How Important is the Minimum Wage?
Wage Contours and Job Impacts

by Oren M. Levin-Waldman

Congress has not raised the federal minimum wage from its current rate of $5.15 per hour since 1997. This means that its value in real terms has only declined since. Although there have been efforts since to get Congress to pass minimum wage increases, they have been to no avail. More recent proposals to increase the federal minimum wage were similarly defeated principally because of the opposition of Republicans in Congress and President Bush. Those who oppose raising the minimum wage claim that increases will not only hurt small businesses, but have harmful effects on employment, especially the young who occupy entry-level positions. And yet, the failure to raise the federal minimum wage has only prompted states like New York and New Jersey to raise their own minimum wages. Whether there is substance to the claims of minimum wage opponents is really irrelevant, because to focus the debate solely on those who might be harmed in entry-level jobs, or those who earn only the statutory minimum wage, is to construct the minimum wage labor market too narrowly. The issue is not who actually earns the statutory minimum wage, but who earns around the minimum wage. On the contrary, the minimum wage is a reference point for other wages around it, and when viewed in these terms it becomes a much more significant issue, especially in the political arena where the outcomes of the policy process are often viewed as zero-sum. When the minimum wage, and the labor market earning it, is constructed more broadly, not only is it the case that a significant proportion of the labor market earns it, but that we are also able to gain some insight into why it is such a heated political issue.

In this paper, I look at the low-wage labor market by constructing wage contours around the statutory minimum wage with data from the Integrated Public Use Microdata Series (IPUMS) for the years 1970-2000. When the minimum wage population is viewed through the lenses of particularly the first two contours of the wage distribution, the labor market actually earning effective minimum wages is not all that insignificant. I show that most of those earning in the first two contours are indeed primary earners, as well as essential secondary earners. Moreover, a large percentage of earners in these first two contours are the sole source of their family's total income. This, of course, would suggest that the problem of low-wage labor is considerably bigger than is often presented in the literature, and certainly presented in policy debates. But in terms of policy it implies a constructive role for the minimum wage as a macro policy designed to boost workers' earnings and ultimately their purchasing power.

The Narrowness of the Debate

Opposition to minimum wage increases often centers around the following claims: first, an increase in the minimum wage will lead to reduced employment, particularly among the youth labor market. Because a mandated minimum wage prevents the cost of labor from dropping below that floor, all the labor that could have been consumed at the market-clearing rate will not be, with the result being unemployment. Therefore, the minimum wage is highly inefficient because it prevents the full utilization of labor resources. But it is also poorly targeted because most of those earning the minimum wage are either teenagers or secondary earners, and is thus of no benefit to those who may need it the most. On the contrary, it will hurt precisely those who were supposed to be helped because employers may compensate for increases by substituting skilled labor for those currently earning the minimum wage, most of whom are unskilled.

Still, the question remains: if the minimum wage labor market is so small why has it been such a contentious political issue? For an issue supposedly affecting only a very small fraction of the labor market, the minimum wage has often stirred passions. Initial opposition to the minimum wage stemmed from the South, where the overall wage structure was generally lower. Meanwhile, more unionized states in the North tended to support the minimum wage because it was viewed as a means of equalizing regional wage disparities, thereby making capital

flight from the North to the South less attractive.[5] Over the years, however, opposition in Congress specifically tended to come from those representing right-to-work states, and that opposition typically cuts across party lines.[6] The wage structure in the South was lower largely because of the absence of the type of wage institutions that were already in place in much of the industrialized North.[7] Institutions, in short, do make a difference because they bolster the wage rates of those at the bottom of the wage distribution and serve to lessen income inequality.[8]

Who earns the minimum wage has also been controversial. The minimum wage orthodoxy, especially following the 1981 report of the federal Minimum Wage Study Commission (MWSC), maintains that most minimum wage earners are not primary earners, but mostly secondary earners, whether they be spouses or teenagers. Therefore, to increase the minimum wage may be counterproductive because it will not target those who need it the most.[9] The MWSC report specifically found that while at least 68 percent of minimum wage workers were in families headed by married couples, only 14 percent of low-wage workers were found to be the sole earners. Rather, 54 percent of these workers were in families with two or more earners, thereby implying that their income was not essential to the maintenance of their households. While the MWSC found that as much as 17 percent of families had minimum wage workers, they were not considered to be primary earners. In both middle income and higher income families, there was a greater tendency for minimum wage earners to be spouses and teenagers respectively.[10]

These findings, however, never addressed the question of whether the income of these minimum wage earners, even if secondary, might have been essential to the economic health of their families. The claim that most minimum wage workers are teenagers has certainly been challenged. On the contrary, most minimum wage earners were adults with economic responsibilities.[11] Moreover, other research in recent years has called into question the prevailing wisdom that increases in the minimum wage lead to negative employment consequences.[12] Even traditional neoclassical analyses that are likely to cite employment consequences recognize the issue to be more complicated than what is often presented. Some groups may simply be less likely to experience employment consequences than others.[13] And yet, because it has been conventional wisdom that mini-

mum wage workers are teenagers, the focus of much of the empirical work has been on the teen labor market, which only has the effect of obscuring the larger issues involved.

All of this tends to divert attention from the low-wage population itself. We lose sight of the larger minimum wage population when we look at the issue in its narrowest sense. The question to ask is not who specifically earns the statutory minimum wage, which most databases would show very little reading. Rather the appropriate question is who earns around the statutory minimum wage, specifically in wage contours that include the statutory minimum wage and those in the immediate contours above it. In this regard, it would be better to conceive of the effective minimum wage population as those earning at least in the first contour of the wage distribution, and perhaps the second, with each contour spanning a range of 25 percent.

Therefore, when conceiving of the effective minimum wage population in terms of wage contours, the statutory minimum wage's importance lies in its serving as a reference point for wage rates in similar industries requiring similar skills. The statutory minimum wage may have limited impact because relatively few actually earn the statutory minimum wage, but it does impact those earning in contours above it.[14] While neoclassical theory focuses principally on the negative employment consequences that may result from increases in the statutory minimum wage, the argument that such increases may lead to inflationary pressures on wage rates would appear to be a tacit recognition of contour effects.[15]

John Dunlop first developed wage contour theory during the 1950s to explain how a firm's internal wage structure might be as much affected by external forces as internal ones. Wage contours were to be defined as a group of workers with similar characteristics working in similar industries and earning similar wages. And for each group there would be a group of rates surrounding a key rate, and these group rates would be affected by changes in the key rate. Within an industry, the key rate would essentially be defined as any rate serving as the reference point for that industry. Since key rates were specific to industries, they could also vary from industry to industry.[16] Perhaps the essential point of wage contour theory is that to the extent that certain wage rates serve as reference points for wages around them, there is nothing necessarily natural about

wage rates. On the contrary, more recent research has only shown that firms have considered the statutory minimum wage to be nothing more than a reference point for wages around it — that is, a reference point for what starting wages perhaps ought to be. When confronted with a statutory increase in the minimum wage, firms simply maintain their internal wage structures.[17] This would then suggest that wage rates are determined more by institutions — such as unions and the minimum wage that can serve as key rates of change — than the natural market place, which would imply that as the statutory minimum wage increases so too does the starting wage, thereby shifting upward the general wage structure.

Low-Wage Earners

Data for this study are drawn from the IPUMS for the years 1970-2000. The IPUMS are decennial census files containing a uniform set of variables throughout each file. Because my concern is with those earning at the bottom of the wage distribution, I only look at those individuals specifically working for wages. Also because I am looking at national level data, I construct my contours on the basis of the federal minimum wage. Although the last minimum wage increase was in 1997, which followed many years of stagnation, the progression from 1970 to 2000 shows an increase in the minimum wage from $1.60 to the current rate of $5.15 an hour. For each census year, then, I construct the following five wage contours which can be seen in Table 1

Beginning with the statutory minimum wage in each year (on the basis of a forty hour work week for 52 weeks) as a point of departure, each contour ranges 25 percent. As a result, the top hourly wage in the fifth contour is $4.94 per hour in 1970 compared to $16.92 per hour in 2000. Arguably, this could have the effect of inflating the number of those wage workers falling into the first two contours, at least in those states with higher minimum wages. But the point of this analysis isn't to look at those specifically earning the statutory minimum wage, but those earning within ranges that are shaped by the minimum wage as a reference point. Therefore, by constructing each contour on the basis of a range, the effect should include those who may be earning higher state minima.

When looking at the distribution of those who fall into a particular wage contour, as shown in Table 2, we still find that the first two contours in each year may contain a relatively small percentage of the overall wage distribution for each year. And yet, a sizeable percentage of those working for wages are in families earning no more than the top of the fifth contour. Between 1970-2000 there was a general decline in the value of wages. A greater number of individuals working for wages in 1970 were in families earning no more than the top of the fifth contour than was the case in 2000. At the same time, a family whose earnings were in the fifth contour was also earning at the median level. This was drastically different by 2000. Fifth contour earnings in 2000 would by many standards — certainly those of the

Table 1
Wage Contours 1970-2000

	First	Second	Third	Fourth	Fifth
1970	$1.60-2.00	$2.01-2.50	$2.51-3.15	$3.16-3.94	$3.95-4.94
	$3328-4160	$4161-5200	$5201-6502	$6553-8195	$8196-10275
1980	$3.10-3.88	3.89-4.86	4.87-6.09	6.10-7.63	7.64-9.55
	$6448-8070	8071-10109	10110-12667	12668-15870	15871-19864
1990	$3.80-4.75	4.76-5.95	5.96-7.45	7.46-9.32	9.33-11.94
	$7904-9880	9881-12376	12397-15496	15497-19386	19387-24835
2000	$5.15-6.44	6.45–8.25	8.26-10.57	10.58-13.72	13.73-16.92
	$10712-13395	13396-17160	17161-21986	21987-27498	27498-35194

Table 2
Earner Distribution of First and Second Contours 1970-2000

	1970	1980	1990	2000
Median Family Income	$10,150	$21,260	$37,000	$51,000
Percentage of Families earning no more than top of Fifth Contour	50.5%	43.3%	29.5 %	31.6%
Median Individual Wage Income	$3,550	$7,805	$13,734	$20,000

	1st	2nd	1st	2nd	1st	2nd	1st	2nd
Percentages								
Of All Wage Earners	6.7	7.3	7.8	8.9	4.7	7.6	5.1	7.2
Sole Family Income	17.6	21.6	17.9	21.1	14.0	16.7	17.2	19.7
Primary Earners	45.0	43.3	43.8	41.4	34.8	31.4	39.1	35.8
Essential Secondary Earners	13.1	13.5	12.3	12.8	10.7	11.0	10.4	11.6
Less Essential Secondary Earners	37.0	39.2	22.7	24.4	24.1	25.3	17.0	18.2
Other	4.9	4.1	21.1	9.6	30.5	32.3	34.6	34.3

U.S. Census — be considered a middle class income, but in 2000 that was much below the median family income. Less obvious from this trajectory is the declining value of the minimum wage, which was 107.4 percent of the federal poverty line for a family of three and which by the late 1990s was 78.1 percent of the poverty line.[17] Although much of this trajectory can be accounted for by changes in the economic base of the country from manufacturing to services, that focus unfortunately tends to overlook just who is in the low wage labor market, which, according to this trajectory, is actually much larger than the general literature on the minimum wage suggests.

Contrary to much of the minimum wage literature that maintains that most minimum wage earners are not primary earners in their families, data from the IPUMS suggest that sizeable numbers of first and second contour wage earners are indeed primary earners. And if they are not the primary earners, they are at least essential secondary earners. For purposes of this analysis, I define primary earners as those who are earning at least half of the total family income, and certainly those who are earning slightly more. Therefore, those who are wage workers in families where the total family income does not exceed the top of the fourth contour could be considered primary earners. Those who are earning slightly less than half of the total family income could be considered essential secondary earners because their income is essential to the maintenance of their families. Generally, earners in the essential secondary category are those in families whose total income falls within the fifth contour. Those in families then earning up to $25,000 in 1970 and as much as $50,000 in 2000 are considered secondary earners.

Although there is a drop in the percentage of those particularly in the first contour who are the primary earners in their families during this period, the drop in the percentage of those in the first contour who are the sole source of their

families' total incomes is quite negligible in 2000. That such a large percentage of what we might call effective minimum wage earners are the sole source of income for their families, not to mention primary and essential secondary earners, calls into question the widely held view that those earning minimum wage simply do not need it.

Basic demographics also suggest that many of the assumptions made about the minimum wage population may not be entirely true. Intuitively we would expect those wage earners earning the effective minimum wage to be less educated and to be concentrated in the retail industry. In terms of age we might also expect that they would generally be younger, perhaps reflecting a tendency for wages to increase as one gets older. Low wages at the beginning of one's working life thus would not be considered out of the ordinary as Table 3 suggests. When sorting out on the basis of age and education, the highest concentrations are among the 18-24 age cohort and among those who have no more than an 11th grade education. But on the basis of industry, the highest concentrations are not retail until 1990. In both 1970 and 1980, the highest concentrations of both first and second contour earners are in manufacturing.

As already noted, wage rates have traditionally been lower in the South, and it was from the South that much of the initial opposition to the minimum wage came from. As Table 3 makes clear, the South has by far more wage earners in the first contour than anyplace else. Opponents of minimum wage increases typically claim that the minimum wage is an inefficient means of assisting low-wage workers with families because most minimum wage earners are teenagers living at home in households with incomes well above the poverty line. The number of teenage wage earners in the first contour appears to be quite negligible. The largest percentage of wage earners in the first contour throughout the four decades appears to be among the 18-24 age cohort, with the 25-34 age cohort — a prime child bearing age — being the second largest percentage of wage earners in the first contour, for the exception of 1970. The largest percentage of wage earners in the second contour, however, is the 35-44 age cohort — a cohort that could also be considered one of prime child bearing age. To the extent that the first two wage contours are reflective of the overall low-wage population, and especially the first, they are not really in the teen labor market. Rather, a sizeable percentage of the low-wage labor market overall, and the effective minimum wage

population, appear to be adults who are also perhaps likely to be parents needing to support children.

In 1970 most first and second contour wage earners had no more than an 11th grade education, but by 2000 there were fewer wage earners in the first two contours with no more than an 11th grade education. It is also interesting to note that in 1970 that more first and second contour wage earners were men, whereas by 2000 more were women — which itself might speak to the feminization of poverty. This is actually consistent with other studies that have shown that during this period while there was an overall increase in poverty, there was an even greater increase in poverty among women.[18]

Ultimately what stands out are the industry and occupation compositions. In 1970, manufacturing held the largest percentage of first contour workers, followed by retail, and then by professional. In terms of occupation, the larger percentage of first contour workers were operatives. While operatives include parking attendants, bus drivers, railroad workers, delivery people, and laundry workers, it also includes those who are apprenticing to some of the more lucrative occupations like auto mechanic, electrician, plumber, machinists, and carpenters. By 2000, however, this had changed when the industry with the largest share of first contour workers was retail trade. Also service workers constituted the largest percentage of first contour workers, followed by sales workers.

1st Contour Workers & Primary Earners

Based on the figures in Table 3, it might be inferred that wage workers with no more than an 11th grade education in the 18-24 age cohort and from the South are more likely to be earning in the first contour. Women in later decades, especially those in manufacturing through 1980 and those in retail trade following 1980, appear to be more likely to be working for wages in the first contour of the wage distribution. To test these inferences, I conducted a logistical regression analysis to determine which variables were likely to show a greater probability for earning in the first contour and also which ones were likely to show a greater probability for being a primary earner, while controlling for the effects of occupation and race. The regressions revolved around two models, each containing

Table 3
Selected Demographics of Individual Wage Earners in the First Two Wage Contours, 1970-2000 (Percentages)

	1970 1st	1970 2nd	1980 1st	1980 2nd	1990 1st	1990 2nd	2000 1st	2000 2nd
Region								
Northeast	20.3	23.4	17.4	20.2	13.3	14.1	14.7	15.5
Midwest	20.6	21.4	19.9	21.2	21.0	21.0	20.6	21.3
South	39.2	33.6	39.6	36.0	42.9	41.6	42.8	42.1
West	15.3	16.9	20.6	21.0	21.3	21.5	22.0	21.2
Age								
0-17	.8	.5	.4	.2	.5	.2	.6	.3
18-24	27.0	22.2	31.1	24.0	26.1	22.4	23.6	19.7
25-34	19.8	22.8	28.5	33.0	27.0	31.2	23.7	26.2
45-44	16.9	17.8	15.3	16.3	18.7	20.6	21.9	23.1
45-54	18.1	18.9	12.7	13.6	12.2	13.3	15.8	17.1
55-64	13.8	14.4	10.0	10.9	8.8	9.1	9.3	9.5
65-74	2.6	2.7	1.5	1.6	5.3	2.2	3.5	3.0
75+	.9	.7	.5	.4	1.4	1.1	1.5	1.1
Education								
11th Grade or less	55.3	49.6	30.9	25.5	26.5	22.6	20.6	18.7
12th grade, no diploma					5.0	4.7	6.0	5.4
High School graduate	30.0	35.2	40.2	41.6	32.9	35.0	34.1	35.5
Some College	9.2	10.3	18.1	20.5	19.4	20.9	23.1	23.4
Associate Degree					4.9	5.3	5.3	5.4
B.A. degree	3.3	3.0	6.5	8.0	8.2	8.1	8.0	8.4
Graduate or Professional degree	2.3	2.0	4.3	4.4	3.1	3.4	3.0	3.2
Employment Status								
Employed	90.5	92.9	90.8	93.3	86.9	89.6	83.4	85.9
Unemployed	4.2	3.4	5.2	3.8	6.1	5.2	4.9	4.2
Not in labor force	5.2	3.7	3.9	2.8	7.0	5.2	11.8	9.9
Sex								
Male	57.3	63.9	50.5	54.4	48.4	52.9	45.6	49.9
Female	42.7	36.1	49.5	45.6	51.6	48.0	54.4	50.1
Race								
White	80.0	83.2	79.1	81.9	77.6	80.4	65.7	67.3
Black	18.5	15.5	18.0	15.6	18.2	15.9	18.7	17.7
Other Asian/Pacific Islander	.3	.3	.9	.8	1.5	1.6	1.9	1.9

Table 3 (cont.)
Selected Demographics of Individual Wage Earners in the First
Two Wage Contours, 1970-2000 (Percentages)

	1970		1980		1990		2000	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd
Industry								
Agric., Forestry & Fishing	3.8	2.7	2.9	2.3	4.4	3.7	3.4	3.1
Mining	1.0	1.3	.7	1.0	.5	.6	.3	.3
Construction	7.5	7.7	6.4	6.7	7.1	7.6	6.4	7.3
Manufacturing	26.5	28.5	21.2	23.2	17.4	18.9	14.3	16.0
Transportation	5.6	7.0	4.7	5.5	3.8	4.6	3.5	4.3
Wholesale Trade	3.8	4.3	3.7	4.3	3.1	3.9	2.7	3.0
Retail Trade	16.7	13.6	16.3	13.3	24.0	20.2	25.9	22.0
Finance, Insurance and Real Estate	4.4	5.0	6.1	6.6	3.8	4.7	3.8	4.4
Services	8.4	6.7	8.4	7.0	10.6	10.1	10.2	10.3
Entertainment	1.1	1.0	1.5	1.4	1.7	1.9	2.8	2.5
Professional & Related	15.5	13.8	19.4	19.3	20.4	19.0	23.7	23.0
Public Administration	5.5	8.3	8.6	9.4	3.2	4.8	3.0	3.7
Occupation								
Professional	7.4	7.1	10.5	12.1	11.2	11.0	11.1	12.1
Managers, Officers & Proprietors	2.7	3.1	5.2	6.6	5.3	7.0	4.8	5.9
Sales Workers	21.4	25.0	24.5	28.8	20.6	21.9	24.3	24.9
Craftsmen	13.0	17.1	13.6	14.7	9.4	12.1	9.1	11.0
Operatives	26.8	25.8	18.8	17.9	18.0	18.8	16.3	17.1
Service Workers	17.7	12.7	17.3	12.8	24.9	19.8	26.2	21.2
Farm Laborers	3.0	1.9	1.8	1.4	2.5	1.8	1.8	1.5
Laborers	8.0	7.3	6.3	5.7	7.9	7.6	6.3	6.4

two equations: one for the dependent variable of being in the first contour and the other for the dependent variable of being a primary earner. The first model, then, tested for the effects of region, specifically South and Northeast; gender; race; industry, specifically manufacturing and retail; occupation, specifically operatives and service workers; educational attainment, i.e. those with no more than an 11th grade education; and age, specifically those in the 18-24 age cohort and those in the child bearing age cohort of 25-34. Based on the first model, then, the second model tested for the interactions between these variables on the same dependent variables, specifically between gender and region; race and region; race and industry; race and occupation; region and industry; region and occupation; gender and industry; gender and occupation; gender and age; gender and race; age and educational attainment; and for the dependent variable of being a primary earner, contour and age; and contour and region. The values of all variables

were set to 1, with coefficients closer to 1 reflecting greater effect. In the pages that follow, I will summarize the basic findings.[19]

Intuitively, one would expect that wage earners with no more than an 11th grade education and those in the beginning of their working lives, i.e. those in the 18-24 age cohort, to be more likely to fall into the first contour and that those factors would be more important than those concerning industry, occupation, race, gender, and religion. But relative to other variables, one who had no more than an 11th grade education was no more likely to be in the first contour. And yet, having no more than an 11th grade education did have a very strong positive effect for being a primary earner, an effect that continued to be quite strong despite a slight decline by 2000. Those most likely to be earning in the first wage contour were women between the ages of 18-24 and those who were working as operatives. Which is to say that women earn less because, in part, they always have whether as a function of discrimination or because of child rearing responsibilities that have interrupted their labor force participation. And those who are young — in the early years of their working lives — and those who are training can naturally be expected to earn less. Meanwhile, the probability that women between the ages of 18-24 would be primary earners increased between 1970-2000 and was quite strong by 2000. Operatives also appeared to have a higher probability of being primary earners.

It will be recalled from Table 3 that a high concentration of first contour wage earners are in the South. Logit regression coefficients showed that being in the South did have a positive effect for being a first contour wage earner. Although that effect was relatively small by 2000, it was nonetheless positive. By contrast, being in the Northeast had relatively small positive effects in 1970, and by 2000 they were negative. And yet, a worker in the South was still more likely than one in the Northeast to be a primary earner, both at the beginning of this period and at the end, thus suggesting some wage differentials do remain.

The likelihood of being a first contour wage earner did not appear to be affected by race. Relative to other variables, for instance, the effects of being black for being a first contour wage earner did not appear to be very strong, and they only became weaker by 2000. But relative to other variables,

blacks were more likely to be primary earners. Although the effect did diminish by 2000, it was still relatively strong. Over the same 30 year period the effects of being a black worker for being in the first contour were relatively weak to begin with and diminished further, which appears to be consistent with some of the literature suggesting that blacks have been becoming less distinguishable from whites with regards to market earnings.[20] At the same time, while both black and white labor force participation declined since 1960, the decline for blacks was greater.[20]

It is often commonplace to picture the low-wage worker, especially the one who is working for an effective minimum wage, as a service worker specifically in the retail industry. In 1970 and 1980, those working in retail and those working as service workers had a negative probability of being in the first contour. Does this then mean that wages in retail were relatively high but declined during the last two decades? Again, this might be related to the changing base of the economy where the disappearance of higher paying industrial manufacturing jobs has left only retail and service jobs in their wake. It is not until 1990 that those variables have positive effects, which only become stronger by 2000. Interestingly enough, the retail worker was more likely to be a primary earner in 2000 than in 1970. In both 1970 and 1980, a worker in the South was more likely to be in the first contour than either the retail worker or the service worker, which again underscores the differential wage structure between the South and other regions of the country.

In 1970 female workers in manufacturing appear to have a greater probability of earning in the first contour, followed by operatives in the South. At the same time, manufacturing by itself did not have a strong effect for earning in the first contour, whereas being a female worker in manufacturing did. And yet, female workers in manufacturing were not as likely to be primary earners while operatives in the South were. Of greater interest is that women in manufacturing had a greater probability of earning in the first contour than did women in the 18-24 age cohort. On the other hand, woman in the 18-24 age cohort had a greater probability of being primary earners.

Beginning in 1980, however, the positive effect of women working in manufacturing for being a wage earner in the first contour did appear to weaken. Does this mean that

women actually made wage gains in manufacturing? Or do their apparent gains simply reflect the general decline in manufacturing? Still, women in manufacturing were most likely to be earning in the first contour, followed by women of child bearing age, i.e. those in the 25-34 age cohort. By 1990, women of child bearing age did have a greater probability of being both a first contour wage earner and primary earner, but it still was not as strong as women in manufacturing. Still, operatives and those in the 18-24 age cohort were most likely to be both first contour wage earners and primary earners, followed by female service workers, and this trend only appears to have continued through 2000. That many operatives in the 18-25 age cohort were apprentices to occupations that will eventually pay better should not at all be considered out of the ordinary. We would expect that workers in training would be earning less money than their fully trained and more experienced counterparts. Of interest, however, is that the effects of being a female service worker for being in the first contour increased over the 30 year period. It is perhaps this trend that raises the troubling question of whether female service workers are more likely to be in the first contour because the service jobs they occupy pay low. Or whether low-wage service occupations pay only effective minimum wage because it is females who hold them.

On one level, the regression analysis only confirmed our intuition of how things ought to be. But on another level, they showed that contrary to the conventional wisdom of the minimum wage labor market, many first contour wage earners, i.e. effective minimum wage earners, are also the primary earners in their families. The effect of being a first contour wage earner for being a primary earner only grew over the 30 year period from 1970-2000, which is the opposite of what we might expect given the claims typically made about the composition of the minimum wage labor market. On the contrary, effective minimum wage earners are indeed likely to be primary earners.

The regressions also showed some interesting interactions. In 1970, being a first contour wage earner in the 25-34 age cohort had a positive effect for being a primary earner, as did being a first contour wage earner in the South, and being a female service worker. Also, black workers in the South, followed by operatives in the South, had a greater probability of being a primary earner than did service workers with no more than an 11th grade education. And yet, workers with no more than an 11th grade education

themselves were less likely to be first contour wage earners, even though they were more likely to be primary earners than black workers and/or service workers.

On its simplest level, that workers with certain demographics are primary earners — demographics that we might associate with perhaps being a secondary earner — suggests that there are workers who obviously need to work, and that they will do what they need to for the sake of their families even if the wages are low. On another level, primary earners come in all different stripes. It does not follow that one who is likely to be a first contour wage earner is also likely to be a primary earner. Still, that so many first contour earners, particularly of child bearing age have a high probability of being a primary earner would also appear to be sufficient to undermine the common mythology surrounding the minimum wage and who earns it.

Conclusion

Data from the IPUMS from 1970-2000 do make it clear that the minimum wage labor market is actually quite broader than much of the conventional wisdom of who earns the minimum wage would actually suggest. It is true that younger workers and those in occupations that require that they first work as apprentices are more likely to be first contour or effective minimum wage earners. But women, and even women in manufacturing, are also likely to be first contour wage earners. And this is in spite of the fact that manufacturing workers generally are not likely to be earning the effective minimum wage. More importantly, the data demonstrates, contrary to the general literature including the findings of the MWSC, that effective minimum wage workers do indeed have a strong probability of being primary earners. Moreover, this probability is even stronger for effective minimum wage earners who are of child bearing age.

The policy implications of these findings, then, could not be much plainer. A chief argument of those opposed to increases in the minimum wage was always that because 1) the size of the minimum wage labor market was negligible and 2) most minimum wage earners were teenagers and/or other secondary earners, the negative effects of raising the minimum wage would outweigh any potential benefits. Because the data in this paper seriously challenges the two fundamental premises upon which this argument rests,

policymakers should not take it as an article of faith that potential consequences will outweigh the benefits. On the contrary, to the extent that the data does perhaps challenge a reigning orthodoxy, there is room to explore the other benefits that accrue to raising the minimum wage, especially the broader macroeconomic ones. At issue in the minimum wage debate is not that increases will necessarily lead to employment consequences, but that increases will impact other wage contours, particularly those immediately above the statutory minimum wage. And to the extent that it may, it then challenges another orthodoxy in free market economies, namely that wage rates are determined by natural market forces. Wage rates are indeed determined by institutions, and those institutions make a significant difference when it comes to achieving a more equitable society. On the other hand, that it may impact on other wage contours ultimately clues us into why on the political level the minimum wage has been such a controversial issue. As an example, New York State passed a law in December 2004 requiring an immediate increase in the state's minimum wage to $6.00 per hour on January 1, 2005, and rising to $7.15 per hour by January 1, 2007. While some of the smaller businesses were concerned that they might have to reduce hours and benefits to compensate for the higher wage, others were concerned about the ripple effects — that "If the minimum wage goes up a dollar, everyone will want a dollar increase." We do not have sufficient data on this. Ultimately, we need to do more research into employer behavior, i.e. whether increases in statutory minimum wages, result in raising the wages of those in contours immediately above, particularly in states like New York and New Jersey that have recently raised their respective state minimum wages.

Oren M. Levin-Waldman teaches at the Graduate School for Public Affairs and Administration, Metropolitan College of New York, New York, NY. He is the author of The Case of the Minimum Wage: Competing Policy Models (Albany, State University of New York Press, 2001)

Notes

[1] Oren M. Levin-Waldman, "The Minimum Wage and Regional Wage Structure: Implications for Income Distribution," *Journal of Economic Issues* 36, 3 (September 2002):635-657.

[2] William E. Spriggs and Bruce W. Klein, *Raising the Floor: The Effects of the Minimum Wage on Low-Wage Workers* (Washington, Economic Policy Institute, 1994) and David M. Gordon, *Fat and Mean: The Corporate Squeeze of Working Americans and the Myth of Managerial "Downsizing"* (New York, The Free Press, 1996)

[3] Eric D. Schansberg, *Poor Policy: How Government Harms the Poor* (Boulder, CO: Westview Press, 1996).

[4] Oren M. Levin-Waldman, *The Case of the Minimum Wage: Competing Policy Models* (Albany, State University of New York Press, 2001)

[5] Willis J. Nordlund, *The Quest for a Living Wage: The History of the Federal Minimum Wage Program* (Westport, Greenwood Press, 1997) and Jerold Waltman, The Politics of the Minimum Wage (Champaign, IL; University of Illinois Press, 2000).

[6] Oren M. Levin-Waldman, "Exploring the Politics of the Minimum Wage" *Journal of Economic Issues.* 32,3 (September 1998):773-802. Economic Issues. 32,3 (September):773-802 and *The Case of the Minimum Wage*

[7] Richard A. Lester, "Shortcomings of Marginal Analysis for Wage-Employment Problems," *The American Economic Review* 36,1 (March 1946):63-82 and "Reflections on the 'Labor Monopoly' Issue," *Journal of Political Economy* 55,6 (December 1947):513-536

[8] See, for example, John DiNardo and Thomas Lemieux, "Diverging Male Wage Inequality in the United States and Canada, 1981-1988: Do Institutions Explain the Difference?" *Industrial and Labor Relations* Review 50, 4 (July 1997):629-650; Thomas Lemieux, "Estimating the Effects of Unions on Wage Inequality in a Panel Data Model with Comparative Advantage and Nonrandom Selection" *Journal of Labor Economics* 16,2 (1998):261-291; and James K. Galbraith, Created Unequal: The Crisis in American Pay (New York, Basic Books,1998)

[9] Richard V. Burkhauser and T. Aldrich Finegan "The Minimum Wage and the Poor: The End of a Relationship," *Journal of Policy Analysis and Management* 8,1 (1989):53-71 and Marvin H. Kosters, The Effects of the Minimum Wage on Employment (Washington, AEI Press, 1996)

[10] Minimum Wage Study Commission, Report of the Minimum Wage Study Commission, Vol. 1, Commission Findings and Recommendation (Washington, DC: Government Printing Office, 1981), pp. 13, 18-19

[11] Lawrence Mishel, Jared Bernstein, and John Schmitt, *The State of Working America: 1998-99* (Ithaca, NY: ILR Press, 1999)

[12] David Card and Alan Krueger, *Myth and Measurement: The New Economics of the Minimum Wage* (Princeton, Princeton University Press, 1995); Oren M. Levin-Waldman, "The Effects of the Minimum Wage: A Business Response," Journal of Economic Issues, 34, 3 (September 2000):793-800 and "The Minimum Wage Can be Raised: Lessons from the 1999 Levy Institute Survey of Small Business" Challenge: The Magazine of Economic Affairs. (January/February 2000): 1-12

[13] Kevin Lang and Shulamit Kahn, "The Effect of Minimum-Wage Laws on the Distribution of Employment: Theory and Evidence," *Journal of Public Economics* 69 (1998):67-82.

[14] Gordon, *Fat and Mean,* pp. 214-215

[15] David Neumark, Mark Schweitzer and William Wascher, "Minimum Wage Effects throughout the Wage Distribution," *The Journal of Human Resources* 39,2 (2004):425-450

[16] John T. Dunlop, "The Task of Contemporary Wage Theory" in George W. Taylor and Frank C. Pierson, ed., *New Concepts in Wage Determination* (New York, McGraw-Hill Book Co, 1957)

[16] Spriggs and Klein, *Raising the Floor*

[17] Levin-Waldman, *The Case of the Minimum Wage,* pp. 122-123

[18] Linda R. Martin and Demetrios Grannarious. "Would a Higher Minimum Wage help Poor Families Headed by Women?" *Monthly Labor Review* (August 1990):33-37

[19] A complete set of regression coefficient are available from the author upon request.

[20] James P. Smith, "The Improving Earning Status of Black Americans," *American Economic Review* 68,2 (May 1978):171-178

[20] James Heckman, Thomas M. Lyons and Peter E. Todd, "Understanding Black-White Wage Differentials, 1960-1990," *AEA Papers and Proceedings* 90,2 (May 2000):344-349

[21] Oren M. Levin-Waldman, "Policy Orthodoxies, the Minimum Wage, and the Challenge of Social Science," *Journal of Economic Issues* 38, 1 (March 2004):139-154

[22] Ron Magruder, chief operating officer of Cara USA, quoted in Lisa Haarlander and Sandra Tan, "Minimum Wage Outlook: Opponents say the Wage Will Force Price Hikes and Cuts in Staff and their Hours, While Supporters Say it Reflects the Reality of Businesses Today," *The Buffalo News* (December 11, 2004), p. A1