THE MINIMUM WAGE AND UNEMPLOYMENT IN POLAND: LESSONS FOR CUBA'S TRANSITION

Andrew M. Melnyk[1]

Poland is one of the more successful cases of transition from a centrally planned to a market economy. Despite its relative success, it has one of the highest unemployment rates in Central and Eastern Europe. During the post-war era Poland's *official* unemployment rate was negligible. Since the introduction of the Economic Transformation Program (ETP) in January 1990, the unemployment rate has increased steadily and is currently about 15 percent. Undoubtedly, the shocks associated with the ETP and the collapse of the Council for Mutual Economic Assistance (Comecon) initially produced unemployment. However, a factor contributing to its continued increase is Poland's minimum wage system. Unlike any other previously centrally planned economy (PCPE), Poland's minimum wage has been continually revised upward throughout the transition period and has increased both in real terms and relative to the average wage. Poland's minimum wage also differs from those of other countries in that it is based on monthly earnings, rather than hourly. For these reasons Poland provides an excellent environment in which to study the effect of minimum wages on transitional labor markets and serves as an example from which to draw lessons for the Cuban economy.

According to conventional labor market theory, if a wage floor is raised above market clearing level, employment in the covered sector will fall. This has been confirmed by most empirical studies of developed market economies. Studies of the United States have also shown that this "disemployment" effect is small and limited to teenagers and youth. A comprehensive survey of the U.S. literature by Brown, Gilroy and Kohen (1982) concluded that a 10 percent increase in the minimum wage will result in only a one to three percent reduction in *teenage* employment. More recent studies by Card and Krueger (1995) have questioned the relevance and accuracy of mainstream theory and previous empirical research, concluding that an increase in the minimum wage has no effect or may actually *increase* employment. The response to this work has ranged from sharp criticism (Hamermesh 1995; Welch 1995; Kennan 1995; Deere et al. 1995) to calls for further research. More importantly, this recent line of research has led to questions regarding the role of minimum wages in the transition process (Standing 1995; Vaughan-Whitehead 1995). To date, however, there have been no detailed studies on the effects of minimum wages on transitional labor markets.

Poland's minimum wage is of great interest because, if conventional theory is correct, disemployment effects should be clearly seen. In Poland there is only one minimum wage which is continually revised upward, is high by international standards, and covers *all* labor. Most previous studies have relied on U.S. data where the magnitude of the minimum wage is small, increases are much less frequent, and coverage

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is incomplete. Additionally, because Poland's minimum wage is based on *monthly* remuneration, employers are less likely to respond to increases by simply limiting the number of hours a minimum wage earner works. They may instead limit the number of workers employed and increase the number of hours per minimum wage earner. For these reasons Poland's labor market offers a unique environment in which to determine the effects of minimum wage increases on employment.

Another way in which Poland's minimum wage is unique concerns it's relationship to unemployment benefits. It is commonly agreed that unemployment benefits which offer a high replacement rate,[2] unlimited duration, and/or few restrictions may contribute to unemployment. Poland's current unemployment benefit system[3] is related to the minimum wage. Unlike the unemployment benefit systems of most countries, where compensation is determined according to replacement rate, Poland offers four flat levels of compensation, three of which are directly pegged to the minimum wage (World Bank 1993). The fourth level of compensation, the one which most recipients qualify for, is equivalent to 36 percent of the average wage. In practice, all four benefit levels lie between 90 and 125 percent of the minimum wage. Unlike other countries, the benefit level an individual receives depends on his current status (i.e. recent university graduate, recent secondary school graduate, mass lay-off, fired, etc.) rather than his/her previous earnings.[4] Because the benefit *levels* are universal, actual *replacement rates* vary by individual. An individual with a high previous income may receive the same *level* of benefit as someone with a lower previous income, but will have a lower *replacement rate*. The drawback of this arrangement is that, given a high wage floor and a nearly equivalent level of unemployment compensation, when individuals with lower wage earning potential choose between labor and leisure, they may rationally choose unemployment over employment.

The following section of this paper further addresses these aspects of Poland's minimum wage and provides additional factual information. First, using pooled data and time-series data from individual regions, the impact of Poland's minimum wage on employment and unemployment is examined. Special emphasis is given to regional differences. Second, since employers face a monthly minimum wage, the November 1992 Polish Labor Force survey is used to examine whether employers may be lowering the *effective hourly wage* by altering the number of hours employees work. Finally, the implications of an unemployment benefits system which offers remuneration nearly equivalent to the minimum wage will be further examined. The final section discusses lessons for Cuba.

THE MINIMUM WAGE IN POLAND

Prior to reform, Poland's minimum wage had four main functions: (1) it was used by state-owned enterprises to determine pay scales; (2) the central government used it to calculate social benefits; (3) it served as an indirect form of wage control, and (4) it also had a poverty-prevention purpose. During the early part of transition the objective of the minimum wage laws became decidedly less administrative and started to focus on poverty-prevention. Rather than simply being mandated by the central government, the minimum wage is now determined jointly by trade union federations and the Ministry of Labor and Social Policy. Since October 1990 (10 months into transition) the minimum wage has been revised several times a year and, during the period from January 1989 to April 1994, it has increased 21 times (see table 1). By comparison, during this same time period, Hungary revised it's minimum wage 9 times, Russia 7, the Czech Republic 2, Romania 5, Bulgaria 10, Albania 4, Estonia 9, Moldova 10, and Ukraine 9 times.

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2. The replacement rate is the ratio of unemployment benefits to income prior to becoming unemployed.

3. The current system was implemented in 1991.

4. There is one exception to this rule. Workers who were part of a mass lay-off and are within five years of retirement qualify for benefits which equal 75 percent of their previous earnings (World Bank 1993).

Table 1. Minimum Wage in Poland[a]

Date	Minimum Wage (in thousand zloty)	Real Minimum Wage[b]	Minimum Wage/ Average Wage[c]	Date	Minimum Wage (in thousand zloty)	Real Minimum Wage[b]	Minimum Wage/ Average Wage[c]
1981 (average)	2,400	n.a.	0.289				
1982 (average)	4,000	n.a.	0.347	May 1992	1,000,000	116.4	0.369
1987 (average)	7,000	n.a.	0.246	August 1992	1,200,000	132.0	0.403
1988 (average)	9,000	n.a.	0.169	September 1992	1,300,000	135.8	0.416
January 1989	17,800	95.9	n.a.	October 1992	1,350,000	136.9	0.408
July 1989	22,100	74.7	0.194	January 1993	1,500,000	139.8	0.450
October 1989	38,000	44.3	0.129	July 1993	1,650,000	136.5	0.412
January 1990	120,000	54.0	0.216	October 1993	1,750,000	135.5	0.405
September 1990	368,000	100.0	0.361	January 1994	1,950,000	135.0	0.420
October 1990	440,000	113.1	0.380	April 1994	2,050,000	133.8	0.385
January 1991	550,000	113.0	0.367	July 1994	2,200,000	135.9	0.393
April 1991	605,000	105.4	0.347	October 1994	2,400,000	135.6	0.397
July 1991	632,000	102.1	0.358	January 1995[d]	260	136.0	0.407
October 1991	652,000	97.3	0.352	April 1995	280	137.9	0.383
December 1991	700,000	98.1	0.331	July 1995	295	142.6	0.401
January 1992	875,000	114.1	0.352	October 1995	305	140.8	0.379

a. Minimum wage data was obtained from Vaughan-Whitehead (1995). The more recent figures were obtained from Jan Rutkowski by personal correspondence.

b. September 1990=100. The minimum wage was deflated by a consumer price index.

c. Average wage is equal to the mean wage for *all* workers in the economy.

d. In January 1995 a new currency was instituted. It is equal to (1/10,000)(Old Currency).

Perhaps because of its relatively high magnitude, Poland's minimum wage earners are not as heavily concentrated among groups which traditionally earn a low wage. Column 5 of table 2 shows the personal characteristics of those who earned the net minimum wage (1.20 million zloty per month after taxes) or less in November 1992. Also presented is the distribution of workers by age and education. These figures are compared to the distribution of three other groups: the entire labor force (column 2), all employed labor (column 3), and the unemployed (column 4). Although women, those who have not completed any higher education, and part-time workers are the most likely to earn the minimum wage, table 2 also shows that minimum wage earners are not as heavily concentrated among any one demographic group as is the case in most OECD countries where minimum wage earners tend to be disproportionately young. Mellor (1987) reports that, in the United States, teenagers between the ages of 16 and 19 were the most heavily represented group of minimum wage earners, comprising 36.6 percent (1.85 million) of all minimum wage earners. The next largest age group were young adults between 20 and 24 who made up 22.9 percent (1.16 million). Surprisingly, this is not the case in Poland. In November 1992, almost three years into the transition process, 12.6 percent of *all* employed workers, both hourly and salaried,[5] reported earning the minimum wage or less. Of those, only 10.45 percent were between 15 and 20, and 12.59 percent were between 21 and 25. The remainder, 76.96 percent, were over age 25.

In both Poland and the United States women comprise a large percentage of minimum wage earners, 61.7 and 65.6 percent respectively. However, in Poland 16.9 percent of *all* employed women earn the minimum wage or less as opposed to only 11.9 percent of women being paid on an *hourly* basis in the United States. If salaried employees were included in the U.S. estimates, as is the case for Poland, this per-

5. The figure cited excludes own account workers and unpaid household workers.

Table 2. Characteristics of Minimum Wage Earners and of the Labor Force in Poland[a]

	Unemployment Rate	Distribution of entire labor force	Distribution of all employed labor[b]	Distribution of all unemployed	Distribution of minimum wage earners (1.2 million zl. Per month or less)[c]
Education:					
Higher Degree Completed)	6.00%	8.76%	12.35%	3.52%	4.50%
Higher (Degree Not Completed)	10.06	3.58	5.11	2.43	3.00
Secondary	18.40	5.96	6.85	7.38	6.43
Technical	14.91	21.93	24.99	22.01	18.06
Vocational	18.66	32.75	33.71	41.13	33.65
Primary or Less	12.92	27.02	17.00	23.53	34.35
Age:					
15-20	37.69%	6.17%	3.59%	16.07%	10.45%
21-25	24.78	10.18	10.15	16.98	12.59
26-30	17.69	11.28	12.13	13.43	9.38
31-35	14.00	14.93	16.69	14.06	13.72
36-40	12.50	16.93	19.05	14.24	13.61
41-45	11.51	14.91	17.23	11.55	12.81
46-50	9.88	8.47	9.61	5.63	8.74
51-55	8.20	6.85	6.91	3.78	6.81
Over 55	6.14	10.28	4.64	4.26	11.89
Personal Characteristics:					
Male	13.38	53.89	54.04	48.54	38.26
Student	9.97	1.40	0.64	0.94	3.54
Part-time employee	—	—	5.31	—	30.17
Sample Size	—	25809	14852	3834	1868

a. Based on the November 1992 Labor Force Survey.

b. Figures for employed groups are based on full and part-time employees. Own account workers and unpaid domestic workers are excluded. Unemployed workers are defined as individuals who are not currently working but are actively seeking employment. The unemployed are not necessarily registered as such.

c. Based on a 40 hour work week.

centage would undoubtedly fall. In general, because a larger cross-section of Poland's population is affected by the minimum wage, mainstream theory should be reflected in lower employment overall, rather than for specific groups. For this reason the empirical work described in the following section will concentrate on the entire labor force.

MINIMUM WAGE AND REGIONAL LABOR MARKETS

According to Deere et al. (1995), a minimum wage increase will have the strongest impact on employment where its effects on wages is the largest. In other words, the demographic groups and geographic regions most adversely affected by a wage floor are those which are comprised of a large percentage of low wage earners. The evidence is overwhelming that in the United States teenagers are the lowest paid and the most adversely affected demographic group. Because both the minimum wage and unemployment benefits are uniform across the country and do not reflect regional wage or cost of living differences, a high minimum wage may have the strongest impact on Poland's low-wage regions.

Poland's 49 regions (called voivodships) exhibit large disparities in unemployment, average wage, degree of urbanization, and industrialization. For example, in February 1996 regional unemployment varied from 5.4 percent to 29.4 percent. In comparison, regional dispersion of unemployment is far lower in the United States where in 1990 it ranged from 2.2 percent to 8.3 percent. Because average wages also vary widely by region, the proposition that employment in some

of Poland's regions is more adversely affected by a universal minimum wage is supported. For example, in the second quarter of 1995 the minimum wage as a percentage of local average wage ranged from 29.0 percent to 60.3 percent.[6] By comparison, in the United States in 1990 this percentage ranged from 23.1 percent to 38.1 percent.[7]

A region may become low-wage and suffer from high unemployment after experiencing an adverse shock. As mentioned, Poland experienced several shocks during the first few years of transition. As the dispersion of unemployment and wage rates indicate, some regions were more adversely affected than others. This being the case, the relevant question to address is whether the presence of an increasing and universal minimum wage worsened the shocks and/or slowed recovery. Using the United States as an example, Blanchard and Katz (1992) find that the most important factor for a state's recovery from an adverse shock is outward migration. Migration within transitional Poland has not been widely studied, but the results of all recent Labor Force Surveys indicate that only 24 to 28 percent of the unemployed are *willing* to relocate. Since individuals under 35 years of age comprise about 60 percent of the unemployed, and since early retirement forced many out of the labor force, the low willingness to relocate cannot simply be attributed to older people who are traditionally less geographically mobile. Housing shortages may offer one of the more likely explanations for geographic immobility. During central-planning Poland experienced considerable housing shortages where 15 to 20 year waiting lists for government subsidized housing were the norm (Mayo and Stein 1995). Additionally, large differences in the regional cost of living, and consequently in the value of cash benefits, may also contribute to low internal migration.

In order to determine whether a minimum wage increase does indeed decrease employment and increase unemployment, table 3 presents the results of several regressions. Because of the importance of regional differences, the cross-sectional impact of minimum wage increases as well as changes through time must be taken into account. For this reason quarterly pooled data from each of Poland's 49 regions from the first quarter of 1991 to the second quarter of 1995 is used.

Minimum wage studies using pooled data are rare but offer several advantages. Because regions vary in the degree to which they experienced shocks, and because labor mobility is low, the minimum wage may have a stronger local impact than national-level data could reveal. Ideally, many of these differences may be captured if the minimum wage is measured in terms of local price indices. Because such indices are currently unavailable, the minimum wage is represented relative to the local average wage. Unfortunately, regional average wage data covering all sectors of the economy is also unavailable. A weighted measure of local average monthly earnings in the industrial and construction sectors was created and was used to determine the relative minimum wage. Williams (1993) uses a similar technique but relies on average wages in manufacturing rather than industry and construction. Regional dummy variables are included in each regression to control for differences in employment and unemployment between *voivodships* which are not accounted for by other variables. A variable which measures the percent of the population residing in urban areas is also included in several regressions.

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6. For Poland, the average and minimum wages used to determine these ratios are pre-tax. Due to data limitations, the average wage is based on *all* labor in the industrial and construction sectors only. Sample includes forty nine *voivodships*.

7. For the United States, average wage is determined by considering both full- and part-time workers. Sample includes all fifty states and the District of Columbia.

Table 3. Pooled Time-Series Cross-Sectional[a]

	1	2	3	4	5	6
	Dependent Variable: Log (Regional Employment Rate)			Dependent Variable: Log (Regional Unemployment Rate)		
Constant	-5.686	-5.621	-1.502	4.247	4.196	4.542
	(-21.143)	(-20.704)	(-23.651)	(11.851)	(11.025)	(57.912)
Log(Minimum Wage/Local Average Wage)	-0.592	-0.538	-0.502	2.143	2.015	2.018
	(-11.858)	(-11.032)	(-9.071)	(32.200)	(29.457)	(29.539)
Log(Percent Residing in Urban Areas)	0.946	0.943	—	0.092	0.079	—
	(15.720)	(15.504)		(1.153)	(0.932)	
Seasonal Dummies[b]	Yes	No	No	Yes	No	No
Regional Dummies (Voivodship Level)[c]	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.490	0.476	0.324	0.838	0.815	0.815
Adjusted R^2	0.458	0.444	0.284	0.827	0.804	0.804
F-statistic	15.019	15.069	8.131	80.576	73.312	74.802
Observations	882	882	882	882	882	882
Dates	1991.Q1-1995.Q2	1991.Q1-1995.Q2	1991.Q1-1995.Q2	1991.Q1-1995.Q2	1991.Q1-1995.Q2	1991.Q1-1995.Q2

a. t-statistics are in parenthesis.

b. Winter is in the base

c. Gdansk is in the base.

Table 3 presents regressions which assess the impact of the minimum wage on the employment rate.[8] In magnitude, the results are stronger than those of studies of the United States which rely on pooled data. Using a similar measure of relative minimum wage, Williams (1993) estimated the elasticities of teenage employment with respect to relative minimum wage ranging from -0.182 to -0.333. In the first three columns of table 3 the elasticity of employment with respect to relative minimum wages ranges from -0.502 to -0.592. All estimates of the minimum wage are significant. These results also reveal that the more urbanized regions experience a higher employment rate. The reason for this may be that urban regions have a greater mix of industries than rural areas (see Scarpetta 1995). When a particular sector suffers a shock, unemployed labor can be more easily absorbed by a growing sector when migration is not necessary.

Columns four through six of table 3 also present the results of identical least-squares regressions which use the unemployment rate as a dependent variable. In each regression the minimum wage was significant and varied in elasticity from 2.015 to 2.143. Whether an area is urban or not has no impact on unemployment. As is the case in virtually all such studies, the effect of the minimum wage appears to be stronger on unemployment than on employment.

In order to further consider the effect of the minimum wage on local labor markets, 98 separate regressions, one for each region, were run. In each case, the employment rate and the unemployment rate were alternately used as the dependent variable. The elasticities of employment with respect to the relative minimum wage varied from -0.26 to -1.23, with the 39 estimates being significant. The elasticities of unemployment varied from 1.02 to 4.15, with 43 estimates being significant. Both sets of regression results confirmed a large degree of regional disparity.

Minimum Wage and Labor Input

Most countries base minimum wages on hourly remuneration. However in Poland the stated objective of the minimum wage is to serve as a minimum level of *monthly* remuneration for full-time employment (Hagemejer 1995). Even though it is based on

8. Ideally the employment rate should be measured as the ratio of employment to working age population. Due to data limitations the ratio of total employment divided by total population is considered instead.

monthly remuneration, the minimum wage law covers all labor in the formal sector and does not distinguish between hourly and salary workers or between full- and part-time workers. Of particular interest is the fact that 30.2 percent of the individuals who earned the minimum wage or less in November 1992 were part-time workers (less than 40 hours per week). During this same period, only 5.4 percent of all employed labor held a part-time job as their primary source of employment (see table 2). By comparison, 25.6 percent of U.S. hourly workers are employed part-time.[9] The fact that Poland's minimum wage is based on monthly remuneration may preclude legitimate part-time employment for all but the most skilled and may in large part explain any noncompliance. According to the most recent labor force surveys, most individuals who work part-time do so out of choice, not because of a shortage of jobs. The May 1995 Labor Force Survey reports that 83.8 percent of all part-time labor worked part-time for "non-economic" reasons.

An important point which was overlooked by Card and Krueger (1995) is that when policy makers increase an *hourly* minimum wage employers may respond by reducing the total number of hours employees work. Because Poland's minimum wage is based on *monthly* earnings, a more likely response would be to *increase* the number of worker-hours for low skilled labor as well as reducing the number of employees. By doing so employers would attempt to maintain the same *effective hourly wage* and the total labor input. Because this would primarily effect lower-skilled individuals, it should be reflected in the distribution of hours by education.

The strong negative correlation between education and hours worked shown in table 4 confirms that employees who had completed at least some higher education are more likely to work less than 40 hours per week than those with less education. This suggests that employers may indeed change effective hourly wages by changing hours. It may also explain why 5.4 percent of those who have had at least some university level education are minimum wage earners.[10]

Table 4. Hours and Education[a]

Dependent Variable	Hours	Log(hours)
Constant	39.910	3.662
	(155.870)	(455.006)
Higher Education	-4.348	-0.160
	(-13.615)	(-15.895)
Some Higher	-4.646	-0.147
	(-11.881)	(-11.941)
Secondary	—	—
Technical	0.940	0.030
	(3.254)	(3.290)
Vocational	2.060	0.060
	(7.339)	(6.806)
Primary	0.876	0.016
	(2.883)	(1.700)
Less than Primary	0.162	-0.034
	(0.122)	(-0.815)
R^2	0.072	0.080
adjusted R^2	0.072	0.080
F-statistic	190.642	215.103
Observations	14786	14786

a. From the November 1992 Labor Force Survey.

Minimum Wage and Unemployment Benefits

Pre-reform Poland officially denied the existence of unemployment and consequently deemed unemployment insurance unnecessary. Anticipating a certain degree of joblessness the central government established a cash benefits system on December 29, 1989. This original system had several major flaws, the most prominent of which was a significant moral hazard problem. Because any jobless individual claiming to be in the labor force was eligible for benefits, and because the minimum available compensation was excessively generous, by the end of 1990 the number of unemployed applying for benefits was greater than the number of those laid off (Chilosi 1993). During this time the Public Auditing Chamber had discovered what had become common

9. It should be noted that U.S. surveys usually consider anything less than 35 hours part-time. If less than 40 hours were considered part-time, as is the case for Poland, the estimate would be greater.

10. When the "monthly minimum wage" is coverted into its hourly equivalent (assuming a 40 hour work-week), less than one percent of individuals who have completed university earn the minimum wage.

practice—employed individuals collecting unemployment benefits. Although estimates are not available, a significant percentage of recipients may have entered the labor force simply to claim benefits. By October 1991 new rules were implemented requiring proof of attachment to the labor force. Because of this rule 21 percent of recipients became ineligible (Chilosi 1993).

By February 1992 the old cash benefits system was abolished and the current unemployment benefits system was fully implemented. The new system includes a 12 month duration limit,[11] and four "flat-rates." The benefit level an individual receives is primarily determined by previous employment status, method of job loss, and age. Currently, the four levels of unemployment compensation are:[12] (1) 36 percent of the average national wage, (2) 95 percent of the minimum wage, (3) 110 percent of the minimum wage, and (4) 125 percent of the minimum wage. The great majority of the unemployed qualify for the first level. Because the benefit levels are nearly equivalent across individuals, the system is such that an individual who earned a high income in his/her previous job will receive a lower replacement rate than one who earned a lower previous income. Consequently, the individual who previously had a low income will experience lower job-search incentives. According to the World Bank (1995), the problem is being worsened because throughout the transition period the increase in the average wage has been driven by increases in white-collar wages—the upper tail of the earnings distribution. For this reason the average wage does not adequately represent the wages of less skilled workers. Consequently the replacement rate may approach 100 percent for many unskilled workers.

Because Poland's unemployment benefits system is based on flat-levels, it is obvious that income replacement alone is not an objective. The minimum wage and unemployment benefits create an income maintenance system which, in practice, guarantees a minimum income to most labor force participants whether or not they work. Assuming that income and leisure are both normal goods, when choosing between labor and leisure, a guaranteed minimum income may encourage an individual to rationally choose unemployment rather than employment. The objective of unemployment benefits is to restore lost income whereas the goal of income maintenance, or welfare, is to increase the income of the poorest households to a certain level. This may indeed be happening, but at a cost of greater unemployment.

Poland's minimum wage system may impede regional recovery in two ways: (1) indirectly, through unemployment benefits; and (2) directly, by preventing the wage rate from falling sufficiently. Beneficiaries in low-wage regions receive the same nominal level of compensation as those in high wage regions. If the recipient in a low-wage region does not migrate, their benefits may retain a higher value in relative terms. The incentive to migrate is further lowered because beneficiaries are technically required to reside in their own region. Second, because employment will start to recover from an adverse shock once wages fall low enough, a high minimum wage may prevent wages from falling sufficiently.

LESSONS FOR CUBA

The Polish case may offer several lessons for post-communist Cuba. First, the results and discussion in the previous section suggest that the minimum wage is not an effective poverty prevention tool. In Poland the minimum wage, coupled with unemployment benefits, creates an "absolute wage floor." This strategy may be *somewhat* effective in preventing poverty but it also creates very strong work disincentives which result in higher national unemployment, greater unemployment among the less skilled, greater dispersion in regional unemployment, and a heavier burden on government. It is also likely that, because wages are prevented from adjusting downward, regional recovery from adverse shocks may be impeded.

11. There are exceptions to this rule. In especially impoverished regions the duration may be extended to 18 or 24 months.

12. See World Bank (1993) for further details.

Second, when formulating minimum wage policy it is important to consider what groups are most likely to suffer employment loss. In order to minimize job loss the most adversely affected groups or industries should face a separate (lower) wage floor. For example, it has been suggested that if a nationally determined minimum wage has a detrimental effect in certain regions, or if the cost of living differs between regions, then it may be most appropriate to determine minimum wages on a more local level (OECD 1995). In effect, the United States has a similar system. The federal government sets a minimum wage and individual state governments may increase it. It has been suggested that labor mobility in Cuba may already be impeded by housing shortages (Buttari 1994). If this is indeed the case, then labor immobility may lead to regional employment disparities in post-communist Cuba. Minimum wages determined on a more local level may then be an appropriate policy.

The third issue which must be addressed is compliance with wage floors. Transitional Cuba will not only be a previously centrally planned economy, but also a developing economy. One of the most common problems with minimum wages in developing countries is noncompliance (Watanabe 1976; Gindling and Terrell 1995). It is uncertain to what degree this is a problem in Poland but, a recent study by Gindling and Terrell (1995) has shown that in the early 1980s noncompliance in Costa Rica was as high as 33 percent. This problem is more likely to occur when the laws are too complicated, as in Costa Rica where in 1980 there were 350 separate minimum wages, or when the minimum wage is especially high. Compliance may also be an issue in economies with a large agricultural sector where adequate enforcement is difficult if not impossible.

Finally, the minimum wage should be determined on an hourly basis and should eventually be set at a level closer to that of the United States, perhaps 25 percent of average hourly wage. When minimum wages are lower and regulations less stringent, the resulting employment loss is minimized and non-compliance a much less important issue.

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