Lecture 14: Discrimination and Racial Inequality

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What is economics?

Arrow JEL (1998):

- "*Rational choice theory means that the individual actors act rationally (that is, by maximizing according to a complete ordering) within the constraints imposed by preferences, technology, and beliefs, and by the institutions which determine how individual actions interact to determine outcomes. Further, the beliefs are themselves formed by some kind of rational process.*"

- "*By economic theory, we mean that in some sense, markets are the central institution in which individual actions interact and that other institutions are of negligible importance.*"

Markets

- impersonal exchange
- with perfect competition, given all prices, agents choose how much to supply and how much to demand
- individual impersonal supply and demand added up
- good assumption for specialized security, futures markets
- less so for labor and credit markets where personal relations matter

Market-Based Hyp 1: Taste-based Discrimination

- Becker (1957): add to the usual list of commodities some special disutility which whites attach to contact with blacks, taste-based discrimination
- additional variable in market-based theory
- strange concnlusion: racist employee paid more to work with blacks
- caveat: taste slippery slope
- caveat: Darwinian survival of non-discriminatory employer
- caveat: large firms with "tastes"

Market-Based Hyp 2: Statistical Discrimination

- beliefs: blacks and white differ in productivity on average [due to persistent past discrimination, culture, education etc]
- naive tagging: experience of employers over time will cause them to use the observable characteristic, race, as a surrogate for the unobservable characteristic, productivity, which in fact cause the productivity differences discrimination
- reg wage educ black, r >> reg wage educ, r
- lack of experimentation amplifies statistical
- unsatisfactory to postulate that the unobserved productivity just happen to be correlated with race.
- If education investment unrewarded for blacks, blacks will not acquire it: statistical discrimination confirmed!

Government

- Incentives: principal - agent relationship (like in most of this class)
- tagging: it is desirable to tax proxies for productivity
- politics, voting and taxes, Boyer et al (2020)
- but suggestive evidence US welfare state less generous than European welfare state because of racism [Alesina, Glaeser, Sacerdote BPEA (2001)]

Alesina et al. (2001)

Table 1. Composition of General Government Expenditure, 1999[a]

Percent of GDP

Country	*Total*	*Consumption*		*Subsidies*	*Transfers and other social benefits*[b]	*Gross investment*
		Goods and services	*Wages and salaries*			
United States[c]	35.5	5.2	9.2	0.2	11.0	3.1
European Union[d]	47.9	8.4	12.0	1.5	18.1	2.8
France	51.0	10.0	13.7	1.3	20.1	3.0
Germany	47.4	10.7	8.3	1.7	20.5	1.8
Sweden	60.2	10.3	16.7	2.0	21.1	2.5
United Kingdom	38.3	11.0	7.4	0.6	15.7	1.0

Source: *OECD Economic Outlook*, no. 68, 2000 (see appendix B for details).
a. Details may not sum to totals because of excluded categories.
b. Includes social security.
c. Data are for 1998.
d. Simple average for fourteen EU countries (excludes Luxembourg).

Table 2. Government Expenditure on Social Programs, 1995

Percent of GDP

Country	*Total*	*Old age, disability, and survivors' benefits*	*Family benefits*	*Unemployment and labor market programs*	*Health benefits*[a]	*Other*[b]
United States	15.8	7.3	0.6	0.6	6.3	1.0
European Unionc	25.4	12.4	2.1	3.2	5.9	1.8
France	30.1	14.1	2.6	3.1	8.0	2.3
Germany	28.0	12.5	2.0	3.7	8.1	1.6
Sweden	33.0	14.8	3.9	4.7	5.9	3.8
United Kingdom	22.5	10.6	2.4	1.3	5.7	2.5

Source: OECD, *OECD Social Expenditure Database 1980–1996*, 1999.

a. Also includes inpatient care, ambulatory medical services, and pharmaceutical goods.

b. Includes expenditure on occupational injury and disease benefits, sickness benefits, housing benefits, and benefits to low-income households.

c. Simple average for the fifteen EU countries.

Table 3. Composition of General Government Revenue, 1999

Percent of GDP

	Tax revenue							
		Direct taxes						
Country	*Total*	*Total*	*Households*	*Businesses*	*Social security contributions*[a]	*Property income*	*Goods and services*	*Nontax revenue*[b]
United States	31.0	15.1	12.4	2.8	7.1	1.0	7.7	7.2
European Union[c]	45.4	15.3	11.8	3.4	13.6	2.0	14.4	5.7
France	50.4	12.2	9.5	2.7	19.3	2.8	16.0	4.9
Germany	44.5	12.0	10.3	1.5	19.6	0.7	12.2	9.9
Sweden	57.9	22.4	19.0	3.3	14.7	3.8	17.0	8.1
United Kingdom	40.4	16.3	12.5	3.8	8.0	2.1	14.0	4.0

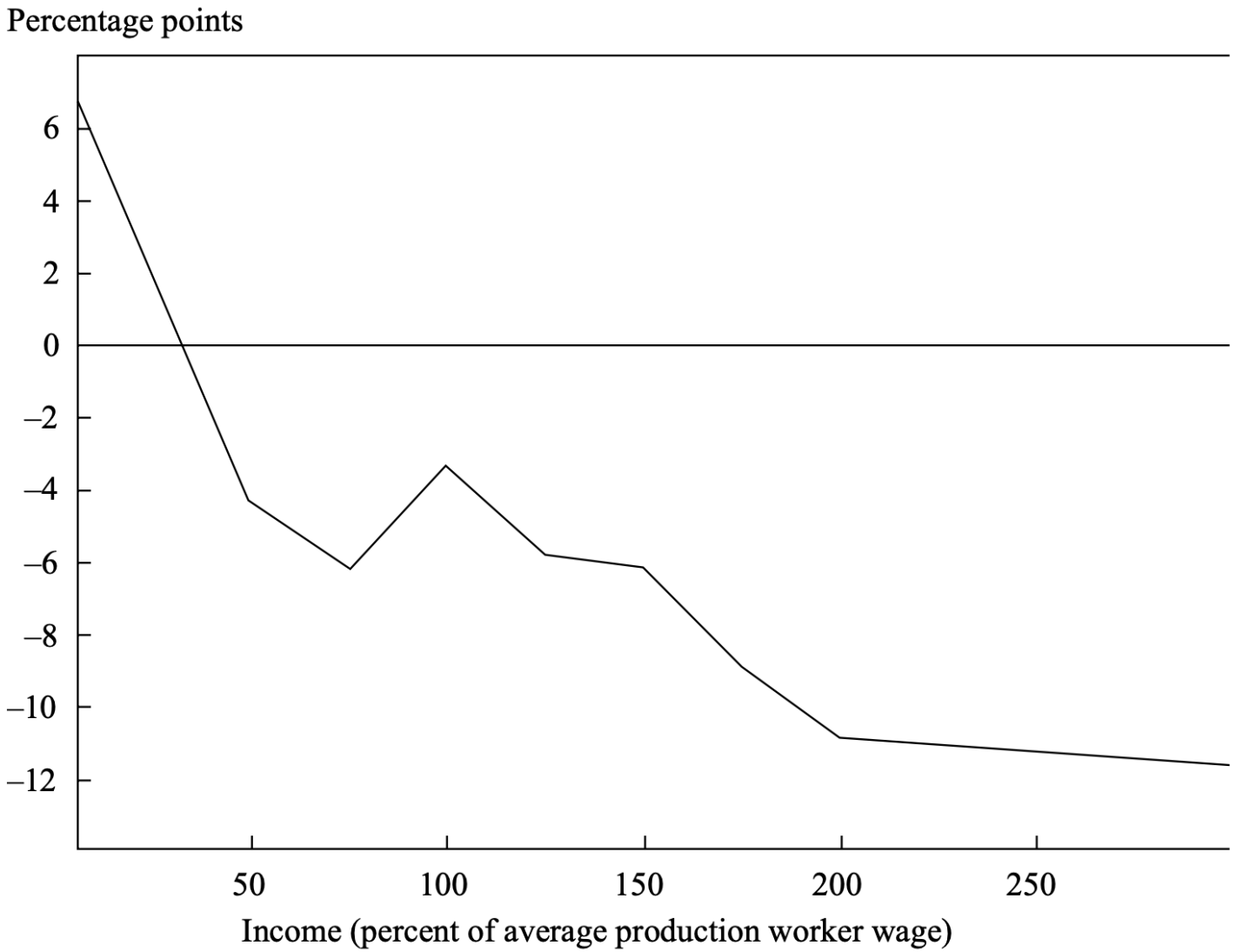
Source: *OECD Economic Outlook 2001*, no. 68, 2000; and OECD, Revenue Statistics 1965–1999, 2000.

a. Includes other current transfers.

b. Data are for 1997.

c. Simple average for fourteen EU countries (excludes Luxembourg).

Figure 1. Difference between U.S. and EU Marginal Income Tax Rates, 1999–2000[a]



Source: Authors' calculations based on data from OECD, Taxing Wages, 1999–2000, 2001.

a. Years are fiscal years, U.S. marginal income tax rate minus a simple average of rates for fourteen EU countries (excludes Denmark) for each income level.

Table 4. Government Expenditure on Subsidies and Transfers, 1870–1998[a]

Percent of GDP

Country	*1870*	*1937*	*1960*	*1970*	*1980*	*1998*
United States	0.3	2.1	5.0	7.5	10.4	11.0
European Union[b]	0.8	6.8	11.5	13.1	19.0	21.0
France	1.1	7.2	14.1	14.8	18.2	21.6
Germany	0.5	7.0	7.0	15.4	20.4	22.0
Sweden	0.7	…	8.6	12.4	21.6	23.4
United Kingdom	…	10.3	9.2	…	…	16.6
Memorandum:						
EU–U.S.	0.5	4.7	6.5	5.6	8.7	9.9

Source: Authors' calculations based on data from Tanzi and Schuknecht (2000), and *OECD Economic Outlook*, no. 68, 2000.

a. Or the closest year for which data are available.

b. Simple average of Austria, Belgium, France, Germany, Greece, Ireland, Italy, the Netherlands, Spain, and the United Kingdom.

Table 5. Comparing the Minimum Wage in the United States and the European Union

Percent

	Ratio of minimum wage to		
		Average manufacturing wage	
Country	*Average wage*[a] *(1991–94)*	*OECD*[b] *(1997)*	*Eurostat*[c] *(2001)*
United States	39	36	34
European Union	53	56	53
France	50	68	63
Germany	55	…	…
Sweden	52	…	…
United Kingdom	40	…	44

Source: Nickell and Layard (1999); OECD, *OECD Jobs Study*, 1994; OECD, *Employment Outlook*, 1999; Eurostat, *Minimum Wages in the European Union*, 2001.

a. As reported in Nickell and Layard (1999). EU average is for thirteen countries (excludes Greece and Luxembourg).

b. EU average is for Belgium, France, Greece, Luxembourg, the Netherlands, Portugal, and Spain.

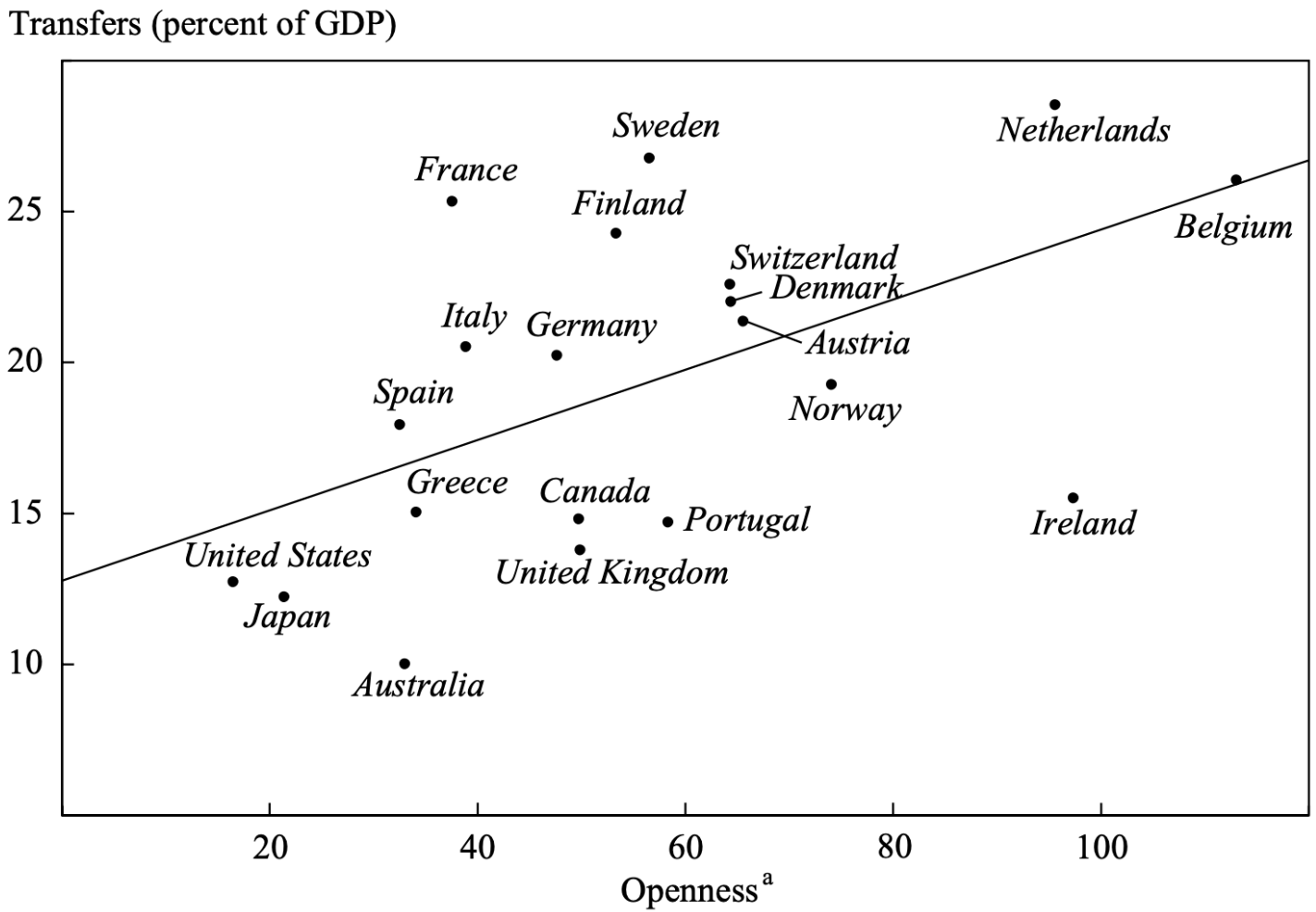
c. EU average is for Belgium, France, Greece, Ireland, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom.

Table 6. Labor Market Regulation in the United States and the European Union
Units as indicated

				Unemployment benefit	
Country	*Labor standards, 1985–93*[a] *(index)*	*Employment protection, 1990*[b] *(index)*	*Minimum annual leave, 1992 (weeks)*	*Replacement ratio, 1989–94 (percent)*	*Duration, 1989–94 (years)*
United States	0	1	0	50	0.5
European Union[c]	5	14	4	59	2.6
France	6	14	5	57	3.0
Germany	6	15	3	63	4.0
Sweden	7	13	5	80	1.2
United Kingdom	0	7	0	38	4.0

Source: Nickell and Layard (1999), and Nickell (1997)
a. Combines several measures of labor market regulation and ranges from 0 to 10, with 10 the maximum.
b. Measures the strength of legal restrictions on hiring and firing and ranges from 0 to 20, with 20 the maximum.
c. Simple average of thirteen EU countries (excludes Greece and Luxembourg).

Figure 2. Relationship between Transfers and Openness in OECD Countries



Source: Authors' calculations based on data for 1960–98 from IMF data and Persson and Tabelling (2001).
a. Sum of exports and imports as a share of GDP.

Table 7. Standard Deviations of Selected Economic Indicators in the United States and the European Union, 1960–2000

Series	*Period*	*United States*	*European Union*
GDP growth	1960–97	0.020	0.017
Labor productivity in manufacturing	1980–96	0.026	0.016
Unemployment rate[a]	1970–2000	0.414	0.220
Competitiveness[b]	1975–99	0.057	0.046
Terms of trade[c]	1971–90	0.086	0.088
Externally induced volatility[d]	1971–90	1.650	7.010

Source: OECD, *OECD Statistical Compendium*, 1999; and Rodrik (1998).

a. Standard deviation divided by the mean.

b. Index of relative export price of manufactured goods. EU average is for France, Germany, Italy, Spain, and the United Kingdom.

c. From Rodrik (1998). This measure reports the standard deviation of the differences in terms of trade (expressed as logarithms).

d. Terms-of-trade volatility times the sum of exports and imports as a share of GDP.

Table 8. Cross-Country Regressions Explaining Transfers with Political Variables[a]

Independent variable	*8-1*	*8-2*	*8-3*	*8-4*
Proportionality[b]	2.150**	1.809*	1.021*	
	(0.656)	(0.728)	(0.421)	
GDP per capita	5.151	5.035	1.823	–0.876
	(3.571)	(3.558)	(1.519)	(0.980)
Openness[c]		0.043	0.032	0.009
		(0.040)	(0.027)	(0.010)
Percent of population over 65	0.753	0.678	1.096**	1.315**
	(0.478)	(0.481)	(0.298)	(0.217)
Percent of population aged 15–64				0.140
				(0.138)
Majoritarian regime dummy[d]				–1.526
				(0.994)
Presidential regime dummy				–0.207
				(1.227)
Asia dummy				2.047
				(2.691)
Caribbean dummy				–0.095
				(2.164)
Latin America dummy			–0.791	1.042
			(3.102)	(1.776)
Summary statistic				
No. of observations	20	20	38	60
R^2	0.58	0.61	0.84	0.82

Source: Authors' calculations using data from Milesi-Ferretti, Perotti, and Rostagno (2001); Persson and Tabellini (2001); and Perotti (1996).

a. Regressions 8-1 through 8-3 use transfers as a share of GDP as the dependent variable and data for 1991–94 from Milesi-Ferretti, Perotti, and Rostagno (2001). Regression 8-4 uses social spending as a share of GDP as the dependent variable and data for 1960–98 from Persson and Tabellini (2001). All specifications include a constant (not reported). t statistics are reported in parentheses. * denotes significance at the 5 percent level, ** at the 1 percent level.

b. Measure of the percentage of a district's vote needed to capture a seat, expressed in natural logarithms. From Perotti (1996).

Table 9. Cross-Country Regressions Explaining Transfers with Ethnolinguistic and Racial Fractionalization[a]

Independent variable	*9-1*	*9-2*
Ethnolinguistic fractionalization[b]	–1.864	
	(2.863)	
Racial fractionalization[c]		–7.538*
		(3.378)
GDP per capita	0.402	1.918
	(1.351)	(1.289)
Percent of population aged 15–64	0.628**	0.327
	(0.210)	(0.184)
Majoritarian regime dummy[d]	–1.381	–2.305
	(1.502)	(1.302)
Asia dummy	–1.770	–0.092
	(3.273)	(4.221)
Caribbean dummy	–4.508	–2.981
	(2.653)	(2.548)
Latin America dummy	–2.733	–2.416
	(1.812)	(1.847)
Summary statistic		
No. of observations	56	55
R^2	0.69	0.69

Source: Authors' calculations using data for 1960–98 from Persson and Tabellini (2001).

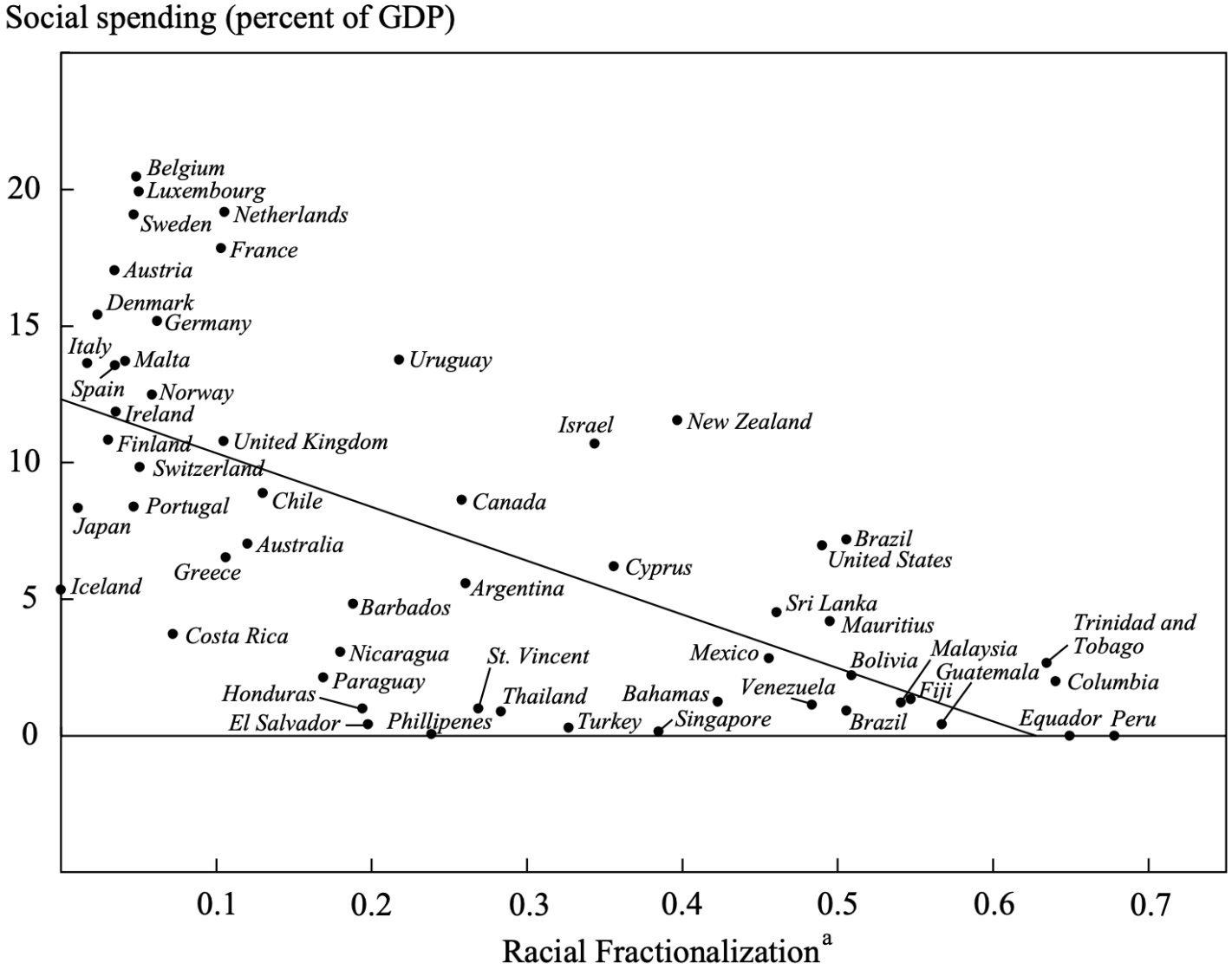
a. The dependent variable for each specification is social spending as a share of GDP. All specifications include a constant (not reported). t statistics are reported in parentheses. * denotes significance at the 5 percent level, ** at the 1 percent level.

b. Probability that two randomly selected individuals from a population speak the same language.

c. Probability that two randomly selected individuals from a population are of the same race.

d. Equals one in a regime where all seats in a district are awarded to the party that wins the district.

Figure 4. Relationship between Social Spending and Racial Fractionalization



Source: Authors' calculations based on data from Persson and Tabellini (2000).
a. Average for 1960–98.
b. Probability that two randomly selected individuals from a population are of different races. Measured over 1990–98.

Table 10. Explaining Support for Welfare in the United States with Racial Variables[a]

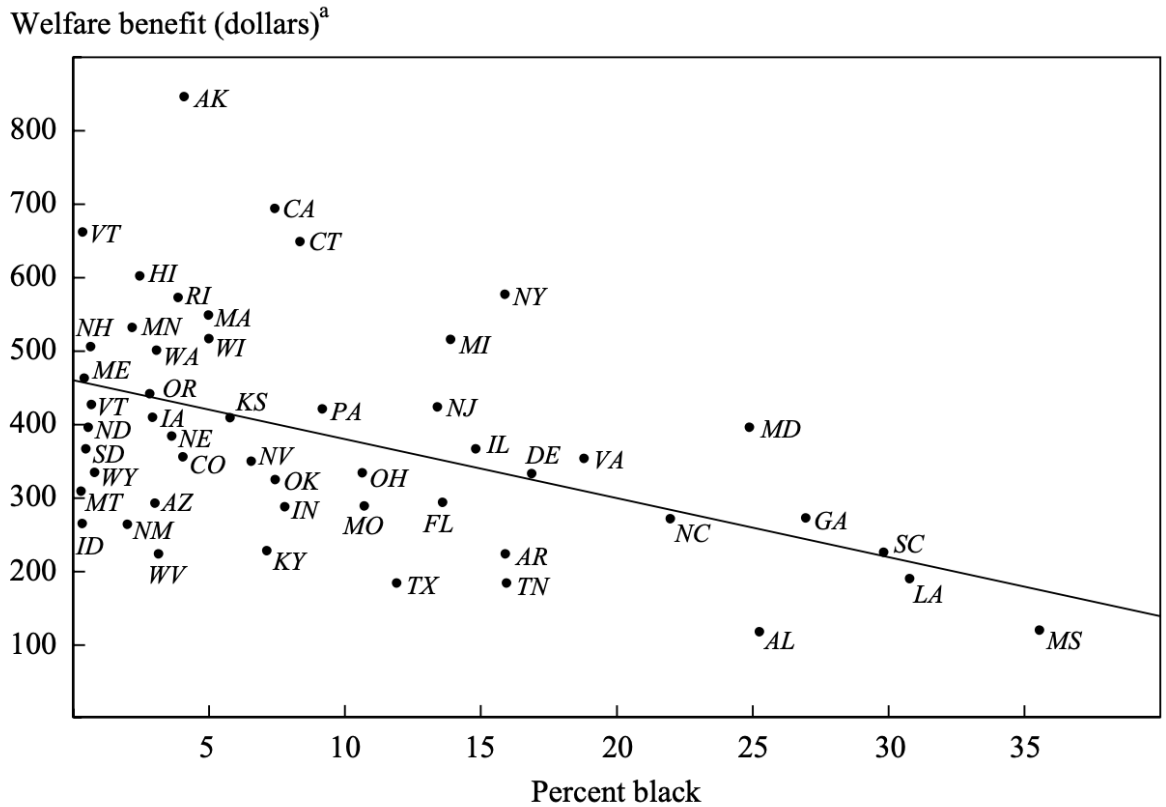
Independent variable	*10-1*	*10-2*	*10-3*	*10-4*
Black	0.232** (28.55)			
Income	–0.020** (19.78)	–0.019** (17.19)	–0.022** (5.36)	–0.018** (13.54)
Female	0.007 (1.35)	0.009 (1.67)	0.032 (1.94)	0.010 (1.39)
Married	–0.033** (5.82)	–0.038** (6.19)	–0.016 (0.91)	–0.036** (4.58)
No. of children	0.006** (3.96)	0.006** (3.38)	0.010 (1.77)	0.007** (3.04)
High school education or less	0.042** (5.84)	0.042** (5.56)	–0.010 (0.38)	0.048** (5.08)
Some college education	–0.002 (0.28)	–0.002 (0.28)	–0.005 (0.21)	0.003 (0.26)
College graduate	0.031** (3.62)	0.030** (3.40)	0.029 (1.16)	0.025* (2.22)
Beyond college	0.106** (8.76)	0.107** (8.65)	0.080* (2.47)	0.133** (8.20)
Population of home city, in logarithms	0.010** (7.77)	0.010** (7.21)	0.011** (2.61)	0.010** (5.90)
Ratio of blacks to total state population		–0.044 (1.14)		
Believe that blacks are lazy[b]			–0.030** (4.27)	
Had a black person over for dinner in the last year				0.043** (5.38)
Summary statistic				
No. of observations	20,848	18,157	1,921	11,048
R^2	0.10	0.04	0.04	0.05

Source: Authors' calculations using data for 1972–98 from the *General Social Survey* (see appendix B).

a. The dependent variable for each specification is respondents' opinions on the current level of welfare spending in their state; possible responses were "too much" (scored as 1), "about right" (scored as ½), or "too little" (scored as 0). Regressions 10-2 through 10-4 use data from white respondents only. All specifications include a constant (not reported). t statistics are reported in parentheses. * denotes significance at the 5 percent level, ** at the 1 percent level.

b. A 0 to 7 index, where 7 is the laziest.

Figure 5. Relationship between Welfare Benefit and the Black Population Share, by State, 1990



Source: Authors' calculations based on data from the *General Social Survey* (see appendix B for details) and U.S. GPO, 1998 *Green Book*.

a. Maximum monthly AFDC benefit for a family of three.

Table 11. Hours Worked in Selected OECD Countries, by Income[a]

Median/mean

Income quintile	*France, 1994*	*Germany, 1994*	*Italy, 1995*	*Nether-lands, 1994*	*Sweden, 1995*	*Switzer-land, 1992*	*United States, 1997*
First (lowest)	39/38	12/26	50/50	0/16	39/35	55/62	35/27
Second	39/41	40/39	40/41	40/35	39/38	44/50	40/42
Third	39/41	40/41	40/40	40/40	39/39	42/46	40/44
Fourth	39/42	40/42	40/40	40/41	39/39	42/46	40/45
Fifth	45/47	44/45	40/42	40/44	39/40	45/50	45/48

Source: Luxembourg Income Study.

a. By males aged 25–54.

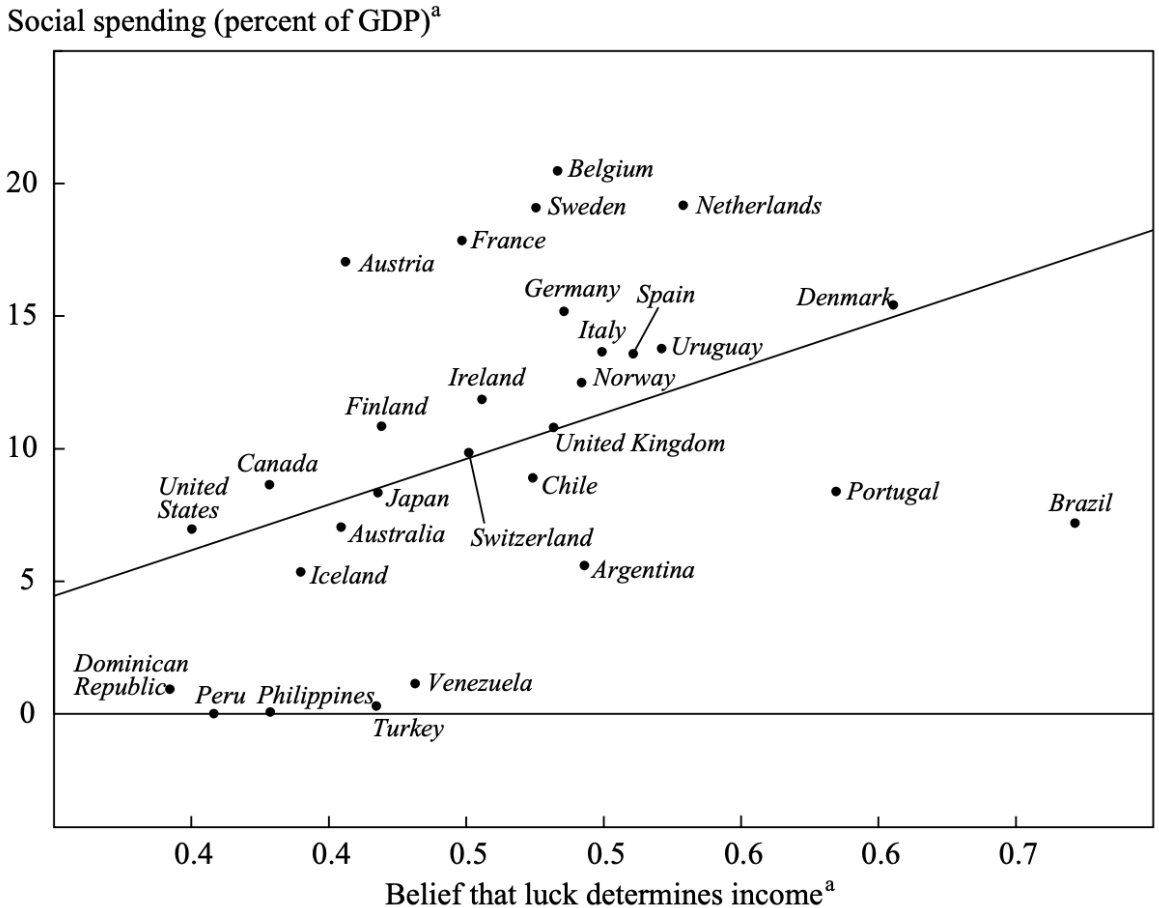
Table 13. Relationship between Leftist Political Orientation and Beliefs about the Poor

Percent

Item	*European Union*	*United States*
Identify themselves as on the left of political spectrum	30	17
Believe poor are trapped in poverty	60	29
Percent who are on the left	34	26
Do not believe poor are trapped in poverty	40	71
Percent who are on the left	27	14
Believe luck determines income	54	30
Percent who are on the left	35	18
Do not believe luck determines income	46	70
Percent who are on the left	25	16
Believe the poor are lazy	26	60
Percent who are on the left	23	11
Do not believe the poor are lazy	74	40
Percent who are on the left	34	25

Source: Authors' calculations based on data for 1981–97 from the *World Values Survey* (see appendix B).

Figure 6. Relationship between Social Spending and Belief that Luck Determines Income, 19XX–XX



Source: Authors' calculations based on data from the *World Values Survey*.
a. Average for 1960–98.
b. An index ranging from 1 to 10 (with 10 the highest) that captures the mean belief that luck determines income for each country. Data for 1981–97.

Structural Racism

- Pager and Small (2020): Sociological Perspectives for Economists
- Organizations can discriminate irrespective of the intentions of their members
- No taste-based discr. or statistical discr
- Example: Referral in labor market + Homophily in Networks
- Okafor (2020): formalization of the idea in networks

Back to what is economics? Social Interactions

Since Becker opened the black box

- Markets
- Governments
- Networks
- Tournaments
- Social identity: collaborative families, competitive countries
- Algorithms
- What else?...

Classical Public Finance Revisited

1. In order to preserve production efficiency, it is not desirable to tax intermediate goods
2. Under certain conditions, it is desirable not to tax capital in the long run... but this can be as long as (quarantine) for centuries
3. Under the threat of political instability and increased automation it is desirable to tax wealth or robots
4. It is unnecessary to tax capital (income) when we can set any nonlinear tax on labor income

Dynamic Public Finance

When there is uninsurable wage risk:

1. It is desirable to tax capital if high precautionary savings are constrained inefficient or if if productivity is unknown to the government

2. If wage inequality increases with age, It is desirable to increase labor distortions with age

3. It is desirable to make the US tax system more progressive, even accounting for performance-based wage contracts

4. Asset testing or retirement benefits that increase in claiming age can prevent disability fraud and premature retirement

Contemporary Topics in Macro - Public Finance

1. In an economy with aggregate shocks, taxes should be iid in complete markets and a random walk in incomplete markets

2. Because of heterogeneous returns to capital it is efficient to tax wealth instead of capital gains

3. Gender and the family contribute to explain recent trends in aggregate labor supply

4. One needs to go beyond market-based theories of discrimination to study racism and the causes of racial inequality

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