

# **Forecasting the Effects of Pending Minimum Wage Legislation on Poverty in South Africa**

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## **1. Introduction**

In July of 2001, after two years of public hearings and deliberation, South Africa's Minister of Labour released a report detailing a recommended schedule of minimum wages for the country's 800,000 domestic service workers (Department of Labour 2001a). In September a second report was released with recommended minimum wage levels for an estimated one million farmworkers (Department of Labour 2001b). Both are expected to be implemented soon. These developments fulfill a long-time ANC commitment and must rank as a significant political victory for some of South Africa's poorest workers.<sup>1</sup>

Whether the laws lead to an equal economic victory depends crucially on the degree to which they are enforced and on the changes in employment, if any, that they induce. Also important for a normative assessment of the impact of minimum wages is the choice of evaluative standard, since the effects of the law will be different at different points in the income distribution. In this paper I estimate the net effect of the proposed minimum wage law for domestic service workers<sup>2</sup> on their levels of poverty, ultrapoverly, mean and median household income, and mean log household income, under various assumptions about the magnitude of the employment response. Assuming perfect enforcement<sup>3</sup>, I find that the proposed minimum wage levels are associated with decreases in poverty, ultrapoverly, and inequality, and increases in both mean and median household income, so long as the employment response is inelastic. The effect on mean log household income (a measure which effectively places more weight on very-low-income households) appears positive at elasticities of roughly -0.6 or less (in absolute value). It thus appears that minimum wages on the order of those proposed for domestics in South Africa may lead to noticeable reductions in the level of poverty and ultrapoverly for this class of low-paid workers, even if accompanied by non-trivial employment losses. This conclusion, however, is subject to

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<sup>1</sup> Minimum wages in South Africa form part of a larger strategy of regularization of these often informal employment relationships. The provisions of the Labour Relations Act of 1996, the Basic Conditions of Employment Act of 1997, the Employment Equity Act of 1998, the Skills Development Act of 1999, and the Occupational Health and Safety Act of 1993 already apply to domestic and farm workers, granting them rights to overtime pay, sick and maternity leave, paid vacation, written contracts, and other protections.

<sup>2</sup> Estimates for farmworkers to follow ASAP.

<sup>3</sup> Perfect enforcement is not at all likely; these estimates are thus an upper bound on the law's potential impact.

several important caveats, not the least of which is that there remains considerable uncertainty as to what the employment elasticity is likely to be.

I also examine the effects of a national minimum wage applied to all sectors of the economy, which I judge in relation to the national poverty and ultrapoverly rates. I again find that minimum wages reduce poverty, even allowing for a plausibly large disemployment effect, provided that the wage increase is not too large. However, their impact is necessarily limited by South Africa's extremely high rate of unemployment, which was 36% in 1999 (Statistics South Africa 2000). I estimate that a minimum wage that affected 28% of the workforce would reduce the number of people in poverty by about 5% if there were no disemployment effect, but by just one percent if the employment elasticity was  $-0.75$ . I conclude that minimum wages are a potentially effective way of addressing poverty among the employed, but that this represents a relatively small fraction of the overall poverty problem in South Africa.

In the next section I briefly summarize what economic theory and the available empirical research can tell us about the size of the employment effect (not a great deal) and about the effect on poverty and ultrapoverly (even less). I then describe the simulation approach that I employ and discuss its strengths and weaknesses in relation to the econometric approach. Next I summarize the current state of wages, poverty and employment in domestic service and in the economy as a whole. Last come the simulation results, first for domestics and then for the entire economy.

## **2. Minimum Wages, Employment and Poverty: A Brief Review**

As is well known, the standard model of a unified and perfectly competitive labor market predicts that setting minimum wages above the market equilibrium will reduce employment. The elasticity of this response depends on the level at which the minimum is set, the low-wage labor share, and the elasticity of substitution between low-wage labor and other inputs. Decades of agricultural subsidies have pushed mechanization towards its technological limit in South African farming; the labor share is especially low in cereals but higher in other crops. Similarly, expenditures on domestic service make up a relatively small proportion of the typical household's budget. Nor can cleaning, gardening, and child-rearing

be mechanized, although they can be performed by family members instead of hired help. The employment response in domestic service thus depends on how willing South Africans – many of whom have had full-time domestic help their whole lives – are to do this work themselves. Some have predicted large initial job losses, followed by a wave of re-hiring as people (women, primarily) tire of the added housework (Gilson 2000). Together these factors suggest that the net employment response may be relatively small.

If we split the labor market into its formal and informal sectors, and assume that minimum wages are not enforced in the latter, the effect on net employment becomes ambiguous, although the effect on formal employment remains negative (Fields 1994). This basic negative relationship also holds in rational-actor efficiency wage models in which the dual labor markets do not clear, such as that of Agénor and Aizenman (1999). In particular, the fact that wage increases might raise productivity, either through nutritional or psychological channels, does not imply that higher wages will lead to more employment: optimizing employers will presumably already have taken these factors into account in setting wage and employment levels.

If employers are not maximizing economic profit, however, it is possible that the imposition of higher wages might lead them to discover a productivity increase that was there for the taking all along, which would allow them to maintain employment at the higher wage. This may be more than an academic possibility for farm and domestic workers in South Africa where wages are extremely low and labor relations are infused with a racial and political dimension that may dominate the more narrow economic concerns. Moreover, there is some evidence from South Africa that farm employers are not profit-maximizers at present: Van Schalkwyk and Groenewald (1992) estimate the marginal product of agricultural labor and report that it appears to exceed the wage.<sup>4</sup> This would imply that farmers are underutilizing labor and could profitably hire more, even at higher wages. Imposing minimum wages might also shock boundedly rational employers into achieving cost savings in other areas, leading to increases in productivity. Kreuger (1994) finds evidence of increased managerial efficiency (as well as higher levels of worker effort) with higher minimum wages in Puerto Rico (and no significant disemployment). However, this

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<sup>4</sup> Note however that the data on employment and output in South African agriculture, upon which these production function estimates rest, are notoriously unreliable.

“induced innovation” argument cuts both ways: management may also discover new labor-saving ways of maintaining output in response to higher wages.

The standard model of a monopsonistic employer yields a positive relation between formal wages and formal employment without assuming that employers fail to maximize profits, and is often invoked in defense of minimum wages. It may seem relevant in rural areas, where a given farm or household might offer the only nearby source of wage employment. What distinguishes the monopsonist is that they face a rising marginal cost of labor; the introduction of a minimum wage, however, renders the marginal cost of labor flat in the vicinity of equilibrium, and *lower* than it was before, leaving the employer with lower super-profits, but an incentive to hire more labor. Yet in this model, as in the standard model, unemployment does not exist: workers are always on their labor supply curve, and the increase in employment reflects an induced increase in labor force participation. This does not seem properly to characterize the situation of labor surplus in South Africa, where the rural unemployment rate is on the order of 48% for Africans (Statistics South Africa 2000). All in all, that South African farmers or household employers would hire *more* labor if minimum wages were introduced in agriculture and domestic service, *ceteris paribus*, seems a dubious proposition. Still, several of the considerations just enumerated point to a relatively small disemployment effect.

At the macroeconomic level, if the ex-ante employment response is inelastic so that the wage bill rises, then the increased purchasing power of the working class should provide a demand-side stimulus. Whether this raises employment is, of course, a long-standing debate. Models deployed by ANC-aligned economists prior to the change in government confidently asserted this wage-led dynamic (e.g. MERG 1993)<sup>5</sup>. Models deployed since do not, although it is clear that this shift represents a political choice not an economic epiphany. In the simulations that follow I will ignore any macroeconomic repercussions of the minimum wage increase. This may be justified by noting that raising the wages of domestics or farmworkers to plausible minimum values has a relatively small ex-ante effect on the national wage bill, a reflection of the high degree of wage inequality. For example, if there is no microeconomic disemployment effect, raising the domestics’ minimum wage to what is

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<sup>5</sup> The structuralist macro model used by Gibson and van Seventer (1998), an offspring of the MERG model, is not wage-led in this straightforward sense.

currently the 62<sup>nd</sup> percentile of their distribution increases ex-ante national income by less than one percent. Clearly, this figure would be larger if more workers were affected: the validity of excluding macroeconomic feedback effects diminishes as we contemplate larger-scale interventions. Yet the sign of these effects remains controversial.

If the net employment response is negative, but assuming it is inelastic, the effect on poverty is ambiguous: a rising wage bill may or may not reduce poverty depending on how the gains and losses are distributed across households within reach of the poverty line. Minimum wages represent a quite complex intervention in the income distribution. On the one hand, they are sharply progressive in that they afford the largest increases to the lowest paid workers. On the other, job losses create income losses (which may, on a case by case basis, be larger or smaller than the gains for those who retain their jobs) and these will move some households into poverty. These losses may be most likely to befall workers whose wages are lowest to begin with, assuming an employer is less likely to retain a worker when faced with doubling their wage than when obliged to increase it by 10%. Oddly, this relationship serves to attenuate the effect on measured poverty since many of the lowest paid workers are already living in households that fall below the poverty line. Moreover, the lower the original wage, the smaller the income loss associated with losing one's job.

The effect on inequality is also ambiguous: a rising unskilled wage bill will reduce inequality between unskilled labor and both skilled labor and capital; and raising the lowest wages the most will tend to reduce inequality among those in unskilled employment as well; but raises for some accompanied by job losses for others will tend to raise inequality between the employed and the unemployed. How these various forces balance out is an empirical question that may be studied ex-post using econometric techniques, or ex-ante by simulating changes in wage and employment levels in a survey dataset (the method I use).

Hamermesh's (1993) review of the available empirical evidence finds that the constant-output elasticity of general employment to the real wage tends to fall in the interval  $[-0.15, -0.75]$ ; he offers  $-0.30$  as a "best guess" (p. 135). Allowing for scale effects, however, raises these figures: the median of such estimates reported by Hamermesh is  $-0.93$ . Moreover, elasticities for blue-collar workers are higher than for white: the mean of 14 such estimates for blue collar workers is  $-0.98$  compared to  $-0.63$  for eleven white collar estimates. Medians, however, do not diverge as much:  $-0.64$  versus  $-0.47$ . While most of

these estimates are from developed economies, comparable results have been documented for low-income countries. In Columbia for example, Skoufias and Roberts (1997) find values of  $-0.65$  and  $-0.42$  for unskilled and skilled labor.

Estimates for South Africa, using a variety of approaches, appear in the table below. They range from  $-0.25$  (for aggregate private black employment excluding domestic service) to  $-1.02$  (for aggregate black employment in 13 manufacturing industries). Although none of these estimates is specific to the lowest-wage workers (who are found primarily in domestic service and agriculture and for whom time-series data are scarce) they confirm the international evidence of a non-trivial trade-off between wages and employment. Moreover, there is some evidence that the elasticity has been rising with time (Bowles and Heintz 1996; Loewald 2000). Finally, work in progress by Johannes Fedderke and Martine Mariotti finds that elasticities for unskilled labor range between 0.8 and 1.0 for South Africa.<sup>6</sup>

**Table 1**  
**South African Estimates of the Elasticity of Labor Demand**  
**With Respect to the Real Wage**

Author(s) & Year	Period & Economic Sector	Labor Type	Capital Stock	Elasticity
Fallon: 1992	1960 to 1990 Aggregate private non-domestic	Black	Endog.	-0.25
Bowles & Heintz: 1996	1975 to 1993 Manufacturing: 20 industries	All	Endog.	-0.73
Fallon & Lucas: 1998	1961 to 1993 Manufacturing: 13 industries	Black	Exog.	-1.02
“	Mining	“	“	-0.15
“	Construction	“	“	-0.55
“	Services	“	“	-0.95
“	Weighted Average	“	“	-0.71

These estimates pertain to the relation between employment and the average wage, not the minimum. Some studies of the latter relationship have found, not surprisingly, that minimum wages have a larger negative effect on employment when they are set at levels that are high in relation to the prior average (e.g. Bell 1997, which compares Mexico and

<sup>6</sup> Personal communication with authors, used by permission.

Columbia). This suggests that wages that are high enough to reduce poverty among the employed are also high enough to reduce employment. Yet the empirical record on this question is also quite mixed. As already mentioned, Kreuger (1994) finds no clear evidence of disemployment effects in Puerto Rico, where the minimum wage has had a dramatic effect on the average. Similarly, Lustig and McLeod (1997) present some cross-country evidence of a negative relationship between minimum wages and poverty, the final outcome of interest, as do Camargo and Garcia (1994). The latter compare Costa Rica and Colombia (both of which raised minimum wages relative to the average in the 1980s) with Chile and Guatemala (where the minima fell), and conclude that the difference in minimum wage policies explains some of the difference in poverty outcomes.

It goes without saying, however, that the causal relationships that these studies seek to identify, between minimum wage policies and employment or poverty outcomes, are extremely difficult to isolate, and even harder to predict with any great confidence for the two South African sectors in question. Rather than rely on a single best guess estimate of the disemployment effect, or of the relationship between the minimum wage and poverty, I chose instead to allow for a range of possible disemployment effects, and then to observe the direct first-round effect that this has on the income distribution, holding all else equal. These simulations are accomplished by raising all sub-minimum wage jobs in a household survey dataset to the chosen minimum, and then eliminating various numbers of jobs from this same subset, yielding various elasticities between the average wage and the level of employment. These eliminated jobs are chosen randomly but with a probability of selection that rises with the distance from the minimum. This is done to impose the realistic constraint that very low-wage jobs are more likely to be eliminated when a minimum is imposed than are jobs which are near the minimum to begin with. The resulting labor income is then aggregated to the household level, leaving all other components of household income unchanged, and new measures of poverty and inequality are calculated.

This approach solves the *ceteris paribus* problem that plagues the econometric work, but at the price of assuming away any macroeconomic effects of the wage change, and of relinquishing any claim to having predicted (as opposed to assumed) the change in employment. The technique's strength lies in its ability to work with the actual income distribution, to see how the probable gains and losses are shared among the poor and non-

poor, which is one of the key empirical determinants of the effect of the minimum wage. Macroeconomic models, by contrast, are typically formulated in terms of average wage levels for a small number of different labor types; thus for any given type the wage is either always above or always below the proposed minimum. In short, these models generate simulated income distributions that are too crude to yield plausible estimates of the net change in poverty and inequality that is likely to result from the application of the minimum wage.

### **3. Low-Wage Labor in South Africa**

Table 2 displays median wages in 1993, in dollars, by economic sector.<sup>7</sup> The data are taken from the Project for Statistics on Living Standards and Development (PSLSD), a survey of roughly 9,000 households (SALDRU 1994), which was the first nationally representative household survey for South Africa, and was patterned on the World Bank's Living Standards Measurement Surveys.<sup>8</sup> It contains detailed information on all sources of household income, from which poverty and inequality statistics may be derived. Wages are from regular (not casual) employment, and are net of taxes but include the estimated values of in kind payments and other benefits, which are particularly important in farming and domestic service.

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<sup>7</sup> Although larger and more recent datasets are available, and preferable in principle, they are not as well suited to calculating income from all sources. A first priority for further research is to update these figures.

<sup>8</sup> Deaton (1997) provides an overview of the LSMS surveys. Data and documentation are available on the Web at <http://www.worldbank.org/lms/>. I use a modified version of the dataset that incorporates minor corrections to pension and wage incomes. Data and programs will be supplied upon request to interested readers.

**Table 2**  
**Median Hourly Wages by Sector, 1993**  
**In \$US at Official Exchange Rate: R=\$0.31**

Agriculture, Fishing, Forestry	0.43
Domestic Services	0.62
Restaurants and Hotels	1.29
Construction	1.69
Mining	1.78
Wholesale and Retail	1.78
Manufacturing	1.85
Medical Services	2.24
Other Services	2.34
Armed Forces	2.43
Transport and Communications	2.49
Electricity and Water	2.56
Legal Services	2.90
Finance	3.53
Educational Services	3.74
<i>All Sectors</i>	<i>1.71</i>

Figure 1 shows that domestic service and agriculture account for the vast majority of the lowest-paid jobs, and about half of all jobs that paid less than \$1.25 per hour. Table 3 reports the mean and median monthly incomes for households with at least one employed member in the stated sector (thus there is some overlap between the domestic service and farming columns) compared to the national average, for all races. Poverty is defined according to the household subsistence levels developed by the Institute for Planning Research of the University of Port Elizabeth. In order to track the progress of the poorest of the poor an ultra-poverty line is defined at half of the poverty threshold.<sup>9</sup> The figures

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<sup>9</sup> These subsistence levels are defined for rural and urban households of an assumed size and age composition. To generalise these measures to apply to households of other sizes I follow South African precedent in defining the number of adult equivalents as the number of adults plus one half the number of children under 15, raised to the power of 0.9, an adjustment that is supposed to capture the economies of scale that are possible in larger households. The resulting monthly income requirement per adult equivalent is R207.64 for rural households and R267.21 for urban areas. These figures and all that follow are at 1993 prices. Given that a rand was worth about \$0.31 in that year (compared to about \$0.09 today), these figures work out to \$224 per month for a family of 2 adults and 4 young children in a rural area; and \$288 per month for the same family living in a city. This is higher than the dollar-a-day rule of thumb for a family of six (\$180 for the month). The ultrapoverty line for these two families would be \$112 and \$144.

reported here are weighted by the number of members in the household – they are individual not household poverty rates. Along with the intra-sectoral and overall Gini coefficients, these data serve as the baseline against which the results of the simulations will be judged.

**Table 3**  
**Income and Poverty By Economic Sector, 1993**  
**In SUS at Official Exchange Rate: R=\$0.31**

	Agriculture	Domestic Service	All
Individual Poverty Rate (%)	67.0	54.2	53.5
Number of Poor	1,949,000	1,514,000	21,643,000
Individual Ultrapoverty Rate (%)	35.9	24.9	30.2
Number of Ultrapoor	1,044,000	695,000	12,207,000
Mean Monthly HH Income (\$US)	441	351	642
Median Monthly HH Income (\$US)	176	237	299
HH Income Gini Coefficient	0.677	0.454	0.606

If the Minister’s recommendation is implemented, separate hourly wage rates for domestic workers in cities, towns, and rural areas will be set at R3.07, R2.56, and R2.05 respectively. At the current exchange rate of R11.22 to the dollar these rates seem low indeed, but the current exchange rate is a poor guide to purchasing power parity; the simulations using 1993 data are based on the 1993 rate of R3.23, which is more realistic.<sup>10</sup> I deflated the recommendations from 2002 to 1993 prices, yielding \$0.55, \$0.46, and \$0.37 for the three regions.<sup>11</sup> These fall at the 19<sup>th</sup>, 43<sup>rd</sup> and 40<sup>th</sup> percentiles of their respective regional distributions in 1993. The recommendations include provisions for overtime payments as well as limits on the deductions that are allowed for meals, room and board. None of these are modeled in my simulations, and it is clear that there will be considerable room for variation in this regard. Some have expressed a fear that cash wages will be increased but in-

<sup>10</sup> According to *The Economist’s* Big Mac Index, the current PPP exchange rate is R3.82 to the dollar.

<sup>11</sup> In applying these prices I was not able exactly to replicate the regional definitions specified in the proposal. I used the rural/urban/metro variable in the dataset which restricts “metro” to the three largest cities, whereas the proposal includes a longer list of cities in the top wage category. I have thus probably understated the effective minimum wage somewhat.

kind payments will be decreased. Moreover, it has often been noted that the fact that farmworkers and domestics frequently live on their employer's property puts them in an extremely vulnerable position: stories of arbitrary or vindictive termination and eviction abound. Despite these potential risks, minimum wages are strongly supported by the South African Domestic Service and Allied Workers Union, which lobbied for wages on the order of \$1.00 per hour.<sup>12</sup>

#### **4. Results**

Figure 2 presents the estimated effect of the proposed minimum wage for domestic workers. If there are no job losses (meaning the elasticity of employment with respect to the wage, plotted on the horizontal axis, is zero), then the individual ultrapovertry rate for all members of domestic-worker households falls by 18% (from 24.9% to 20.4%). The impact on poverty is smaller in absolute and proportionate terms: it falls by 3% (from 54.2% to 52.7%). As the elasticity rises (in absolute value), employment falls. At an elasticity of  $-0.6$ , for example, employment has fallen by 5%, and average earnings of those who remain in employment have risen by 9% compared to the status quo. At higher elasticities employment losses are greater and average earnings continue to rise, since only those who were earning less than the minimum are subject to disemployment. The estimated effect on poverty and ultrapovertry (for the same set of households) remains negative until the elasticity exceeds unity.

Figure 3 illustrates that the cross-over point for mean and median household income for domestic workers is also at unit elasticity, more or less. The income gains start at 3-5% and fall as the elasticity rises. The Gini coefficient for this set of households falls due to the minimum wage, by at most 3.4%, indicating a slight reduction in inequality; this figure also remains negative until the elasticity exceeds unity. The exception to this pattern is the behavior of mean log household income, which places greater weight on the income losses due to disemployment that leaves some households destitute; at elasticities above  $-0.60$ ,

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<sup>12</sup> It is often observed that union member "insiders" have little incentive to allow wages to fall, even if doing so would increase employment. It is rarely remarked, however, that union members *do* have an incentive to avoid *increasing* their wages to such a level that many are disemployed. The judgment of the domestic workers about what their employers can afford may ultimately be more reliable than that of the econometricians.

these losses outweigh the gains. If mean log income is accepted as a proxy for aggregate social welfare, the implication is that minimum wages are only socially beneficial at elasticities below this threshold.

These results suggest that minimum wages can have a noticeable effect on poverty among the employed. In the next figure I estimate the effect of a single national minimum wage on the overall poverty and ultrapoverly rates, including the large number of unemployed households. Two scenarios are compared: that of no disemployment and the case in which disemployment occurs with an elasticity of  $-0.75$ . In the former, a minimum wage of \$1.00 (which would affect 28% of the workforce) reduces poverty by 9.4% and ultrapoverly by 16%. With the disemployment effect, these numbers are reduced to 2% and 2.6%. At \$1.50 (which is the 42<sup>nd</sup> percentile of the 1993 wage distribution) poverty falls by 17% if there are no job losses, or 3% with job losses. Ultrapoverly, however, starts to rise as the disemployment effect begins to dominate: at \$1.50 the ultrapoverly rate is 5% above its status quo value (31.7% versus 30.2%). If there were no job losses, ultrapoverly would fall by about 19% (from 30.2% to 24.6%). The effect on the Gini is qualitatively similar: at \$1.50 it falls by 7% (to 0.56) if there are no job losses, but is essentially unchanged compared to the status quo in the job-loss scenario. Mean log household income (not shown) rises by 17 log points at a wage of \$1.50 if there are no job losses; at an assumed elasticity of  $-0.75$ , however, log income falls by 20 log points.<sup>13</sup>

A national minimum wage thus appears likely to reduce poverty and ultrapoverly, even if disemployment effects are strong. Its effect on social welfare, as measured by mean log household income, is less certain. However, even if no jobs are lost, and provided these calculations are correct, it appears that at most 20% of the problem of poverty is addressed by minimum wages that rise as high as the 40<sup>th</sup> percentile of the current distribution. This simply reflects the fact that many poor and ultrapoor households have no one in formal employment.

In earlier work (Hertz 2002) I reach a similar conclusion about the effects of *reducing* unskilled wages in South Africa but adding jobs: the effect on poverty may be positive or negative, but in either case it is small. In my best case scenario, with an elasticity of  $-0.91$ , a 24% cut in average unskilled wages reduces poverty by 0.7%, ultrapoverly by 3.3% and the

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<sup>13</sup> Recall that  $-0.60$  was the elasticity above which mean log income fell in the domestic worker simulation.

Gini by 0.3%. In the worst case, with an elasticity of  $-0.32$ , poverty, ultrapoverty and inequality all rise by a point or two.<sup>14</sup> In sum, at current employment levels, and assuming that the relationship between wages and employment is robustly negative, neither raising nor lowering unskilled wages would appear to generate enough new earnings/jobs to make much of a dent in poverty. The debate over whether wages are too high or too low at the bottom of the South African wage distribution may thus be something of a red herring for those whose first priority is rapid poverty alleviation at the national level. It is hardly immaterial, however, for those already-employed domestics and farmworkers who may well experience a net gain from the new legislation.

The national estimates would also look more favorable if the macroeconomic effects that I have ignored are in fact positive. One additional possible source of beneficial feedback would be the link between higher minimum wages and better labor relations and overall stability, given that social unrest has been shown to have a depressing effect on investment in South Africa, one which extends beyond the direct effect of unrest on profitability (Heintz 2001). On the other hand, I have assumed perfect enforcement of the minimum which is highly unlikely, given the preponderance of household and rural farm employment. Saget (2001) cites various surveys that find very low rates of compliance with minimum wage laws even in the non-agricultural, non-household sectors of many low-income economies. Non-compliance will attenuate the effects, both positive and negative, of the minimum wage. This would flatten the slopes of the various trajectories plotted in Figures 2 through 4.

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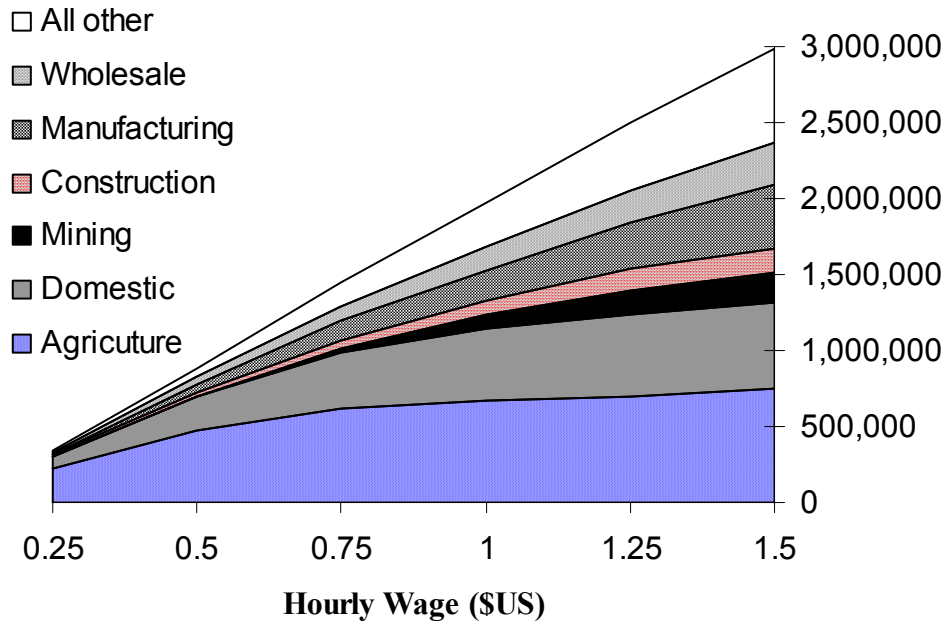
<sup>14</sup> These simulations are limited to the non-agricultural, non-domestic private sectors, where wages might plausibly be lowered.

## References

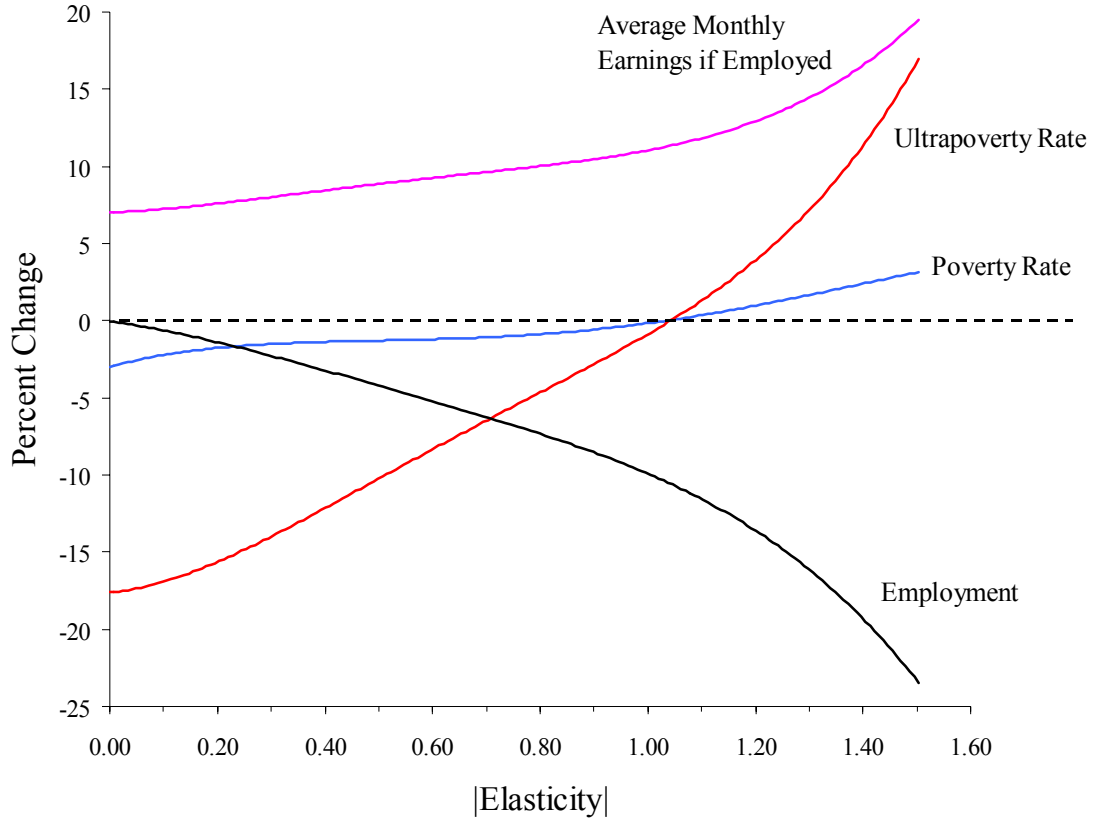
- Agenor, P; Aizenman, J; 1999. "Macroeconomic adjustment with segmented labour markets." *Journal of Development Economics* 58(2): 277-296.
- Bell, L; 1997. "The impact of minimum wages in Columbia and Mexico" *Journal of Labor Economics*, 15(3): S102-S135.
- Bowles S, Heintz J; 1996. "Wages and jobs in the South African economy: an econometric investigation." Unpublished.
- Camargo, J M.; Garcia, N E.; 1994. "Stabilization , minimum wages and poverty." Unpublished.
- Deaton, A.; 1997. *The Analysis of Household Surveys: A Microeconometric Approach to Development Policy*. Washington: World Bank.
- Department of Labour [of the Republic of South Africa]; 2001a. "Investigation into Minimum Wages and Conditions of Employment of Domestic Workers." Internet URL: <http://www.polity.org.za/govdocs/reports/labour/domestic/exesumm.htm>.
- Department of Labour [of the Republic of South Africa]; 2001b. "Determination of Employment Conditions in South African Agriculture" Internet URL: <http://www.polity.org.za/govdocs/reports/labour/farms/execsumkm.html>
- Fallon P; 1992. "An analysis of employment and wage behaviour in South Africa." Informal discussion papers on aspects of the economy of South Africa, no. 3. Washington: World Bank Southern Africa Department.
- Fallon P, Lucas R; 1998. South African labor markets: adjustment and inequality. Informal discussion papers on aspects of the economy of South Africa, no. 12. Washington: World Bank Southern Africa Department.
- Fields, G; 1994. "The unemployment effect of minimum wages." *International Journal of Manpower* 15(2-3):74-81.
- Gibson B, van Seventer D; 1998. "Real wages, employment and macroeconomic policy in a structuralist model for South Africa." Unpublished.
- Gilson, D; 2001. "The Home Front: Black domestic workers say low wages and poor treatment are apartheid holdovers" Berkeley Journalism Project.
- Hamermesh, D; 1993. *Labor Demand*. Princeton: Princeton University Press.

- Heintz J; 2001. *Investment, labor demand, and political conflict in South Africa*. PhD. Dissertation, University of Massachusetts.
- Hertz T; 2002. "Can Wage Cuts Reduce Poverty? Simulation Evidence from South Africa." Unpublished.
- Kreuger, A; "The Effect of the Minimum Wage When it Really Bites: A Reexamination of the Evidence From Puerto Rico." National Bureau of Economic Research Working Paper: 4757.
- Loewald, C; 2000. "Review of labour market research conducted in 1999" Unpublished: Macroeconomic Policy Unit, The Budget Office, Republic of South Africa.
- Lustig, N C; McLeod D; 1997. "Minimum wages and poverty in developing countries: Some empirical evidence." In Edwards and Lustig, eds.: *Labour markets in Latin America: Combining social protection with market flexibility*. Washington: The Brookings Institution Press: 62-103.
- MERG [Macroeconomic Research Group]; 1993. *Making Democracy Work: A Framework for Macroeconomic Policy in South Africa*. Cape Town: Center for Development Studies.
- Saget, C; 2001. "Poverty reduction and decent work in developing countries: Do minimum wages help?" *International Labour Review* 140(3):237-269.
- SALDRU [Southern Africa Labour and Development Research Unit]; 1994. *South Africans Rich and Poor: Baseline Household Statistics*. Cape Town: SALDRU.
- SARB [South African Reserve Bank]; 2001. *Annual Economic Report 2001*.
- Skoufias, E; Roberts M; 1997. "The Long-Run Demand for Skilled and Unskilled Labor in Colombian Manufacturing Plants" *Review of Economics and Statistics* 79(2): 330-34.
- Statistics South Africa; 2000. *October Household Survey 1999*. Statistical release P0317.
- van Schalkwyk H D; Groenewald J A; 1992. "Regional analysis of South African agricultural resource use and productivity." *Agrekon* 31(3): 116.
- World Bank; 1995. *Key Indicators of Poverty in South Africa*. Pretoria: South African Communication Service.

**Figure 1**  
**Sectoral Distribution of Low-Wage Employment, 1993**



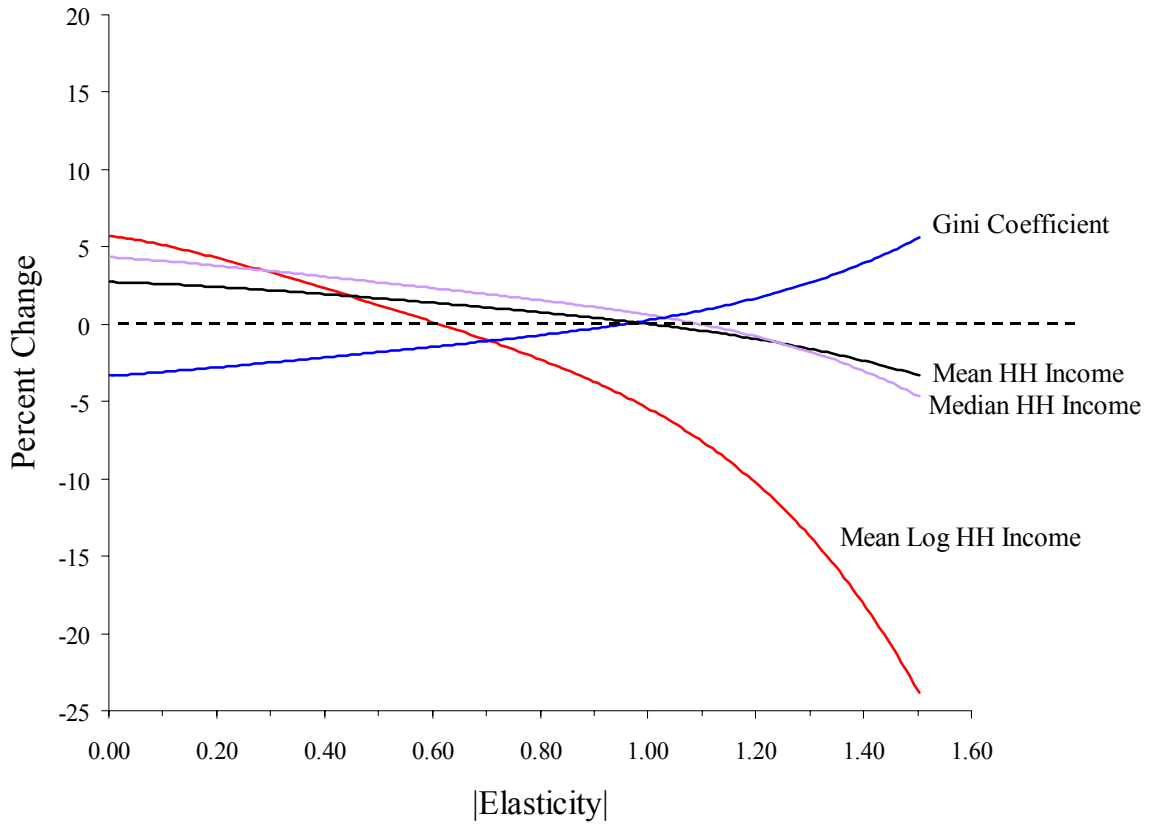
**Figure 2**  
**The Effect of the Proposed Minimum Wage for Domestic Service Workers**  
**on Their Earnings, Employment, Poverty and Ultrapoverty**  
**As a Function of the Assumed Elasticity of Employment to the Average Wage**



Notes: The vertical axis measures the percentage change compared to the status quo of (a) the number of people living in poor and ultrapoor households, for the set of households that initially had at least one member employed as a domestic worker; (b) total employment of domestic workers; and (c) mean monthly earnings of employed domestic workers.

**Figure 3**

**The Effect of the Proposed Minimum Wage for Domestic Service Workers  
on Household Income and Intra-Group Inequality  
As a Function of the Assumed Elasticity of Employment to the Average Wage**



Notes: Household income and the Gini coefficient are calculated for the set of households that initially had at least one member employed as a domestic worker.

**Figure 4**  
**Simulated Effect of a National Minimum Wage**  
**Comparing Elasticities of Zero and -0.75**

