Freie Universität Berlin

Work Norms, Social Insurance and the Allocation of Talent

Giacomo Corneo

School of Business & Economics
Discussion Paper

Economics

2013/12

Work Norms, Social Insurance and the Allocation of Talent

Giacomo Corneo*

August 2013

*Affiliation of author: Department of Economics, Free University of Berlin, CEPR, London, CESifo, Munich, IZA, Bonn.

Address: Department of Economics, FU Berlin, Boltzmannstr. 20, 14195 Berlin, Germany. E-mail: giacomo.corneo@fu-berlin.de.

Acknowledgements: I benefitted from comments by seminar participants in Beer-Sheva, Berlin, Budapest, Genoa, Jerusalem, Mannheim, Oslo, Reading, Rethymno, Tel Aviv, and Washington D.C. as well as suggestions by the managing editor, two anonymous referees, Eivind Hoffmann, Changxia Ke, Frank Neher and Paolo Vanin. The usual disclaimer applies.

Abstract

This paper challanges the view that weak work norms in generous welfare states makes them economically unsustainable. I develop a dynamic model of family-transmitted values that has a laissez-faire equilibrium with strong work norms coexisting with a social-insurance equilibrium with weak work norms. While the former has better incentives, the latter induces more intergenerational occupational mobility which improves the allocation of talent and fuels growth. Strong work norms arise as a defensive strategy of parents that aims at perpetuating their occupation along family lines. I present evidence from microdata showing that generous social insurance correlates with high intergenerational occupational mobility and that more mobile individuals endorse weaker work norms.

Keywords: work norms, unemployment insurance, occupational mobility, economic growth.

JEL-Classification: H2, O0, Z1.

1 Introduction

This paper proposes a novel view of the interaction between the generosity of social insurance towards the unemployed, the work norms held by the population, and economic performance. The prevailing view was developed by Lindbeck (1997), Lindbeck and Nyberg (2006) and Lindbeck *et al.* (1999). It purports that generous social insurance weakens the work norms endorsed by individuals, i.e. the symbolic value they attach to achieving self-supportiveness through own work. A self-destructive dynamics may then set in as weak work norms increase welfare dependency and worsen macroeconomic performance, which in turn endangers the fiscal sustainability of social insurance. Lindbeck and Nyberg (2006) present cross-country evidence of a negative relationship between self-reported work norms and the share of social expenditure to GDP.

The current paper offers a less negative view of weak work norms and generous social insurance against unemployment. It grounds on a model of endogenous social insurance where individuals choose a career under imperfect information about their occupational talent. Family ties shape the labor-market outcomes of individuals. Ex post, parents can raise the productivity of their untalented children if they chose the same occupation. The model exhibits two types of equilibria: one with generous unemployment benefits and weak work norms and one with meager benefits and strong work norms. While the latter equilibrium features better incentives to take up jobs, the former one has a better allocation of talent to occupations. Output and growth need not be higher in the equilibrium with strong work norms, and the two equilibria may coexist. Such a model thus contributes to explain the so called free-lunch puzzle of the welfare state, i.e. the failure to detect any clear overall negative effect of large tax-financed transfers on GDP.[1]

My model pins down the role of parenting styles and insurance provision for determining labor market outcomes. If parents expect high unemployment benefits, they push their children to choose careers with a high expected productivity and a high unemployment risk. To this end, they adopt a liberal parenting style that encourage children to cultivate their talents and does not stigmatize the unemployed. If parents expect meager unemployment benefits, they promote safe career choices with lower expected productivity and lower unemployment risk. To this end, they transmit strong work norms that stigmatize unemployment and force their children into their own occupation, where parents' help protect them from professional failure. Strong work norms are thus a way of substituting private for social insurance against unemployment

[1] That puzzle was put forward by Lindert (2004); see Pestieau (2006) for some qualifications and an overview on social insurance and economic efficiency.

As stressed by Bénabou (2000), the variety of national tax-transfer systems can be understood as resulting from multiple equilibria such that none of them dominates the others in terms of long-run economic growth. Alesina and Angeletos (2005) and Bénabou and Tirole (2006) ofer related models. There the laissez-faire equilibrium dominates, in terms of national income, the welfare-state equilibrium.

risk. Across equilibria, the generosity of unemployment benefits negatively correlates with the inheritance of occupation along family lines.

Figure 1 shows that across European countries generous unemployment benefits are indeed correlated with high intergenerational occupational mobility. The generosity index on the horizontal axis captures the ratio of the after-tax unemployment benefit payable to a typical worker to that worker's after-tax wage, as computed by Scruggs and Allan (2006). The vertical axis has the fraction of male adults that follow the occupational footsteps of their fathers. That variable is obtained from the European Values Study of 2008 which reports the four-digit ISCO code of the occupation of both the respondent and his father when the respondent was fourteen.[2] The inheritance of occupations is negatively correlated with the generosity of unemployment benefits and the regression line has a R^2 close to .55.[3] That negative correlation is robust with respect to controls for individual characteristics of the respondents in the various countries. Taking the country-fixed effects from a regression that explains the probability to inherit the father's occupation yields a scatter plot similar to Figure 1.

This paper is divided into a theoretical and an empirical part. After discussing related strands of literature, Sections 3-6 develop a dynamic model of work norms instilled by parents, in which individuals make a career choice with imperfect knowledge of their talent and may become unemployed if they turn out to be unproductive at their chosen occupation. The generosity of social insurance towards the unemployed is determined through voting. The key assumption is that if children are in the same occupation as their parents they are never entirely unproductive, whereas failure is possible if their occupations differ. This captures the idea that when individuals follow their parents' footsteps in the labor market they can profit from both the network of contacts and the occupation-specific human capital that they inherit from their parents, so that unemployment is unlikely even in the absence of personal talent. Using a model of talent-driven endogenous growth, two regimes obtain as steady states. In one, all children choose their parent's occupation, work norms are strong, and there is neither unemployment nor unemployment insurance. In the alternative regime, children adopt whichever occupation they are likely to be talented for, work norms are weak, and there are both unemployment and unemployment insurance. Even if work norms are weaker, growth can be higher in the welfare-state equilibrium because there are more individuals who are highly productive at their occupation.

The empirical part in Section 7 presents some evidence from individual data that lends support to the main insights of the model. Its key assumption - choosing a parent's occupation protects from unemployment - fits well with the data, as conditional correlations show that followers have a lower probability to benefit from unemployment insurance. Moreover, the

[2] All countries for which both sources of information are available have been used.

[3] A similar negative relationship obtains when using a general score of generosity of social insurance, which incorporates sickness and pension benefits along with unemployment benefits.

distinctive predictions of the model are consistent with the data: followers exhibit stronger work norms than individuals who experience intergenerational occupational mobility and the sons of unemployed fathers endorse weaker work norms than other people.

2 Links to the literature

Work norms refer to self-supportiveness: persons who are able to work should work so as to support themselves by their own work and they should not rely on support by others. In Lindbeck (1997) the disutility from deviating from such a norm is assumed to decrease with the share of transfer recipients. Since transfer recipients may be individuals who break the norm, his model exhibits a critical-mass effect: the larger the share of the population that violates the norm, the smaller the utility loss from violating it, and the stronger the incentive to live off handouts from the government. There can be both an equilibrium with large norm compliance and ostracism of the unemployed and one where the norm breaks down. Lindbeck *et al.* (1999) show that under endogenous social insurance there can be either a laissez-faire equilibrium, supported by a majority of potential taxpayers, or one with a generous welfare state, supported by a majority of transfer recipients. The laissez-faire equilibrium is the one where the norm is obeyed and the economy thrives. Also in the model of this paper there are equilibria with either weak or strong norms; however, economic performance needs not be better in the equilibrium with strong norms.

Lindbeck and Nyberg (2006) endogenize work norms as the outcome of a purposive socialization process. Parents instill a work norm in their children so as to mitigate children's free-riding on parents' altruism. Social insurance shifts some of the costs of children's free riding from the parents to the government and weakens the incentive for parents to instill a work norm. In a related model, Gradstein (2010) allows families to invest in education and shows that education subsidies can prevent work norms from deteriorating. The current paper shares the view that parents purposively influence their children's work norms. However, those norms are modeled as resulting from a broader value system that parents transmit to their children, as in Corneo and Jeanne (2009, 2010).[4] Values, self-respect and social status depend not only on whether somebody is a transfer recipient or a worker, but also on that person's occupation. This is consistent with the observation that occupational pride and prestige are important ingredients in the choice of careers and occupations (Arcidiacono, 2004; Dolton *et al.*; 1989, Humlum *et al.*, 2012).

A few papers have offered models of endogenous work attitudes, as e.g. Doepke and Zilibotti (2008) and Gradstein (2009). While work norms refer to self-supportiveness through own work, work attitudes refer to the willingness to substitute leisure for consumption at the margin. Those

[4] Bisin and Verdier (2000) offer a related approach to the intergenerational transmission of values and attitudes.

papers show that the intergenerational transmission of work attitudes can help to explain long-term patterns of income mobility, whereby children of poor parents can overtake children of rich parents. Differently from the current paper, those papers do not deal with social insurance.[5]

Considerable empirical work has been devoted to exploring the relationship between children's and their parents' labor market outcomes. A strand of literature has documented the extent of intergenerational persistence in occupational choice, whereby the father's occupation is found to be an important determinant of the son's occupation. However, most studies employ a broader definition of occupation than in this paper, one based on its socio-economic status or class, see e.g. Constant and Zimmermann (2003) and references therein. Another related study is Corak and Piraino (2011), about the intergenerational transmission of employers. Using Canadian data, they find that 6-9 % of a cohort of young men have the same employer in adulthood for which their father worked. That is driven by fathers providing both informational networks and specific human capital to their children. The importance of the role of family networks for labor market outcomes is confirmed by Kramarz and Skans (2011), who analyze Swedish data. They find that family networks favor the transition between school and work especially for children with low schooling and poor grades. There are also empirical studies that find an important effect from parents' joblessness on children's earnings (Oreopoulos et *al.*, 2008) and unemployment (Corak *et al.*, 2004, Österbacka, 2004, and Page, 2004). My model is consistent with the main findings of the empirical literature: (i) there is a significant intergenerational persistence in occupational choice; (ii) following a parent's occupational footsteps is especially helpful for less talented individuals; (iii) parents' unemployment has a negative impact on the labor market outcomes of their children.

Finally, the model in this paper is related to that part of growth theory that puts forward the allocation of talent as a key growth factor, as in Fershtman *et al.* (1996), Galor and Tsiddon (1997), Hassler and Rodriguez Mora (2000), and Murphy *et al.* (1991). The current paper stresses the benefits in terms of accumulated knowledge that accrue to society if individuals perform an activity for which they are talented. In my model, individuals are horizontally differentiated with respect to their talents; a coincidence of talents and occupations spurs creativity and new ideas, whereas a mismatch results in technological stagnation. This focus distinguishes the current paper from the previous literature that stresses the role of vertically differentiated talent in human capital investment and in the choice of entrepreneurial activities.

[5] Algan and Cahuc (2009) investigate the role of civic virtue in explaining the presence of employment protection rather than unemployment benefits. Civic virtue is endogenized by Michau (2012) as a response to unemployment insurance and by Cervellati and Vanin (2013) as a response to crime temptation. Corneo and Grüner (2000) and Cervellati *et al.* (2010) analyze the role of social stigma and prestige in shaping governmental redistribution in the absence of an insurance motive.

3 Model

At any time period $t \in \{0, 1, 2...\}$ there is a continuum of dynasties $i \in [0, 1]$. Individual i_t is the parent of individual i_{t+1} and lives one period. Every individual may either work and choose one of two occupations, referred to as a and b. Or, the individual may be unemployed and receive social benefits, in which case his (in)activity is denoted by u. Activity u may be thought of as alternating periods of unemployment with periods of work activity in jobs that do not require any special skill.

In every period t, the following sequence of events occurs for every dynasty.

1. Individual i_t internalizes a value system instilled by i_{t-1}. A value system is a mapping that associates non-negative indexes $v(\cdot, i_t)$ - symbolic values - with activities $x \in \{a, b, u\}$. As values are intrinsically relative I use the normalization

$$v(a, i_t) + v(b, i_t) + v(u, i_t) = 1. \tag{1}$$

The strength of the work norm endorsed by individual i_t, $n(i_t)$, is defined as the symbolic value that individual i_t attaches to working:[6]

$$n(i_t) \equiv v(a, i_t) + v(b, i_t).$$

2. Individual i_t receives a signal about his unknown talent $\theta(i_t) \in \{a, b\}$. Talents are identically and independently distributed in the population. The signal about talent may be either σ_a or σ_b. The unconditional probability of each signal is $1/2$; the conditional probabilities are

$$\Pr\{\sigma_{i,t} = \sigma_a | \theta(i_i) = a\} = \Pr\{\sigma_{i,t} = \sigma_b | \theta(i_t) = b\} = p, \tag{2}$$

where $p \in (1/2, 1)$ is the precision of the signal. It can be thought of as mirroring the quality of the education system.[7]

3. Individual i_t chooses an occupational specialization $s(i_t) \in \{a, b\}$. Having a specialization is a necessary requirement for working in the corresponding occupation.

4. Individuals $i_t \in [0, 1]$ vote over balanced social insurance schemes (τ_t, z_t) and one is collectively chosen. $\tau_t \in [0, 1]$ is the wage tax rate and $z_t \geq 0$ is the unemployment benefit.

5. Nature privately reveals to each individual his talent $\theta(i_t)$, upon which the individual's productivity is determined. The productivity of individual i_t depends both on his talent for the

[6] It could equivalently be defined as the difference between the symbolic value attached to working and the one attached to living off the welfare state.

[7] By allowing for the possibility that individuals lack any talent and correspondingly rescaling the probabilities of signals, one could introduce vertical talent differentiation along with the horizontal one. All key results would be qualitatively unaffected.

chosen occupation and on his parent's activity, $x(i_{t-1}) \in \{a, b, u\}$. If $s(i_t) = \theta(i_t)$, individual i_t's gross hourly wage is $(1+\delta)w_t$, where $\delta > 0$ is the talent premium. If $s(i_t) \neq \theta(i_t)$, the wage is $w_t > 0$ if $s(i_t) = x(i_{t-1})$ and 0 otherwise. Thus, untalented individuals can earn a positive wage only if they have followed their parents' occupational footsteps.

6. Individuals choose their work hours $h(i_t) \in [0, 1]$, produce, and are paid their market wage according to their productivity.

7. Consumption levels $c(i_t)$ are determined by redistributing the wage sum according to the social-insurance scheme.

Individuals derive utility from consumption, leisure, self-esteem and social esteem. Their preferences are described by a logarithmic utility function,

$$U = \ln c + \ln(1-h) + \beta \ln selfv + \gamma \ln socv,$$

where c is consumption, $1-h$ is leisure, $selfv$ captures self-esteem, and $socv$ is social esteem. Within each family, all individuals have the same "deep" preferences - parameters β and γ - while they may attach different symbolic value to the various activities. The weight of the self-esteem concern in an individual's utility function is captured by $\beta \geq 0$. An individual's self-esteem is the value of his activity according to his value system:

$$selfv(x(i_t)) = v(x(i_t), i_t).$$

The strength of the concern for social esteem is captured by $\gamma \geq 0$. The social esteem in which an individual is held is the average of the esteem granted to his activity over the whole society:

$$socv(x(i_t)) = \int_0^1 v(x(i_t), j_t) dj_t. \tag{3}$$

A possible interpretation has individuals being randomly matched into pairs and exchanging courtesy and hostility according to their values.

The baseline productivity level in the economy, w_t, is determined by the economy-wide stock of knowledge K_t as of

$$w_t = \alpha K_t, \tag{4}$$

where $\alpha > 0$ is a parameter. The stock of knowledge accumulates as a by-product of the work of talented individuals. It evolves according to

$$K_{t+1} = [1 + g(H_t)]K_t, \tag{5}$$

where H_t is the total number of hours worked by individuals who are talented for their occupation. Function g satisfies $g(0) \geq 0$ and $g' > 0$.

An equilibrium is

- a distribution of value systems, occupational specializations, and work hours at each period $((v(x, i_t),\ s(i_t),\ h(i_t))_{i_t \in [0,1]})$,

- levels of social esteem at each period $(socv(x_t)_{x_t \in \{a,b,u\}})$,

- a social insurance scheme at each period (τ_t, z_t),

- and a productivity level at each period (w_t),

such that:

- for each i_t, the values $v(x, i_{t+1})$, $x \in \{a, b, u\}$ maximize the expected utility of i_{t+1} subject to (1), given $socv(x_t)_{x_t \in \{a,b,u\}}$, τ_t, z_t, and w_t,

- $socv(x_t)_{x_t \in \{a,b,u\}}$ obtains from the individually chosen values as of (3),

- for each i_t, the occupational specialization $s(i_t)$ and work hours $h(i_t)$ maximize his expected utility conditional on $socv(x_t)_{x_t \in \{a,b,u\}}$, τ_t, z_t, w_t, and his private information,

- (τ_t, z_t) maximizes the sum of the expected utilities of the voters among all (τ, z) that satisfy the budget constraint of the government in period t,

- equations (4) and (5) apply.

The initial conditions are a distribution of activities for the initial parents' generation, $x(i_0)_{i_0 \in [0,1]}$ and an initial stock of knowledge, $K_0 > 0$. I posit that less than half of the initial parents' generation was unemployed and that employment was equally splitted between the two occupations.

4 Individual choices

For each individual, first his values, then his specialization, and finally his work hours are determined under the relevant constraints so as to maximize his expected utility under rational expectations. Those variables are now determined by backward induction.

4.1 Labor supply

Consider an individual who can earn a net hourly wage $\omega > 0$. Dropping the time index, his optimal number of hours, conditional on working, obtains from

$$\max\{\ln c + \ln(1 - h)\}$$

subject to

$$c = \omega h.$$

The solution has

$$h = \frac{1}{2}.$$

Individual productivity is private information and individuals who can earn a positive wage can mimick those who are unproductive and live off the welfare state. The mimicking decision is

affected by one's values. The utility level when working in occupation $x \in \{a, b\}$ is given by

$$\ln \frac{\omega}{4} + \beta \ln v_x + \gamma \ln \overline{v}_x,$$

where v_x and $\overline{v}_x$ respectively refer to the self-esteem and the social esteem obtained from working in occupation x. If the individual mimicks an unproductive one, he gets utility

$$\ln z + \beta \ln v_u + \gamma \ln \overline{v}_u.$$

Therefore, productive individuals only participate in the labor market if

$$\ln \frac{\omega}{4z} \geq \beta \ln \frac{v_u}{v_x} + \gamma \ln \frac{\overline{v}_u}{\overline{v}_x}. \tag{6}$$

The incentive constraint (6) plays a key role in this model. A more generous social insurance reduces ω and raises z; thereby it decreases the l.h.s. of (6), i.e. the material gain from working. This is the direct disincentive effect from social insurance. Without value concerns ($\beta = \gamma = 0$), individuals only work if $\omega \geq 4z$. The effect of work norms is captured by the r.h.s. of (6) which represents the intangible gain from not working. If individuals suffer a sufficiently large loss of self-esteem and/or social esteem when living off the welfare state, generous social insurance can go along with intact willingness to work. However, over time a generous social insurance could erode work norms, i.e. increase the r.h.s. of (6), and eventually diminish the willingness to work. This is the indirect disincentive effect from social insurance.

4.2 Occupational specialization

At the interim stage, every individual has received a signal about his talent and chooses his occupational specialization $s(i) \in \{a, b\}$ so as to maximize his expected utility, correctly anticipating his effective labor supply in each state of the world. That choice is affected by the activity of the parent: entering the same occupation as the one performed by the parent secures the individual a positive wage even if he turns out to be untalented for that occupation. To illustrate, consider the child of somebody who worked in occupation a and suppose that he received the signal σ_a. His expected utility from choosing specialization a is:

$$\begin{aligned} EU(a|a, \sigma_a) &= p \max \left\{ \ln \frac{w(1+\delta)(1-\tau)}{4} + \beta \ln v_a + \gamma \ln \overline{v}_a, \ln z + \beta \ln v_u + \gamma \ln \overline{v}_u \right\} + \\ &\quad + (1-p) \max \left\{ \ln \frac{w(1-\tau)}{4} + \beta \ln v_a + \gamma \ln \overline{v}_a, \ln z + \beta \ln v_u + \gamma \ln \overline{v}_u \right\}. \end{aligned}$$

The expected utility from specialization b is:

$$\begin{aligned} EU(b|a, \sigma_a) &= (1-p) \max \left\{ \ln \frac{w(1+\delta)(1-\tau)}{4} + \beta \ln v_b + \gamma \ln \overline{v}_b, \ln z + \beta \ln v_u + \gamma \ln \overline{v}_u \right\} + \\ &\quad + p \left[\ln z + \beta \ln v_u + \gamma \ln \overline{v}_u \right]. \end{aligned}$$

The individual chooses the specialization $s(i) = a$ if and only if $EU(a|a, \sigma_a) \geq EU(b|a, \sigma_a)$.

Since occupations a and b are perfectly symmetric, optimal career choices are fully characterized by three rules. The first one, derived above, concerns the children who have received the signal that they are talented for their parents' occupation. The second one is used by children who have received the signal that they are talented for an occupation different from their parents' one. The third one is the choice rule for the children of the individuals who were unemployed in the previous period.

4.3 Value systems

In the first stage, before talent signals are received, parents select the value system of their children correctly anticipating their children's decision rules concerning specialization and working time. Optimal transmission of values can be different for parents with a job and for the unemployed because their children's opportunity sets are different. Therefore, I examine their choices separately. The analysis assumes that social esteem satisfies $\overline{v}_a = \overline{v}_b \equiv \overline{v} > \overline{v}_u$, something which turns out to be the case in equilibrium. Proofs of all results are relegated to the Appendix.

4.3.1 Children of the unemployed

When instilling a value system, a parent can either set values that make her child choose a given career independently of the signal he will receive about his talent; or the parent can transmit values such that her child's career choice will condition on the received signal. The former is an instance of paternalism because family-instilled values fully determine the child's future behavior. In the sequel, I use the term *paternalism* only if the values are set so as to make the child choose to be a worker, conditional on being talented. If values make the child shun work, the child is said to be endowed with a *welfare culture*. I call the alternative socialization strategy - letting the child choose according to his perception about own talent - *liberalism*.[8]

In the case of *paternalism*, unemployed parents are a priori indifferent between bestowing value on a or b, so say that in the case at hand specialization into occupation a is selected. Provided the incentive constraint (6) holds,[9] the child's expected utility amounts to

$$\frac{1}{2}\left[\ln\frac{w(1+\delta)(1-\tau)}{4} + \ln z + \beta(\ln v_a + \ln v_u) + \gamma(\ln\overline{v} + \ln\overline{v}_u)\right].$$

The optimal value system under paternalism is a triple (v_a, v_b, v_u) in the 2-simplex that maximizes the above expression. Solving that maximization problem shows that the optimal social-

[8] As shown in psychological studies of parenting, both paternalism and liberalism occur in practice. Psychologists define parenting styles by means of various expressions that are closely related to what is termed here paternalism / liberalism: restrictive / permissive, authoritarian / authoritative, high-control / low-control parenting. For a detailed account of that literature, see e.g. Grusec and Kuczynski (1997).

[9] The fulfillment of all relevant incentive constraints is shown in the Appendix.

ization strategy is to set $v_a = v_u = 1/2$, and $v_b = 0$.[10] With logarithmic utility, the symbolic value invested in each activity always equals the probability of that activity. Substituting back, expected utility in case of paternalism amounts to

$$\frac{1}{2}\left[\ln\frac{w(1+\delta)(1-\tau)}{4} + \ln z\right] + \beta\ln\frac{1}{2} + \frac{\gamma}{2}(\ln\overline{v}\overline{v}_u). \tag{7}$$

Consider now the case of *liberalism*, i.e. the option to transmit values such that the child will choose his specialization according to the received signal. The corresponding expected utility reads

$$p\ln\frac{w(1+\delta)(1-\tau)}{4} + (1-p)\ln z + \beta\left[\frac{p}{2}(\ln v_a + \ln v_b) + (1-p)\ln v_u\right] + \gamma\left[p\ln\overline{v} + (1-p)\ln\overline{v}_u\right].$$

The optimal value system under liberalism has $v_a = v_b = p/2$, and $v_u = 1-p$. Substituting back, the resulting expected utility is

$$p\ln\frac{w(1+\delta)(1-\tau)}{4} + (1-p)\ln z + \beta\ln\frac{p^p(1-p)^{1-p}}{2^p} + \gamma\ln\overline{v}^p\overline{v}_u^{1-p}. \tag{8}$$

Finally, parents may opt to instill a *welfare culture* such that their children will always shun work. In that case, their expected utility is $\ln z + \beta\ln v_u + \gamma\ln\overline{v}_u$. Optimal welfare culture has $v_u = 1$ and $v_a = v_b = 0$. Then, the individual obtains utility $\ln z + \gamma\ln\overline{v}_u$ with certainty. Comparing that utility level with (7) and (8) and selecting the highest one yields the optimal socialization strategy.

Define $y \equiv \ln[w(1+\delta)(1-\tau)/4z]$, a variable that is inversely related to the generosity of social insurance. Optimal values can be characterized by reference to y.

Lemma 1 *There exist scalars y_1, y_2, y_3, and $\overline{p} \in (1/2, 1)$ such that the following holds true. Suppose $p > \overline{p}$; then, the optimal socialization strategy for parents who are unemployed is welfare culture if $y < y_3$ and it is liberalism if $y > y_3$. Suppose $p < \overline{p}$; then, optimal socialization entails a welfare culture if $y < y_1$, paternalism if $y_1 < y < y_2$, and liberalism if $y > y_2$.*

The intuition behind this result is straightforward. The generosity of social insurance, as captured by the inverse of y, determines the relative material reward of working. If social insurance is very generous, individuals prefer to live on public transfers and get endowed with a welfare culture, so that they enjoy a high level of self-esteem although they are transfer recipients. If social insurance is less generous, optimal values prepare the children to enter the labor market. Since unemployed parents cannot help their children in the labor market, they might be expected to encourage their children to follow the signal they receive about their talent. This is, however, not always the case. If the signal about talent is very noisy - p close to 1/2 - paternalism in occupational choice can be optimal if social insurance is sufficiently generous.

[10] Or $v_b = v_u = 1/2$ and $v_a = 0$ if occupation b is targeted.

Conditional on being employed, self-esteem is higher if the individual was raised according to paternalism rather than liberalism. This advantage of paternalism can more than offset the disadvantage of a lower probability of earning a wage, provided that the unemployment benefit is high enough.

The thresholds y_1, y_2 and y_3, that determine which socialization strategy is optimal, depend on the preference parameters β and γ - see Appendix A. If preferences differ across families, parents may opt for different socialization strategies, as found in parenting research.

4.3.2 Children of working parents

As compared to the children of the unemployed, the children of employed parents face a larger opportunity set since they can earn a wage in their parent's occupation even if they are not talented for that occupation. Correspondingly, their parent's set of potentially optimal socialization strategies is larger. Again, a parent can either transmit values that make her child choose a given career independently of the signal he will receive about his talent; or the parent can transmit values such that her child's career choice will condition on the received signal. In the case of working parents, a further distinction must be made within each class of socialization strategies: in case of lack of talent but same occupation as parent, values may either induce the child to work or shirk. The option to set values that make the child work in his parent's occupation independently of talent is termed *family specialization*. The option that consists of instilling values so that the child chooses his occupational specialization by following the signal about his ability and always works if he choose his parent's occupation is called *talent orientation*. For the corresponding cases where the individual does not work if he chose his parent's occupation and is not talented for it, I use the terms "paternalism" and "liberalism" used above as in fact those strategies are the same for both working parents and unemployed parents. Of course, also the option of instilling a welfare culture leads to the same value system for the children of working parents as for the children of the unemployed. To sum up, as compared to the unemployed, working parents have two additional options: family specialization and talent orientation, both of which entail the expectation that the child will work even if he turns out to lack the talent for the chosen specialization, provided that it is the same as his parent's one.

In order to determine which socialization strategy is optimal, consider first the option of *family specialization* and suppose without any loss of generality $x(i_{t-1}) = a$. In this case, the optimal value system obviously has $v_a = 1$ and $v_b = v_u = 0$. The individual's expected utility associated with family specialization is therefore

$$\ln \frac{w(1-\tau)}{4} + \frac{1}{2}\ln(1+\delta) + \gamma \ln \overline{v}. \tag{9}$$

Consider now the option of *talent orientation.* It yields expected utility

$$p \ln \frac{w(1+\delta)(1-\tau)}{2} + \frac{1-p}{2}\left[\ln \frac{w(1-\tau)}{2} + \ln z\right] + \frac{1+p}{2} \ln \frac{1}{2} +$$
$$+\beta\left(\frac{1}{2}\ln v_a + \frac{p}{2}\ln v_b + \frac{1-p}{2}\ln v_u\right) + \gamma\left[\left(\frac{1+p}{2}\right)\ln \overline{v} + \left(\frac{1-p}{2}\right)\ln \overline{v}_u\right].$$

The optimal value system under talent orientation maximizes the above expression under the constraint (1). It has $v_a = 1/2$, $v_b = p/2$, and $v_u = (1-p)/2$. The resulting expected utility is

$$\frac{1+p}{2}\ln\frac{w(1-\tau)}{4} + p\ln(1+\delta) + \frac{1-p}{2}\ln z + \frac{\beta}{2}\ln\frac{p^p(1-p)^{1-p}}{4} + \frac{\gamma}{2}\ln \overline{v}^{1+p}\overline{v}_u^{1-p}. \qquad (10)$$

If the allocation of talent is important, i.e. δ is large enough,[11] the following fact can be established:

Lemma 2 *There exist scalars y_4, y_5, and y_6 such that the following holds true. Suppose $p > \overline{p}$; then, the optimal strategy for parents who had an occupation is welfare culture if $y < y_3$, liberalism if $y_3 < y < y_4$, talent orientation if $y_4 < y < y_5$, and it is family specialization if $y > y_5$. Suppose $p < \overline{p}$; then, their optimal strategy is welfare culture if $y < y_1$, paternalism if $y_1 < y < y_2$, liberalism if $y_2 < y < y_4$, talent orientation if $y_4 < y < y_5$, and it is family specialization if $y > y_5$.*

The most interesting case that can arise in equilibrium is the one where the children of working parents are socialized either according to talent orientation or family specialization. That requires $y > y_4$. Those two socialization strategies can be part of the same general equilibrium if β and γ differ across families and the individual-specific thresholds y_5 are distributed within a sufficiently narrow interval that includes y. Then, families that care relatively more about esteem socialize their children according to family specialization, while families that care relatively more about consumption and leisure opt for talent orientation. This has direct implications for the strength of the work norm endorsed by individuals, $n(i_t) = v(a, i_t) + v(b, i_t)$. Self-reliance is always achieved by individuals raised to follow their parents' occupational footsteps, so that $n(i_t) = 1$ for those individuals. Families that bet on their child's talent face instead a risk of failure in the labor market and transmit more tolerant values, implying $n(i_t) = (1+p)/2 < 1$. Thus, we have:

Corollary 1 *Suppose that in equilibrium some individuals are socialized according to talent orientation and others according to family specialization. Then, those who work in the same occupation as their parents endorse on average stronger work norms than those who do not work in their parents' occupation.*

[11] Formally, δ is assumed to be bounded from below so as to meet a condition stated in Appendix B. That condition is supposed to be met in what follows.

Lemmas 1 and 2 imply that the children of the employed may have values that differ from those of the children of the unemployed even if their utility functions are identical. In the case of identical utility functions, all thresholds y_j, $j \in \{1, ..5\}$, are the same for everyone and if $y > y_4$, the children of the unemployed are predicted to endorse weaker work norms. Since $y_4 > y_3$, the children of the unemployed are raised according to liberalism, which is associated with $n(i_t) = p$. The children of working parents are instead raised according to either talent orientation, in which case $n(i_t) = (1+p)/2 > p$, or family specialization, in which case $n(i_t) = 1 > p$. We thus have:

Corollary 2 *Under common preferences, the children of the unemployed exhibit weaker work norms than the remaining individuals in their generation.*

Corollaries 1 and 2 are distinctive testable predictions of the current model. They will be confronted with the data in Section 7.

5 Short-run general equilibrium

Assume for the sequel that families have identical preferences. In the general equilibrium, the levels of social esteem $\overline{v}_a$, $\overline{v}_b$, and $\overline{v}_u$, as well as the social insurance scheme (τ, z) are endogenously determined. The social esteem levels associated with working and with living on transfers are determined by aggregation of the value choices made by all parents, as of (3). Tax rate and transfer are determined by voting, which occurs after the individuals have received their signal about talent and have selected their career, but before their actual talent is realized. So, the veil of ignorance has not been lifted at the moment of voting on the social insurance scheme. I posit probabilistic voting, where the platform that arises in equilibrium is one that is feasible and maximizes the sum of the expected utilities of the voters.[12]

The electorate selects a social insurance scheme that satisfies the budget constraint of the government. The per-capita tax revenue amounts to

$$\frac{\tau w}{2}\left\{\begin{array}{c}\mu\left[m_s\left(1+\frac{\delta}{2}\right)+m_t\left(p(1+\delta)+\frac{1-p}{2}\right)+m_l p\left(1+\delta\right)+m_p\left(\frac{1+\delta}{2}\right)\right]+\\ +(1-\mu)\left[n_l p(1+\delta)+n_p(1+\delta)/2\right]\end{array}\right\}. \tag{11}$$

In the above expression, μ denotes the fraction of individuals whose parents had an occupation. The fraction of employed parents who specialized the values of their children to an occupation is denoted by m_s; m_t denotes the fraction that adopted values of talent orientation; m_l the fraction that opted for liberalism; m_p the fraction that chose paternalism. With respect to the $(1-\mu)$ children of transfer recipients, n_l denotes the fraction that diversified the values of their children according to liberalism, and n_p the fraction of unemployed parents who chose paternalism. The

[12] Analyzing the case of majority voting leads to similar results but is more cumbersome because of the associated discontinuities.

per-capita outlay of social insurance is given by

$$z\left\{\mu\left[1-m_s-\left(\frac{1+p}{2}\right)m_t-pm_l-\frac{m_p}{2}\right]+(1-\mu)\left[1-pm_l-\frac{n_p}{2}\right]\right\}. \tag{12}$$

The budget constraint of the government is satisfied if per-capita outlay equals per-capita tax revenue.

In a short-run politico-economic equilibrium, social insurance is a pair (τ, z) that satisfies the budget constraint of the government and maximizes the sum of the expected utilities of all voters after they have received their ability signal but before their wage rate is realized. That voting outcome is correctly foreseen when people make their individual decisions.

Without significant loss of insight, the analysis can be restricted to the case of $p > \overline{p}$, which guarantees that in equilibrium the social esteem of the employed is larger than the social esteem of the unemployed. There are two relevant configurations to examine. The first one has all children of working parents being raised according to *family specialization*. Among all potentially optimal socialization strategies, this is the one that attaches the lowest symbolic value to lack of self-relience and the highest value to work. Therefore, I refer to this outcome as to the strong work-norms equilibrium, SNE for short.

Proposition 1 *If the concerns for self-esteem and social esteem are strong enough (β and γ sufficiently large), a SNE exists. In that equilibrium, the average strength of work norms is given by*

$$N^S = \mu + (1-\mu)p. \tag{13}$$

In a SNE, all individuals whose parents worked follow their parents' occupational footsteps. Hence, those individuals face no risk of becoming unemployed and derive no benefit from social insurance. Since they constitute the majority of the population, the electorate selects a small social insurance program. This configuration only builds an equilibrium if the concern for the symbolic rewards of self-supportiveness is large enough. That concern prompts people to work even if their productivity turns out to be low. Conversely, if people did not care much about esteem, they would rather live on transfers in case of low productivity. But in that case, it would be better for them to maximize the probability of having a high productivity, which is achieved by following the signal about one's talent. This explains why family specialization only arises in equilibrium if the concerns for self-esteem and social esteem are strong enough.

The second relevant configuration is the one where all parents who have a job socialize their children according to *talent orientation*. To contrast it with the SNE, I refer to that situation as to the weak work-norms equilibrium, WNE for short.

Proposition 2 *There exists a compact set $X \subset \Re^2_+$ such that if $(\beta, \gamma) \in X$, a WNE exists. The*

average strength of work norms in such an equilibrium equals

$$N^W = \mu\left(\frac{1+p}{2}\right) + (1-\mu)p. \tag{14}$$

The WNE can readily be compared with the equilibrium of an economy where values do not matter, i.e. $\beta = \gamma = 0$. In such an economy, individuals choose their specialization by following their talent signal. This implies that both the preferences of voters over (τ, z)-pairs as well as the budget constraint of the government in case all productive individuals work are precisely the same as in the WNE of the corresponding economy where esteem matters. However, the incentive constraint (6) is different in the two model economies, which means that not all productive individuals may work in the economy without symbolic values under the social insurance scheme that is selected in the WNE. As can be easily verified, that social insurance scheme, denoted by (τ^W, z^W), indeed violates the incentive constraint for the individuals with low productivity in an economy without values, i.e.

$$w(1-\tau^W) < 4z^W. \tag{15}$$

As a consequence, the following fact can be established:

Proposition 3 *In a WNE, material social welfare is larger than in the equilibrium of an otherwise identical economy where symbolic values do not matter.*

Material social welfare is the sum of all expected utilities derived from consumption and leisure. Thus, material payoffs are higher if individuals do not care only about material payoffs. A concern about esteem is a commitment device that allows the polity to implement a more generous level of social insurance without violating incentive compatibility. This commitment effect of values is conducive to a higher level of material welfare because insurance is underprovided in equilibrium.[13]

If values matter, i.e. $\beta > 0$ and $\gamma > 0$, individuals optimally develop work norms that have the effect to relax the incentive constraints faced by social insurance. Interestingly, the strength of those work norms needs not be uniquely determined in equilibrium. For some set of parameters, both the SNE and the WNE can be sustained, i.e. the model exhibits multiple short-run equilibria.

Proposition 4 *For any given μ, there exists a compact set such that if (β, γ) belongs to it, both the SNE and the WNE exist. The tax rate is lower in the SNE than in the WNE. The output level is larger in the SNE than in the WNE if and only if*

$$\delta < \frac{1-p}{2p-1}.$$

[13] In the economy without values, the incentive constraint for working is binding and equilibrium social insurance is determined by that constraint and the budget constraint of the government. In the economy with values, the incentive constraint for working is not binding in equilibrium.

In one equilibrium, parents believe that their children will live in a society where the unemployed will fare decently as compared to successful workers. In case of bad luck, individuals will receive generous social benefits without being stigmatized. Thus, parents want their children to cultivate their individual talent even if this exposes them to the risk of failure in the labor-market. Parents raise children in that way by bestowing occupations and joblessness with rather similar values. In the sequel, children choose specializations that may differ from their parents' ones and face the threat of unemployment. Thus, in their position as voters, they highly value social insurance. A relatively generous scheme is then selected, which confirms parents' initial forecast about the good treatment of the unemployed and vindicates their socialization choice.

Given the same economic fundamentals, parents may instead believe that in case their children will be unemployed, the benefit they will receive will be meager and other people will ostracize them. Therefore, parents opt for the safe strategy of preparing their children to enter the same occupation as they are in, so that the parent can help if the child lacks talent. Those parents transmit a strong occupational pride and, as a consequence, society as a whole heavily stigmatizes the unemployed. When those children have become adults who vote, they have specialized as their parents and therefore face no risk of unemployment. Since they constitute the majority of voters, the voting outcome has a meager social insurance which, together with the low social esteem conferred upon the unemployed, confirms the forecast on which the parents based their socialization choice.

Proposition 4 states that if δ and p are large enough, aggregate output is higher in the WNE than in the SNE. Parameter p captures the extent to which talent is better allocated in the WNE, and δ captures the importance of talent for generating output. If those two parameters are sufficiently large, the better allocation of talent in the WNE more than compensates its lower level of employment as compared to the SNE.

6 Steady state

The dynamics of the model is driven by the evolution of employment in two ways. First, the employment rate in period t determines the fraction of children who can be helped in the labor market by their parents in period $t+1$. Second, the total number of hours worked by individuals who are talented for their job in period t determines the increment in the stock of knowledge between that period and period $t+1$. The asymptotic behavior of the economy is described by the steady state equilibrium. A steady state equilibrium is a short-run equilibrium such that the employment rate, the average strength of work norms, and the tax rate do not change over time while the stock of knowledge, output, wages, and the unemployment benefit grow at an identical constant rate.

The steady state equilibria of this model parallel the two stylized facts mentioned at the out-

set: the negative cross-country relationship between generosity of social insurance and average strength of work norms, and the absence of a positive impact of strong work norms on economic performance.

Proposition 5 *Both the SNE and the WNE admit a steady-state equilibrium. There exists a compact set such that if* (β, γ) *belongs to it, both the SNE and the WNE exist as steady states. In the steady state, the SNE features a laissez-faire economy whereas the WNE has a social insurance; while the employment level is higher in the SNE, growth is faster in the WNE.*

The above Proposition delivers two insights that may appear paradoxical at first glance. The first one concerns the relationship between economic role of the government and parenting style. In the long run, a laissez-faire economy has interventionist parents, while an economy with governmental intervention has laissez-faire parents. The second paradox is about work norms and macroeconomic performance. In the long run, a population that attaches less value to being productive brings about a higher production level.

Of those two paradoxical insights, only the first one, which relates paternalism in the family to the lack of social insurance, is robust. The lower rate of economic growth in the equilibrium with strong work norms hinges on the assumption that the utility function is logarithmic. In the model, the growth rate increases with the total number of hours worked by individuals who are talented for their occupation. That number depends on the portion of the workforce that is efficiently allocated to an occupation and on the hours worked by each talented employee. In the steady state, the portion of efficiently allocated workforce is p in the WNE and $1/2 < p$ in the SNE. Wages are taxed at a strictly positive rate in the WNE, but not in the SNE. Since the utility function is Cobb-Douglas, the substitution effect from a change in the net wage is exactly offset by its income effect, so that employees work the same number of hours in the two equilibria. This explains why the growth rate is unambiguously higher in the WNE than in the SNE. Under more general assumptions, the substitution effect can dominate and the total number of hours worked by talented employees need not be higher in the WNE than in the SNE. As a result, the long-run growth rate can be similar in the two equilibria, which strengthens the plausibility of a stable coexistence of different compacts: one based on paternalistic families, strong work norms, persistence of occupations along family lines, and minimal government, and one based on a liberal parenting style, weak work norms, intergenerational occupational mobility, and generous social insurance.

7 Some empirical evidence

As a preliminary step, I briefly summarize findings in Corneo (2012) about the correlation between work norms and income at the individual level. That investigation exploited data

from the World Values Survey pertaining to respondents in OECD countries. In order to have a proxy for lifetime income, only individuals aged between thirty-five and fifty-five were considered. Those respondents were then grouped into quintiles of the household income distribution in the country of the respondent. Contrary to popular views, weak work norms were not found to correlate with low income even after controlling for many individual characterstics.

In what follows, I use data from the European Values Study of 2008 which appears to be the only large-scale cross-national survey that includes both a measure of the strength of work norms and precise information about the occupations of the respondent and the respondent's father.[14] The European Values Study of 2008 reports the four-digit ISCO code of the occupations of the respondent and his father when the respondent was fourteen. Followers, i.e. individuals who have followed their father's footsteps in the labor market, are defined as those for whom their ISCO code coincides with their father's one. The analysis is restricted to male respondents aged between twenty-five and fifty-five who lived with their fathers when they were fourteen.[15]

The first piece of evidence pertains to the key assumption that being a follower protects from unemployment. Table 1 reports results from logit estimations of the probability to benefit from unemployment insurance. The dependent variable is a dummy that equals 1 if the respondent has been unemployed during the last five years. All specifications include unreported country fixed effects and a constant. Standard errors are clustered at the country level. The variable of interest, the dummy "Follower", equals 1 if the respondent has the same occupation as his father. In the first specification, the only additional control variable is the age of the respondent. The second specification also includes family status and job status. Education is added in the third specification and income - expressed in twelve categories - in the fourth one. The estimation results are strongly in line with the assumption that followers face a lower risk of unemployment. I find that being a follower reduces the probability to have been unemployed by about six percentage points.

[14] See http://www.europeanvaluesstudy.eu.

[15] See Appendix L for the descriptive statistics of the sample. A symmetric analysis for women cannot be conducted because mothers' occupations were not recorded. Appendix Q reports the results concerning women who have the same occupation as their fathers.

Table 1: Logit regressions for experience of unemployment during last five years; males, aged 25-55.

	(1)	(2)	(3)	(4)
Follower	-0.200*	-0.297**	-0.369***	-0.435***
	(-2.21)	(-3.07)	(-3.60)	(-3.93)
Age	-0.124***	-0.083**	-0.086**	-0.081*
	(-4.06)	(-3.04)	(-3.08)	(-2.43)
Age squared	0.001***	0.001*	0.001*	0.001
	(3.64)	(2.22)	(2.21)	(1.65)
Legal status				
- married		-0.377***	-0.406***	-0.328***
		(-5.26)	(-5.70)	(-3.71)
- divorced		0.114	0.078	-0.001
		(1.08)	(0.74)	(-0.01)
- widowed		-0.538	-0.634*	-0.662
		(-1.75)	(-2.08)	(-1.82)
Job status				
- Part-time work		0.664***	0.657***	0.576**
		(3.76)	(3.78)	(3.17)
- Self-employment		0.038	0.005	0.059
		(0.35)	(0.05)	(0.46)
- Retired		0.637**	0.575**	0.428*
		(3.11)	(2.84)	(1.97)
- Household production		2.071***	2.056***	2.067***
		(7.36)	(6.85)	(7.38)
- Student		0.945**	1.023**	0.529
		(3.07)	(3.21)	(1.18)
- Unemployed		3.227***	3.167***	2.823***
		(18.67)	(18.37)	(16.55)
- Other		1.643***	1.529***	1.201***
		(7.30)	(6.89)	(5.74)
Education				
- Primary education			1.035*	1.295*
			(1.97)	(2.32)
- Some secondary education			0.773	1.072
			(1.46)	(1.86)
- Secondary education			0.425	0.761
			(0.78)	(1.26)
- Tertiary education			0.013	0.584
Income	No	No	No	Yes
Country Dummies	Yes	Yes	Yes	Yes
Observations	11,559	11,479	11,438	9,760

t-Statistics in parentheses: * p<0.05, ** p<0.01, *** p<0.001

Consider now the distinctive predictions of the model about the relationship between parental background in the labor market and endorsed work norms: followers exhibit stronger work norms than individuals who experience intergenerational occupational mobility (Corollary 1) and the children of the unemployed endorse weaker work norms than other people (Corollary 2). The endorsement of a norm of self-supportiveness can be recovered from the following survey question in the European Values Study of 2008. Respondents were asked whether they agree with the following statement: "*It is humiliating to receive money without having to work for it*". This

question captures the extent to which esteem depends on self-reliance, which is precisely how the strength of work norms enters the model. Respondents could choose "*Strongly agree*", "*Agree*", "*Neither agree nor disagree*", "*Disagree*", or "*Strongly disagree*". I use those answers as a measure of respondents' endorsement of self-supportiveness as a value.

Results from ordered-logit estimations of the probability to endorse strong work norms are reported in Table 2. All specifications include unreported country fixed effects and a constant. Standard errors are clustered at the country level. The specifications become stepwise richer following the same procedure as for the regressions in Table 1. Results strongly confirm the prediction of the model that inheriting the parent's occupation is associated with endorsing a stronger work norm.[16]

[16] By way of an example, being a follower raises the probability to answer "Strongly agree" from 21.9 % to 25 % in the fourth specification.

Table 2: Ordered logit regressions for strength of work norms; males, aged 25-55.

	(1)	(2)	(3)	(4)
Follower	0.156**	0.154**	0.135*	0.173**
	(2.70)	(2.69)	(2.23)	(2.68)
Age	0.005	-0.024	-0.027	-0.037
	(0.28)	(-1.42)	(-1.59)	(-1.86)
Age squared	0.000	0.000	0.000	0.001*
	(0.29)	(1.72)	(1.86)	(2.15)
Legal status				
- married		0.259***	0.250***	0.230***
		(4.81)	(4.66)	(4.52)
- divorced		0.113	0.099	0.102
		(1.45)	(1.25)	(1.17)
- widowed		0.505*	0.481*	0.433*
		(2.53)	(2.36)	(2.15)
Job status				
- Part-time work		-0.136	-0.141	-0.177
		(-1.39)	(-1.42)	(-1.82)
- Self-employment		0.047	0.031	0.053
		(0.69)	(0.45)	(0.70)
- Retired		0.041	0.023	-0.005
		(0.39)	(0.21)	(-0.04)
- Household production		-0.747***	-0.754***	-0.857***
		(-3.56)	(-3.55)	(-3.42)
- Student		-0.215	-0.211	-0.368
		(-0.89)	(-0.86)	(-1.31)
- Unemployed		-0.166*	-0.195**	-0.266***
		(-2.22)	(-2.62)	(-3.69)
- Other		-0.396**	-0.440**	-0.417**
		(-2.76)	(-2.99)	(-3.06)
Education				
- Primary education			-0.317	-0.206
			(-1.64)	(-1.05)
- Some secondary education			-0.365	-0.239
			(-1.69)	(-1.12)
- Secondary education			-0.418*	-0.285
			(-2.01)	(-1.43)
- Tertiary education			-0.533*	-0.403
			(-2.47)	(-1.90)
Income	No	No	No	Yes
Country dummies	Yes	Yes	Yes	Yes
Observations	11,454	11,372	11,333	9,686

t-Statistics in parentheses: * p<0.05, ** p<0.01, *** p<0.001

Table 3 presents estimation results from regressions that take into account the prediction from Corollary 2. Accordingly, the children of the unemployed are predicted to endorse weaker work norms than the rest. Therefore, I modify the regression equations of Table 2 by adding a dummy variable that takes value 1 if the respondent's father was unemployed when the respondent was fourteen and 0 otherwise. Consistently with Corollary 2, father's unemployment significantly

contributes to explain the endorsement of a weak work norm.[17]

Table 3: Ordered logit regressions for strength of work norms; males, aged 25-55.

	(1)	(2)	(3)	(4)
Follower	0.156**	0.154**	0.134*	0.172**
	(2.69)	(2.68)	(2.21)	(2.68)
Father unemployed	-0.731***	-0.723***	-0.765***	-0.381***
	(-27.45)	(-11.85)	(-9.71)	(-4.27)
Age	0.005	-0.024	-0.027	-0.037
	(0.28)	(-1.42)	(-1.58)	(-1.86)
Age squared	0.000	0.000	0.000	0.001*
	(0.29)	(1.71)	(1.86)	(2.15)
Legal status				
- married		0.259***	0.251***	0.231***
		(4.83)	(4.68)	(4.53)
- divorced		0.113	0.099	0.102
		(1.46)	(1.25)	(1.17)
- widowed		0.513*	0.488*	0.436*
		(2.56)	(2.39)	(2.16)
Job status				
- Part-time work		-0.136	-0.142	-0.177
		(-1.39)	(-1.42)	(-1.82)
- Self-employment		0.046	0.031	0.053
		(0.68)	(0.45)	(0.70)
- Retired		0.040	0.022	-0.005
		(0.38)	(0.21)	(-0.04)
- Household production		-0.733***	-0.739***	-0.847***
		(-3.50)	(-3.49)	(-3.41)
- Student		-0.216	-0.212	-0.368
		(-0.89)	(-0.87)	(-1.32)
- Unemployed		-0.166*	-0.195**	-0.266***
		(-2.22)	(-2.62)	(-3.69)
- Other		-0.397**	-0.442**	-0.417**
		(-2.77)	(-2.99)	(-3.06)
Education				
- Primary education			-0.313	-0.204
			(-1.60)	(-1.04)
- Some secondary education			-0.364	-0.238
			(-1.68)	(-1.11)
- Secondary education			-0.418*	-0.285
			(-2.01)	(-1.43)
- Tertiary education			-0.533*	-0.403
			(-2.47)	(-1.90)
Income	No	No	No	Yes
Country dummies	Yes	Yes	Yes	Yes
Observations	11,454	11,372	11,333	9,686

t-Statistics in parentheses: * p<0.05, ** p<0.01, *** p<0.001

Robustness checks presented in the Appendix corroborate the findings in Tables 1-3. I find similar results for both OECD and non-OECD countries (Appendix M and N). Results do not

[17] In the fourth specification the probability to answer "Strongly agree" decreases by about six percentage points if the father was unemployed.

hinge on employment in agriculture, as they survive when one controls for it Appendix O) and they obtain separately for most ISCO-groups, although not for every group (Appendix P).

Overall, the predictions of the model fit well with the pattern of intergenerational occupational mobility revealed by the data. At the aggregate level - as shown in the Introduction - occupational mobility is high in countries where unemployment insurance is generous. At the individual level, occupational mobility correlates with relatively weak work norms.

8 Conclusion

This paper has developed a model that portrays persisting differences in terms of generosity of social insurance as the result of multiple steady-state equilibria. In one equilibrium, the democratically chosen social insurance scheme is generous and people do not emphasize self-supportiveness as a value; in the other equilibrium, the polity opts for a minimal safety net and people endorse strong work norms. Because of counterveiling effects, macroeconomic performance needs not to be worse in the equilibrium with generous social insurance. On the one hand, that equilibrium has individuals that are more easily tempted to live off the welfare state, which restricts the set of economic outcomes that the polity can achieve. On the other hand, those individuals do not have to rely on their families' help in the labor market and can go their own way, choosing a career in accordance with their perceived talent. In terms of aggregate output, the improvement in the allocation of talent may more than offset the disincentive to take up jobs. The two equilibria generated by the model are associated with differences in parenting styles and patterns of occupational choice: liberal parents and high intergenerational occupational mobility in the case of social insurance; paternalism and widespread inheritance of occupation in the case of laissez faire.

Based on survey data, I have shown various pieces of empirical evidence that corroborate the insights from the theoretical model. Across European countries, more generous unemployment insurance comes along with more intergenerational occupational mobility. At the individual level, men who follow their father's occupational footsteps face a lower unemployment risk and are more likely to endorse strong work norms. The view of social insurance and work norms proposed in this paper may thus contribute to explain the pluralism of observed regimes and, in particular, the possibility to sustain a regime of generous social insurance despite the negative correlation between the generosity of social insurance and the strength of work norms.

APPENDIX

Appendix A: Proof of Lemma 1.

By comparing (8) with (7), one can determine the circumstances under which liberalism is preferred to paternalism, namely when the following condition is satisfied:

$$\ln \frac{w(1+\delta)(1-\tau)}{4z} \equiv y > -\frac{2\beta}{2p-1} \ln p^p (1-p)^{1-p} 2^{1-p} - \gamma \ln \frac{\overline{v}}{\overline{v}_u} \equiv y_2. \tag{16}$$

The condition for preferring welfare culture over occupational paternalism is

$$y < 2\beta \ln 2 - \gamma \ln \frac{\overline{v}}{\overline{v}_u} \equiv y_1. \tag{17}$$

The condition for preferring welfare culture over liberalism is

$$y < -\frac{\beta}{p} \ln \frac{p^p (1-p)^{1-p}}{2^p} - \gamma \ln \frac{\overline{v}}{\overline{v}_u} \equiv y_3. \tag{18}$$

Define $\overline{p} \in (1/2, 1)$ as the unique root of[18]

$$p \ln \frac{1}{2} = \ln \left[p^p (1-p)^{1-p} \right].$$

If $p < \overline{p}$, then $p \ln \frac{1}{2} > \ln p^p (1-p)^{1-p}$, which can be rewritten as

$$\ln p^p (1-p)^{1-p} + p \ln 2 < 0$$

or

$$2p \ln 2 < -\ln p^p (1-p)^{1-p} + p \ln 2.$$

Using the definitions in (17) and (18), this is equivalent to $y_3 > y_1$. By the same token, $p < \overline{p}$ implies

$$2p \left[\ln p^p (1-p)^{1-p} + (1-p) \ln 2 \right] < (2p-1) \left[\ln p^p (1-p)^{1-p} - p \ln 2 \right].$$

Using (16) and (18), this is equivalent to $y_2 > y_3$. As a consequence, $p < \overline{p}$ implies $y_1 < y_3 < y_2$. Then, by (17) and (18), welfare culture is optimal if $y < y_1$. By (17) and (16), paternalism is optimal if $y_1 < y < y_2$. By (16), liberalism is optimal if $y > y_2$.

The above reasoning also shows that $p > \overline{p}$ implies $y_2 < y_3 < y_1$. In that case, if $y < y_3$, then $y < y_1$ and by (17) and (18) welfare culture is optimal. If $y > y_3$, then $y > y_2$ and by (16) and (18) liberalism is optimal. QED

Appendix B: Proof of Lemma 2.

By comparing (10) with (9), one can determine the condition for talent orientation to be preferred over family specialization:

[18] It may be noted that $\overline{p} \approx 0.77$.

$$y < \frac{p}{1-p}\ln(1+\delta) + \frac{\beta}{1-p}\ln\frac{p^p(1-p)^{1-p}}{4} - \gamma\ln\frac{\overline{v}}{\overline{v}_u} \equiv y_5. \tag{19}$$

Now, determine the circumstances under which talent orientation is preferred to the strategies of liberalism and of welfare culture. By comparing (10) with (8), one can determine when talent orientation is preferred over liberalism, namely when the following condition is satisfied:

$$y > \ln(1+\delta) + \frac{\beta}{1-p}\ln p^p(1-p)^{1-p}4^{1-p} - \gamma\ln\frac{\overline{v}}{\overline{v}_u} \equiv y_4. \tag{20}$$

By comparing (10) with $\ln z + \gamma\ln\overline{v}_u$, the condition for talent orientation to be better than welfare culture amounts to:

$$y > \frac{1-p}{1+p}\ln(1+\delta) - \frac{\beta}{1+p}\ln\frac{p^p(1-p)^{1-p}}{4} - \gamma\ln\frac{\overline{v}}{\overline{v}_u} \equiv y_6. \tag{21}$$

If δ is large, the following holds true: $y_5 > y_4 > y_6 > \max\{y_1, y_2, y_3\}$. These inequalities are assumed to hold throughout. If $y > y_5$, by (19) family specialization is superior to talent orientation, which, by (20) and (21), is superior to the remaining strategies. If $y_4 < y < y_5$, by (19) and (20) talent orientation is superior to family specialization and to liberalism, which is superior to everything else. The rest follows from Proposition 1. QED

Appendix C: Incentive compatibility of working.

The preceeding proofs implicitly assumed that the incentive compatibility condition (6) is fulfilled in equilibrium, i.e. given optimally chosen values and specialization. I now show that this is indeed the case. First, consider the case where *paternalism* is optimal. The incentive constraint reads

$$y \geq -\gamma\ln\frac{\overline{v}}{\overline{v}_u}. \tag{22}$$

According to (17), paternalism arises in equilibrium only if

$$y \geq 2\beta\ln 2 - \gamma\ln\frac{\overline{v}}{\overline{v}_u}.$$

Thus, the incentive constraint (22) is satisfied in equilibrium if $2\beta\ln 2 \geq 0$, which is obviously true.

Consider the case where parents opt for *liberalism*. The incentive constraint reads

$$y \geq \beta\ln\frac{2(1-p)}{p} - \gamma\ln\frac{\overline{v}}{\overline{v}_u}. \tag{23}$$

If $p < \overline{p}$, a necessary condition for liberalism to occur in equilibrium is, by (16),

$$y \geq -\frac{2\beta}{2p-1}\ln p^p(1-p)^{1-p}2^{1-p} - \gamma\ln\frac{\overline{v}}{\overline{v}_u} = y_2.$$

Thus, the incentive constraint (23) is satisfied if

$$y_2 \geq \beta\ln\frac{2(1-p)}{p} - \gamma\ln\frac{\overline{v}}{\overline{v}_u}.$$

By straightforward manipulations, the above inequality can be reduced to $2p(1-p) \leq 1$, which is true since $p \in (1/2, 1)$.

If $p > \overline{p}$, a necessary condition for liberalism to occur in equilibrium is, by (18),

$$y \geq -\frac{\beta}{p} \ln \frac{p^p (1-p)^{1-p}}{2^p} - \gamma \ln \frac{\overline{v}}{\overline{v}_u} = y_3.$$

Thus, the incentive constraint (23) is satisfied if

$$y_3 \geq \beta \ln \frac{2(1-p)}{p} - \gamma \ln \frac{\overline{v}}{\overline{v}_u}.$$

By straightforward manipulations, the above inequality can be written

$$-\ln p^p (1-p)^{1-p} \geq \ln \frac{1-p}{p},$$

which is true since the l.h.s. is positive and the r.h.s. is negative.

Finally, consider *talent orientation*. By (20), the value system associated with it only arises in equilibrium if

$$y \geq \ln(1+\delta) + \frac{\beta}{1-p} \ln p^p (1-p)^{1-p} 4^{1-p} - \gamma \ln \frac{\overline{v}}{\overline{v}_u} = y_4. \tag{24}$$

The case of talent orientation is associated with two incentive constraints: one for the untalented, and one for the talented. The incentive constraint for the untalented - who have specialized in their parent's occupation - reads

$$\ln \frac{w(1-\tau)}{4z} \geq \beta \ln(1-p) - \gamma \ln \frac{\overline{v}}{\overline{v}_u}.$$

By (24), this incentive constraint is satisfied if

$$y_4 \geq \ln(1+\delta) + \beta \ln(1-p) - \gamma \ln \frac{\overline{v}}{\overline{v}_u}.$$

By straightforward manipulations, the above inequality can be written as

$$p \ln p \geq 2(1-p) \ln \frac{1}{2}.$$

It is easy to show that the above condition is always met if $p \in (1/2, 1)$. If the individual has not specialized in his parent's occupation, the incentive constraint reads

$$y \geq \beta \ln \frac{1-p}{p} - \gamma \ln \frac{\overline{v}}{\overline{v}_u}.$$

By (24), this is satisfied if

$$y_4 \geq \beta \ln \frac{1-p}{p} - \gamma \ln \frac{\overline{v}}{\overline{v}_u},$$

which is equivalent to

$$\ln(1+\delta) \geq -\beta \left[\frac{\ln p^p (1-p)^{1-p}}{1-p} + \ln 4 + \ln \frac{p}{1-p} \right].$$

One can always choose δ large enough, so that the above inequality holds. In particular, it is implied by the assumption $y_4 > y_6$, as one can readily verify. QED

Appendix D: Incentive compatibility of shirking.

Productive individuals mimick unproductive ones in the cases of paternalism and liberalism if they turn out to be untalented for the chosen occupation. I now show that in equilibrium they do have an incentive to shirk. First, suppose that the socialization strategy optimally selected by parents was the one of *paternalism*. By (6), an untalented individual shirks if

$$\ln \frac{w(1-\tau)}{4z} < -\gamma \ln \frac{\overline{v}}{\overline{v}_u}, \tag{25}$$

or, equivalently, if

$$y < \ln(1+\delta) - \gamma \ln \frac{\overline{v}}{\overline{v}_u}.$$

According to Proposition 1, a necessary condition for paternalilsm to be optimal is $y < y_2$. Hence, the incentive condition (25) is fulfilled if

$$\ln(1+\delta) - \gamma \ln \frac{\overline{v}}{\overline{v}_u} \geq y_2.$$

Substituting out y_2 yields

$$\ln(1+\delta) \geq -\frac{2\beta}{2p-1} \ln p^p (1-p)^{1-p} 2^{1-p}.$$

One can always choose δ large enough, so that the above inequality holds. In particular, it is implied by the assumption $y_5 > y_4$, as one can readily verify.

Suppose now that *liberalism* is optimal. By (6), an untalented individual shirks if

$$\ln \frac{w(1-\tau)}{4z} < \beta \ln \frac{2(1-p)}{p} - \gamma \ln \frac{\overline{v}}{\overline{v}_u}.$$

Using (20), this condition is necessarily satisfied if

$$y_5 \leq \ln(1+\delta) + \beta \ln \frac{2(1-p)}{p} - \gamma \ln \frac{\overline{v}}{\overline{v}_u}.$$

After some manipulations, the above condition can be written as

$$\ln p - (1-p) \ln \frac{1}{2} \leq 0.$$

It is easy to show that the above condition is always met if $p \in (1/2, 1)$.

Appendix E: Proof of Proposition 1.

In a SNE, all parents who have a job invest all symbolic value in their own occupation. As implied by Lemma 2, in order for this to be individually optimal, one must have $y > y_5$. Since

$y_5 > y_3$, by transitivity $y > y_3$ and by Lemma 1 the parents who live on the transfer choose their children's values according to liberalism, i.e. $v_a = v_b = p/2$, and $v_u = 1 - p$. By aggregating the symbolic values attached to work you obtain (13). Notice that, by (3), in equilibrium the social esteem received by workers amounts to

$$\overline{v}^S = \frac{\mu + (1-\mu)p}{2}, \tag{26}$$

while the social esteem of transfer receipients is

$$\overline{v}_u^S = (1-\mu)(1-p). \tag{27}$$

In a SNE, at the voting stage one half of all individuals who were raised by employed parents have expected utility

$$EU(\tau, z) = p \ln \frac{w(1+\delta)(1-\tau)}{4} + (1-p) \ln \frac{w(1-\tau)}{4} + const.$$

These are the individuals who received the signal that they are likely to be talented for the chosen occupation. The remaining half is likely to be untalented for their occupation and their expected utility is given by

$$EU(\tau, z) = p \ln \frac{w(1-\tau)}{4} + (1-p) \ln \frac{w(1+\delta)(1-\tau)}{4} + const.$$

The expected utility of the individuals whose parents were transfer recipients is

$$EU(\tau, z) = p \ln \frac{w(1+\delta)(1-\tau)}{4} + (1-p) \ln z + const.$$

The sum of voters' expected utilities yields the following social welfare function:

$$SW(\tau, z) = [\mu + p(1-\mu)] \ln(1-\tau) + (1-\mu)(1-p) \ln z + const. \tag{28}$$

By probabilistic voting, the outcome of the vote is a pair (τ^S, z^S) that maximizes that welfare function under the budget constraint implied by the incentive constraints characterizing all individuals. In a SNE, the selected policy is consistent with a budget constraint derived under the premise that all productive individuals work, i.e. by (11)-(12),

$$\frac{\tau w}{2} \left[\mu \left(1 + \frac{\delta}{2} \right) + (1-\mu)p(1+\delta) \right] = z(1-\mu)(1-p). \tag{29}$$

Maximization of (28) subject to (29) yields

$$\tau^S = (1-\mu)(1-p), \tag{30}$$

$$z^S = \frac{w}{2} \left[\mu \left(1 + \frac{\delta}{2} \right) + (1-\mu)p(1+\delta) \right]. \tag{31}$$

A SNE exists if and only if (τ^S, z^S) vindicates the associated individual choices with respect to values, specialization and labor supply, and if there is no different (τ, z) such that a higher level of social welfare can be reached at the voting stage, given the distribution of values and specializations. Thus, in order for (τ^S, z^S) to be part of a SNE,

$$y^S \equiv \ln \frac{w(1+\delta)(1-\tau^S)}{4z^S} \tag{32}$$

must be larger than y_5 as given by (19) and where social esteem levels are determined by (26) and (27), i.e.

$$y^S \geq \frac{p}{1-p}\ln(1+\delta) + \frac{\beta}{1-p}\ln\frac{p^p(1-p)^{1-p}}{4} - \gamma \ln \frac{\mu+(1-\mu)p}{2(1-\mu)(1-p)} \equiv y_5^S. \tag{33}$$

This condition ensures that the posited socialization strategies are optimal and nobody has an incentive to shirk. Substituting (30) and (31) into (32) reveals that condition (33) is equivalent to

$$\gamma \geq a^S - b^S\beta, \tag{34}$$

where $a^S > 0$ and $b^S > 0$ are functions of μ, δ and p. Condition (34) is satisfied if and only if β and γ are large enough.

It remains to be shown that the social insurance scheme preferred by the electorate lies on the piece of the government's budget contraint derived under the premise that all productive individuals work, i.e. on (29). The argument can be made using Figure 2, where (τ^S, z^S) corresponds to the point where the social indifference curve is tangent to the budget constraint (29). The complete budget constraint faced by the electorate is the bold piecewise linear curve which includes a piece for relatively large (τ, z)-combinations such that the individuals raised by transfer recipients prefer not to work. The straight line (6) shows the incentive constraint for the children of the unemployed. Notice that (τ, z)-combinations on that piece of the budget constraint are dominated in terms of social welfare by (τ, z)-combinations on the virtual budget constraint where all productive individuals work, as shown by (29). In turn, those virtual (τ, z)-combinations are dominated by (τ^S, z^S) by construction. Hence, the latter is indeed the electorate's preferred social insurance scheme among all those that are feasible. QED

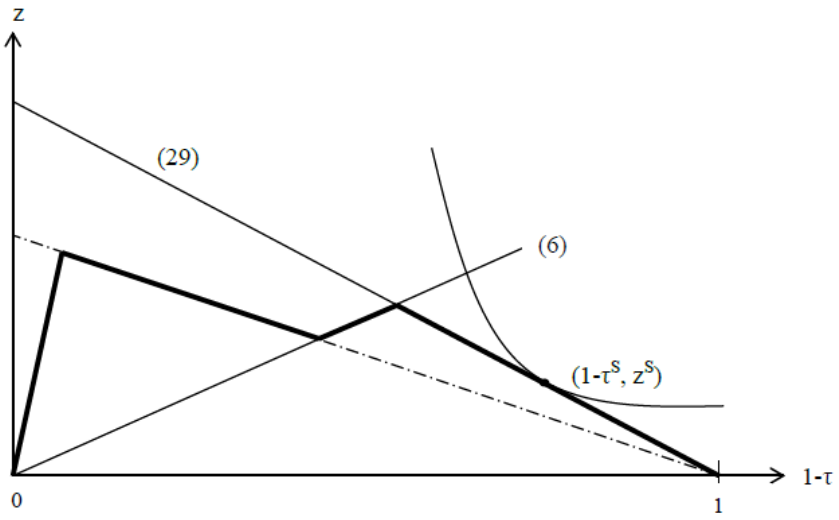

Figure 2: Determination of social insurance in the SNE.

Appendix F: Proof of Proposition 2.

In a WNE, all parents who have a job impart values that make their children specialize in the occupation for which they are more likely to be talented. Optimality of those values requires $y > y_4$. Since $y_4 > y_3$, it follows that $y > y_3$ and the parents who live on transfers bestow their children with values according to liberalism. From this, (14) directly follows. Notice that the resulting social esteem of workers is given by

$$\overline{v}^W = \mu\left(\frac{1+p}{4}\right) + (1-\mu)\frac{p}{2}, \tag{35}$$

while the social esteem of welfare receipients is

$$\overline{v}_u^W = \mu\left(\frac{1-p}{2}\right) + (1-\mu)(1-p). \tag{36}$$

At the voting stage, the children of employed parents who specialized in the same occupation as their parents have expected utility given by

$$EU(\tau, z) = p\ln\frac{w(1+\delta)(1-\tau)}{4} + (1-p)\ln\frac{w(1-\tau)}{4} + const.$$

The expected utility of the remaining individuals amounts to

$$EU(\tau, z) = p\ln\frac{w(1+\delta)(1-\tau)}{4} + (1-p)\ln z + const.$$

The resulting social welfare function reads

$$SW(\tau, z) = \left[\frac{(1-p)\mu}{2} + p\right]\ln(1-\tau) + (1-p)\left(1-\frac{\mu}{2}\right)\ln z + const. \tag{37}$$

The voting outcome maximizes this welfare function under the budget constraint of the government. In a WNE, the selected policy is consistent with a budget constraint derived under the premise that all productive individuals work, i.e. by (11)-(12),

$$\frac{\tau w}{2}\left[p(1+\delta)+\mu\left(\frac{1-p}{2}\right)\right]=z\left[\mu\left(\frac{1-p}{2}\right)+(1-\mu)(1-p)\right]. \tag{38}$$

Maximization of (37) subject to (38) yields

$$\tau^W=\frac{(2-\mu)(1-p)}{2}, \tag{39}$$

$$z^W=\frac{w}{4}\left[2p(1+\delta)+\mu(1-p)\right]. \tag{40}$$

In order for (τ^W, z^W) to be part of an equilibrium, it must make employed parents instill values of talent orientation. By Prop. 2, one must have $y_4 \leq y^W \leq y_5$, where

$$y^W \equiv \ln\frac{w(1+\delta)(1-\tau^W)}{4z^W}. \tag{41}$$

By (20), (35) and (36), the first inequality can be written as

$$y^W \geq \ln(1+\delta)+\frac{\beta}{1-p}\ln p^p(1-p)^{1-p}4^{1-p}-\gamma\ln\frac{2p+\mu(1-p)}{2(2-\mu)(1-p)}\equiv y_4^W.$$

Substituting (39) and (40) into (41) reveals that the above condition is equivalent to

$$\gamma \geq f-m\beta, \tag{42}$$

where $f>0$ and $m>0$ are functions of μ, δ and p.

The second inequality, $y^W \leq y_5$, amounts to

$$y^W \leq \frac{p}{1-p}\ln(1+\delta)+\frac{\beta}{1-p}\ln\frac{p^p(1-p)^{1-p}}{4}-\gamma\ln\frac{2p+\mu(1-p)}{2(2-\mu)(1-p)}\equiv y_5^W.$$

By substituting as before, the above condition is equivalent to

$$\gamma \leq a^W-b^W\beta, \tag{43}$$

where $a^W>0$ and $b^W>0$ are functions of μ, δ and p. It can easily be shown that $a^W>f$, so that there exists a compact set $X\subset\Re^2_+$ such that if $(\beta,\gamma)\in X$, both inequalities, $y_4^W \leq y^W \leq y_5^W$, are satisfied. By the same method applied to prove Prop. 1 it can be shown that there is no different (τ, z) such that a higher level of social welfare can be reached at the voting stage, given the distribution of values and specializations. QED

Appendix G: Proof of Proposition 3.

In order to show (15), substitute (39) and (40) into it and rearrange terms so as to get

$$4p(1+\delta)-2+(1-p)(\mu+2)>0,$$

which is true. The Proposition then directly follows from the main text. QED

Appendix H: Proof of Proposition 4.

In order to show that the SNE and WNE can coexist it is sufficient to exhibit a subset in the (β, γ)-space such that each of its elements can sustain both the SNE ane the WNE. By the proofs of existence of those equilibria, such a subset exists if $a^W > a^S$. Tedious but straightforward manipulations confirms that this condition is always met.

The tax rate of social insurance in the SNE is given by (30) and the tax rate in the WNE is given by (39). It is easily seen that $\tau^W > \tau^S$.

The result about output stems from comparing output in the SNE,

$$Q^S = w\left[\frac{\mu}{2}(1+\delta) + \frac{\mu}{2} + p(1-\mu)(1+\delta)\right]$$

with output in the WNE,

$$Q^W = w\left[p\mu(1+\delta) + \frac{(1-p)\mu}{2} + p(1-\mu)(1+\delta)\right].$$

QED

Appendix I: Proof of Proposition 5.

In the SNE, the dynamics of the employment rate is given by

$$\mu^S_{t+1} = \mu^S_t + p(1-\mu^S_t). \tag{44}$$

Its steady state has $\mu^{S*} = 1$. Substituting into (30) yields $\tau^{S*} = 0$. Substituting into (13) yields $N^{S*} = 1$. In order to determine the growth rate, notice that half of the employed are talented for their job and that each of them devotes half of his time to working. Therefore, the growth rate in the steady state is $g^{S*} = g\,(1/4)$.

In the WNE, the dynamics of the employment rate is given by

$$\mu^W_{t+1} = \left(\frac{1+p}{2}\right)\mu^W_t + p(1-\mu^W_t). \tag{45}$$

Its steady state has $\mu^{W*} = 2p/(1+p) < 1$. Substituting that steady-state variable into (39) yields $\tau^{W*} = (1-p)/(1+p) > 0$. Substituting into (14) yields $N^{W*} = 2p/(1+p) < 1$. In order to determine the growth rate, notice that a share p of each generation turns out to be talented for its jobs and that each individual devotes half of his time to working. Therefore, the growth rate in the steady state is $g^{W*} = g\,(p/2) > g\,(1/4)$.

In the WNE, the dynamics of the employment rate is given by (45), which has a stable root. The WNE must also satisfy conditions (42) and (43) which depend on μ_t. As long as neither of them is binding, which is generically the case, the steady state is locally stable.

In the SNE, the dynamics of the employment rate is given by (44), which has a stable root. The SNE must also satisfy condition (34) which depends on μ_t. As long as that condition is not binding, which is generically the case, the steady state is locally stable. One can even prove a stronger stability property: once in a short-run SNE, the economy always remains in a SNE and evolves according to (44). Suppose namely that the economy is in a short-run SNE with $\mu_t^S < 1$. As implied by (44), $\mu_{t+1}^S > \mu_t^S$. Straightforward manipulations show that increasing μ makes condition (34) less stringent, so that if it was satisfied in period t it remains so in period $t+1$.

The latter property can be used to prove the existence of multiple steady states. By Prop. 4, for any given μ, there exists a compact set such that if (β, γ) belongs to it, both the SNE and the WNE exist. Set $\mu = \mu^{W*}$, which correponds to the steady state in the WNE, and assume that (β, γ) is such that both short-run equilibria exist. By construction, the WNE is a steady state. By the stability property established above, the SNE converges to a steady state. QED

Appendix L: Descriptive statistics.

List of countries in the European Values Survey of 2008.

Albania	Germany	Northen Cyprus
Armenia	Great Britain	Northern Ireland
Austria	Greece	Norway
Azerbaija	Hungary	Poland
Belarus	Iceland	Portugal
Belgium	Ireland	Romania
Bosnia He	Italy	Russian F
Bulgaria	Kosovo	Serbia
Croatia	Latvia	Slovak Re
Cyprus	Lithuania	Slovenia
Czech Rep	Luxembour	Spain
Denmark	Macedonia	Sweden
Estonia	Malta	Switzerla
Finland	Moldova	Turkey
France	Montenegr	Ukraine
Georgia	Netherlands	

Descriptive Statistics of the sample.

	Obs.	Mean	Std. Dev.	Min	Max
Work norm	14416	3.55	1.18	1	5
Follower	11652	0.09	0.28	0	1
Father unemployed	14092	0.08	0.27	0	1
Age	14690	39.96	8.97	25	55
Age squared	14690	1676.88	718.84	625	3025
Education					
- No education	14597	0.01	0.10	0	1
- Primary education	14597	0.05	0.22	0	1
- Some Secondary education	14597	0.13	0.34	0	1
- Secondary education	14597	0.52	0.50	0	1
- Tertiary education	14597	0.29	0.45	0	1
Legal status					
- maried	14587	0.66	0.48	0	1
- divorced	14587	0.08	0.26	0	1
- widowed	14587	0.01	0.11	0	1
- single	14587	0.26	0.44	0	1
Job status					
- Full-time work	14619	0.65	0.48	0	1
- Part-time work	14619	0.04	0.19	0	1
- Self-employment	14619	0.12	0.33	0	1
- Retired	14619	0.03	0.16	0	1
- Household Production	14619	0.01	0.09	0	1
- Student	14619	0.02	0.13	0	1
- Unemployed	14619	0.13	0.33	0	1
- Other	14619	0.02	0.14	0	1
Income					
- Category 1	12382	0.10	0.30	0	1
- Category 2	12382	0.12	0.32	0	1
- Category 3	12382	0.15	0.36	0	1
- Category 4	12382	0.18	0.38	0	1
- Category 5	12382	0.10	0.30	0	1

- Category 6	12382	0.07	0.25	0	1
- Category 7	12382	0.06	0.25	0	1
- Category 8	12382	0.06	0.23	0	1
- Category 9	12382	0.11	0.31	0	1
- Category 10	12382	0.04	0.20	0	1
- Category 11	12382	0.01	0.11	0	1
- Category 12	12382	0.01	0.09	0	1

Appendix M: Regressions for OECD countries.

The following Tables A1-A3 present the results from regressions that replicate those in Tables 1-3 using only OECD countries.

Table A1: ONLY OECD - Logit regressions for experience of unemployment during last five years; males, aged 25-55.

	(1)	(2)	(3)	(4)
Follower	-0.288*	-0.326*	-0.387*	-0.395*
	(-2.01)	(-2.09)	(-2.46)	(-2.31)
Age	-0.136***	-0.073*	-0.079*	-0.084
	(-3.87)	(-1.99)	(-2.11)	(-1.85)
Age squared	0.001***	0.001	0.001	0.001
	(3.33)	(1.28)	(1.32)	(1.24)
Legal status				
- married		-0.388***	-0.395***	-0.249*
		(-4.49)	(-4.68)	(-2.27)
- divorced		0.222	0.202	0.184
		(1.55)	(1.47)	(1.21)
- widowed		-0.544	-0.635	-0.398
		(-0.93)	(-1.10)	(-0.73)
Job status				
- Part-time work		0.890**	0.890***	0.838***
		(3.28)	(3.44)	(3.72)
- Self-employment		-0.097	-0.118	-0.077
		(-0.57)	(-0.69)	(-0.36)
- Retired		0.329	0.255	0.009
		(1.23)	(0.96)	(0.03)
- Household production		2.101***	2.051***	1.809*
		(3.76)	(3.60)	(2.55)
- Student		0.567	0.618	-0.240
		(1.43)	(1.52)	(-0.45)
- Unemployed		3.651***	3.611***	3.227***
		(17.60)	(17.82)	(15.95)
- Other		1.639***	1.519***	1.120***
		(5.87)	(5.65)	(4.37)
Education				
- Primary education			0.206	0.529
			(0.44)	(1.20)
- Some secondary education			-0.056	0.395
			(-0.12)	(0.74)
- Secondary education			-0.383	0.063

			(-0.83)	(0.12)
- Tertiary education			-0.686	-0.002
			(-1.53)	(-0.00)
Income	No	No	No	Yes
Country Dummies	Yes	Yes	Yes	Yes
Observations	6,788	6,743	6,715	5,595

t-Statistics in parentheses: * p<0.05, ** p<0.01, *** p<0.001

Table A2: ONLY OECD - Ordered logit regressions for strength of work norms; males, aged 25-55.

	(1)	(2)	(3)	(4)
Follower	0.181*	0.179*	0.151	0.171
	(2.26)	(2.34)	(1.82)	(1.94)
Age	0.001	-0.029	-0.035	-0.058*
	(0.05)	(-1.30)	(-1.57)	(-2.22)
Age squared	0.000	0.000	0.000	0.001*
	(0.29)	(1.38)	(1.63)	(2.21)
Legal status				
- married		0.263***	0.258***	0.208**
		(3.57)	(3.52)	(2.91)
- divorced		0.189*	0.171	0.177*
		(2.19)	(1.92)	(1.98)
- widowed		0.624**	0.592**	0.626***
		(2.73)	(2.61)	(3.90)
Job status				
- Part-time work		-0.049	-0.051	-0.097
		(-0.27)	(-0.27)	(-0.55)
- Self-employment		0.018	0.003	0.023
		(0.21)	(0.03)	(0.26)
- Retired		0.149	0.122	0.187
		(1.23)	(0.98)	(1.34)
- Household production		-1.198**	-1.224***	-1.387**
		(-3.23)	(-3.30)	(-2.93)
- Student		-0.278	-0.267	-0.454
		(-0.96)	(-0.92)	(-1.30)
- Unemployed		-0.121	-0.161	-0.242*
		(-1.03)	(-1.35)	(-1.97)
- Other		-0.583***	-0.650***	-0.556***
		(-4.29)	(-4.59)	(-4.22)
Education				
- Primary education			-0.283	-0.135
			(-1.21)	(-0.56)
- Some secondary education			-0.216	-0.052
			(-0.82)	(-0.19)
- Secondary education			-0.358	-0.198
			(-1.32)	(-0.73)
- Tertiary education			-0.532	-0.408
			(-1.89)	(-1.44)
Income	No	No	No	Yes
Country dummies	Yes	Yes	Yes	Yes
Observations	6,706	6,663	6,636	5,543

t-Statistics in parentheses: * p<0.05, ** p<0.01, *** p<0.001

Table A3: ONLY OECD - Ordered logit regressions for strength of work norms with father unemployed; males, aged 25-55.

	(1)	(2)	(3)	(4)
Follower	0.180*	0.179*	0.150	0.171
	(2.24)	(2.33)	(1.80)	(1.93)
Father unemployed	-0.689***	-0.625***	-0.675***	-0.291*
	(-22.54)	(-7.17)	(-6.14)	(-2.05)
Age	0.001	-0.029	-0.035	-0.058*
	(0.06)	(-1.30)	(-1.57)	(-2.22)
Age squared	0.000	0.000	0.000	0.001*
	(0.29)	(1.38)	(1.63)	(2.21)
Legal status				
- married		0.264***	0.258***	0.208**
		(3.58)	(3.53)	(2.91)
- divorced		0.189*	0.171	0.177*
		(2.19)	(1.93)	(1.98)
- widowed		0.640**	0.609**	0.633***
		(2.83)	(2.71)	(3.93)
Job status				
- Part-time work		-0.049	-0.052	-0.097
		(-0.27)	(-0.27)	(-0.55)
- Self-employment		0.017	0.002	0.023
		(0.20)	(0.02)	(0.26)
- Retired		0.147	0.120	0.186
		(1.22)	(0.97)	(1.33)
- Household production		-1.147**	-1.169**	-1.355**
		(-2.93)	(-2.99)	(-2.81)
- Student		-0.279	-0.268	-0.455
		(-0.96)	(-0.92)	(-1.30)
- Unemployed		-0.122	-0.162	-0.242*
		(-1.04)	(-1.35)	(-1.97)
- Other		-0.584***	-0.652***	-0.557***
		(-4.29)	(-4.59)	(-4.22)
Education				
- Primary education			-0.278	-0.133
			(-1.18)	(-0.55)
- Some secondary education			-0.214	-0.051
			(-0.82)	(-0.19)
- Secondary education			-0.357	-0.197
			(-1.31)	(-0.73)
- Tertiary education			-0.531	-0.407
			(-1.89)	(-1.44)
Income	No	No	No	Yes
Country dummies	Yes	Yes	Yes	Yes
Observations	6,706	6,663	6,636	5,543

t-Statistics in parentheses: * p<0.05, ** p<0.01, *** p<0.001

Appendix N: Regressions for non-OECD countries.

The following Tables A4-A6 present the results from regressions that replicate those in Tables 1-3 using only non-OECD countries.

Table A4: ONLY NON-OECD - Logit regressions for experience of unemployment during last five years; males, aged 25-55.

	(1)	(2)	(3)	(4)
Follower	-0.115	-0.258*	-0.340*	-0.467**
	(-0.98)	(-2.06)	(-2.37)	(-3.19)
Age	-0.115*	-0.094*	-0.094*	-0.079
	(-2.36)	(-2.33)	(-2.22)	(-1.60)
Age squared	0.001*	0.001	0.001	0.001
	(2.20)	(1.85)	(1.73)	(1.08)
Legal status				
- married		-0.351**	-0.414***	-0.422**
		(-2.84)	(-3.30)	(-2.85)
- divorced		-0.025	-0.094	-0.302*
		(-0.19)	(-0.65)	(-2.28)
- widowed		-0.548	-0.670	-0.846
		(-1.41)	(-1.72)	(-1.64)
Job status				
- Part-time work		0.514*	0.495*	0.429
		(2.14)	(2.05)	(1.61)
- Self-employment		0.131	0.084	0.150
		(0.95)	(0.54)	(0.88)
- Retired		0.880**	0.839**	0.752**
		(3.13)	(3.20)	(2.59)
- Household production		2.034***	2.040***	2.171***
		(5.96)	(5.45)	(8.07)
- Student		1.727**	1.803**	1.790***
		(3.12)	(2.62)	(3.89)
- Unemployed		2.856***	2.787***	2.503***
		(12.91)	(12.63)	(11.69)
- Other		1.663***	1.569***	1.343**
		(4.14)	(3.70)	(3.28)
Education				
- Primary education			2.626**	2.798*
			(2.62)	(2.56)
- Some secondary education			2.102*	2.098*
			(2.34)	(2.15)
- Secondary education			1.691	1.794
			(1.76)	(1.70)
- Tertiary education			1.194	1.546
			(1.21)	(1.45)
Income	No	No	No	Yes
Country Dummies	Yes	Yes	Yes	Yes
Observations	4,771	4,736	4,723	4,143

t-Statistics in parentheses: * p<0.05, ** p<0.01, *** p<0.001

Table A5: ONLY NON-OECD - Ordered logit regressions for strength of work norms; males, aged 25-55.

	(1)	(2)	(3)	(4)
Follower	0.121	0.123	0.117	0.187*
	(1.46)	(1.48)	(1.41)	(2.06)
Age	0.009	-0.019	-0.019	-0.020
	(0.30)	(-0.69)	(-0.70)	(-0.62)
Age squared	0.000	0.000	0.000	0.000
	(0.17)	(1.05)	(1.04)	(1.04)
Legal status				
- married		0.257***	0.251***	0.279***
		(3.42)	(3.32)	(3.75)
- divorced		-0.021	-0.027	0.012
		(-0.13)	(-0.17)	(0.06)
- widowed		0.396	0.409	0.333
		(1.36)	(1.37)	(1.09)
Job status				
- Part-time work		-0.200*	-0.201*	-0.235*
		(-2.08)	(-2.12)	(-2.12)
- Self-employment		0.094	0.094	0.125
		(0.84)	(0.82)	(0.96)
- Retired		-0.096	-0.093	-0.216
		(-0.54)	(-0.51)	(-1.04)
- Household production		-0.600**	-0.593**	-0.692**
		(-2.63)	(-2.77)	(-2.92)
- Student		-0.111	-0.112	-0.196
		(-0.25)	(-0.25)	(-0.53)
- Unemployed		-0.205*	-0.203*	-0.268**
		(-2.05)	(-2.10)	(-2.88)
- Other		0.089	0.085	0.009
		(0.33)	(0.32)	(0.04)
Education				
- Primary education			-0.299	-0.199
			(-0.90)	(-0.57)
- Some secondary education			-0.650	-0.551
			(-1.71)	(-1.43)
- Secondary education			-0.516	-0.402
			(-1.58)	(-1.28)
- Tertiary education			-0.545	-0.392
			(-1.59)	(-1.14)
Income	No	No	No	Yes
Country dummies	Yes	Yes	Yes	Yes
Observations	4,748	4,709	4,697	4,143

t-Statistics in parentheses: * p<0.05, ** p<0.01, *** p<0.001

Table A6: ONLY NON-OECD - Ordered logit regressions for strength of work norms with father unemployed; males, aged 25-55.

	(1)	(2)	(3)	(4)
Follower	0.121	0.123	0.117	0.187*
	(1.46)	(1.48)	(1.41)	(2.06)
Father unemployed	0.000	0.000	0.000	0.000

	(.)	(.)	(.)	(.)
Age	0.009	-0.019	-0.019	-0.020
	(0.30)	(-0.69)	(-0.70)	(-0.62)
Age squared	0.000	0.000	0.000	0.000
	(0.17)	(1.05)	(1.04)	(1.04)
Legal status				
- married		0.257***	0.251***	0.279***
		(3.42)	(3.32)	(3.75)
- divorced		-0.021	-0.027	0.012
		(-0.13)	(-0.17)	(0.06)
- widowed		0.396	0.409	0.333
		(1.36)	(1.37)	(1.09)
Job status				
- Part-time work		-0.200*	-0.201*	-0.235*
		(-2.08)	(-2.12)	(-2.12)
- Self-employment		0.094	0.094	0.125
		(0.84)	(0.82)	(0.96)
- Retired		-0.096	-0.093	-0.216
		(-0.54)	(-0.51)	(-1.04)
- Household production		-0.600**	-0.593**	-0.692**
		(-2.63)	(-2.77)	(-2.92)
- Student		-0.111	-0.112	-0.196
		(-0.25)	(-0.25)	(-0.53)
- Unemployed		-0.205*	-0.203*	-0.268**
		(-2.05)	(-2.10)	(-2.88)
- Other		0.089	0.085	0.009
		(0.33)	(0.32)	(0.04)
Education				
- Primary education			-0.299	-0.199
			(-0.90)	(-0.57)
- Some secondary education			-0.650	-0.551
			(-1.71)	(-1.43)
- Secondary education			-0.516	-0.402
			(-1.58)	(-1.28)
- Tertiary education			-0.545	-0.392
			(-1.59)	(-1.14)
Income	No	No	No	Yes
Country dummies	Yes	Yes	Yes	Yes
Observations	4,748	4,709	4,697	4,143

t-Statistics in parentheses: * p<0.05, ** p<0.01, *** p<0.001

Appendix O: Regressions that control for employment in agriculture.

The following Tables A7-A9 present the results from regressions that replicate those in Tables 1-3 except for adding a dummy variable that controls for an occupation in agriculture. For the sample at hand, this is defined as an ISCO-code between 6000 and 6210.

Table A7: Logit regressions for experience of unemployment during last five years; males, aged 25-55.

	(1)	(2)	(3)	(4)
Follower	-0.206*	-0.310**	-0.373***	-0.424***
	(-2.17)	(-3.02)	(-3.51)	(-3.75)
Farming	0.065	0.166	0.044	-0.145
	(0.40)	(0.98)	(0.29)	(-0.95)
Age	-0.124***	-0.083**	-0.086**	-0.081*
	(-4.06)	(-3.04)	(-3.08)	(-2.43)
Age squared	0.001***	0.001*	0.001*	0.001
	(3.63)	(2.22)	(2.21)	(1.65)
Legal status				
- married		-0.376***	-0.405***	-0.328***
		(-5.26)	(-5.70)	(-3.71)
- divorced		0.115	0.079	-0.002
		(1.09)	(0.74)	(-0.02)
- widowed		-0.532	-0.632*	-0.670
		(-1.74)	(-2.08)	(-1.85)
Job status				
- Part-time work		0.662***	0.657***	0.578**
		(3.72)	(3.76)	(3.19)
- Self-employment		0.020	0.001	0.075
		(0.18)	(0.01)	(0.58)
- Retired		0.637**	0.575**	0.426
		(3.13)	(2.85)	(1.95)
- Household production		2.069***	2.055***	2.069***
		(7.36)	(6.86)	(7.39)
- Student		0.945**	1.022**	0.529
		(3.07)	(3.21)	(1.18)
- Unemployed		3.225***	3.167***	2.820***
		(18.72)	(18.39)	(16.52)
- Other		1.639***	1.528***	1.202***
		(7.25)	(6.88)	(5.74)
Education				
- Primary education			1.037*	1.285*
			(1.99)	(2.29)
- Some secondary education			0.776	1.057
			(1.48)	(1.83)
- Secondary education			0.431	0.739
			(0.80)	(1.23)
- Tertiary education			0.019	0.562
			(0.03)	(0.93)
Income	No	No	No	Yes
Country dummies	Yes	Yes	Yes	Yes
Observations	11,559	11,479	11,438	9,760

t-Statistics in parentheses: * p<0.05, ** p<0.01, *** p<0.001

Table A8: Ordered logit regressions for strength of work norms; males, aged 25-55.

	(1)	(2)	(3)	(4)

Follower	0.156**	0.154**	0.139*	0.181**
	(2.64)	(2.65)	(2.26)	(2.77)
Farming	0.009	-0.006	-0.050	-0.110
	(0.08)	(-0.05)	(-0.49)	(-1.03)
Age	0.005	-0.024	-0.027	-0.037
	(0.28)	(-1.42)	(-1.58)	(-1.86)
Age squared	0.000	0.000+	0.000	0.001*
	(0.29)	(1.72)	(1.86)	(2.15)
Legal status				
- married		0.259***	0.250***	0.230***
		(4.79)	(4.63)	(4.51)
- divorced		0.113	0.098	0.101
		(1.45)	(1.24)	(1.16)
- widowed		0.505*	0.478*	0.427*
		(2.54)	(2.36)	(2.13)
Job status				
- Part-time work		-0.136	-0.141	-0.176
		(-1.38)	(-1.41)	(-1.79)
- Self-employment		0.047	0.036	0.064
		(0.70)	(0.53)	(0.84)
- Retired		0.041	0.022	-0.008
		(0.39)	(0.21)	(-0.07)
- Household production		-0.747***	-0.753***	-0.855***
		(-3.56)	(-3.52)	(-3.40)
- Student		-0.215	-0.210	-0.367
		(-0.89)	(-0.86)	(-1.31)
- Unemployed		-0.166*	-0.196**	-0.269***
		(-2.22)	(-2.62)	(-3.77)
- Other		-0.396**	-0.440**	-0.417**
		(-2.76)	(-2.99)	(-3.09)
Education				
- Primary education			-0.319	-0.209
			(-1.66)	(-1.08)
- Some secondary education			-0.369	-0.246
			(-1.73)	(-1.17)
- Secondary education			-0.424*	-0.297
			(-2.09)	(-1.53)
- Tertiary education			-0.540*	-0.416*
			(-2.56)	(-2.00)
Income	No	No	No	Yes
Country dummies	Yes	Yes	Yes	Yes
Observations	11,454	11,372	11,333	9,686

t-Statistics in parentheses: * p<0.05, ** p<0.01, *** p<0.001

Table A9: Ordered logit regressions for strength of work norms; males, aged 25-55.

	(1)	(2)	(3)	(4)
Follower	0.155**	0.154**	0.138*	0.181**
	(2.63)	(2.64)	(2.25)	(2.76)
Father unemployed	-0.731***	-0.723***	-0.766***	-0.386***
	(-27.08)	(-11.83)	(-9.76)	(-4.28)

Farming	0.008	-0.006	-0.050	-0.110
	(0.08)	(-0.05)	(-0.50)	(-1.03)
Age	0.005	-0.024	-0.027	-0.037
	(0.28)	(-1.42)	(-1.58)	(-1.86)
Age squared	0.000	0.000+	0.000	0.001*
	(0.29)	(1.72)	(1.86)	(2.15)
Legal status				
- married		0.259***	0.250***	0.230***
		(4.81)	(4.65)	(4.51)
- divorced		0.113	0.099	0.101
		(1.45)	(1.24)	(1.16)
- widowed		0.513*	0.486*	0.430*
		(2.57)	(2.39)	(2.14)
Job status				
- Part-time work		-0.136	-0.141	-0.176+
		(-1.38)	(-1.41)	(-1.79)
- Self-employment		0.047	0.036	0.064
		(0.69)	(0.52)	(0.84)
- Retired		0.040	0.020	-0.009
		(0.39)	(0.20)	(-0.07)
- Household production		-0.733***	-0.738***	-0.844***
		(-3.50)	(-3.46)	(-3.39)
- Student		-0.216	-0.211	-0.367
		(-0.89)	(-0.86)	(-1.32)
- Unemployed		-0.166*	-0.196**	-0.270***
		(-2.22)	(-2.63)	(-3.77)
- Other		-0.397**	-0.441**	-0.418**
		(-2.76)	(-3.00)	(-3.09)
Education				
- Primary education			-0.315	-0.207
			(-1.63)	(-1.07)
- Some secondary education			-0.368	-0.245
			(-1.72)	(-1.16)
- Secondary education			-0.424*	-0.297
			(-2.08)	(-1.53)
- Tertiary education			-0.540*	-0.415*
			(-2.55)	(-2.00)
Income	No	No	No	Yes
Country dummies	Yes	Yes	Yes	Yes
Observations	11,454	11,372	11,333	9,686

t-Statistics in parentheses: * p<0.05, ** p<0.01, *** p<0.001

Appendix P: Summary of results for each major ISCO-group.

The following Table A10 reports the coefficients for the three variables of interest from regressions that replicate those in Tables 1-3 separatedly for each occupational group of the respondents. For brevity, only results pertaining to the richest specification - specification (4) - are shown.

Table A10: The three variables of interest separately for each occupational group of the respondents.

	(Experience of unemployment)	(Follower)	(Father unemployed)
Legislators, senior officials and managers.	-0.543	0.060	-1.332***
	(-1.20)	(0.31)	(-6.65)
Professionals.	-0.779*	0.450	0.000
	(-1.99)	(1.92)	(.)
Technicans and associate professionals	-0.515	0.405	-1.458*
	(-1.02)	(1.69)	(-2.49)
Clerks.	-0.448	-0.445	0.000
	(-0.46)	(-0.70)	(.)
Service workers and shop and market sales workers.	-1.946*	0.203	0.000
	(-2.34)	(0.57)	(.)
Skilled agricultural and fishery workers.	-1.180	0.591**	0.000
	(-1.91)	(2.98)	(.)
Craft and related trade workers.	-0.589**	0.223*	-0.014
	(-3.11)	(2.22)	(-0.04)
Plant and machine operators and assemblers.	-0.049	-0.128	0.000
	(-0.15)	(-0.59)	(.)
Elementary occupations.	-0.197	0.267	0.000
	(-0.58)	(0.97)	(.)

t-Statistics in parentheses: * p<0.05, ** p<0.01, *** p<0.001

The following Table A11 reports the coefficients for the three variables of interest from regressions that replicate those in Tables 1-3 separatedly for each occupational group of the fathers. For brevity, only results pertaining to the richest specification - specification (4) - are shown.

Table A11: The three variables of interest separately for each occupational group of the fathers.

	(Experience of unemployment)	(Follower)	(Father unemployed)
Legislators, senior officials and managers.	-0.485	0.214	0.000
	(-1.29)	(1.04)	(.)
Professionals.	-0.505	0.713**	0.000
	(-1.21)	(3.23)	(.)
Technicans and associate professionals	-0.301	0.496	0.000
	(-0.54)	(1.61)	(.)
Clerks.	-0.806	-0.706	0.000
	(-0.67)	(-1.24)	(.)

Service workers and shop and market sales workers.	-1.827*	0.268	14.878***
	(-2.29)	(0.61)	(15.03)
Skilled agricultural and fishery workers.	-1.015*	0.313	-0.770**
	(-2.11)	(1.81)	(-3.19)
Craft and related trade workers.	-0.722***	0.256*	0.000
	(-3.72)	(2.43)	(.)
Plant and machine operators and assemblers.	-0.016	-0.175	0.000
	(-0.05)	(-0.81)	(.)
Elementary occupations.	0.082	0.077	0.000
	(0.23)	(0.31)	(.)

t-Statistics in parentheses: * p<0.05, ** p<0.01, *** p<0.001

Appendix Q: Daughter-father regressions.

The following Tables A12-A14 present the results from regressions that replicate those in Tables 1-3 using only female respondents.

Table A12: Logit regressions for experience of unemployment during last five years; females, aged 25-55.

	(1)	(2)	(3)	(4)
Follower	-0.183	-0.240	-0.285*	-0.322
	(-1.28)	(-1.74)	(-2.09)	(-1.90)
Age	-0.139***	-0.087**	-0.095**	-0.087*
	(-5.07)	(-2.90)	(-3.04)	(-2.52)
Age squared	0.001***	0.001*	0.001*	0.001
	(4.16)	(1.97)	(2.04)	(1.56)
Legal status				
- married		-0.238**	-0.271**	-0.128
		(-2.79)	(-3.20)	(-1.43)
- divorced		0.169	0.117	0.038
		(1.74)	(1.22)	(0.35)
- widowed		0.096	0.022	-0.046
		(0.66)	(0.15)	(-0.27)
Job status				
- Part-time work		0.482***	0.457***	0.424**
		(3.82)	(3.74)	(3.29)
- Self-employment		0.196	0.139	0.094
		(1.31)	(0.87)	(0.50)
- Retired		0.762**	0.684*	0.643*
		(2.79)	(2.43)	(2.33)
- Household production		1.429***	1.319***	1.295***
		(9.29)	(8.59)	(7.73)
- Student		0.801**	0.729*	0.600*
		(2.68)	(2.38)	(1.98)
- Unemployed		3.207***	3.102***	2.989***

		(19.38)	(18.44)	(16.26)
- Other		1.131***	1.044***	0.905***
		(5.12)	(4.73)	(4.19)
Education				
- Primary education			0.066	0.272
			(0.16)	(0.84)
- Some secondary education			-0.124	0.047
			(-0.32)	(0.15)
- Secondary education			-0.306	-0.031
			(-0.80)	(-0.10)
- Tertiary education			-0.732*	-0.376
			(-1.99)	(-1.16)
Income	No	No	No	Yes
Country Dummies	Yes	Yes	Yes	Yes
Observations	12,968	12,854	12,797	10,736

t-Statistics in parentheses: * p<0.05, ** p<0.01, *** p<0.001

Table A13: Ordered logit regressions for strength of work norms; females, aged 25-55.

	(1)	(2)	(3)	(4)
Follower	0.071	0.059	0.029	0.032
	(0.69)	(0.58)	(0.30)	(0.30)
Age	0.016	0.004	0.003	0.002
	(0.78)	(0.18)	(0.14)	(0.10)
Age squared	0.000	0.000	0.000	0.000
	(-0.38)	(0.18)	(0.18)	(0.24)
Legal status				
- married		0.058	0.046	0.045
		(0.93)	(0.72)	(0.62)
- divorced		-0.096	-0.120	-0.149
		(-1.26)	(-1.55)	(-1.81)
- widowed		0.053	0.024	-0.028
		(0.49)	(0.22)	(-0.25)
Job status				
- Part-time work		-0.054	-0.067	-0.038
		(-0.83)	(-0.95)	(-0.50)
- Self-employment		0.035	0.017	0.049
		(0.49)	(0.25)	(0.59)
- Retired		-0.099	-0.125	-0.112
		(-0.77)	(-0.98)	(-0.91)
- Household production		-0.254***	-0.296***	-0.291***
		(-3.96)	(-4.32)	(-3.91)
- Student		-0.426	-0.431	-0.461
		(-1.52)	(-1.52)	(-1.58)
- Unemployed		-0.188**	-0.288***	-0.240***
		(-3.04)	(-3.76)	(-3.65)
- Other		-0.279*	-0.322**	-0.402***
		(-2.45)	(-2.89)	(-3.46)
Education				
- Primary education			-0.189	-0.266
			(-0.78)	(-1.01)

- Some secondary education			-0.249	-0.338
			(-0.94)	(-1.16)
- Secondary education			-0.356	-0.429
			(-1.39)	(-1.52)
- Tertiary education			-0.461	-0.549
			(-1.78)	(-1.89)
Income	No	No	No	Yes
Country dummies	Yes	Yes	Yes	Yes
Observations	12,825	12,712	12,654	10,642

t-Statistics in parentheses: * p<0.05, ** p<0.01, *** p<0.001

Table A14: Ordered logit regressions for strength of work norms; females, aged 25-55.

	(1)	(2)	(3)	(4)
Follower	0.071	0.059	0.029	0.032
	(0.69)	(0.58)	(0.30)	(0.30)
Father unemployed	1.002***	0.974***	0.851***	0.485***
	(32.70)	(30.10)	(17.90)	(7.21)
Age	0.016	0.004	0.003	0.003
	(0.78)	(0.18)	(0.14)	(0.10)
Age squared	0.000	0.000	0.000	0.000
	(-0.39)	(0.18)	(0.18)	(0.24)
Legal status				
- married		0.058	0.046	0.046
		(0.93)	(0.73)	(0.62)
- divorced		-0.095	-0.119	-0.148
		(-1.24)	(-1.53)	(-1.79)
- widowed		0.053	0.024	-0.028
		(0.49)	(0.23)	(-0.24)
Job status				
- Part-time work		-0.054	-0.067	-0.038
		(-0.84)	(-0.95)	(-0.51)
- Self-employment		0.035	0.017	0.049
		(0.49)	(0.25)	(0.59)
- Retired		-0.098	-0.125	-0.112
		(-0.77)	(-0.98)	(-0.91)
- Household production		-0.254***	-0.296***	-0.291***
		(-3.96)	(-4.32)	(-3.91)
- Student		-0.426	-0.430	-0.461
		(-1.52)	(-1.52)	(-1.58)
- Unemployed		-0.188**	-0.228***	-0.240***
		(-3.04)	(-3.75)	(-3.65)
- Other		-0.279*	-0.332**	-0.403***
		(-2.45)	(-2.90)	(-3.46)
Education				
- Primary education			-0.192	-0.267
			(-0.79)	(-1.02)
- Some secondary education			-0.248	-0.338
			(-0.94)	(-1.15)
- Secondary education			-0.355	-0.428
			(-1.38)	(-1.52)

- Tertiary education			-0.460	-0.549
			(-1.78)	(-1.89)
Income	No	No	No	Yes
Country dummies	Yes	Yes	Yes	Yes
Observations	12,822	12,709	12,651	10,640

t-Statistics in parentheses: * p<0.05, ** p<0.01, *** p<0.001

References

Alesina, A. and G. Angeletos, 2005, Fairness and Redistribution, *American Economic Review* 95, 960-980.

Algan, Y. and P. Cahuc, 2009, Civic Virtue and Labor Market Institutions, *American Economic Journal: Macroeconomics* 1, 111-145.

Arcidiacono, P., 2004, Ability Sorting and the Returns to College Major, *Journal of Econometrics* 121, 343-375.

Bénabou, R., 2000, Unequal Societies: Income Distribution and the Social Contract, *American Economic Review* 90, 96-129.

Bénabou, R. and J. Tirole, 2006, Belief in a Just World and Redistributive Politics, *Quarterly Journal of Economics* 121, 699-746.

Bisin, A. and T. Verdier, 2000, Beyond the Melting Pot: Cultural Transmission, Marriage, and the Evolution of Ethnic and Religious Traits, *Quarterly Journal of Economics* 115, 955-988.

Cervellati, M., Esteban, J. and L. Kranich, 2010, Work Values, Endogenous Sentiments and Redistribution, *Journal of Public Economics* 94, 612-627.

Cervellati, M. and P. Vanin, 2013, "Thou Shalt Not Covet ...": Prohibitions, Temptation and Moral Values, *Journal of Public Economics* 103, 15-28.

Constant, A. and K. Zimmermann, 2003, Occupational Choice across Generations, *Applied Economics Quarterly* 49, 299-317.

Corak, M., Gustafsson, B. and T. Österberg, 2004, Intergenerational Influences on the Receipt of Unemployment Insurance in Canada and Sweden, in Corak, M. (ed.), *Generational Income Mobility in North America and Europe*, Cambridge: Cambridge University Press.

Corak, M. and P. Piraino, 2011, The Intergenerational Transmission of Employers, *Journal of Labor Economics* 29, 37-67.

Corneo, G., 2012, Work Norms and the Welfare State, *CESifo Economic Studies* 58, 599-625.

Corneo, G. and H., Grüner, 2000, Social Limits to Redistribution, *American Economic Review* 90, 1491-1507.

Corneo G. and O. Jeanne, 2009, A Theory of Tolerance, *Journal of Public Economics* 93, 691-702.

Corneo G. and O. Jeanne, 2010, Symbolic Values, Occupational Choice, and Economic Development, *European Economic Review* 54, 237-251.

Doepke, M. and F. Zilibotti, 2008, Occupational Choice and the Spirit of Capitalism, *Quarterly Journal of Economics* 123, 747-93.

Dolton, P., Makepeace, G. and W. van der Klaauw, 1989, Occupational Choice and Earnings Determination: The Role of Sample Selection and Non-Pecuniary Factors, *Oxford Economic Papers* 41, 573-594.

Fershtman, C., Murphy, K. and Y. Weiss, 1996, Social Status, Education, and Growth, *Journal of Political Economy* 104, 108-132.

Galor, O. and D. Tsiddon, 1997, Technological Progress, Mobility, and Economic Growth, *American Economic Review* 87, 363-82.

Gradstein, M., 2009, Work Attitudes and Intergenerational Mobility, *Journal of Human Capital* 3, 268-88.

Gradstein, M., 2010, Social Insurance, Education, and Work Ethics, CEPR DP N° 7838.

Grusec, J. and L. Kuczynski (eds.), 1997, *Parenting and Children's Internalization of Values*, New York: John Wiley & Sons.

Hassler, J. and J. Rodriguez Mora, 2000, Intelligence, Social Mobility, and Growth, *American Economic Review* 90, 888-908.

Humlum, M., Kleinjans, K. and H. Nielsen, 2012, An Economic Analysis of Identity and Career Choice, *Economic Inquiry* 50, 39-61.

Kramarz, F. and O. N. Skans, 2011, With a Little Help from my ... Parents? Family Networks and Youth Labor Market Entry, mimeo, CREST.

Lindbeck, A., 1997, Incentives and Social Norms in Household Behavior, *American Economic Review* 87 (Papers & Proceedings), 370-77.

Lindbeck, A. and S. Nyberg, 2006, Raising Children to Work Hard: Altruism, Work Norms, and Social Insurance, *Quarterly Journal of Economics* 121, 1473-1503.

Lindbeck, A., Nyberg, S. and J. Weibull, 1999, Social Norms and Economic Incentives in the Welfare State, *Quarterly Journal of Economics* 94, 1-35.

Lindert, P., 2004, *Growing Public: Social Spending and Economic Growth since the Eighteenth Century*, Cambridge: Cambridge University Press.

Michau, J.-B., 2012, Unemployment Insurance and Cultural Transmission: Theory & Application to European Unemployment, mimeo, Ecole Polytechnique.

Murphy, K., Shleifer, A. and R. Vishny, 1991, The Allocation of Talent: Implications for Growth, *Quarterly Journal of Economics* 106, 503-530.

Oreopoulos, P., Page, M. and A. H. Stevens, 2008, The Intergenerational Effects of Worker Displacement, *Journal of Labor Economics* 26, 455-483.

Österbacka, E., 2004, *It Runs in the Family*, Helsinki: Abo Akademi University Press.

Page, M., 2004, New Evidence on the Intergenerational Correlation in Welfare Participation, in Corak, M. (ed.), *Generational Income Mobility in North America and Europe*, Cambridge: Cambridge University Press.

Pestieau, P., 2006, *The Welfare State in the European Union*, Oxford: Oxford University Press.

Scruggs, L. and J. Allan, 2006, Welfare-State Decommodification in 18 OECD Countries: A Replication and Revision, *Journal of European Social Policy* 16, 55-72.

Diskussionsbeiträge - Fachbereich Wirtschaftswissenschaft - Freie Universität Berlin
Discussion Paper - School of Business and Economics - Freie Universität Berlin

2013 bereits erschienen:

2013/1 MASSARRAT-MASHHADI, Nima
The mutual impact of deferral labour taxation and capital income taxation on risk-taking behaviour : an experimental analysis
FACTS

2013/2 ENGLER, Philipp und Simon VOIGTS
A Transfer Mechanism for a Monetary Union
Economics

2013/3 CHADI, Adrian und Clemens HETSCHKO
Flexibilisation without Hesitation? : temporary contracts and workers' satisfaction
Economics

2013/4 HOLTFRERICH, Carl-Ludwig
Government Debt in Economic Thought of the Long 19th Century
Economics

2013/5 BESTER, Helmut und Daniel KRÄHMER
Exit Options and the Allocation of Authority
Economics

2013/6 BESTER, Helmut und Johannes Münster
Subjective Evaluation versus Public Information
Economics

2013/7 JENDERNY, Katharina
Mobility of Top Incomes in Germany
Economics

2013/8 SKUPNIK, Christoph
"Welfare magnetism" in the EU-15? : why the EU enlargement did not start a race to the bottom of welfare states
Economics

2013/9 MUCHLINSKI, Elke
Die Unzweckmäßigkeit physikalischer Metaphern und Begriffe für die Ökonomie als Erfahrungswissenschaft
Economics

2013/10 SCHREIBER, Sven
(When) Does Money Growth Help to Predict Euro-area Inflation at Low Frequencies?
Economics

2013/11 KNOLL, Martin
The Heavily Indebted Poor Countries and the Multilateral Debt Relief Initiative : a Test Case for the Validity of the Debt Overhang Hypothesis
Economics