might determine 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 attitudes, while subsequent specifications sequentially control for the mothers' attitudes, 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' attitudes is relatively stable. The estimated marginal effect of intensive welfare receipt in reducing work ethic 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 the effects that we are measuring can be interpreted causally.

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 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 attitudes).[24] Our instrument is a significant predictor of the mother's propensity to have received intensive welfare ($p = 0.019$), however, 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. The magnitude of the IV estimate (-0.263), however, 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 that propensity to adopt an internal view of social inequality once we instrument for the family's welfare history.

[Table 6 here]

[24] Maurin (2002) also uses information about grandparents to estimate the effect of parental income on children's school performance. We implement the IV estimation by re-estimating the baseline model: i) dropping moderate welfare receipt in the work ethic model and ii) combining intensive and moderate welfare (i.e. including an indicator of any welfare) in the social inequality model. Full results are available upon request.

6 Conclusions

This paper investigates whether the cultural transmission of attitudes towards work, welfare, and personal responsibility can explain the intergenerational correlation in welfare receipt. We first develop a theoretical model of the cultural transmission of work attitudes across generations which forms the basis for specifying the determinants of youths' attitudes and generating empirical predictions. We then estimate a structural equations model using data from the Youth in Focus Project to assess whether young adults and their mothers share similar views about social benefits and social inequality as well as whether these perspectives differ by patterns of welfare receipt. Understanding how welfare might affect work-welfare attitudes is critical in light of the mounting evidence that economic disadvantage is passed from one generation to the next. Moreover, this paper makes an important empirical contribution to the mainly theoretical literature on the cultural transmission of attitudes, preferences, and beliefs more generally.

We find strong evidence in support of the cultural transmission of work-welfare attitudes across generations. Consistent with our theoretical model, young people's attitudes towards work and welfare appear to be shaped by 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 believe that social inequality stems from individual effort and family background than those growing up in non-welfare families. Young people are also more 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' attitudes towards welfare appear to be unrelated to their neighbors' welfare receipt suggesting that cultural transmission occurs primarily within families rather than neighborhoods.

What do these results tell us then about the potential for the cultural transmission of a weak work ethic—alternatively welfare acceptance—from parents to children to result in an intergenerational culture of welfare dependence? On the one hand, we do find that a history of welfare receipt significantly affects the work ethic of 18-year olds; though welfare intensity may be more salient than welfare incidence and the size of the impact depends on the specific dimension of work-welfare attitudes being considered. This is in a sense a necessary condition for the existence of a welfare culture. A culture of dependency can only develop if it is the case that welfare receipt alters the work-welfare attitudes of parents and/or their children. While social scientists and policy makers alike have for decades been concerned about the potential

effects of welfare on recipients' attitudes, values, and preferences, evidence of a causal link has been illusive (see Duncan et al., 1988). This paper makes an important contribution by shedding light on this issue.

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 does provide some reassurance that the estimated link between work ethic and welfare histories can be interpreted causally and the negative effect of intensive welfare receipt as a child on youths' work ethic generally remains even after we account for the potential endogeneity of family welfare history. Still, we do not find a corresponding effect of welfare histories on attitudes towards social inequality suggesting that welfare does not necessarily affect all dimensions of work-welfare attitudes equally.

Even more importantly, while welfare receipt as a child appears to have an independent effect on the views of young adults towards the public provision of generous unemployment benefits, it is not at all clear that these attitudes can be linked to those outcomes 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 attitudes—future research will need to investigate which attitudes are most relevant for understanding young people's educational, labor market, and health outcomes and how best to measure them.

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

	Youth			Mother			Equality of means
Indicator$^{(a)}$	*Mean*	*Std. Dev.*	*Obs.*	*Mean*	*Std. Dev.*	*Obs.*	*[p-value]*
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

Youth's Indicator Variables [(a)]	Mother: *Disagrees*			Mother: *Agrees*			Equality of means
	Mean	*Std. Dev.*	*Obs.*	*Mean*	*Std. Dev.*	*Obs.*	*p-value*
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
To get ahead in life...							
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(*)

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

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

	Work-ethic Model		View of Social Inequality Model	
Indicator's loading factors (λs)	*Baseline*	*Interaction*	*Baseline*	*Interaction*
Youth's latent variable indicators				
Unemployment benefits are too high[(a)]	1.000[(d)]	1.000[(d)]		
Unemployed should care for themselves[(a)]	.418***	.436***		
	(.145)	(.152)		
To get ahead in life[(b)]...				
own education is important			1.000[(d)]	1.000[(d)]
own ambition is important			.229**	.236**
			(.091)	(.093)
having a job is important			.165**	.173**
			(.083)	(.087)
parental education is important			.481*	.506*
			(.275)	(.249)
Parent's latent variable indicators				
Unemployment benefits are too high[(a)]	1.000[(d)]	1.000[(d)]		
Unemployed should care for themselves[(a)]	.877***	.904***		
	(.319)	(.332)		
To get ahead in life[(c)]...				
own education is important			1.000[(d)]	1.000[(d)]
own ambition is important			.418***	.417***
			(.112)	(.114)
having a job is important			.501***	.500***
			(.112)	(.113)
parental education is important			2.669***	2.695***
			(.857)	(.895)
having a wealthy family is important			1.346***	1.339***
			(.200)	(.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	
Log-likelihood ('000s)	−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 Attitudes, Standardised Estimates

	Work-ethic Model$^{(a)}$		View of Social Inequality Model$^{(a)}$	
Variable	*Baseline*	*Interaction*	*Baseline*	*Interaction*
Intensive welfare history	−.400**	−.392**	−.139	−.137
Moderate welfare history	−.097	−.102	−.166*	−.160*
Mother attitudes (high values = work-ethic)	.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
Observations	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 attitudes ($\hat{\sigma}_{\eta_c^*}$), except for the Mother Attitudes coefficient which is multiplied by ($\hat{\sigma}_{\eta_p^*}/\hat{\sigma}_{\eta_c^*}$).

$^{(a)}$ Higher values of the dependent variable (youths' attitudes) 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 A3).

Table 6: Robustness of Welfare Estimates ($\boldsymbol{\alpha}$), Baseline Models

	Model 1	*Model 2*	*Model 3*	*Model 4*	*Model 5*
Work-ethic Model					
Intensive welfare history					
Standardised 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					
Standardised 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
View of Social Inequality Model					
Intensive welfare history					
Standardised 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					
Standardised 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
Controlling for:[(a)]					
Mother attitudes	–	✓	✓	✓	✓
Demographics	–	–	✓	✓	✓
Parental characteristics	–	–	–	✓	✓
Neighborhood welfare use	–	–	–	–	✓

Notes: High values of the dependent variable (youths'attitudes) 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 Attitudes includes only the attitudinal 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: 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

$$\begin{aligned} EU_H &= \int_{\underline{w}}^{\frac{\widetilde{y}}{l_H}} \left[\begin{array}{c} l_H w + b\left(\widetilde{y} - l_H w\right) + \left(\delta^s \gamma_H l_H + \left(1 - \delta^s \gamma_H l_H\right)\sigma\right) V_{HH} \\ + \left(1 - \delta^s \gamma_H l_H\right)\left(1 - \sigma\right) V_{HL} \end{array} \right] f\left(w\right) dw \\ &+ \int_{\frac{\widetilde{y}}{l_H}}^{\overline{w}} \left[l_H w + \left(\gamma_H l_H + \left(1 - \gamma_H l_H\right)\sigma\right) V_{HH} + \left(1 - \gamma_H l_H\right)\left(1 - \sigma\right) V_{HL} \right] f\left(w\right) dw \\ &+ \left(1 - \gamma_H\right) Z\left(1 - l_H\right) \end{aligned} \tag{10}$$

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

$$\begin{aligned} EU_L &= \int_{\underline{w}}^{\frac{\widetilde{y}}{l_L}} \left[\begin{array}{c} l_L w + b\left(\widetilde{y} - l_L w\right) + \left(\delta^s \gamma_L l_L + \left(1 - \delta^s \gamma_L l_L\right)\sigma\right) V_{LH} \\ + \left(1 - \delta^s \gamma_L l_L\right)\left(1 - \sigma\right) V_{LL} \end{array} \right] f\left(w\right) dw \\ &+ \int_{\frac{\widetilde{y}}{l_L}}^{\overline{w}} \left[l_L w + \left(\gamma_L l_L + \left(1 - \gamma_L l_L\right)\sigma\right) V_{LH} + \left(1 - \gamma_L l_L\right)\left(1 - \sigma\right) V_{LL} \right] f\left(w\right) dw \\ &+ \left(1 - \gamma_L\right) Z\left(1 - l_L\right) \end{aligned} \tag{11}$$

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

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

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

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

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: $\frac{\partial^2 EU_L}{\partial l_L \partial\sigma} > 0$.[25]

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.

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

[25] To 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 Table A1: Descriptive Statistics by Family Welfare Receipt(*)

	No welfare		Intensive welfare receipt		Moderate welfare receipt	
	Mean	*Std. Dev.*	*Mean*	*Std. Dev.*	*Mean*	*Std. Dev.*
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 A2: Parameterizing Work-Welfare Attitudes

Question Number	*Exact wording of the question*	*Coding for tables of descriptive statistics*
Question 1.	Opinions differ about the level of benefits for unemployed people. Which of these two statements comes closest to your own view? • 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? • 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? *(only asked to parents)*	"

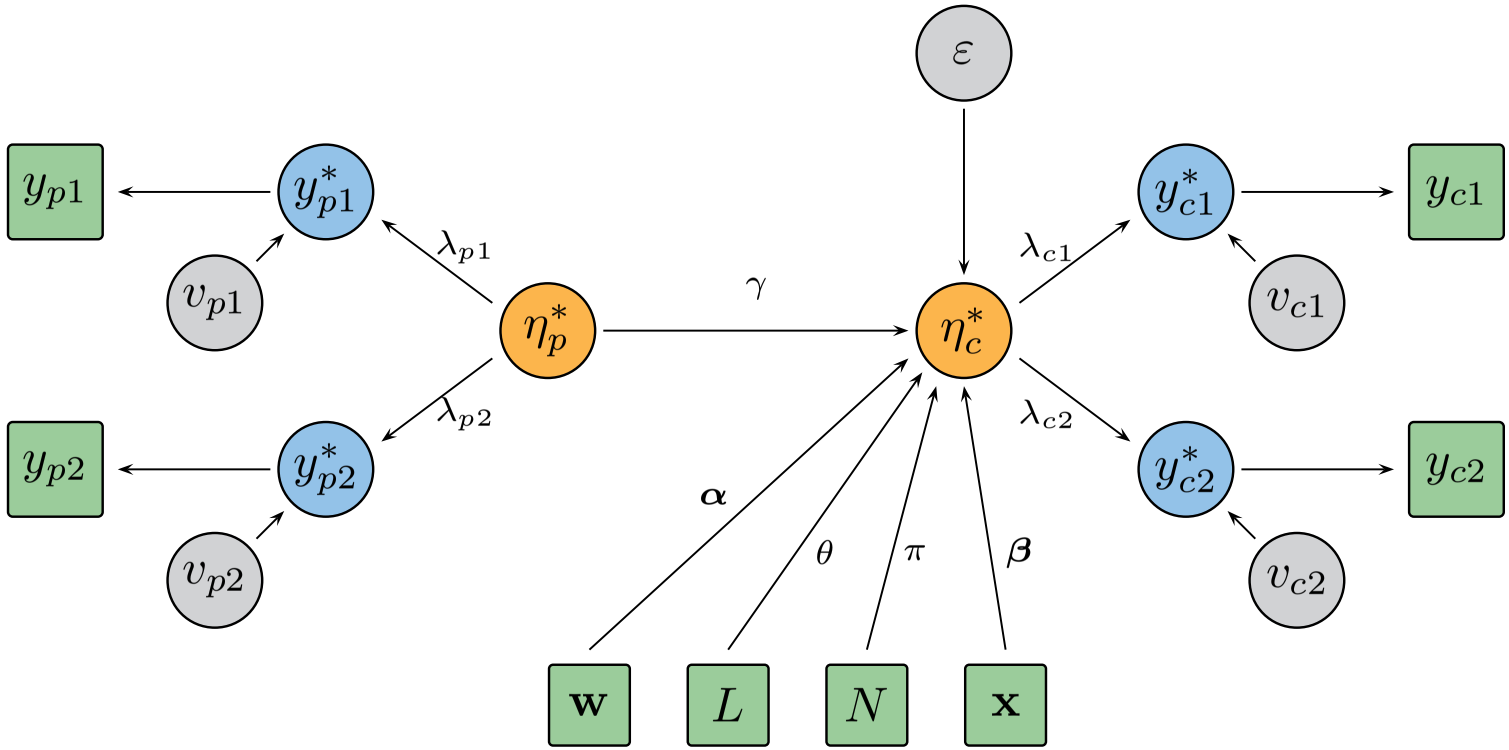
Notes: † Youth were not given the option to answer "doesn't matter at all."

Appendix Table A3: The Determinants of Youth's Attitudes (Model Estimates)

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

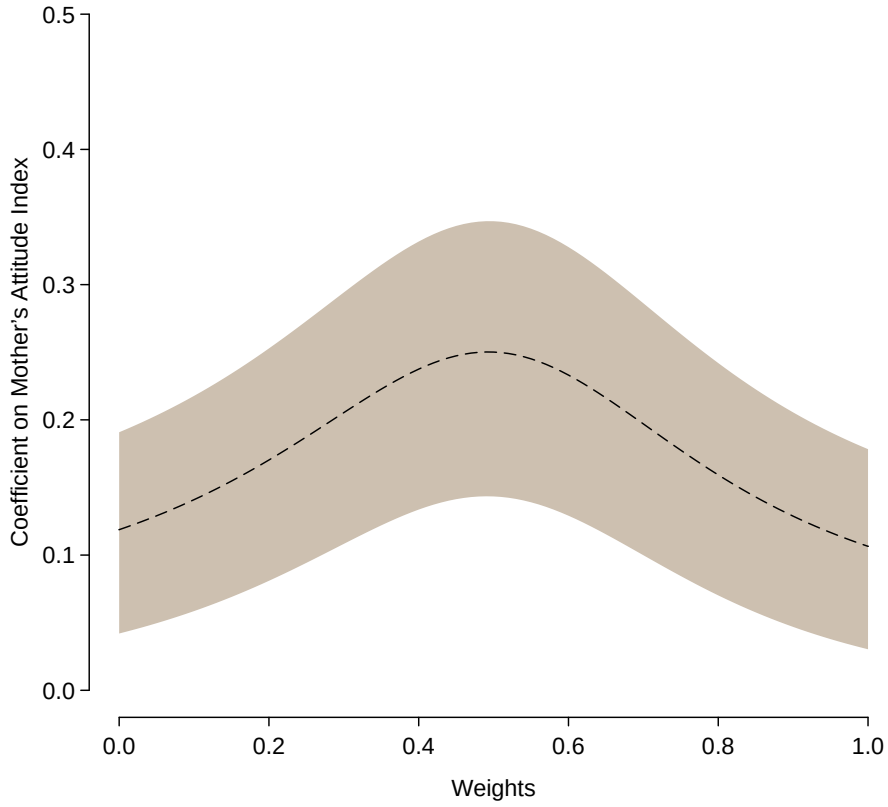
Notes: Heteroskedasticity-robust standard errors in parentheses.
***, **, and * denote significance at 1%, 5%, and 10%.
Higher values of the dependent variable (youths' attitudes) are consistent with a higher work-ethic. Although the model is estimated jointly, for clarity this table does not present estimates of the measurement part of the model (see Table 4).

Appendix Figure A1: Path Diagram for Work-Ethic Model (Baseline)



Notes: The diagram represents the baseline Work-Ethic Model (see equation 6). Parameter estimates for this model are presented in Table 4 and Appendix Table A3.

Appendix Figure A2: Coefficient on Mother's Attitudes Index under Alternative Weighs, baseline Work-ethic Model



Notes: The information represented by the dashed line comes from running OLS regressions of the form:

$$I_c = \gamma I_p + \boldsymbol{z}'\boldsymbol{\beta} + u,$$

where I_c and I_p represent indexes constructed from combining the two indicators available for each in this model. For each index, the two indicators (y_1 and y_2) are combined as $\omega y_1 + (1-\omega)y_2$ where ω is given by the point on the horizontal axis. I_c and I_p results from the standardisation of these variables to have mean 0 and variance 1. $\boldsymbol{z}$ includes all other variables used in the baseline model (see Table 5).
The grey area represents 95% confidence intervals.