ITALIAN LABOR FORCE PARTICIPATION: DISGUISED UNEMPLOYMENT ON CAMPUS [1]

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1. Introduction

Over the past two decades, Italy has been the underperformer in Europe. The average growth rate of Italy in the 1980-1998 period was 1.8 percent against 2.2 for the European Union. More particularly, in comparison with Spain, a country that superficially shares many of Italy's characteristics, there is a stunning growth gap. For a long time the discussion has focused on macroeconomic issues, including, in particular the implications of high debts and deficits as well as misaligned exchange rates. These explanations may go part of the way in helping understand Italy's relative performance. But it is increasingly clear that much remains to be explained, and can indeed be explained by putting a sharp focus on the microeconomics of markets and institutions. It is in this realm that, we claim, Italy functions poorly. It is here that we look for explanations for the performance deficit.

Obviously, this is not a brand new idea. The focus on supply side economics, first emerging in the U.S. in the Reagan years, has indeed been the target for much of public policy research in the past decades, although more so in the U.S. than in Europe. The broad concept here is to identify institutions or policy barriers to economic activity that interfere with the supply of capital and labor to economic activity, including innovation, or with the efficient allocation of resources and the resulting impact on the level and growth of GDP. Typically, the government is the villain and distortionary taxes or regulations, including barriers to entry, are the instruments that hold back performance. But the range of obstacles to improved working of the economy is wider. In the growth literature it is now common to introduce "rule of law" measures as determinants of growth differentials across countries. Barro (1997) investigated the importance of democracy in a growth context. More especially, as much recent work on legal institutions highlights (see La Porta, Lopez-de-Silanes, Shleifer and Vishny, 1998), these differ importantly in the protection they give to investors and, as a result, must surely have a differential effect on investment profitability around the world. If there is no protection for investors, investment suffers since only very primitive forms of capital markets can function. Applications of this approach have already shown their promise in Italy (notably in the work of Tullio Jappelli and Marco Pagano — see Jappelli and Pagano, 2000 and Chiuri and Jappelli, 2000) who show that the quality of judicial processes governs mortgage spreads across Italian regions.

Our work goes in this direction, trying to understand why Italy's labor forces participation rates (see Table 1) are so strikingly lower than those in the European Union.

A lower labor force participation in itself is, of course, an immediate explanation for (other things equal) a lower level of GDP. A downward trending participation rate turns into part of an explanation for a falling growth rate, even more so if it combines with declining population. But there is also a public policy issue: if whatever makes Italy's participation rate low involves a distortion rather than unimpeded choice, then the economy could indeed do better.

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Table 1: Labor Force Participation Rates: 1999, per cent

		Age groups			
	Aggregate	15-24	25-29	25-54	55-64
Italy	59,6	38,1	71,8	73,9	28,9
European Union	69,0	47,8		82,2	41,3
OECD reporting countries, mean			82,3		

Source: OECD *Employment Outlook*, 2000, and *Education at a Glance*, 2000. The OECD reporting countries are: Australia, Belgium, Canada, Czech Rep., Denmark, Finland, France, Germany, Greece, Italy, Netherlands, Portugal, Spain, Sweden, Switzerland, Turkey, U.K., U.S.

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After stripping away a few obvious aspects such as differences in male/female participation rates, we narrow attention to two areas of divergence between Italy and other countries. First and central to our story, Italian youth stay out of the labor force in to their upper 20s—what exactly are they doing? Here Italy is unique. What encourages them not to or prevents them from working? Second, the other part (shown in the last column), prevalent also in some other countries, is the far earlier Italian retirement from the labor force and the accompanying question whether it is mostly a reflection of a vigorous underground economy.

Our story, in focusing on the Italian late bloomers is a surprising one: Italian institutions and culture encourage staying in the University for an extraordinary long period — voluntary quasi-unemployment. Social attitudes and a poorly designed University system conspire to produce a very counterproductive outcome: Students waste their time and lower at the same time the productive capacity of the University. Our subtitle, disguised unemployment on campus, is meant to capture and highlight the important question whether institutions are not severely malfunctioning to the disadvantage of all.

In the perspective of our findings, the university law recently approved by the Italian Parliament, which reduces to 3 years the lenght of first degrees (currently they last between 4 and 6) is right on target. The new law, however, stops short of introducing into the system incentives to shorten the time students spend in university, and does little to change the current open-ended enrollment policy. It thus does little to help make the university more productive, and it force students to consider more seriously their labor market opportunities and strategy.

2. A Look at the Data

This section makes the point that the low labor force participation rate in Italy compared to other countries is importantly explained by the unusually long time spent at university. The data are not exactly aggregated and reported in a way that makes our analysis easy, hence there is a fair amount of detective work to be done.

Table 2 documents the participation rate by age group. The number of Italians who are active in the labor market is surprisingly small. The participation rate is by far the lowest in Europe: 59.6 per cent in 1999, almost ten points below the EU average. Nearly one Italian out of two in the age bracket 15-64 is neither working, nor actively looking for a job. Within the OECD only Turkey has a lower participation rate: in Spain, for instance, the figure is 64 per cent. It is often suggested that women are the reason why the Italian participation rate is so low. As the numbers in the second column of Table 2 show, this is not the only reason. The participation rate of Italian women is indeed very low, but men are also less active: only Belgian and Hungarian men are less active.

The participation rate of Italian men is particularly low at the two extremes: for young men in their twenties (at age 25 the participation rate is 70 per cent, while the EU average is 82), and for those who have reached the mid-fifties — at age 55 the participation rate is 68 per cent, while the EU average is 80. The reason why

Italian men leave the labor force so early is known, early retirement. In 1999, the average retirement age was 55. Italy, however, is not the only European country with early retirement: Belgium and France have even lower participation rates in the age group 55-64. Consider Belgium, for instance. The participation rate in that group is significantly lower for both men and women (34 and 14 per cent respectively, compared with 43 and 15 for Italy) and still the overall rate is five points above Italy: 64.6 compared with 59.6. What explains the gap ?

If neither women, nor early retirement fully explain Italy's exceptionally low participation rate where to look? The roots lie in the youth, in particular among men (and to a lesser extent women as well) in their late twenties who should presumably be out of school and working, or looking for a job.

Among young men and women between 25 and 29 years of age the participation rate is absolutely remarkable. Below that age (in the age groups 15-19 and 20-24) the Italian participation rate is low, but not exceptional: France, for instance, has, in that age group, an even lower participation rate. In the late twenties, on the contrary the Italian participation rate is the lowest in the OECD for men, and the second lowest for women, higher only than that of Turkey. One average, for both men and women, the participation rate in the age group 25-29 is more than 10 points below the average for the OECD reporting countries. In France for instance the participation rate for men jumps from 53.2 to 91.6 percent between the early and the late twenties: in Italy from 60.3 to 80.6 per cent.

Table 2: Participation rates for different age groups
Year: 1999 for the first age group; 1998 for the remaining three.

	Age Groups										
		15-64		15-19		20-24		25-29		55-64	
	M&W	M	W	M	W	M	W	M	W	M	W
Italy	59.6	73.7	45.6	21.1	14.7	60.3	48.6	80.6	62.7	43	15
E.U.	69.0	78.4	59.5								
OECD reporting countries, mean [(a)]				33.7	30.4	72.8	61.8	90.7	73.7		
Turkey	56.2	77.9	34.4	49.5	28.5	6.8	34	96.6	34.7	58	26
Hungary	59.9	67.8	52.3	n. a.	n. a.	n. a.	n. a.	n. a.	n. a.	27	10
Spain[(b)]	63.9	78.3	49.9	28.1	19.6	64	55.1	88.8	74.3	58	21
Portugal	63.9	78.7	62.8	28.5	23.4	61.2	51.5	92.6	82.7	34	14
France	67.8	74.4	61.3	10.6	4.5	53.2	46.3	91.6	91.6	41	31
Germany	71.2	79.7	62.3	35.2	22.7	77.9	68.1	87.3	74.8	56	35
Finland	73.6	75.9	71.2	28.2	34.3	69.2	60.7	85.4	78.2	44	40
Netherlands	73.6	82.6	64.4	56.0	55.5	81	77.8	94.0	82.2	45	20
U.K.[(b)]	76.3	84.1	68.4	63.3	60.2	82	69.7	92.9	64.5	63	55
Sweden[(b)]	78.5	80.9	76.0	19.3	24.5	65.7	58.8	84.5	75.8	72	64
U.S.A.	77.2	84.0	70.7	42.3	40.0	81	73.3	92.7	77.6	68	53

(a) See Table 1.
(b) the first age bracket is 16-64.
Source: OECD: Employment Outlook, 2000 for the first and last age bracket; Education at a Glance, 2000 for the other.

Not only is the participation rate of young men in Italy low by OECD standards: in the past thirty years, it has declined significantly. As shown in Figure 1, between 1970 and 1998 the participation rate of young men in the age bracket 25-29 has fallen by 16 points: from 95 to 79 per cent. The participation rate of younger people (aged 20-24) has also fallen, but by slightly less, 12 points. A drop in participation in the late twenties can hardly be attributed to an increase in schooling, especially since most of the fall takes place during the 1990's, a period during which there was no change in schooling laws. Figure 2 shows what happened in the

past ten years: the participation rate falls for all groups between age 22 and 30, and by an average of 10 points. Figure 3 shows the same numbers for young women. For this group as well the participation rate, after rising rapidly until the early 90's, falls significantly—though in the age group 25-29 the fall is much smaller than for men.

3. The Story

Our story focuses on students, young people in their 20s who show an unusually extended attachment to university status and as a result are reported as out of the labor force. Italians enter university at age 19. The *average* age at the time of leaving university is fully 27.7 years. That might lead one to expect that degree completion is the rule. Surprisingly, the opposite is the case. The extent of degree completion is quite poor. In fact, two thirds of students drop out without completing a degree. Lastly, extended student status translates neither into important relative wage gains nor into significant post-university employment probability. What exactly is going on ?

Our explanation focus on a number of elements coming together in keeping young people in the university rather than in the labor force.

- The labor market has important informal characteristics, quite unlike monster.com. Jobs are passed on within the network rather than widely advertised and traded like fresh fish. *Job search is passive*. Therefore waiting for a job is an inevitable outcome and the question is how to structure that waiting most productively.

- Student status serves as a *signaling device* for potential employers. It looks a lot better to be a student than to be plain unemployed.

- *Student status is an option*: pending the arrival of jobs, students can make an advance toward a degree and with that become eligible for whatever wage differentials or improved employment opportunities come with it. As it were, if a good job arrives, they drop out. If it does not, they get a degree in sociology and stay unemployed and keep waiting.

- Families like the appearance given by student status, even though it may not be much different from unemployment. It is preferable simply because *socially student sounds better than unemployed*.

- *The university lends itself to the "game"*: no restrictions on the time enrolled or on the number of times any particular exam can be taken and the absence of significant university fees facilitate or even encourage extended student status as part and parcel of the passive job search process.

The various pieces, in ways to be documented below, add up to suggesting that students will stay longer in university than would be the case if anyone of these features were absent. Also, they will tend to drop out more (if and as a job appears). Because degrees do not correlate with human capital, the premia are not important since and unemployment is quite common. Indeed, a firm must ask whether a 30-year old graduate is basically an unskilled long-term unemployed.

The public policy implications are immediate: the absence of effective rationing in the university lowers productivity radically. A misconceived sense of education for all and forever means that motivated and talented students are short-hanged. There is also a question whether a more effective labor market and German-style apprenticeship programs would not do much to head off what for many young people is bound to be a long and unproductive absence from on-the-job-training.

4. Students and the Labor Market

Central to our paper is an attempt to understand why young Italians (men in particular) wait so long before deciding to join the labor market. The average age at which Italian students complete their university degree was, in 1999, 27.7. Could it be that the low participation rate in the age group 25-29 is simply the reflection of the an extraordinary large proportion of persons who, in the late twenties, are still full-time university students ?

Before addressing these questions it is instructive to compare the Italian participation rates (for men and women respectively) with the numbers for the United States: this is shown in Figures 4 and 5. The data are from the 1995 Bank of Italy Survey of Italian Households, and the 1993 PSID for the United States. We use these surveys, rather than OECD statistics, since they allow a much closer look at what happens at each age—the OECD data aggregate the group 25-29, but there is a big difference between joining the labor force at the two extremes. Italian men reach the same participation rate as U.S. men six years later: the 80 per cent level is reached at age 22 in the U.S., at age 28 in Italy. At the other end, at age 60, the participation rate of U.S. men is till 80 per cent; at the same age that of Italian men has already fallen to 50 per cent. The same data also tell us that in-between Italian men are less likely to leave the labor market (to go back to school, for instance): the participation rate stays close to 100 per cent between ages 35 and 50, while it never rises above 90 per cent in the U.S.. The situation for women is similar, although the spike for Italy in the late thirties suggests that Italian women tend to have children later in their lives.

Who are the "young" Italians (two out of ten) who at almost age 28 have not yet joined the labor force? Figures 6 and 7 show the participation rate by age for men and women, respectively—the data are from the Bank of Italy survey. *The amazing fact is that at age 27 some twenty per cent of young men are still out of the labor force.* And the phenomenon is practically identical across regions. The high unemployment rate of the South (18,2 per cent for young men in 1999, compared with 4 per cent in the North) is not matched by a corresponding difference in participation rates. This is not true for women: living in the South lowers their participation rate. Mandatory military service is part of the explanation: but the service lasts 10 months, hardly enough to explain the low participation rate of men aged 27 and beyond.

OECD data confirm our hypothesis: Italians stay in the university for a remarkably long time, *and* during those years are out of the labor market. Table 3 shows the education and work status of young men and women in the age groups 20-24 and 25-29, in 1998. Italy is close to the average in terms of the number of people who, in the late twenties, are still registered students. What stands out is the low proportion of these late students who are active in the labor market. In Italy, essentially none of them works, even part-time, compared to almost one out of two in the rest of the OECD reporting countries.

Non-working students thus appear to constitute an important group of those who in the late twenties are still out of the labor market. This however is not the entire story. The number of young men in their late 20's who are not students, and not in the labor force is also twice as high as in the OECD.

Once again women are not the source of the problem. Although the female participation rates are lower in Italy then elsewhere, the differences are smaller than in the case of men.

Table 3: Youth education and work status, 1998
(per cent of age group)

Men	In education	In education, Not in the Labor Force	Not in Education, Not in the Labor Force	Total, Not in the Labor Force	In Education, Employed
Age 20-24					
Italy	27,9	27.1	12.6	39.7	0.3
Other Countries*	33,7	21.6	5.6	27.2	10.2
Age 25-29					
Italy	12,1	11.4	8.0	19.4	0.2
Other Countries	11,8	5.1	4.2	9.3	5.5

Women	In education	In education, Not in the Labor Force	Not in Education, Not in the Labor Force	Total, Not in the Labor Force	In Education, Employed
Age 20-24					
Italy	37,0	35.2	16.2	51.4	0.4
Other Countries*	36,5	23.3	14.9	38.2	11.3
Age 25-29					
Italy	12,2	11.5	25.8	37.3	0.2
Other Countries	12,0	5.2	21.1	26.3	5.3

* Mean of the group of reporting countries, see Table 1. Source: OECD: Education at a Glance, 2000.
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To further understand who are the young people who at age 27 keep being out of the labor force, we use the data from the 1998 Bank of Italy Survey. The survey covers some 20,000 individuals: among them 1,812 belong to the age group 25-30, almost exactly the same number of men and women (see Table 4.). Of the youth in this group, 458 (one out of four) are neither working, nor actively looking for a job: 16.5 per cent of the men, 34,2 per cent of the women. The survey classifies people who are neither working, nor looking for a job in four categories: students, independently wealthy, serving in the Army, or individuals who live out of a disability pension.

As shown in Table 4, students are by far the largest group among those out of the labor force: if we exclude married women (they are 168, assuming that childbearing could be one important reason for them being out of the labor market) we are left with 290 persons. Among them 253 are students, 87 per cent, almost the same percentage for men as for women. If we exclude married women, the Italian persons in the Bank of Italy sample who in their late twenties are still out of the labor force are mostly university students. [2]

[2] This is different from the OECD data. One possible explanation is the different source of the data: the OECD uses the Labor Force Survey (Indagine sulle Forze Lavoro) conducted by Istat, a different panel from that of the Bank of Italy. A relatively large fraction of students among those out of the labor force in their late 20's seems confirmed by the regression reported later, in Table 10. Using the ISTAT survey we find strong evidence suggesting that non-participating persons are mostly students.

Table 4 further documents the labor force status of the youth in the Bank of Italy sample. Out of the 253 students in the age group 25-30, only 30, in 1998, had actively looked for a job. The most common answer to the question why they had not looked for a job, even a temporary one, was “I am a student.” Not only they had not actively looked for a job during 1998: most of them, 216 out of 253, had never worked in their entire life.

Table 4: Composition of the 1998 Bank of Italy Sample

	Age Group							
	25-30		26-30		27-30		28-30	
	M	W	M	W	M	W	M	W
Total # of individuals in the sample	915	897	753	750	595	593	451	428
among which:								
- unemployed	67	34	57	28	50	24	36	18
- seeking first job	107	137	92	120	65	93	38	66
- out of the labor force	151	307	105	250	68	190	43	132
of which:								
- students	132	121	90	81	59	47	37	30
- non-married women		139		97		58		36
per cent of students among those out of the lb. force excl. marr. wom.	87	87	86	84	86	81	86	83

Table 5 shows the results of a probit regression run on the Bank of Italy sample. The coefficients measure the probability of being out of the labor force in various age brackets. We only consider individuals who have completed their high-school degree. We report the results for two age groups, 20-25 and 28-30; for the latter group we also compare the coefficients with those obtained using the sample from the 1995 survey. Each regression also includes a constant and variable that identifies men doing their military service (this is dropped because of collinearity).

Consider first the age group 20-25. Sex and the fact of living in the South are not statistically very strong, but a higher family income significantly increases the probability of being out of the labor market. For given family income, however, the higher the number of people working in the household, the higher the chances that a person is active in the labor market: the participation rate increases by about 22 per cent. It thus makes a big difference whether family income increases because single wage-earner earns more (this lowers the participation rate of the youth in the household), or because one more person works in the household (which instead raises it.) The participation rate also increases (by about 23 per cent) as soon as you stop living with your parents, and are thus reported as ‘Head of Family ’. It also increase when you graduate. Marriage, for women, lowers the probability of being out of the labor force: this effect is significant, and stronger for relatively younger married women, in the 1998 Survey. It goes, however, in the opposite direction, significantly, in the 1995 Survey—probably a reflection of different labor market conditions.

What the data describe, in the age group 20-25, are people who attend university without working, even part time. They live at home, in a small, relatively well-off family, with a father who works and a mother who does not work and takes care of them.

How do these results change as you move to older age groups ? Consider the age group 28-30: we choose this bracket remembering that the average age at which Italian students complete their university degree is above 27. In this group income is no longer a critical factor, nor is sex, but the number of people working in the household remains very important. Two variables whose effect was not relevant in the younger group,

now become statistically significant: marriage, for women, and living in the South. Comparing these results with a similar regression using data for 1995, the findings are confirmed, except for the regional variable: living in the South makes a bigger difference in 1998 than it did three years before.

Table 5: Probability of being out of the labor force in the 20's, if you have an high school diploma

	1998 Survey		1995 Survey
	Age 20-25	Age 28-30	Age 28-30
Woman	.03 (0.3)	- .03 (.04)	- .03 (.03)
Married woman	- .27 (.08) **	- .04 (.04)	.10 (.05) **
Head of family	- .23 (.12) *	- .17 (.02) ***	- .14 (.02) ***
Age	- .03 (.01) ***		
University degree completed	.03 (.07)	- .07 (.03) **	- .09 (.02) ***
North rel. to Center	- .04 (.04)	- .01 (.04)	- .05 (.03)
South rel. to Center	- .05 (.04)	.02 (.04)	.02 (.04)
Family income	.26 (.04) ***	.06 (.05)	.05 (.04)
# working family members	- .22 (.02) ***	- .16 (.02) ***	- .09 (.02) ***
No. of observations:	889	509	575

Note: Probit regression on data from the 1998 and 1995 Bank of Italy Surveys of Italian households. The probit includes a constant and a dummy that identifies individuals who are doing the military service. Coefficients are computed so as to show the marginal effect of each RHS variable.
* denotes a coefficient significantly different from zero at the 10 per cent level
** denotes a coefficient significantly different from zero at the 5 per cent level
*** denotes a coefficient significantly different from zero at the 1 per cent level

4. Who Attends University in Italy and with what Prospects ?

In the Bank of Italy sample over 80 per cent of all persons who in the late twenties are out of the labor force are students. To understand why they are still going school at such a late age, Table 6 compares university attendance across the OECD. There is nothing special in Italy in the number of young people who enter university: enrollment rates are in line with the rest of Europe, and so is the age at registration—if anything late registration (typically after a spell of employment) is very unusual in Italy, compared, for instance, with Sweden or the U.K. Italians enter university early, typically immediately after they leave high school. The nuber of years formally required to complete a typical degree is also in line with other Continental european countries.

What is extraordinary is the dropout rate: only one out of three completes a degree. This figure remains high even if we correct for those persons who abandon during the first year—since registration is almost free, many enroll before having seriously thought whether they really want to get a degree, and abandon very soon. Correcting for the 20 per cent who abandon early, the dropout rate remains high: almost one in two. (This figure, though, is not directly comparable with the same figure for France, since we do not know how many in France abandon early.)

The high dropout rate explains why an enrollment rate that is not far from the OECD average, results in a percent of people with university degrees much lower than in other countries. Compared with Spain, for instance, the Italian population in the age group 25-34 has half the graduates, although the enrollment rates are identical.

Table 6: How many students enter university and at what age ? (1998)

	Per cent registering (a)		Age at registration		Years required to complete a typical program	Dropout rate	Per cent of popul. age 25-34 with a university degree
	M	W	(b)	(c)			
Italy	37	47	19.7	20.7	6	65	9
France					5	45	15
Germany	28	28	21.4	24.4	6	28	14
Spain	36	46	19.3	22.5	n.a.	n.a.	21
Netherlands	50	54	19.9	23.3	n.a.	30	27
Finland	49	67	21.4	25.5	5	25	14
Portugal					3	51	8
Sweden	50	69	22.2	29.5	n.a.	n.a.	10
U.K.	45	51	19.6	26.0	3	19	17
U.S.A.	40	48	19.6	26.4	4	37	27

(a) University excluding professional post-secondary education
(b) 50 percent of entrants are below this age
(c) 80 percent of entrants are below this age

Source: OECD: Education at a Glance, 2000.

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The high dropout rate suggests that maybe graduating is not worth the effort. The data in Table 7 seem to confirm this. Among the OECD countries, Italy is the only one for which the chances of being unemployed *increase* significantly after graduation. The difficulty at finding a job after graduation is confirmed in Table 8: two years after graduating only one former student out of three has a job. The rest are unemployed or often have registered for another degree.

Table 7: Unemployment rates of the age group 25-29 by educational attainment, 1998

	University degree	Upper secondary and professional	Below upper secondary
Italy	27.0	18.6	18.9
France	11.1	15.4	26.7
Germany	4.9	7.7	20.4
Belgium	5.7	11.4	20.9
Netherlands	1.5	1.9	5.9
Denmark	9.5	5.9	10.4
Spain	28.6	21.9	24.6
Portugal	8.1	5.1	5.1
Finland	8.5	15.4	23.5
Sweden	3.4	10.2	21.2
U.K.	2.9	7.3	19.8
U.S.A.	1.9	6.3	12.1
OECD average	7.7	9.0	15.2

Source: OECD: Education at a Glance, 2000.

Why in Italy is it so difficult to find a job after graduating ? One explanation is that Italian graduates are old relative to their useful skills: as we already mentioned, the average graduation age is 27.7, and not because students register late, perhaps after a spell of work—remember (from Table 6) that late enrollment is a rare

event in Italy. The labor market is thus faced with mature "persons", with no work experience (we learned this in Table 3), hardly the types who jump to the top of a hiring queue.

Table 8: The time it takes to find a job after graduating
(percent of all graduates)

	Employed	Looking for a job	Not looking
One year after graduation[(a)]	62	25	13 (*)
Two years after graduation[(a)]	67	14	18
Three years after graduation[(b)]	73	22	5

(*) Most of them (10 per cent) have registered in another degree program.
Source: (a) ISTAT, Indagine sulle forze lavoro
(c) Almalaurea, Condizione occupazionale dei laureati 1997 e 1998.
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The higher chance of remaining unemployed after graduation is not matched by a corresponding higher income in the event one finds a job. As shown in Table 9, the relative earnings of university graduates in the age group 30-44 are not particularly high—certainly not enough to compensate for the longer expected spell of unemployment after graduation.

Flabbi (1999) and Brunello, Comi and Lucifora (1999) estimate the returns to education in Italy: they find that once one corrects for simultaneity using instrumental variables, the returns to schooling in Italy are not very different from those estimated for other countries. These estimates, however, look at the earnings of those employed without considering the time it takes to find a job, or the age at which Italian students complete their degree. The high unemployment rates among graduates suggest that if one corrected those estimates by age and by the *expected* time-to-first employment, one would find significantly lower returns to schooling.

Table 9: Earnings of university graduates in the age group 30-44, relative to the earnings of high school graduates in the same age group.

	Men	Women
Italy (1995)	161	133
France (1998)	175	168
Germany (1997)	144	159
Netherlands (1996)	129	145
Denmark (1997)	139	144
Spain (1995)	158	156
Portugal (1997)	193	205
Finland (1996)	174	172
Sweden (1997)	135	121
U.K. (1998)	157	192
U.S.A. (1998)	182	191

Source: OECD: Education at a Glance, 2000.
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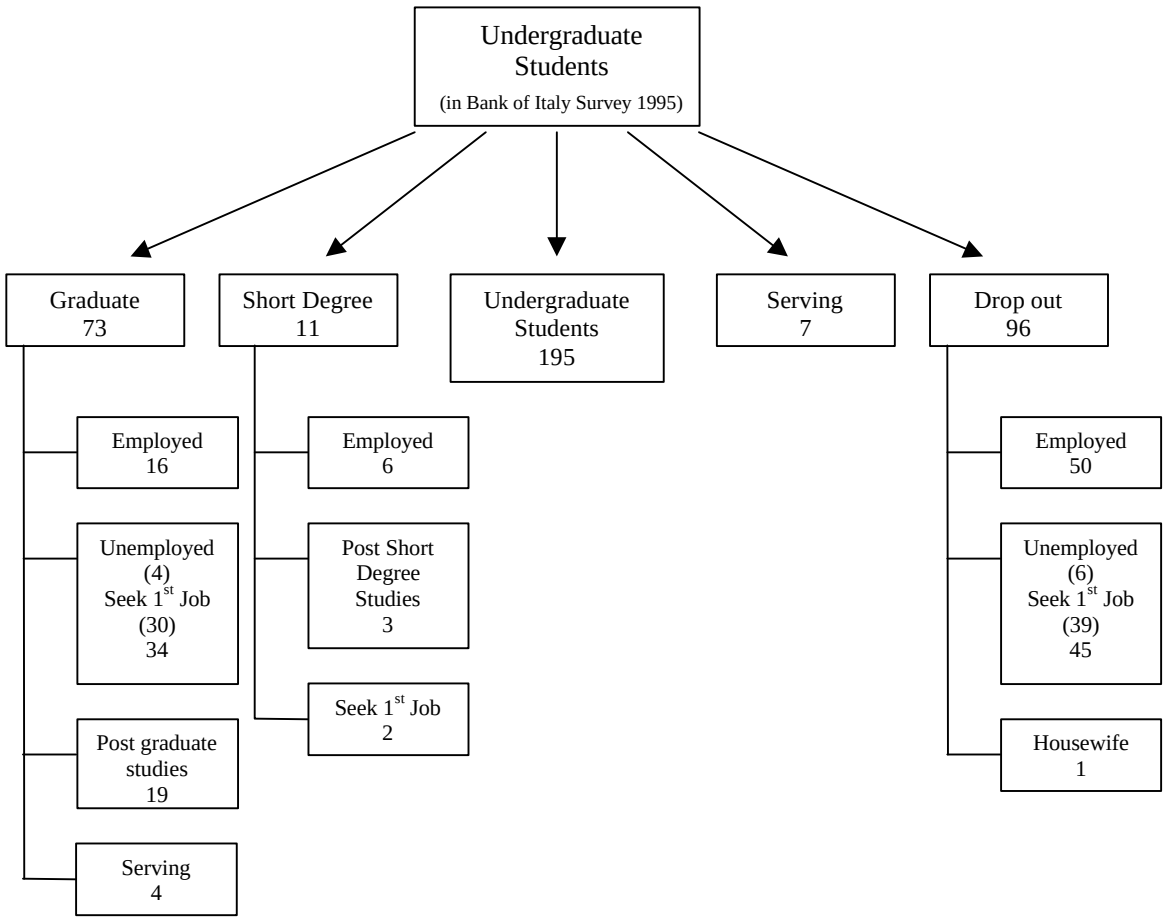
5. An Interpretation: Being a student is just buying an "option".

The picture that emerges so far is one of very irrational educational choices. Are they really ? There is an alternative explanation for the phenomena we have described. If the status of student is a better job market ticket relative to that of being unemployed, sitting in a university could be an efficient job-search strategy. This is particularly true if finding a job is more of a social activity, than an organized labor market: you don't really need to search; jobs turn up via relatives and acquaintances all of whom know that most students are really waiting for a good job offer. Registering for a university degree is thus like buying an option. If a good job offer comes around—good compared to the uncertain job prospects of university graduates—students abandon; otherwise they continue. The high dropout rate is consistent with this interpretation.

To check whether the data support this hypothesis we pursue two separate routes. First we follow the labor market experience of a group of university students present in the 1995 Bank of Italy Survey, by checking what their status was three years later. We expect most dropouts to have a job. Second, we run a regression of labor force participation on unemployment and on a measure of the cost of attending university. We expect the number of those out of the labor force to increase with unemployment, for a given cost of being registered. Higher unemployment means that fewer students exercise the option of dropping out, thus the overall number of those registered increases—and so does the number of those out of the labor force, since they are mostly non-working students.

Table 9 shows the status, in 1998, of the 384 university students included in the 1995 sample (out of a total of 1,065) who were also interviewed in 1998. In this experiment we were thus able to follow 36 per cent of all the university students present in the 1995 survey.

Table 9: Education and work status in 1998 of a group of 384 individuals who were students in 1995 and 1995 and 1998



The experiment, however, should be considered with caution since people who are interviewed in two consecutive surveys are volunteers who have not changed their address: the sub-sample we consider thus underestimates mobility, including of those who graduate. One out of two of these 384 individuals, three years later was still a student, meaning that she/he had neither graduated, nor exercised the option of dropping out. Among the 20 per cent who had graduated, only two out of ten had a job. 25 per cent had exercised the option of dropping out: not all of them, but the majority (60 per cent) because they had found a job.

We next turn to the regression. Since cohorts change over time, a time series regression (extending, say, over 25 years) of participation ratest on unemployment would need to include variables that describe how cohorts change from one year to the next, as well as variables capturing the trend in university enrollment. We decided instead to use a panel drawn from the 103 Italian provinces in 1998. University registration is essentially free in Italy: this does not mean, however, that the cost of attending university is zero. It is close to zero if the campus is within a daily commute from home; otherwise students must move out of their home, and the cost can rise sharply. Note that, in the option view, it is never optimal to sit around doing nothing: it may happen that no job turns up and a student in the end must complete the degree. Thus enrolling and never showing up at the university is not an optimal strategy.

Table 10 reports the results from this regression. The dependent is the per cent of those out of the labor force in the age groups 15-24, 20-24 and 25-29. On the right hand side we have youth unemployment, geographical variables (North vs. South), the income of the region where the province is located, and two dummies identifying provinces that have a local university, or a local campus of a university whose main location is in a different province.

As youth unemployment increases the participation rate falls. The presence of a main university campus in the province is an important factor in determining the decison to seek a job. As unemployment rises, options are not exercised and the time spent in the university lengthens.This finding is consistent with the hypothesis that universities are perceived as a good place where to hide when unemployment is high—so long as they are essentially free. In the few provinces without a university (and thus where being a student is relatively more expensive) the incentive to hide in a university is weaker. [3]

Table 10: What affects the decision not to seek a job ?

Dependent variable: people out of the labor force in various age groups

	Age groups		
	15-24	20-24	25-29
- Youth unemployment	1.1 (0.4) ***	1.4 (6.2) ***	1.5 (6.7) **
- Presence of a main university campus in the province	39.2 (7.8) ***	33.8 (12.3) ***	36.0 (13.3) ***
- Presence of a local campus in the province	16.8 (9.5)*	14.6 (15.1)	15.6 (16.3)
No. of observations:	103	103	103

Note: The regressions also include the following variables, none of which, however, turns out to be significant: the income of the region where the province is located, and a dummy for the geographical location of the province: North vs. South. Data from the Eurostat and ISTAT , Indagine sulla Forza Lavoro.
* denotes a coefficient significantly different from zero at the 10 per cent level
** denotes a coefficient significantly different from zero at the 5 per cent level
*** denotes a coefficient significantly different from zero at the 1 per cent level

[3] This regression uses the same ISTAT data used by the OECD. The observation that those out of the labor force appear to be mostly students confirms the finding in the Bank of Italy sample. See footnote 2.

6. Is The Italian System Inefficient?

To start our discussion it is worth highlighting three models that help benchmark what happens in Italy. One is the classical model of job market matching. In this rendition job placements are "matches" that result from an active search of potential employers and employees. It is common to see, for example in the US, that employees quit their job to be in a position to search more effectively and thus raise their chances to find a good job sooner or a better job. The Italian situation we have reported on is, of course, the opposite. Job search by the young is an incidental activity and so is human capital formation – neither is done with full commitment and, as a result both are likely to be relatively inefficient. Given the structure of the market students function in, this may be the best they can do but that does not mean the system works as well as it could.

The paradigm to bear in mind is the Harris-Todaro model of migration to urban unemployment in developing countries. (See Harris and Todaro, 1970) The observation is that urban wages are higher than those in the country side (by more than a cost of living adjustment) but at the same time there is significant urban unemployment. The migration decision is efficient: migrants equate the expected urban wage – the probability of locating a job times the urban wage—to the wage in the country side. The resulting "equilibrium" unemployment would seem to be a misallocation of resources, but individual decision making is flawlessly rational. One cannot escape the parallel that the urban unemployed in poor countries have their counterpart in the Italian youth hanging out in the university. Like the urban unemployed, they may act optimally, but they do impose a cost by not sharing in the tax burden and congesting social benefits, notably the university.

The third conceptual framework relevant to our discussion is the economics of human capital and the recognition, starting from the work of Mincer and Becker, that experience and on the job training are important elements in explaining employment status and earnings performance. In Italy where students join the labor force extremely late — long studies and no accompanying participation in the labor force — experience is absent and on the job training starts extremely late.

To get a grasp of the efficiency of the equilibrium the focus has to be put on a few institutional features that are central to creating inefficiency. They come from two sides: There are first the labor market institutions which give too much room to the network appropriate in a village, no longer relevant to a modern urbanized society with a rapidly changing structure of employment opportunities. An active market for jobs communicates information which is essential to the reservation demands that go into making matches. This is all the more important in a situation of structural change where there may be dramatic misalignments between the available jobs on offer and skills demanded on the employers' side, and the available skills and reservation demands of potential job holders. In a situation where "good" jobs disappear – public sector, manufacturing—the result of an informal system is to lead to more protracted unemployment. The stark opposite of the Italian market is monster.com in the US—a website for jobs and salaries.

The failure of labor market institutions is certainly exacerbated by a misguided effort of parents to shelter their children from a disappointing job experience. The subsidy in the form of housing and living support makes it far easier to endure more protracted quasi-unemployment by hanging out in the university.

A central part of the story must, of course, be the university. This is where the dramatic inefficiency lies. On one side the university is tightly regulated with "one-haircut-fits-all" laurea program, on the other side it is dramatically inefficient in supporting open-ended enrollment and exam-taking. Knowledge is a public good, the university certainly is not. The dilution of resources by an excessively large and insufficiently motivated student body hurts those who are talented and achieving; it implicitly cross subsidies those who buy option tickets or just status symbols. Indeed, since an important part of the student body does not have primarily academic objectives, their influence as a group is to lower standards and requirements and to reduce the signaling potential of an academic degree. This extends to public policy: education for all, unrestricted and open-ended sounds good and it is in fact the opposite – politicians and bureaucrats in charge of universities is just about the worst situation one can imagine.

The lack of demanding standards – fixed time period for degree completion, at most "three times and you are out" for exams—like in every other aspect of life from sports to business— over-enrolment and underperformance. Two out of three students drops out, and they all know the chance of dropping out: hardly the best incentive to invest in one's education. The teachers and the universities, too, face low incentives. This may explain why the expenditure per registered student in Italy is so low (see Table 11.) Who pays for all this are the few students who register because they always wanted to a degree: they are cross-subsidizing those who use the university as a parking lot. Hardly the best environment where to build up human capital, or where to produce top quality research.

Table 11: Expenditure per student in public and private universities, 1997
(U.S. dollars converted using PPPs)

	Expenditure per Student	GDP per head
Italy	5,981	21,265
France	7,040	21,293
Germany	10,083	22,049
Netherlands	10,028	22,142
Finland	7,192	20,488
Spain	5,217	15,990
U.K.	8,169	20,483
U.S.A.	17,466	29,326

Source: OECD: Education at a Glance, 2000 and Main Economic Indicators.
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Any plausible reform of the education system must go in three directions. First, an early phase-in of a separation between programs that combine schooling and on the job training (as in Germany) on one side and an academic degree-oriented program on the other. Future plumbers do not need sociology or political science; they would be better served with a modern education on business tools. Second, overly structured many-year degree programs leave too little flexibility and encourage dropping out without certification. There should be far more variety in programs so as to allow students to gain *some* certification and then move on swiftly to the labor market. There should be strict limits on time spent and on exam retaking. There ought to be fees and fellowships rather than blind and pervasively destructive cross subsidization. Reforms under discussion now are urgently needed. The new Italian university law makes far too few steps in this direction: no limits to enrollment, no limits to time spent on campus, no limits on exam retaking.

Education reform is essential not just to make the university a better place, not just to reduce the quasi-unemployment which is not in the interest of students or society, but for another important reason. Up to 10 years spent not working (after a good high school initiation to discipline and learning) cannot but leave its mark. It is important to note that the qualities required to hold a job and succeed at it are quite different from what students are being trained to by the culture of a university without standards.

Public policy reasons to attack and reform the existing system abound. Social security is an obvious reason for being interested in this question. For the sustainability of the system, the late entry of the young in the labor force is as important a reason as early retirement. But there is a deeper question: is absence from the labor force really productive? Are all the young people who wait so long before joining the labor force, in the process of accumulating valuable human capital, that will eventually show up in improved productivity, or are they the wasting some of the more productive years of their life?

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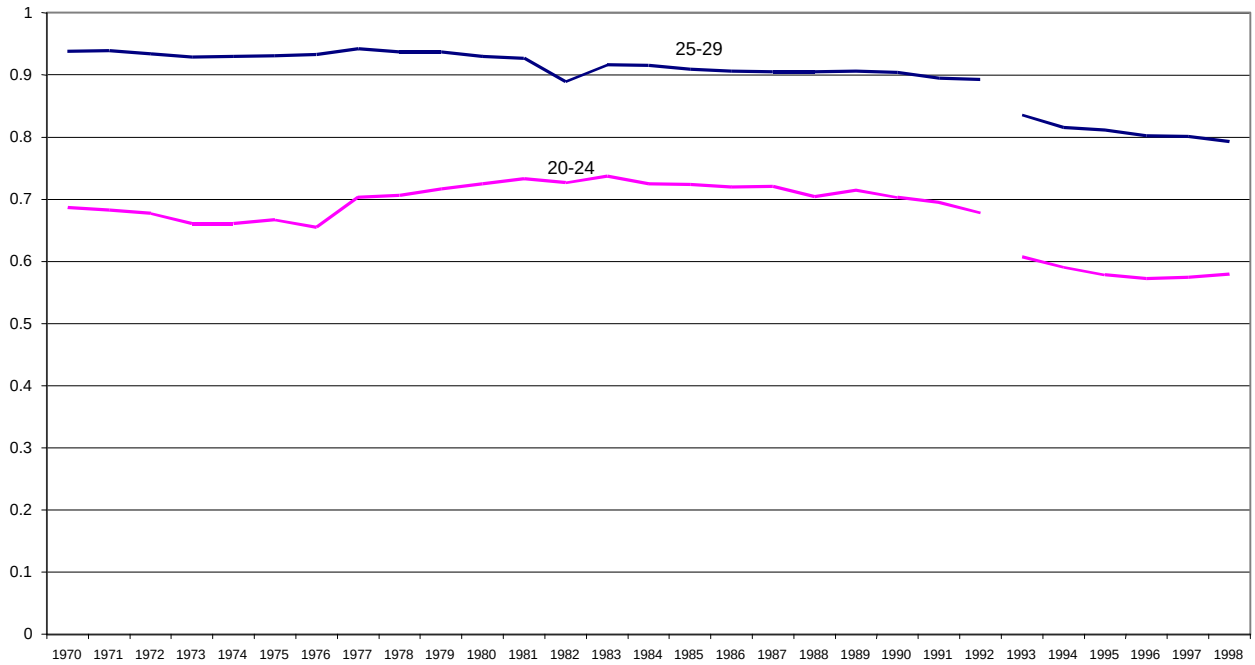
Figure1:

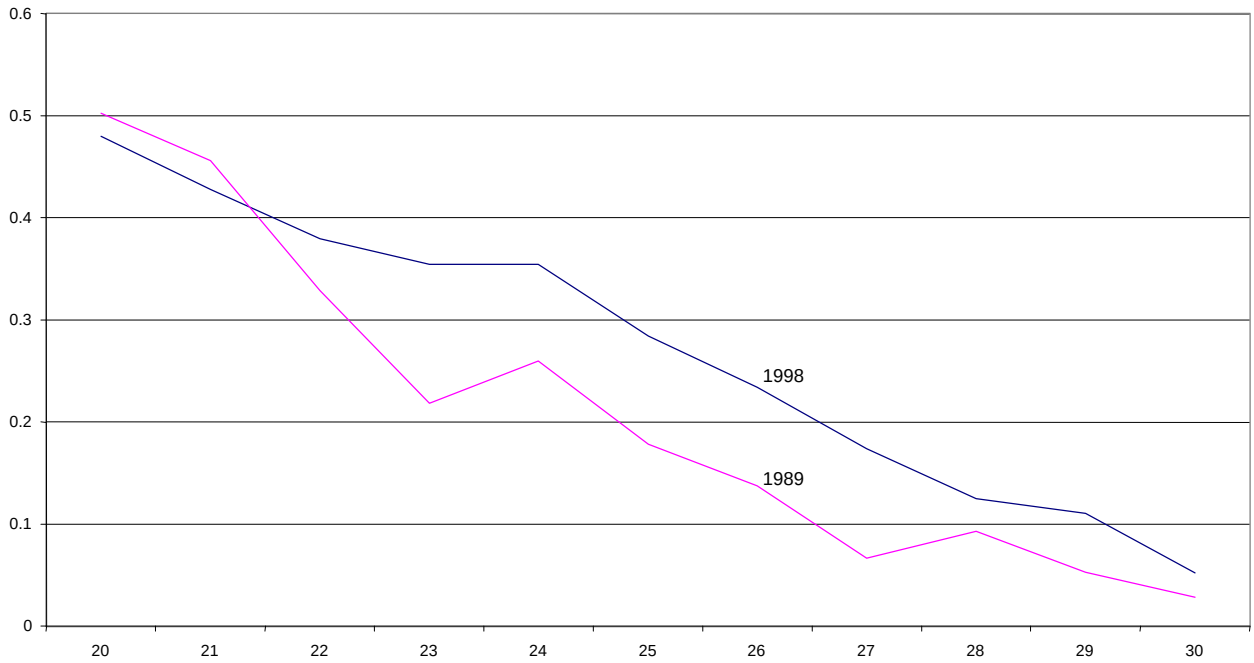
Italy - Youth Participation Rates: men, 1970-1998



Source: OECD

Figure 2:

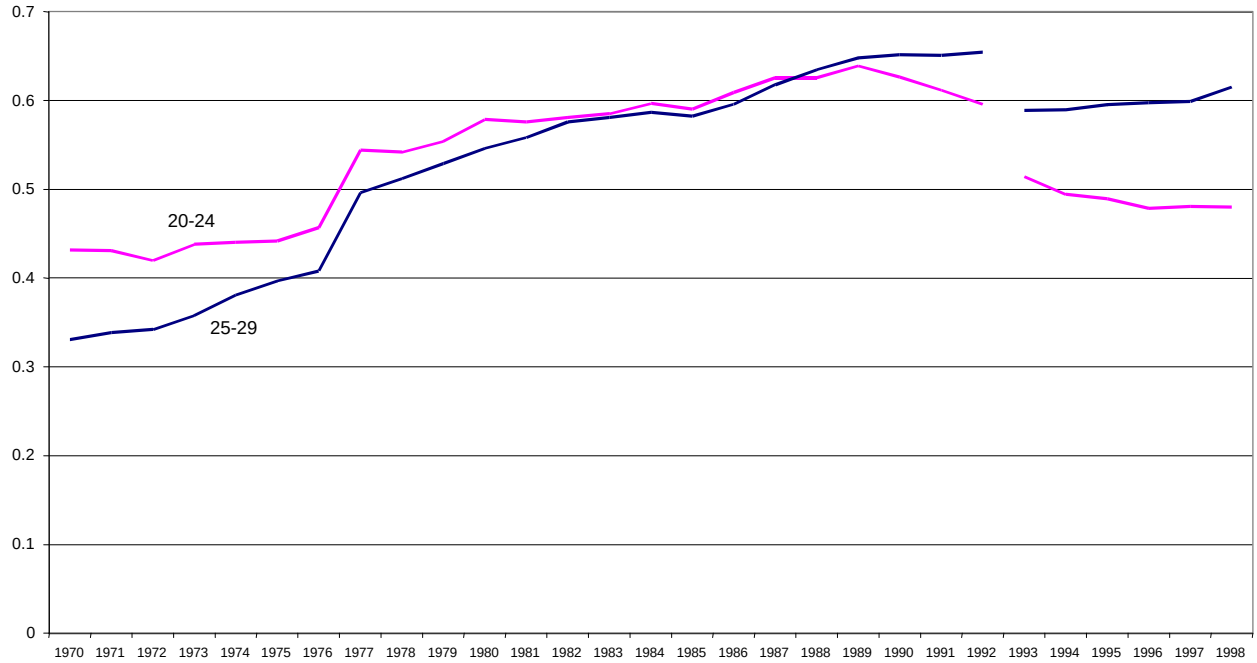
Italy - Out of the Labor Force, by age: men, 20-30



Source: Bank of Italy Survey

Figure3:

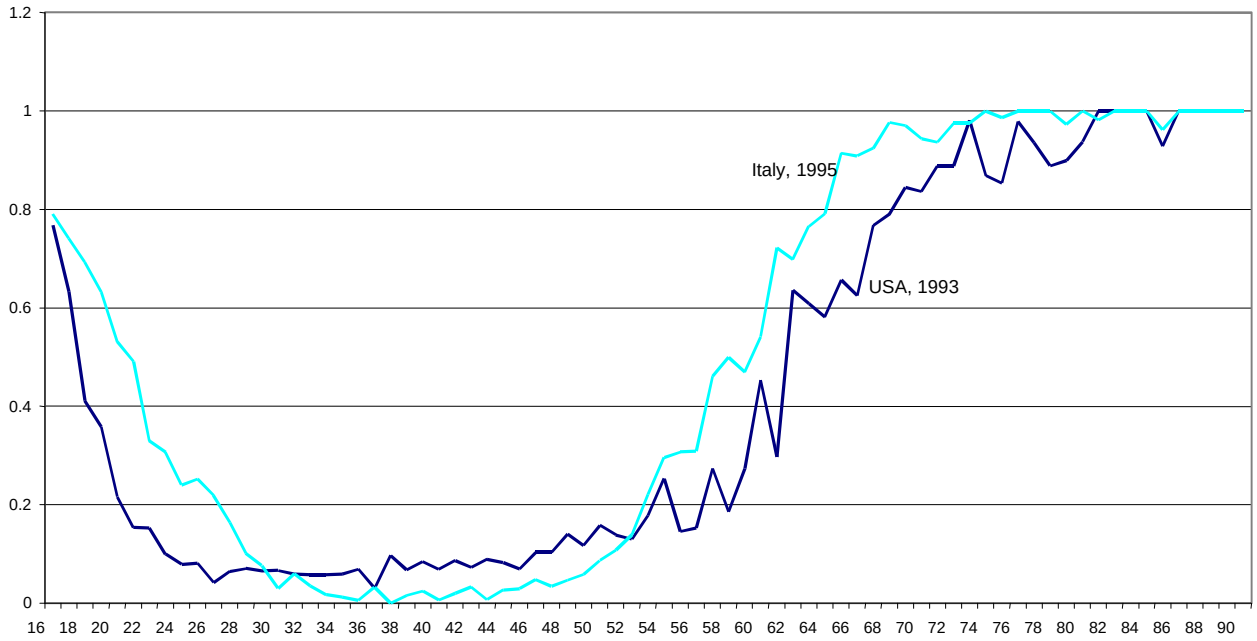
Italy - Youth Participation Rates: women, 1970-1998



Source: OECD

Figure 4:

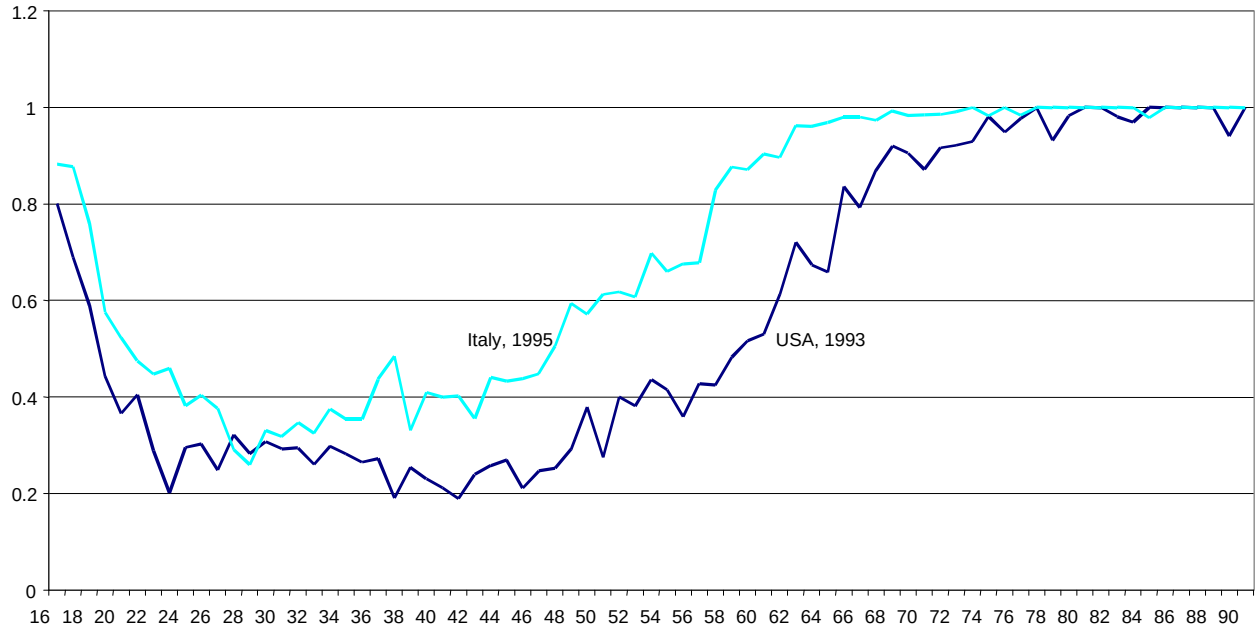
Non-Participation Rates for Men: Italy *vs.* U.S.A.



Sources: Bank of Italy Survey (1995), PSID (1993)

Figure 5:

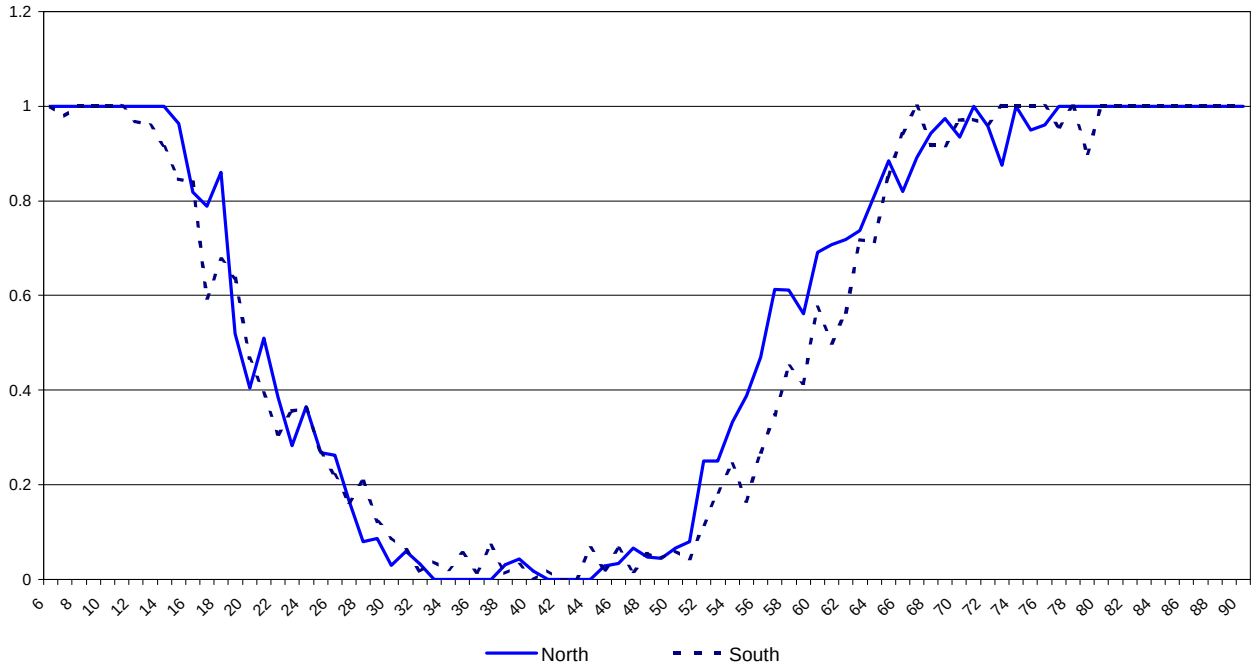
Non-Participation Rates for Women: Italy *vs.* U.S.A.



Sources: Bank of Italy Survey (1995), PSID (1993)

Figure 6:

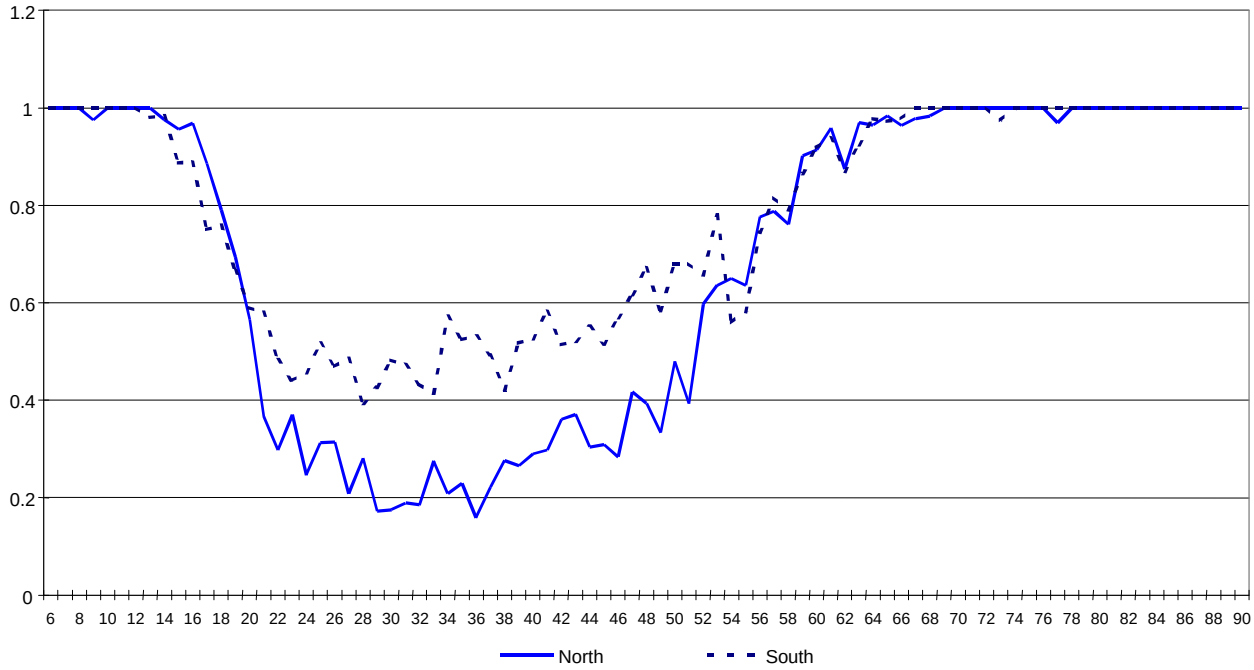
Italy - Non-Participation Rates for Men in 1998: North *vs.* South



Source: Bank of Italy Survey 1998

Figure 7:

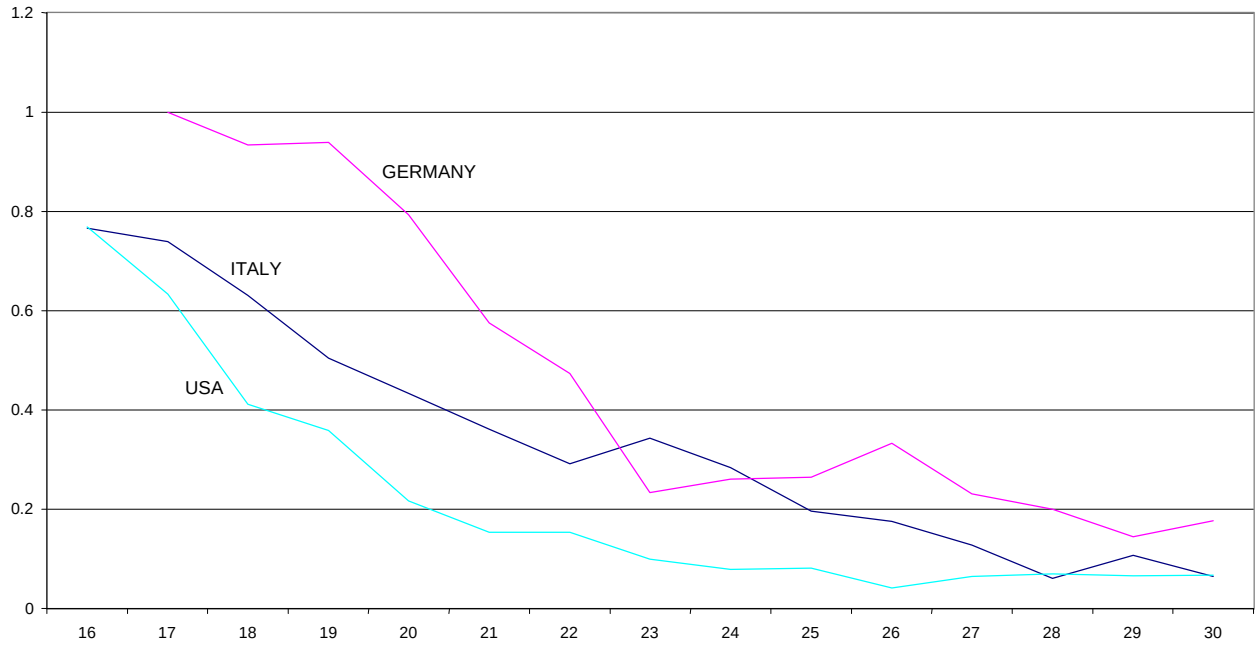
Italy - Non-Participation Rates for Women in 1998: North *vs.* South



Source: Bank of Italy Survey 1998

Figure 8:

Non-Participation Rates for Men, age 16-30, in 1993



Source: Italy (Bank of Italy Survey, 1993); Germani (GSOEP, 1993); USA (PSID, 1993)