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Minimum Wage Event 9/16/99

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DRAFT: **REWARDING WORK:**
NOW IS THE TIME TO RAISE THE MINIMUM WAGE
September 25, 1999

PRESIDENT CLINTON URGES CONGRESS TO WORK WITH HIM ON ACHIEVING REAL BENEFITS FOR AMERICAN FAMILIES. Today, in his radio address, President Clinton will urge congress to increase the minimum wage by \$1 in two steps; address the long term challenges facing the Medicare program; pass a strong, enforceable Patients' Bill of Rights; and complete work on common sense gun control legislation.

President Clinton and Congressional Democrats Propose to Increase the Minimum Wage By \$1 in Two Steps To Help Raise Living Standards for More than 11 Million American Workers. In 1992, President Clinton promised to increase the minimum wage to help more families working hard but falling behind. In 1996, President Clinton signed into law a minimum wage hike, raising it from \$4.25 to \$5.15. But, there are still millions of workers trying to raise a family and struggling to make ends meet. With our economy the strongest in a generation, now is the time to help these workers by raising the minimum wage again. The proposal would increase the minimum wage from \$5.15 to \$6.15 over two years, through two 50-cent increases. For someone who works full-time, this minimum wage increase will mean an additional \$2,000 per year.

- **A Higher Minimum Wage Will Help 11.4 Million Americans -- Mostly Adult Workers Trying To Support Their Families.** 11.4 million hourly paid workers earn between \$5.15 and \$6.14 and would directly benefit from this pay raise. Over two-thirds (70%) of the workers who would benefit are adults, age 20 or over, and three-fifths (59%) are women, many of whom are trying to raise the family on \$5.15. Almost half (46%) worked full-time. And the average minimum-wage worker is estimated to bring home half of their household's earnings.
- **Valuing Work: Restoring the Value of the Minimum Wage.** President Clinton's proposal to increase the minimum wage by \$1 -- combined with the previous 90-cent increase -- simply restores the real value of the minimum wage to what it was in 1982. During President Reagan's eight years in office, the real value of the minimum wage *fell* more than 25 percent.
- **The Benefits from Last Minimum Wage Increase Is Clear: 10 Million Workers Got A Raise and There Is No Evidence Jobs Were Lost.** The last minimum wage increase provided a pay raise to 10 million workers, and since the President signed the minimum wage increase into law in August 1996, the economy has created new jobs at an historically high pace of over 240,000 per month; and the unemployment rate has fallen to 4.2 percent -- its lowest level in nearly 30 years. For teenagers, African-Americans, and women, unemployment is down and employment is up.

President Clinton Also Challenges the Congress to Address the Long Term Challenges Facing the Medicare Program, Protect Patient's Rights and Fights for Common Sense Gun Legislation.

- Address Medicare Challenge. Today, President Clinton urged the Congress to seize the moment to pass a strong, bipartisan initiative that will make the program more competitive, provide adequate financing to extend the life of the trust fund, and modernize the benefit package, including the provision of a long-overdue, optional prescription drug benefit.
- Protect Patient's Rights. President Clinton urges the Congress to act now to protect patients' rights. There is currently a bipartisan majority in the House ready to vote for a Patients' Bill of Rights that provides critical protections to patients in the nation's ever-changing health care delivery system. If the Republican leadership assures a fair process for consideration of this legislation during the week of October 4th, this bill can and will pass, significantly increasing the likelihood that the Senate will respond in kind.
- Common Sense Gun Control. The President also urged the Congress to complete work on juvenile crime legislation that includes common sense gun provisions to help keep our children and communities safe. The President strongly supports the reasonable measures passed by the Senate to: close the gun show loophole that allows criminals to buy guns at gun shows, no questions asked; require child safety locks for handguns; ban the importation of large capacity ammunition clips; and bar violent juveniles from owning guns as adults.

Draft 9/24/99 9:30 a.m.

Sam Afridi

PRESIDENT WILLIAM J. CLINTON
RADIO ADDRESS ON THE MINIMUM WAGE
September 24, 1999

Good morning. Every day, more than 10 million Americans on the lowest rung of the economic ladder go to work and earn their way. They may serve food at the café...or check out groceries at the store...or clean offices at night...or care for children during the day. But they all have something in common: they earn the minimum wage--and they need a raise.

For more than six and a half years, my Administration has sought to build an America that rewards responsibility and work. Where all our citizens have the opportunity to make the most of their potential. Where we strengthen our American community by helping workers grow and go forward together.

We've translated those principles into concrete action that's working for America. We now have the longest peacetime expansion. 19 million new jobs. Unemployment at a 30-year low. But as our economy breaks records, too many Americans are having trouble breaking even.

To help many of those families, we expanded the Earned Income Tax Credit and cut taxes for millions of hard-pressed working parents. And to honor the dignity of work, I signed legislation in 1996 that raised the minimum wage to \$5.15 an hour.

Back then, some claimed that a minimum wage hike would hurt workers and slow the economy. Well, the record is clear. The sky didn't fall--unemployment did.

Since we last raised the minimum wage, eight million new jobs have been created--including more than a million new retail jobs.

Now's the time to build on that progress. Our economy is the strongest in a generation--our commitment to working families ought to be every bit as strong. Today, almost 50 percent of minimum wage earners work full-time. 60 percent are women. And 70 percent are adults. Many are sole breadwinners struggling to raise their kids on \$10,700 a year. Well, no American who works full-time should live in poverty.

That's why I have proposed to raise the minimum wage by \$1 an hour over the next two years. This modest increase would simply restore the real value of the minimum wage to what it was in 1982. But for a full-time worker, it would mean an extra \$2,000 a year. That's real money--enough for a family of four to buy groceries for 7 months or pay rent for 5 months.

Workers have kept their end of the deal. They're on the job--building our communities--raising their families. Now it's time for Congress to keep its end of the deal and raise the minimum wage. Three years ago we raised it together and once again, there is agreement among Republicans and Democrats to do the same.

But that consensus won't amount to much if the Republican leadership refuses to schedule a vote. Parents raising kids on \$5.15 an hour can't afford to wait. So, I say: schedule the vote, send me the bill, and I'll sign it.

We can do more. There is bipartisan consensus on Capitol Hill for common sense legislation that keeps guns out of the wrong hands. I call on the leadership to schedule that vote, send me that bill and I'll sign it.

Republicans and Democrats also want a strong, enforceable Patient's Bill of Rights. Bipartisan legislation is ready to go—endorsed by more than 200 medical and consumer groups. Again, I urge the Republican leadership to schedule the vote, send me the bill and I'll sign it.

And there's one more challenge. I have a plan to secure and modernize Medicare—extending its solvency to at least 2027 and including a voluntary prescription drug benefit. I call on the congressional leadership to work with me in meeting these goals.

America's workers show up every day and get the job done. We ought to do the same thing. Schedule the votes, send me the bills, I'll sign them. And together, we'll move America down the path of progress and make a real difference in families lives.

Thanks for listening.

**DRAFT -- Not for Distribution -- REWARDING WORK:
NOW IS THE TIME TO RAISE THE MINIMUM WAGE**

President Clinton and Congressional Democrats Propose to Increase the Minimum Wage By \$1 in Two Steps To Help Raise Living Standards for More than 11 Million American Workers. In 1992, President Clinton promised to increase the minimum wage to help more families working hard but falling behind. In 1996, President Clinton signed into law a minimum wage hike, raising it from \$4.25 to \$5.15. But, there are still millions of workers trying to raise a family and struggling to make ends meet. With our economy the strongest in a generation, now is the time to help these workers make ends meet by raising the minimum wage again. The proposal would increase the minimum wage from \$5.15 to \$6.15 over two years, through two 50-cent increases. For someone who works full-time, this minimum wage increase will mean an additional \$2,000 per year.

- **A Higher Minimum Wage Will Help 11.4 Million Americans -- Mostly Adult Workers Trying To Support Their Families.** According to data from the Bureau of Labor Statistics, 11.4 million hourly paid workers earn between \$5.15 and \$6.14 and would directly benefit from this pay raise. Over two-thirds (70%) of the workers who would benefit are adults, age 20 or over, and three-fifths (59%) are women, many of whom are trying to raise the family on \$5.15. Almost half (46%) worked full-time. And the average minimum-wage worker is estimated to bring home half of their household's earnings.
- **Valuing Work: Restoring the Value of the Minimum Wage.** President Clinton's proposal to increase the minimum wage by \$1 -- combined with the previous 90-cent increase -- simply restores the real value of the minimum wage to what it was in 1982. During President Reagan's eight years in office, the real value of the minimum wage *fell* more than 25 percent. This increase -- in percentage terms -- is in line with previous ones that helped low-wage workers without adversely affecting the economy: both this proposal and the last one increase the minimum wage by about 20 percent.
- **Helping Ensure Parents Can Raise Their Children Out of Poverty.** In 1993, President Clinton expanded the Earned Income Tax Credit (EITC), helping to lift hundreds of thousands of working families out of poverty. Today, with the previous minimum wage increase and the expanded EITC, parents who work full-time do not have to bring up their children in poverty. Between 1993 and 1997, the income of families with two children and one minimum wage earner who worked full-time rose by \$2,761 because of these policies. This increase will help ensure that -- as costs continue to rise -- parents who work hard and play by the rules can bring up their children out of poverty.
- **The Impact from Last Minimum Wage Increase Is Clear: 10 Million Workers Got A Raise and There Is No Evidence Jobs Were Lost.** The last minimum wage increase provided a pay raise to 10 million workers, and since the President signed the minimum wage increase into law in August 1996, the economy has created new jobs at an historically high pace of over 240,000 per month; and the unemployment rate has fallen to 4.2 percent -- its lowest level in nearly 30 years. For teenagers, African-Americans, and women, unemployment is down and employment are up.
- **Empirical Evidence That Shows Moderate Minimum Wage Increases Do Not Cost Jobs.** More than two dozen empirical studies have found that moderate increases in the minimum wage do not have a significant effects on employment. These studies include state-specific research in California, Texas, and New Jersey that show that state minimum wage increases did not result in any job loss.

m wage

1938 - 2002

(projected 1999

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Year	Kennedy Nominal	Compromise Nominal	CPI-U	1998 base CPI-U	Real 1998\$ minimum wage	weekly (*40)	Real value on compromise
1938	0.25		14.1	0.0865	\$2.89	\$115.60	
1939	0.30		13.9	0.0853	\$3.52	\$140.72	
1940	0.30		14.0	0.0859	\$3.49	\$139.71	
1941	0.30		14.7	0.0902	\$3.33	\$133.06	
1942	0.30		16.3	0.1000	\$3.00	\$120.00	
1943	0.30		17.3	0.1061	\$2.83	\$113.06	
1944	0.30		17.6	0.1080	\$2.78	\$111.14	
1945	0.40		18.0	0.1104	\$3.62	\$144.89	
1946	0.40		19.5	0.1196	\$3.34	\$133.74	
1947	0.40		22.3	0.1368	\$2.92	\$116.95	
1948	0.40		24.1	0.1479	\$2.71	\$108.22	
1949	0.40		23.8	0.1460	\$2.74	\$109.58	
1950	0.75		24.1	0.1479	\$5.07	\$202.90	
1951	0.75		26.0	0.1595	\$4.70	\$188.08	
1952	0.75		26.5	0.1626	\$4.61	\$184.53	
1953	0.75		26.7	0.1638	\$4.58	\$183.15	
1954	0.75		26.9	0.1650	\$4.54	\$181.78	
1955	0.75		26.8	0.1644	\$4.56	\$182.46	
1956	1.00		27.2	0.1669	\$5.99	\$239.71	
1957	1.00		28.1	0.1724	\$5.80	\$232.03	
1958	1.00		28.9	0.1773	\$5.64	\$225.61	
1959	1.00		29.1	0.1785	\$5.60	\$224.05	
1960	1.00		29.6	0.1816	\$5.51	\$220.27	
1961	1.15		29.9	0.1834	\$6.27	\$250.77	
1962	1.15		30.2	0.1853	\$6.21	\$248.28	
1963	1.25		30.6	0.1877	\$6.66	\$266.34	
1964	1.25		31.0	0.1902	\$6.57	\$262.90	
1965	1.25		31.5	0.1933	\$6.47	\$258.73	
1966	1.25		32.4	0.1988	\$6.29	\$251.54	
1967	1.40		33.4	0.2049	\$6.83	\$273.29	
1968	1.60		34.8	0.2135	\$7.49	\$299.77	
1969	1.60		36.7	0.2252	\$7.11	\$284.25	
1970	1.60		38.8	0.2380	\$6.72	\$268.87	
1971	1.60		40.5	0.2485	\$6.44	\$257.58	
1972	1.60		41.8	0.2564	\$6.24	\$249.57	
1973	1.60		44.4	0.2724	\$5.87	\$234.95	
1974	2.00		49.3	0.3025	\$6.61	\$264.50	
1975	2.10		53.8	0.3301	\$6.36	\$254.50	

m wage

1938 - 2002

(projected 1999

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Year	Kennedy Nominal	Compromise Nominal	CPI-U	1998 base CPI-U	Real 1998\$ minimum wage	weekly (*40)	Real value on compromise
1976	2.30		56.9	0.3491	\$6.59	\$263.55	
1977	2.30		60.6	0.3718	\$6.19	\$247.46	
1978	2.65		65.2	0.4000	\$6.63	\$265.00	
1979	2.90		72.6	0.4454	\$6.51	\$260.44	
1980	3.10		82.4	0.5055	\$6.13	\$245.29	
1981	3.35		90.9	0.5577	\$6.01	\$240.29	
1982	3.35		96.5	0.5920	\$5.66	\$226.34	
1983	3.35		99.6	0.6110	\$5.48	\$219.30	
1984	3.35		103.9	0.6374	\$5.26	\$210.22	
1985	3.35		107.6	0.6601	\$5.07	\$202.99	
1986	3.35		109.6	0.6724	\$4.98	\$199.29	
1987	3.35		113.6	0.6969	\$4.81	\$192.27	
1988	3.35		118.3	0.7258	\$4.62	\$184.63	
1989	3.35		124.0	0.7607	\$4.40	\$176.15	
1990	3.80		130.7	0.8018	\$4.74	\$189.56	
1991	4.25		136.2	0.8356	\$5.09	\$203.45	
1992	4.25		140.3	0.8607	\$4.94	\$197.51	
1993	4.25		144.5	0.8865	\$4.79	\$191.76	
1994	4.25		148.2	0.9092	\$4.67	\$186.98	
1995	4.25		152.4	0.9350	\$4.55	\$181.82	
1996	4.75		156.9	0.9626	\$4.93	\$197.39	
1997	5.15		160.5	0.9847	\$5.23	\$209.21	
1998	5.15		163.0	1.0000	\$5.15	\$206.00	
* 1999	5.15	5.15	166.6	1.0221	\$5.04	\$201.55	\$5.04
* 2000	5.65	5.45	170.8	1.0479	\$5.39	\$215.68	\$5.20
* 2001	6.15	5.80	175.0	1.0736	\$5.73	\$229.13	\$5.40
* 2002	6.15	6.10	179.4	1.1006	\$5.59	\$223.51	\$5.54
2003	6.15	6.45	183.9	1.1281	\$5.45	\$218.06	\$5.72
2004							

* using CBO July 1, 1999 estimates of inflation of 1999 2.2% and 2000 and after of 2.5% was used.

GUIDANCE ON MINIMUM WAGE

Question : Kennedy minimum wage proposal – will it get passed into law?

Answer:

- The Kennedy minimum wage proposal is consistent with what the President proposed in the 1999 SOTU. Proposal would increase the minimum wage by \$1 to \$6.15 over two years, building on past increases. NOTE: In 1992, President Clinton promised to increase the minimum wage to help more families working hard but falling behind. In 1996, President Clinton signed into law a minimum wage hike, raising it from \$4.25 to \$5.15.
- President Clinton's proposal to increase the minimum wage by \$1 in two equal steps -- combined with the previous 90-cent increase -- simply restores the real value of the minimum wage to what it was in 1982. (During President Reagan's eight years in office, the real value of the minimum wage *fell* more than 25 percent. This increase -- in percentage terms -- is in line with previous ones that helped low-wage workers without adversely affecting the economy: both this proposal and the last one increase the minimum wage by about 20 percent.)
- The minimum wage is not enough to make ends meet for many families. Working 40 hours a week, 52 weeks a year, a minimum wage worker still earns just \$10,712 a year – below the poverty level for a family of four. For these workers and their families, a one-dollar increase would make a real difference. It would mean another \$2,000 a year.
- Hopeful that it will be passed into law this year.

Question: Doesn't increasing the minimum wage hurt businesses and employment opportunities for entry level jobs for teenagers, African Americans, welfare recipients?

Answer: More than two dozen empirical studies have found that moderate increases in the minimum wage do not have significant effects on employment. These studies include state-specific research in California, Texas, and New Jersey that show that state minimum wage increases did not result in any job loss.

- Since the last increase signed into law by President Clinton became effective (September 1996), well over 8 million new jobs have been added. More than one million (1.12 million) new retail jobs have been added.
- Unemployment has also declined significantly over the same period. The August 1999 unemployment rate of 4.2 percent is at its lowest rate in nearly 30 years.
- African-Americans are experiencing a near historic low unemployment rate at 7.8– down from 10.6 percent in September 1996. Unemployment for Hispanics has dropped from 8.3 percent to 6.5 percent. For high school dropouts, unemployment dropped from 8.2 percent to 6.4 percent. Teenage unemployment declined from 15.7 percent to 13.5 percent. African-American teen unemployment went from 33 percent to 28.6 percent.
- Employment has increased dramatically as well. Employment among African-American women has risen from 57.2 percent to 64.7 percent. And employment for welfare recipients

and single mothers with children is continuing to climb, at least partly because of policies that “make work pay” such as a higher minimum wage. According to CEA, the minimum wage increases during this Administration accounted for 10 –16 percent of the 2.7 million reduction in welfare recipients between 1996 - 1998.

Question: Who will be helped by the minimum wage proposal?

Answer: For 11.4 million American workers, increasing the minimum wage from \$5.15 an hour to \$6.15 an hour will help pay the rent, buy the groceries and keep the kids in clothes.

- The minimum wage is not enough to make ends meet for many families. Working 40 hours a week, 52 weeks a year, a minimum wage worker still earns just \$10,712 a year. For these workers and their families, a one-dollar increase would make a real difference. It would mean another \$2,000 a year.
- When we last raised the minimum wage and expanded the earned income tax credit, we took important steps to reward work and help millions of American raise their families with dignity and move off of welfare. Because of our actions, a full-time working parent with two children does not have to live in poverty. But more must be done to ensure that *all* working families are lifted out of poverty.

Question: Aren't most of those who will benefit from the minimum wage increase teenagers in middle income families?

Answer: Seventy percent of those who would benefit are adults, age 20 and over. Three-fifths are women, many of whom are the sole breadwinners in their families. It is estimated that the average minimum wage worker brings home half of their household's earnings.

Question: Is raising the minimum wage the only way to help lift people out of poverty?

Answer: Raising the minimum wage is one part of a strategy that also includes the Earned Income Tax Credit. In 1993, President Clinton expanded the Earned Income Tax Credit (EITC), helping to lift hundreds of thousands of working families out of poverty. Today, with the previous minimum wage increase and the expanded EITC, parents who work full-time do not have to bring up their children in poverty. Between 1993 and 1997, the income families with two children and one minimum wage earner who worked full-time rose by \$2,761 because of these policies. This increase will help ensure that -- as costs continue to increase -- parents who work hard and play by the rules can bring up their children out of poverty.

Question: When will Senator Kennedy offer his amendment?

Senator Kennedy intends to offer the minimum wage amendment to the Bankruptcy bill to be considered on the Senate floor next week. This will be the 5th time since September of 1998, that Senator Kennedy has offered an amendment to increase the minimum wage. Most recently, on July 30, 1999, 46 Senators supported Senator Kennedy's effort to amend the tax bill to include a

minimum wage increase. Support continues to grow for this effort to provide American workers with a fair day's pay for a fair day's work.

Real value of minimum wage

1938 - 2002

Year	Kennedy Nominal	Compromise Nominal	Real 1998\$ minimum wage	Real value on compromise
1976	2.30		\$6.59	
1977	2.30		\$6.19	
1978	2.65		\$6.63	
1979	2.90		\$6.51	
1980	3.10		\$6.13	
1981	3.35		\$6.01	
1982	3.35		\$5.66	
1983	3.35		\$5.48	
1984	3.35		\$5.26	
1985	3.35		\$5.07	
1986	3.35		\$4.98	
1987	3.35		\$4.81	
1988	3.35		\$4.62	
1989	3.35		\$4.40	
1990	3.80		\$4.74	
1991	4.25		\$5.09	
1992	4.25		\$4.94	
1993	4.25		\$4.79	
1994	4.25		\$4.67	
1995	4.25		\$4.55	
1996	4.75		\$4.93	
1997	5.15		\$5.23	
1998	5.15		\$5.15	
* 1999	5.15	5.15	\$5.04	\$5.04
* 2000	5.65	5.45	\$5.39	\$5.20
* 2001	6.15	5.80	\$5.73	\$5.40
* 2002	6.15	6.10	\$5.59	\$5.54
2003	6.15	6.45	\$5.45	\$5.72
2004				

* using CBO July 1, 1999 estimates of inflation of 1999 2.2% and 2000 and after of was used.

Real value of minimum wage**1938 - 2002**

Year	Kennedy Nominal	Compromise Nominal	Real 1998\$ minimum wage	Real value on compromise
1938	0.25		\$2.89	
1939	0.30		\$3.52	
1940	0.30		\$3.49	
1941	0.30		\$3.33	
1942	0.30		\$3.00	
1943	0.30		\$2.83	
1944	0.30		\$2.78	
1945	0.40		\$3.62	
1946	0.40		\$3.34	
1947	0.40		\$2.92	
1948	0.40		\$2.71	
1949	0.40		\$2.74	
1950	0.75		\$5.07	
1951	0.75		\$4.70	
1952	0.75		\$4.61	
1953	0.75		\$4.58	
1954	0.75		\$4.54	
1955	0.75		\$4.56	
1956	1.00		\$5.99	
1957	1.00		\$5.80	
1958	1.00		\$5.64	
1959	1.00		\$5.60	
1960	1.00		\$5.51	
1961	1.15		\$6.27	
1962	1.15		\$6.21	
1963	1.25		\$6.66	
1964	1.25		\$6.57	
1965	1.25		\$6.47	
1966	1.25		\$6.29	
1967	1.40		\$6.83	
1968	1.60		\$7.49	
1969	1.60		\$7.11	
1970	1.60		\$6.72	
1971	1.60		\$6.44	
1972	1.60		\$6.24	
1973	1.60		\$5.87	
1974	2.00		\$6.61	
1975	2.10		\$6.36	

TABLE 1
Characteristics of Minimum Wage and Other Workers, October 1995-September 1996

Characteristic	Workers Directly Affected by New Minimum (\$4.25-\$5.14)	Other Low-Wage Workers (\$5.15-\$6.14)	Higher-Wage Workers (\$6.15+)	All Workers
Average Wage	\$4.73	\$5.72	\$14.64	\$12.73
Employment	9,886,158	9,610,926	89,079,931	110,999,085
Share of Total	8.9%	8.7%	80.3%	100.0%
Demographics				
Male	41.8%	41.9%	54.9%	52.3%
16-19	13.7	8.1	1.0	2.9
20+	28.2	33.8	53.9	49.4
Female	58.2	58.1	45.1	47.7
16-19	14.9	7.9	0.7	2.8
20+	43.2	50.2	44.4	44.9
White	62.8	67.7	77.9	75.4
Male	24.6	26.2	42.8	39.4
Female	38.2	41.5	35.1	36.0
Black	16.1	13.8	10.4	11.3
Male	6.4	5.5	5.1	5.3
Female	9.8	8.3	5.3	6.0
Hispanic	17.5	14.8	7.9	9.5
Male	9.3	8.6	4.9	5.7
Female	8.2	6.2	3.0	3.8
Teens(16-19)	28.6%	16.0%	1.7%	5.6%
Work Hours				
Full Time (35+)	46.0%	62.7%	87.7%	81.1%
Part Time				
20-34 hours	33.3%	25.4%	9.0%	13.0%
1-19 hours	20.7	11.9	3.3	5.9
Industry				
Manufacturing	8.8%	12.7%	19.7%	17.8%
Retail Trade	42.6	35.8	12.2	17.3
Union*				
Union	4.4%	6.3%	19.1%	16.4%
Nonunion	95.6	93.7	80.9	83.6

**Addendum: The Share of Weekly Earnings
Contributed by Minimum Wage Workers, 1997****

**All Families With an Affected Worker
Excluding One-Person Families**

Average
54%
44

Median
41%
27

* Includes both union members and nonmembers covered by union contracts.
** See Data Appendix for data source and methods.

Making Work Pay

The Impact of the 1996-97
Minimum Wage Increase

by Jared Bernstein and John Schmitt

Economic Policy Institute

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THE MINIMUM WAGE INCREASE: A Working Woman's Issue

by Jared Bernstein, Heidi Hartmann, and John Schmitt

As Congress considers raising the federal minimum wage from its current level of \$5.15 per hour to \$6.15, it is important to understand who will benefit from this increase. An analysis of low-wage workers shows that the main beneficiaries of this one-dollar increase would be working women, almost one million of whom are single mothers. In fact, of the 11.8 million workers who would receive a pay increase as the result of this higher minimum wage, 58% would be women, simply because, as a group, they earn lower wages than men. As a result, a minimum wage increase would help to reduce the overall pay gap between women and men.

Since the minimum wage is not indexed to inflation, when Congress fails to raise the minimum wage, these workers' purchasing power declines, as was the case over the 1980s. Even with the two increases thus far in the 1990s, the minimum wage remains 19% below its inflation-adjusted 1979 level. This decline in the minimum wage helps to explain the growth of wage inequality and the diminished earnings of low-wage female workers over the last two decades.

In 1979, a woman working at the minimum wage earned 70% of the hourly wage of the median female worker (the woman right in the middle of the female wage scale). By 1998, that ratio had fallen to 52%. Similarly, in 1979 a single mother working full time at the minimum wage earned enough to lift a family of three (herself and two children) above the poverty line. By 1998, however, the same family would be 18% below the poverty line.¹

Table 1 shows the number and the share of working women in 1998 – nationally and in each state – that would benefit from the proposed increase. About 7 million women nationally – 12.6% of all working women – earn between \$5.15 and \$6.14, the wage range that would be directly affected by an increase in the federal

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TABLE 1
Female workers, by state, who would benefit from proposed minimum wage increase, 1998
(in thousands)

State	Share of Female Workers*	Number	State	Share of Female Workers*	Number
NORTHEAST	10.5%	1,139	SOUTH	15.3%	2,974
Maine	14.1	36	Delaware	10.4	17
New Hampshire	8.6	23	Maryland	8.9	101
Vermont	10.1	14	D.C.	NA	NA
Massachusetts	8.6	119	Virginia	11.0	157
Rhode Island	12.2	26	West Virginia	22.5	70
Connecticut	7.3	53	North Carolina	12.0	190
New York	10.4	372	South Carolina	17.8	154
New Jersey	8.9	157	Georgia	13.3	224
Pennsylvania	13.6	338	Florida	14.1	414
MIDWEST	12.2%	1,654	Kentucky	16.5	130
Ohio	14.7	345	Tennessee	13.5	156
Indiana	10.2	127	Alabama	19.1	170
Illinois	11.6	297	Mississippi	21.1	110
Michigan	11.5	235	Arkansas	21.9	106
Wisconsin	9.8	121	Louisiana	20.2	170
Minnesota	8.7	94	Oklahoma	20.0	128
Iowa	14.2	93	Texas	17.0	669
Missouri	12.7	152	WEST	10.4%	1,210
North Dakota	19.0	28	Montana	20.8	35
South Dakota	18.8	30	Idaho	15.9	38
Nebraska	14.8	55	Wyoming	18.3	17
Kansas	14.0	77	Colorado	8.6	77
			New Mexico	16.1	50
			Arizona	15.4	134
			Utah	14.1	60
			Nevada	8.7	31
			Washington	9.4	109
			Oregon	7.7	51
			California	9.4	572
			Alaska	NA	NA
			Hawaii	12.2	31
U.S.	12.6%	6,977			

* As share of female workforce.

Source: EPI analysis of 1998 CPS data.

minimum wage.² In lower-wage states, the share of women that would benefit from the proposed increase is typically higher than the national average. For example, one-fifth or more of working women would receive a raise after a one-dollar increase in the federal minimum in the following states: West Virginia (22.5%), Arkansas (21.9%), Mississippi (21.1%), Montana (20.8%), Louisiana (20.2%), and Oklahoma (20.0%). The states with the largest numbers of working women who would benefit from the increase are: Texas (669,000), California (572,000), Florida (414,000), New York (372,000), Ohio (345,000), and Pennsylvania (338,000).

Table 2 helps provide a clearer picture of the low-wage women who would benefit from the proposed

TABLE 2
Characteristics of female workers by wage range, 1998

Characteristic	Affected directly by increase (\$5.15-\$6.14)	Other low-wage workers (\$6.15-\$7.14)	\$7.15 and above	All
Average wage	\$5.64	\$6.70	\$14.65	\$12.18
Employment	6,976,792	5,668,877	40,076,797	55,497,227
Share of total	12.6%	10.2%	72.2%	100.0%
Demographics				
Teens (16-19)	24.7%	11.0%	1.4%	6.2%
20+	75.3%	89.0%	98.6%	93.8%
White	65.4%	67.5%	76.6%	73.6%
Black	16.2%	16.2%	12.0%	13.1%
Hispanic	14.4%	12.2%	7.1%	9.0%
Work Hours				
Full time (35+)	44.9%	63.8%	82.2%	74.0%
Part time				
20-34 hours	35.0%	25.6%	13.1%	18.1%
1-19 hours	20.0%	10.5%	4.7%	7.9%
Industry				
Manufacturing	8.4%	10.3%	12.3%	11.4%
Retail trade	44.0%	31.2%	11.4%	18.6%
Occupation				
Sales	28.3%	20.2%	8.7%	12.7%
Cashiers	16.4%	8.5%	1.3%	4.2%
Services	32.5%	25.9%	9.3%	15.0%
Food preparation	16.1%	9.9%	3.1%	6.1%
Union Membership				
Union	3.9%	6.5%	16.2%	13.1%
Nonunion	96.1%	93.5%	83.8%	86.9%

Note: "Affected directly by the increase" indicates those workers who earn between the minimum wage in their state and the proposed new level (\$6.15).

Source: EPI analysis of 1998 CPS data.

increase (see column 1). The vast majority (75.3%) of these women are adults (age 20 or older). Although most low-wage women workers are white (65.4%), African American and Hispanic women are overrepresented in low-wage jobs. African American women are 13.1% of all women workers (see the last column of Table 2), but 16.2% of those in the range affected by the minimum wage increase; Hispanic women are 9.0% of all women workers, but 14.4% of low-wage women. Close to half (44.9%) of the female workers in the affected range work full time (35 or more hours a week), and another 35.0% work between 20 and 34 hours per week.

The next few rows of Table 2 show the industries and occupations where low-wage women tend to find

work. An analysis by industry shows that most low-wage females are concentrated in retail trade, which employs 44.0% of those in the affected range. In contrast, a much smaller share of low-wage women work in the higher-paying manufacturing sector (8.4%). An analysis by occupation reveals that 28.3% of low-wage women are sales workers, with 16.4% working as cashiers. One-third of these women (32.5%) work in service occupations such as food preparation (16.1%). Finally, just under 4% of low-wage women are covered by collective bargaining through a union, in contrast to 16.2% of women earning \$7.15 or more per hour.

Table 3 examines the parental and minimum wage status of workers age 18-64. Parents with children under 18 years old represent 32.9% of the beneficiaries of the proposed increase, while such workers represent 40.4% of the total workforce. More than two million married men and women with children would benefit from the proposed increase (and within these families, women are disproportionately the direct beneficiaries). Almost one million (967,000) single mothers would receive a pay increase as a result of a one-dollar rise in the minimum wage. Note that single mothers are over-represented in the affected workforce — they represent 10% of those affected by the increase but are only 5.7% of the overall workforce.

All of the evidence suggests that the minimum wage increase is well targeted, providing significant benefits to poor and middle-income households. Table 4 shows that about 18% of the benefits of a one-dollar increase would go to households with incomes below \$10,000 per year; another 32% of the benefits would go to households with annual incomes between \$10,000 and \$25,000. In total, households making less than \$25,000 a year would receive half of the benefits of a one-dollar increase. Among the affected single mothers shown in Table 3, 85% have household incomes below \$25,000, underscoring the importance of the policy for these low-wage and low-income families.

TABLE 3
Parental status of workforce, age 18-64, 1998 (in thousands)

	Affected workers*		Total workforce	
	Number	Percent	Number	Percent
Working parents with children				
All	3,198	32.9%	44,878	40.4%
Married couple	2,142	22.1	36,856	33.2
Female	1,457	15.0	15,898	14.3
Male	685	7.1	20,958	18.9
Single parents	1,056	10.9	8,022	7.2
Single female	967	10.0	6,306	5.7
Single male	89	0.9	1,716	1.5
Workers without children under 18**				
All	6,507	67.1%	66,156	59.6%
Female	3,486	35.9	30,743	27.7
Male	3,021	31.1	35,413	31.9

Source: EPI analysis of CPS data.

* Affected by minimum wage increase.

** Includes single individuals and childless couples.

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REAL VALUE OF THE MINIMUM WAGE

- The minimum wage was established in 1938 to ensure American workers were fairly compensated for a day's work.
- Workers were abandoned during the 1980's as the value of the minimum wage plummeted for a decade. In 1989, the minimum wage bottomed out at its lowest value -- with a purchasing power of only \$4.40.
- American workers who put in the same amount of time saw their earnings buying less and less.
- Today the value of the minimum wage is continuing to lose ground.
- With the proposed minimum wage increase the real value of the minimum wage in 2001 will only be up to the level it was in 1982.
- If the minimum wage is *not* increased by the turn of the century the real value of the minimum wage will fall to the level it was before the 1996 increase.
- My proposal to increase the minimum wage by two \$0.50 increments in 2000 and 2001, is a modest one. It would simply restore the buying power of the minimum wage to what it was in the early eighties.
- Over 60 years ago our government agreed that American workers deserve to be paid a fair wage. Let's not turn our back on the working people that make up the life blood of this great nation.
- It is time to increase the minimum wage. It is time for Congress to take the lead in supporting America's workers.

MINIMUM WAGE HISTORY AND UNEMPLOYMENT

- Throughout history increases in the minimum wage have not increased the unemployment rate.
- Since the 1996-97 increases, the unemployment rate has reached its lowest point in three decades.
- Unemployment is down for women, minorities, high school drop-outs, and all Americans across the country.
- It is time to clear up the smoke screens. Raising the minimum wage does not increase unemployment, but it does put more money in the pockets of working Americans.

Enactment of Legislation	Date Increase took Effect	Amount of Wage after Increase	Increase	Percent Increase	Unemployment Rate
Aug 12, 1955	Mar 1, 1956	\$1.00 (was .75)	\$0.25	33%	4.2%
May 5, 1961	Sept 3, 1961 Sept 3, 1963	1.15 1.25	0.15 0.10	15% 9%	6.7% 5.5%
Sept 23, 1966	Feb 1, 1967 Feb 1, 1968	1.40 1.60	0.15 0.20	12% 14%	3.8% 3.8%
April 8, 1974	May 1, 1974 Jan 1, 1975 Jan 1, 1976	2.00 2.10 2.30	0.40 0.10 0.20	25% 5% 10%	5.1% 8.1% 7.9%
Nov. 1, 1977	Jan 1, 1978 Jan 1, 1979 Jan 1, 1980 Jan 1, 1981	2.65 2.90 3.10 3.35	0.35 0.25 0.20 0.25	15% 9% 7% 8%	6.4% 5.9% 6.3% 7.5%
Nov. 17, 1989	Apr 1, 1990 Apr 1, 1991	3.80 4.25	0.45 0.45	13% 12%	5.4% 6.7%
Aug. 20, 1996	Oct. 1, 1996 Sept 1, 1997	4.75 5.15	0.50 0.40	12% 8%	5.2% 4.9%
Democratic Proposal	Jan 1, 2000 Jan 1, 2001	5.65 6.15	0.50 0.50	10% 9%	4.2% as of Aug. 1999

RAISING THE MINIMUM WAGE WON'T COST JOBS

Modest increases in the minimum wage do not cost jobs for men, women, adults, teenagers, African-Americans, Hispanic Americans or anyone else.

The Bureau of Labor Statistics data shows that employment increased, and unemployment decreased since the 1996-97 minimum wage increases took effect:

- Unemployment rate is 4.2%, the lowest in almost three decades.
- Unemployment rate has declined:

	<u>Sept. 1996</u>	<u>Aug. 1999</u>
MEN	4.5%	3.6%
WOMEN	4.6%	3.7%
ADULTS	4.5%	3.6%
TEENAGERS	15.7%	13.5%
AFRICAN AMERICANS	10.6%	7.8%
HISPANIC AMERICANS	8.3%	6.5%

Since the 1996-97 increase took effect, jobs have been added, not lost, in virtually every sector of the economy. There is no evidence that employment in retail, service and restaurant jobs has been limited by employer unwillingness to create more jobs due to higher minimum wages. In fact, each of those sectors has increased.

- 8.7 million new jobs have been added (at a pace of over 240,000 per month)
- 1.2 million new retail jobs have been added
- 415,000 new restaurant jobs have been added
- Over 4.4 million new service industry jobs have been added

Studies confirm that raising the minimum wage does not cost jobs.

- Nearly two dozen independent studies have found moderate increases in the minimum wage had an insignificant effect on employment.

- The Economic Policy Institute documented in May 1998 that “the sky hasn’t fallen” as a result of the last minimum wage increase. In *Making Work Pay*, EPI found there was no measurable effect on jobs, and no measurable effect on inflation. The only measurable effect on low-income workers was positive -- they received the pay increase they deserved.

MINIMUM WAGE FACTS -- TALKING POINTS

09/10/99

Impact of Raising the Minimum Wage

The new Democratic proposal is to raise the minimum wage by a dollar an hour over two years, from \$5.15 to \$6.15 an hour. This increase would happen in two steps. The results of an increase in the minimum wage would be:

1. 11.4 million workers will get a pay increase as a result of an increase in the minimum wage.
2. ~~With the proposed new minimum wage~~ a full-time worker would have an annual income of \$12,792. An increase of over \$2,000 each year.
3. With the proposed minimum wage increase the real value of the minimum wage in 2001 will only be up to the level it was in 1982.
4. If the minimum wage is *not* increased by the turn of the century the real value of the minimum wage will fall to the level it was before the 1996 increase.

Impact on Families if the Minimum Wage Increase Becomes Law

The Democratic proposal to raise the minimum wage by \$1.00 would generate \$2,000 in potential income for minimum wage workers. Two thousand dollars would make an enormous impact on minimum wage workers and their families. It would put enough money in their pocket to buy:

- 7 months of groceries;
- 5 months of rent;
- almost 10 months of utilities; or
- nearly 1½ years of tuition and fees at a 2-year college

(Based on expenditure patterns of an average family of four)

August 1999 BLS Data

Who will Benefit from a Minimum Wage Increase?

- 11.4 million workers would directly benefit from the proposed minimum wage increase
 - 40 hours a week - 52 weeks a year at minimum wage = \$10,700/year
 - 70% (8.3 million) of the workers who would benefit are adults age 20 and over
 - 59% (6.8 million) are women
 - 46% (5.2 million) have full-time jobs
 - 15% (1.7 million) are African American
 - 18% (2.1 million) are Hispanic American
 - 46% (5.3 million) work in retail
 - 27% (3.1 million) work in the service sector
- Source*
- 84% (1 million) of the heads of households earning between \$5.15 - \$6.14 are women
 - 40% of minimum wage workers are the sole breadwinners in their families.
 - More than half of teenagers earning the minimum wage are in families with below average incomes.
- BLS - 1998*

Number of African Americans Who Would Benefit

How raising the minimum wage will benefit African Americans:

- In 1998, 1.75 million African Americans earned \$5.15 - \$6.14 per hour, or 18% of hourly-paid African American workers
- Most of these low wage workers are female, almost 2:1 ratio.

Raising the minimum wage would provide a modest pay raise to the poorest working African Americans, many of whom are raising children.

Number of Hispanic Americans Who Would Benefit

How raising the minimum wage will benefit Hispanic Americans:

- 2.1 million Hispanic Americans are paid \$5.15 - \$6.14 per hour, or 23% of all hourly-paid Hispanic workers (compared with 16% of whites and 18% of African Americans).
- Hispanic women are very likely to be paid low wages; 28% of hourly-paid Hispanic women are paid \$5.15 - \$6.14 per hour.

Raising the minimum wage would provide a modest raise to the poorest working Hispanic Americans, many of whom are raising children.

August 1999 BLS Data

Effects on Minority Youth

Raising the minimum wage would not create a disproportionate effect of job losses for minority youth.

- Studies of minimum wage increases fail to show disproportionate impacts for minority youth.
- Since the increase in 1996-97 took effect, African-American teen unemployment dropped from 33% to 28.6%.

Impact of Previous Raise in the Minimum Wage

- Effects on those making minimum wage. 60% of the benefit of the 1996 and 1997 increases went to families in the bottom 40% of income groups. One-third of the benefit went to the poorest families – those in the bottom 20%. Nearly three-quarters of those who benefitted were adults over the age of 20.
- Effects on the economy. The economy is at its strongest in over three decades. Across the country, unemployment is down and employment is up. Data from the Bureau of Labor Statistics has shown that since the 1996 and 1997 increases took effect:
 - the unemployment rate has fallen to 4.2%
 - for teenagers, African-Americans, Hispanic Americans, and women unemployment is down and employment rates are up
 - 8.7 million new jobs have been added (at a pace of over 240,000 per month)
 - 1.2 million new retail jobs have been added
 - 415,000 new restaurant jobs have been added
 - more than 4.4 million new service industry jobs have been added; and
 - the teen employment rate is growing faster than the rate of total employment.

August 1999 BLS Data

Impact of Previous Raise in the Minimum Wage

The last increase in the minimum wage did not have any negative impact on jobs, unemployment, or inflation as some predicted. Instead the economy has continued to grow and minimum wage workers were given the pay raise they deserved.

- Effects on those making minimum wage. 60% of the benefit of the 1996 and 1997 increases went to families in the bottom 40% of income groups. One-third of the benefit went to the poorest families – those in the bottom 20%. Over 70% of those who benefitted were adults over the age of 20.
- Number of workers who received a pay increase. About 9.9 million workers received a pay increase after the October 1996 increase, and approximately 6.4 million workers received a pay increase after the September 1997 increase.
- Effects on welfare recipients. Employment rates among welfare recipients, both for those still on the rolls and those who have left, continued to rise.
- Effects on other workers. Nearly 20 million workers -- 18% of the workforce -- got a boost in pay with the minimum wage increase.
- Effects on the economy. The economy is at its strongest in over three decades. Across the country, unemployment is down and employment is up. Data from the Bureau of Labor Statistics has shown that since the 1996 and 1997 increases took effect:
 - the unemployment rate has fallen to 4.2%
 - for teenagers, African-Americans, Hispanic Americans, and women unemployment is down and employment rates are up
 - 8.7 million new jobs have been added (at a pace of over 240,000 per month)
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 - 415,000 new restaurant jobs have been added
 - more than 4.4 million new service industry jobs have been added; and

August 1999 BLS Data

- the teen employment rate is growing faster than the rate of total employment.
- Unemployment rates. Since the minimum wage was raised in October 1996, the unemployment rates of disadvantaged groups in the US labor force have declined substantially. (Rates below are from September 1996 to August 1999)
 - The current unemployment rate is 4.2%
 - The unemployment rate for women has declined from 4.6% to 3.7%
 - High school dropouts from 8.2% to 7.1%
 - African Americans from 10.6% to 7.8%
 - African American women from 8.6% to 6.9%
 - Hispanic Americans from 8.3% to 6.5%
 - Teens from 15.7% to 13.5%
 - African American teens from 33.0% to 28.6%

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The Minimum Wage Increase: A Working Women's Issue

By Jared Bernstein, Heidi Hartmann, and John Schmitt

Congress is considering raising the federal minimum wage from its current level of \$5.15 per hour to \$6.15 per hour. The main beneficiaries of this one-dollar increase would be working women, almost one million of whom are single mothers. About 58% of the 11.8 million workers who would receive a pay increase as the result of the proposed rise in the minimum wage are women—women stand to gain the most from a minimum-wage increase for the simple reason that they are more likely than men to earn low wages.

Background: Since it is not indexed to inflation, when the Congress fails to raise the minimum wage, it declines in real terms. This was the case over the 1980s, when inflation severely eroded the buying power of the minimum. Even with the two increases thus far in the 1990s, the minimum remains 19% below its real 1979 level. This decline in the minimum wage helps to explain the growth of wage inequality and the diminished earnings of low-wage female workers over the 1980s and early 1990s.

In 1979, a woman working at the minimum wage earned 70% of the hourly wage of the median female worker (i.e., the women right in the middle of the female wage scale). By 1998, that ratio had fallen to 52%. Similarly, a single mother working full-time at the minimum wage earned enough to lift her family of three (herself and two children) above the poverty line in 1979; by 1998, the same family would be 18% below the poverty line.¹

¹ Of course, if we deduct the costs incurred in working full-time for a single mother (e.g., child care and transportation), the family's disposable income would fall below the poverty line. Also, if we add the cash value of food stamps and the Earned Income Tax Credit, the gross income of the 1998 family would be above the poverty line (here too, however, the deduction of work costs would leave family income below the poverty line).

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Table 1 shows the number and the share of working women in 1998 —nationally and in each state— that would benefit from the proposed increase. About 7 million women nationally — 12.6% of all working women— earn between \$5.15 and \$6.14, the wage range that would be affected by an increase in the federal minimum wage to \$6.15.² In lower-wage states, the share of women that would benefit from the proposed increase is typically higher than the national average. In several states, for example, one-fifth or more of working women would receive a raise after a one-dollar increase in the federal minimum: West Virginia (22.5%), Arkansas (21.9%), Mississippi (21.1%), Montana (20.8%), Louisiana (20.2%), and Oklahoma (20.0%).

The states with the largest numbers of working women who would benefit from the increase are: Texas (668,700), California (571,700), Florida (414,300), New York (372,200), and Ohio (345,220), and Pennsylvania (337,800).

Table 2 provides a description of the low-wage women who would benefit from the proposed increase (see column one). The vast majority (75.3%) of these women are adults (age 20 or older). Most of low-wage women workers are white (65.4%), but African-American and Hispanic women are overrepresented in low-wage jobs. African-American women are 13.1% of all women workers (see the last column of Table 2), but 16.2% of those in the range affected by the minimum wage increase; Hispanic women are 9.0% of all women workers, but 14.4% of low-wage women. Close to half (44.9%) of the female workers in the affected range work full-time (35 or more hours a week) and another 35.0% work between 20 and 34 hours per week.

The next few rows of Table 2 show the industries and occupations where low-wage women tend to find work. By industry, low-wage females are concentrated in retail trade, which employs 44.0% of those in the affected range. In contrast, note that a much smaller share of low-

² More precisely, affected workers in this report are those who earn between the maximum of either their state's minimum or \$5.15, at the lower end, and the proposed new minimum wage, at the upper end. About 4.8 million

wage woman work in manufacturing (8.4%, mostly in non-durables such as apparel). By occupation, 28.3% are sales workers, with 16.4% working as cashiers. One-third (32.5%) work in service occupations such as food preparation (16.1%). Finally, just under 4% of low-wage women are covered by collective bargaining through a union, in contrast to 16.2% of women earning \$7.15 or more per hour.

Parents of children under 18 represent 27% of the beneficiaries of the proposed increase. **Table 3** examines the parental status of those workers aged 18-64 who are in the affected wage range. Almost one million (967,000) single mothers would receive a pay increase as a result of a one-dollar rise in the minimum wage. More than two million married men and women (most of whom are female) with children would benefit from the proposed increase.

The minimum-wage increase is well targeted, providing significant benefits to poor- and middle-income households. **Table 4** reports that about 18% of the benefits of a one-dollar increase would go to households with incomes below \$10,000 per year; another 32% of the benefits would go to households with annual incomes between \$10,000 and \$25,000 per year. In total, households making less than \$25,000 a year would receive half of the benefits of a one-dollar increase. Among the affected single moms shown in the previous table, 85% have household incomes below \$25,000, underscoring the importance of the policy for these low-wage/low-income families.

Conclusion: Those who oppose raising the minimum wage typically argue that the increase will force employers to fire (or hire fewer of) those workers affected by the increase. The evidence, however, clearly fails to support this claim.³ Since the last increase, in late 1996 and 1997, employment rates of low-wage workers, and particularly single mothers, have

men, or 7.9% of all working men, are in this range.

³ For a detailed analysis of the employment impact of the 1996-97 increase, see Bernstein and Schmitt, (199X).

increased dramatically, as the strong economy has bolstered demand in the low-wage labor market. In this regard, one of the main policy lessons from the current recovery is that the macroeconomy is the key determinant of employment opportunity for low-wage workers, most of whom are women. But, as the above evidence shows, the wage that these women receive is very much a function of where the minimum is set. Disregarding this reality can only serve to swell the ranks of the working poor.

Research assistance from Danielle Gao and Jeff Strohl [chk spelling, and confirm from DG that he helped]. Chauna Brocht provided helpful comments.

Ask Edit about thanking funders. We could thank AE Casey and the living standards funders.

Feel free to suggest a sexier title.

Table 1
Female Affected Workers as Shares of Female Workforce, 1996

STATE	Share of Female Workers*	Number
NORTHEAST	10.5%	1,139,027
Maine	14.1%	36,071
New Hampshire	8.6%	23,152
Vermont	10.1%	13,894
Massachusetts	8.6%	119,394
Rhode Island	12.2%	26,069
Connecticut	7.3%	53,218
New York	10.4%	372,225
New Jersey	8.9%	157,161
Pennsylvania	13.0%	337,843
MIDWEST	12.2%	1,653,749
Ohio	14.7%	345,220
Indiana	10.2%	127,422
Illinois	11.6%	296,707
Michigan	11.5%	234,727
Wisconsin	9.8%	121,056
Minnesota	8.7%	94,211
Iowa	14.2%	92,867
Missouri	12.7%	151,631
North Dakota	19.0%	27,748
South Dakota	18.8%	29,749
Nebraska	14.8%	55,079
Kansas	14.0%	77,332
National	12.6%	6,976,792

STATE	Share of Female Workers	Number
SOUTH	15.3%	2,973,935
Delaware	10.4%	16,998
Maryland	8.9%	101,101
D.C.	NA	NA
Virginia	11.0%	156,923
West Virginia	22.5%	69,829
North Carolina	12.0%	190,388
South Carolina	17.8%	153,813
Georgia	13.3%	224,344
Florida	14.1%	414,334
Kentucky	16.5%	130,890
Tennessee	13.5%	156,280
Alabama	19.1%	169,780
Mississippi	21.1%	109,640
Arkansas	21.9%	105,725
Louisiana	20.2%	170,347
Oklahoma	20.0%	128,303
Texas	17.0%	668,708
WEST	10.4%	1,210,081
Montana	20.8%	35,042
Idaho	15.9%	36,365
Wyoming	18.3%	16,789
Colorado	8.6%	77,078
New Mexico	16.1%	50,337
Arizona	15.4%	134,168
Utah	14.1%	60,087
Nevada	8.7%	31,488
Washington	9.4%	109,296
Oregon	7.7%	50,814
California	9.4%	571,678
Alaska	NA	NA
Hawaii	12.2%	31,080

* As share of female work force.
Source: EPI analysis of CPS data.

These #'s should
be rounded to
000's.

Tb1 2

Characteristics of Minimum Wage and Other Wage Earners, 1998, Female only

Characteristic	Workers Directly Affected by New Minimum (\$5.15-\$6.14)	Other Low-Wage Workers (\$6.15-\$7.14)	Workers Above Minimum Wage (\$7.15+)	ALL Workers
Average Wage	\$ 5.64	\$ 6.70	\$ 14.65	\$ 12.18
Employment	6,976,792	5,668,877	40,076,797	55,497,227
Share of Total	12.6%	10.2%	72.2%	100.0%
Demographics				
16-19	24.7%	11.0%	1.4%	6.2%
20+	75.3%	89.0%	98.6%	93.8%
White	65.4%	67.5%	76.6%	73.6%
Black	16.2%	16.2%	12.0%	13.1%
Hispanic	14.4%	12.2%	7.1%	9.0%
Teens(16-19)	24.7%	11.0%	1.4%	6.2%
Work Hours				
Full-Time (35+)	44.9%	63.8%	82.2%	74.0%
Part-Time				
20-34 hours	35.0%	25.6%	13.1%	18.1%
1-19 hours	20.0%	10.5%	4.7%	7.9%
Industry				
Manufacturing	8.4%	10.3%	12.3%	11.4%
Retail Trade	44.0%	31.2%	11.4%	18.6%
Occupation				
Sales	28.3%	20.2%	8.7%	12.7%
Cashiers	16.4%	8.5%	1.3%	4.2%
Services	32.5%	25.9%	9.3%	15.0%
Food Preparation	16.1%	9.9%	3.1%	6.1%
Union				
Union	3.9%	6.5%	16.2%	13.1%
Non-union	96.1%	93.5%	83.8%	86.9%

Note: "Affected workers" are those who earn between the minimum wage level in their state and the proposed new level (\$6.15).

Source: EPI analysis of CPS data.

Table 3

Affected Workforce, 1998, by Parental Status, Persons Age 18-64, in Thousands

Parents with Children	Number	Percent
Married Couple	2,142	22.1%
Female	1,457	15.0%
Male	685	7.1%
Single Parents	1,056	10.9%
Single Female	967	10.0%
Single Male	89	0.9%
Non-Parents (Single Individuals, Childless Couples, Elderly, and Teenagers who are not parents)		
All	6,507	67.1%
Female	3,486	35.9%
Male	3,021	31.1%

Source: EPI analysis of CPS data.

Table 4

Share of Gains from the Proposed Min Wg Increase of \$1 by Household Income Level, 1998

Less than \$10,000	0.181
\$10-25	0.320
\$25-35	0.149
\$35-50	0.136
\$50+	0.214

Source: 1998 CPS ORG data. Sample excludes non-workers. For those in the affected range, gains are calculated as the difference between current earnings and the new level (by state). This value is multiplied by weekly hours and summed across each income group.

Value of the minimum wage**1938 - 2002**

Year	Nominal	CPI-U	1998 base CPI-U	Real 1998\$ minimum	weekly (*40)
1938	0.25	14.1	0.0865	\$2.89	\$115.60
1939	0.30	13.9	0.0853	\$3.52	\$140.72
1940	0.30	14.0	0.0859	\$3.49	\$139.71
1941	0.30	14.7	0.0902	\$3.33	\$133.06
1942	0.30	16.3	0.1000	\$3.00	\$120.00
1943	0.30	17.3	0.1061	\$2.83	\$113.06
1944	0.30	17.6	0.1080	\$2.78	\$111.14
1945	0.40	18.0	0.1104	\$3.62	\$144.89
1946	0.40	19.5	0.1196	\$3.34	\$133.74
1947	0.40	22.3	0.1368	\$2.92	\$116.95
1948	0.40	24.1	0.1479	\$2.71	\$108.22
1949	0.40	23.8	0.1460	\$2.74	\$109.58
1950	0.75	24.1	0.1479	\$5.07	\$202.90
1951	0.75	26.0	0.1595	\$4.70	\$188.08
1952	0.75	26.5	0.1626	\$4.61	\$184.53
1953	0.75	26.7	0.1638	\$4.58	\$183.15
1954	0.75	26.9	0.1650	\$4.54	\$181.78
1955	0.75	26.8	0.1644	\$4.56	\$182.46
1956	1.00	27.2	0.1669	\$5.99	\$239.71
1957	1.00	28.1	0.1724	\$5.80	\$232.03
1958	1.00	28.9	0.1773	\$5.64	\$225.61
1959	1.00	29.1	0.1785	\$5.60	\$224.05
1960	1.00	29.6	0.1816	\$5.51	\$220.27
1961	1.15	29.9	0.1834	\$6.27	\$250.77
1962	1.15	30.2	0.1853	\$6.21	\$248.28
1963	1.25	30.6	0.1877	\$6.66	\$266.34
1964	1.25	31.0	0.1902	\$6.57	\$262.90
1965	1.25	31.5	0.1933	\$6.47	\$258.73
1966	1.25	32.4	0.1988	\$6.29	\$251.54
1967	1.40	33.4	0.2049	\$6.83	\$273.29
1968	1.60	34.8	0.2135	\$7.49	\$299.77
1969	1.60	36.7	0.2252	\$7.11	\$284.25
1970	1.60	38.8	0.2380	\$6.72	\$268.87
1971	1.60	40.5	0.2485	\$6.44	\$257.58
1972	1.60	41.8	0.2564	\$6.24	\$249.57
1973	1.60	44.4	0.2724	\$5.87	\$234.95

1974	2.00	49.3	0.3025	\$6.61	\$264.50
1975	2.10	53.8	0.3301	\$6.36	\$254.50
1976	2.30	56.9	0.3491	\$6.59	\$263.55
1977	2.30	60.6	0.3718	\$6.19	\$247.46
1978	2.65	65.2	0.4000	\$6.63	\$265.00
1979	2.90	72.6	0.4454	\$6.51	\$260.44
1980	3.10	82.4	0.5055	\$6.13	\$245.29
1981	3.35	90.9	0.5577	\$6.01	\$240.29
1982	3.35	96.5	0.5920	\$5.66	\$226.34
1983	3.35	99.6	0.6110	\$5.48	\$219.30
1984	3.35	103.9	0.6374	\$5.26	\$210.22
1985	3.35	107.6	0.6601	\$5.07	\$202.99
1986	3.35	109.6	0.6724	\$4.98	\$199.29
1987	3.35	113.6	0.6969	\$4.81	\$192.27
1988	3.35	118.3	0.7258	\$4.62	\$184.63
1989	3.35	124.0	0.7607	\$4.40	\$176.15
1990	3.80	130.7	0.8018	\$4.74	\$189.56
1991	4.25	136.2	0.8356	\$5.09	\$203.45
1992	4.25	140.3	0.8607	\$4.94	\$197.51
1993	4.25	144.5	0.8865	\$4.79	\$191.76
1994	4.25	148.2	0.9092	\$4.67	\$186.98
1995	4.25	152.4	0.9350	\$4.55	\$181.82
1996	4.75	156.9	0.9626	\$4.93	\$197.39
1997	5.15	160.5	0.9847	\$5.23	\$209.21
1998	5.15	163.0	1.0000	\$5.15	\$206.00
* 1999	5.15	166.6	1.0221	\$5.04	\$201.55
* 2000	5.65	170.8	1.0479	\$5.39	\$215.68
* 2001	6.15	175.0	1.0736	\$5.73	\$229.13
* 2002	6.15	179.4	1.1006	\$5.59	\$223.51

* using CBO July 1, 1999 estimates of inflation of 1999 2.2% and 20
Where multiple minimum wages exist, the highest value was used.

Minimum Hourly Wage Rate: Nonfarm

Dollars

	Month			Quarter	Year
1996	4.25	4.25	4.25	4.25	4.38
	4.25	4.25	4.25	4.25	
	4.25	4.25	4.25	4.25	
	4.75	4.75	4.75	4.75	
1997	4.75	4.75	4.75	4.75	4.88
	4.75	4.75	4.75	4.75	
	4.75	4.75	5.15	4.88	
	5.15	5.15	5.15	5.15	
1998	5.15	5.15	5.15	5.15	5.15
	5.15	5.15	5.15	5.15	
	5.15	5.15	5.15	5.15	
	5.15	5.15	5.15	5.15	
1999	5.15	5.15	5.15	5.15	---
	5.15	5.15	5.15	5.15	
	5.15	5.15	---	---	
	---	---	---	---	

Oct. 96
Sept. 97

Minimum Hourly Wage Rate: Nonfarm

Dollars

	Month			Quarter	Year
1986	3.35	3.35	3.35	3.35	3.35
	3.35	3.35	3.35	3.35	
	3.35	3.35	3.35	3.35	
	3.35	3.35	3.35	3.35	
1987	3.35	3.35	3.35	3.35	3.35
	3.35	3.35	3.35	3.35	
	3.35	3.35	3.35	3.35	
	3.35	3.35	3.35	3.35	
1988	3.35	3.35	3.35	3.35	3.35
	3.35	3.35	3.35	3.35	
	3.35	3.35	3.35	3.35	
	3.35	3.35	3.35	3.35	
1989	3.35	3.35	3.35	3.35	3.35
	3.35	3.35	3.35	3.35	
	3.35	3.35	3.35	3.35	
	3.35	3.35	3.35	3.35	
1990	3.35	3.35	3.35	3.35	3.69
	3.80	3.80	3.80	3.80	
	3.80	3.80	3.80	3.80	
	3.80	3.80	3.80	3.80	
1991	3.80	3.80	3.80	3.80	4.14
	4.25	4.25	4.25	4.25	
	4.25	4.25	4.25	4.25	
	4.25	4.25	4.25	4.25	
1992	4.25	4.25	4.25	4.25	4.25
	4.25	4.25	4.25	4.25	
	4.25	4.25	4.25	4.25	
	4.25	4.25	4.25	4.25	
1993	4.25	4.25	4.25	4.25	4.25
	4.25	4.25	4.25	4.25	
	4.25	4.25	4.25	4.25	
	4.25	4.25	4.25	4.25	
1994	4.25	4.25	4.25	4.25	4.25
	4.25	4.25	4.25	4.25	
	4.25	4.25	4.25	4.25	
	4.25	4.25	4.25	4.25	
1995	4.25	4.25	4.25	4.25	4.25
	4.25	4.25	4.25	4.25	
	4.25	4.25	4.25	4.25	
	4.25	4.25	4.25	4.25	

Minimum Hourly Wage Rate: Nonfarm

Dollars

	Month			Quarter	Year
1976	2.30	2.30	2.30	2.30	2.30
	2.30	2.30	2.30	2.30	
	2.30	2.30	2.30	2.30	
	2.30	2.30	2.30	2.30	
1977	2.30	2.30	2.30	2.30	2.30
	2.30	2.30	2.30	2.30	
	2.30	2.30	2.30	2.30	
	2.30	2.30	2.30	2.30	
1978	2.65	2.65	2.65	2.65	2.65
	2.65	2.65	2.65	2.65	
	2.65	2.65	2.65	2.65	
	2.65	2.65	2.65	2.65	
1979	2.90	2.90	2.90	2.90	2.90
	2.90	2.90	2.90	2.90	
	2.90	2.90	2.90	2.90	
	2.90	2.90	2.90	2.90	
1980	3.10	3.10	3.10	3.10	3.10
	3.10	3.10	3.10	3.10	
	3.10	3.10	3.10	3.10	
	3.10	3.10	3.10	3.10	
1981	3.35	3.35	3.35	3.35	3.35
	3.35	3.35	3.35	3.35	
	3.35	3.35	3.35	3.35	
	3.35	3.35	3.35	3.35	
1982	3.35	3.35	3.35	3.35	3.35
	3.35	3.35	3.35	3.35	
	3.35	3.35	3.35	3.35	
	3.35	3.35	3.35	3.35	
1983	3.35	3.35	3.35	3.35	3.35
	3.35	3.35	3.35	3.35	
	3.35	3.35	3.35	3.35	
	3.35	3.35	3.35	3.35	
1984	3.35	3.35	3.35	3.35	3.35
	3.35	3.35	3.35	3.35	
	3.35	3.35	3.35	3.35	
	3.35	3.35	3.35	3.35	
1985	3.35	3.35	3.35	3.35	3.35
	3.35	3.35	3.35	3.35	
	3.35	3.35	3.35	3.35	
	3.35	3.35	3.35	3.35	

Minimum Hourly Wage Rate: Nonfarm

Dollars

	Month			Quarter	Year
1966	1.25	1.25	1.25	1.25	1.25
	1.25	1.25	1.25	1.25	
	1.25	1.25	1.25	1.25	
	1.25	1.25	1.25	1.25	
1967	1.25	1.40	1.40	1.35	1.39
	1.40	1.40	1.40	1.40	
	1.40	1.40	1.40	1.40	
	1.40	1.40	1.40	1.40	
1968	1.40	1.60	1.60	1.53	1.58
	1.60	1.60	1.60	1.60	
	1.60	1.60	1.60	1.60	
	1.60	1.60	1.60	1.60	
1969	1.60	1.60	1.60	1.60	1.60
	1.60	1.60	1.60	1.60	
	1.60	1.60	1.60	1.60	
	1.60	1.60	1.60	1.60	
1970	1.60	1.60	1.60	1.60	1.60
	1.60	1.60	1.60	1.60	
	1.60	1.60	1.60	1.60	
	1.60	1.60	1.60	1.60	
1971	1.60	1.60	1.60	1.60	1.60
	1.60	1.60	1.60	1.60	
	1.60	1.60	1.60	1.60	
	1.60	1.60	1.60	1.60	
1972	1.60	1.60	1.60	1.60	1.60
	1.60	1.60	1.60	1.60	
	1.60	1.60	1.60	1.60	
	1.60	1.60	1.60	1.60	
1973	1.60	1.60	1.60	1.60	1.60
	1.60	1.60	1.60	1.60	
	1.60	1.60	1.60	1.60	
	1.60	1.60	1.60	1.60	
1974	1.60	1.60	1.60	1.60	1.87
	1.60	2.00	2.00	1.87	
	2.00	2.00	2.00	2.00	
	2.00	2.00	2.00	2.00	
1975	2.10	2.10	2.10	2.10	2.10
	2.10	2.10	2.10	2.10	
	2.10	2.10	2.10	2.10	
	2.10	2.10	2.10	2.10	

Minimum Hourly Wage Rate: Nonfarm

Dollars

	Month			Quarter	Year
1956	0.75 1.00 1.00 1.00	0.75 1.00 1.00 1.00	1.00 1.00 1.00 1.00	0.83 1.00 1.00 1.00	0.96
1957	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00
1958	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00
1959	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00
1960	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00
1961	1.00 1.00 1.00 1.15	1.00 1.00 1.00 1.15	1.00 1.00 1.15 1.15	1.00 1.00 1.05 1.15	1.05
1962	1.15 1.15 1.15 1.15	1.15 1.15 1.15 1.15	1.15 1.15 1.15 1.15	1.15 1.15 1.15 1.15	1.15
1963	1.15 1.15 1.15 1.25	1.15 1.15 1.15 1.25	1.15 1.15 1.25 1.25	1.15 1.15 1.18 1.25	1.18
1964	1.25 1.25 1.25 1.25	1.25 1.25 1.25 1.25	1.25 1.25 1.25 1.25	1.25 1.25 1.25 1.25	1.25
1965	1.25 1.25 1.25 1.25	1.25 1.25 1.25 1.25	1.25 1.25 1.25 1.25	1.25 1.25 1.25 1.25	1.25

Minimum Hourly Wage Rate: Nonfarm

Dollars

	Month			Quarter	Year
1946	0.40	0.40	0.40	0.40	0.40
	0.40	0.40	0.40	0.40	
	0.40	0.40	0.40	0.40	
	0.40	0.40	0.40	0.40	
1947	0.40	0.40	0.40	0.40	0.40
	0.40	0.40	0.40	0.40	
	0.40	0.40	0.40	0.40	
	0.40	0.40	0.40	0.40	
1948	0.40	0.40	0.40	0.40	0.40
	0.40	0.40	0.40	0.40	
	0.40	0.40	0.40	0.40	
	0.40	0.40	0.40	0.40	
1949	0.40	0.40	0.40	0.40	0.40
	0.40	0.40	0.40	0.40	
	0.40	0.40	0.40	0.40	
	0.40	0.40	0.40	0.40	
1950	0.75	0.75	0.75	0.75	0.75
	0.75	0.75	0.75	0.75	
	0.75	0.75	0.75	0.75	
	0.75	0.75	0.75	0.75	
1951	0.75	0.75	0.75	0.75	0.75
	0.75	0.75	0.75	0.75	
	0.75	0.75	0.75	0.75	
	0.75	0.75	0.75	0.75	
1952	0.75	0.75	0.75	0.75	0.75
	0.75	0.75	0.75	0.75	
	0.75	0.75	0.75	0.75	
	0.75	0.75	0.75	0.75	
1953	0.75	0.75	0.75	0.75	0.75
	0.75	0.75	0.75	0.75	
	0.75	0.75	0.75	0.75	
	0.75	0.75	0.75	0.75	
1954	0.75	0.75	0.75	0.75	0.75
	0.75	0.75	0.75	0.75	
	0.75	0.75	0.75	0.75	
	0.75	0.75	0.75	0.75	
1955	0.75	0.75	0.75	0.75	0.75
	0.75	0.75	0.75	0.75	
	0.75	0.75	0.75	0.75	
	0.75	0.75	0.75	0.75	

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Making Work Pay

The Impact of the 1996-97
Minimum Wage Increase

by Jared Bernstein and John Schmitt

Economic Policy Institute

Economic Policy Institute

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Minimum Wages and Poverty

**Testimony by Dr. Jared Bernstein
Economic Policy Institute**

April 27, 1999

**Rayburn House Office Building
Washington, D.C.**

Minimum Wages and Poverty: Testimony by Dr. Jared Bernstein, Economic Policy Institute.

Today's hearing questions whether increases in the minimum wage are a useful anti-poverty tool. In particular, the question is whether raising the minimum wage to \$6.15 by September of 2000 will help those workers whose family incomes place them at or near the poverty line. As I will argue, the evidence unequivocally supports the view that increases in the minimum wage, by increasing the earnings of low-income workers without diminishing their employment opportunities, have historically helped to lower poverty rates. What's more, this evidence is stronger in the 1990s, with large numbers of poor persons moving into the labor market. The facts clearly support the contention that if Congress wants to "make work pay," the current proposal to increase the minimum wage makes sense.

The following testimony elaborates these four points:

- The historical record is quite clear on this point: increases in the minimum wage have consistently been shown to have their intended effect: they raise the wages of the lowest wage workers, many of whom reside in low-income families, and they do so without lowering their employment opportunities. In this regard, the policy solidly reinforces the "make work pay" platform that Congress and the administration have recently emphasized;
- Economists have evaluated the impact of minimum wage increases practically since the inception of the wage floor in the 1930's. At this point, I think it is fair to say that the debate over the purported job-loss effect is a debate over whether this effect is slightly below zero, or at zero. While this debate may be an important one among econometricians, from the perspective of policy makers who are looking for ways to help the working poor, it is a distinction without a difference. Even if you were to accept the most negative findings from this research, you simply could not avoid the conclusion that the benefits of the increase far outweigh the costs.
- There is no better example of these points than the most recent increase, which took place in 1996-97. Despite the same dire predictions we hear today, we have solid evidence that the last minimum wage increase lifted the earnings of low-wage workers without diminishing their employment prospects. This last point is key: the *employment* rates of low-wage workers have rarely been higher than they are today and their *unemployment* rates have rarely been lower.
- Finally, from the perspective of the working poor, the minimum wage is a useful anti-poverty tool. It cannot and should not, however, be viewed as a sole solution against poverty. This is primarily due to the fact that many employable poor persons have only marginal attachments to the labor market. As the literature evaluating minimum wages and poverty reveals (as well as some new findings I will present regarding the last increase), raising the minimum wage is associated with small decreases in the poverty rate, but the poor need other income supports, such as the EITC and food stamps.

Figure 1 shows the inflation-adjusted minimum wage, from 1955-2000 (projected). The figure shows the sharp decline in the minimum wage over the 1980s, when Congress failed to adjust the wage floor for nine years. Even with the recent increases in the 1990s, the inflation-adjusted minimum is 19% lower today than in 1979.

The dotted line at the end of the figure shows the impact of the new proposal. Using inflation projections by the Congressional Budget Office, in the absence of the proposed increase, the minimum wage would fall to \$4.90 (1998 dollars) by the year 2000. The proposed increase would restore the wage floor to slightly above its 1983 level; it would remain 13% below its 1979 peak.

Who Benefits When the Minimum Wage is Raised?

Since increases in the minimum wage have been shown to generate wage gains, an obvious question is: for whom? The data in this section reveal that the current proposal will primarily benefit low-wage workers who are disproportionately adult, female, and minority. Most of the workers reside in low-income families.

Table 1, panel 1, shows that 11.8 million workers (10.1% of the workforce) would receive an increase in their hourly wage rate if the minimum wage were raised to \$6.15. Since these workers earn, on average, \$5.65 per hour, the average hourly increase would be \$0.50.¹

The rest of the table examines the demographic characteristics of workers by wage levels. The first column looks at those directly affected by the increase in the minimum wage, i.e., workers whose earnings are between their state's current minimum and \$6.15. Most of these workers, 59.2%, are female, and about 72% are adults (age 20 or older). Close to half (48.2%) work full-time, and another third work between 20 and 34 hours.

Comparing the first column to the last—"All Workers"—shows the extent to which different types of workers are over- or under-represented in the affected range. Note, for example, that the minimum-wage workforce is disproportionately minority. While 11.6% of the overall workforce is African-American, 15.1% in the affected range are in this minority; similarly, 10.6% of the total workforce is Hispanic, compared to 17.4% of the minimum wage workforce. Minimum wage workers are concentrated in the retail trade industry and underrepresented in the manufacturing sector. They are also the least likely group of workers to be represented by unions.

Various studies have found that, due to so-called "spillover effects," the group earning above the minimum (perhaps as much a dollar above) also benefits from the increase.² Workers in this group, shown in the second column, are more likely to be older

¹ Using the data in Table 1 and the national wage bill of \$4.2 trillion (*Survey of Current Business*, January, 1999), the proposed increase amounts to 0.2% of national earnings.

² See, for example, Spriggs and Klein, 1994.

(87% are adults) and to work more hours (69% full-time) than those in the directly affected range.

The benefits of the increase flow mostly to workers with family incomes well below the average.³ Data from the first stage of the last increase reveal that 35% of the increase in wages went to working families in the bottom 20% of the income distribution (average income: \$15,728). Note that the share of national income held by these families in 1997 was only 5%. Combining the first two income fifths (average income, \$24,137), we find that 58% of the benefits went to these low-income working families, as compared to 16.4% of national income. Of course, these data imply that some of the benefits from the increase flow to families with above-average incomes (26.7% of the gains go to families in the top 40%). Thus, the policy is well, but not perfectly, targeted.

What About Job Losses?

Despite the compelling evidence of the benefits to poor and near-poor workers, opponents of increases in the minimum continue to raise the same objection: the increase will lead to job loss. This claim is based on the simple textbook notion that is the price of a good is competitively set by the free market, any diversion from that price will lead to an inefficient outcome. In this case, the prediction from the simple model is that the increase will price low-wage workers out of a job.

There are a priori reasons to be skeptical of this simplistic view. Low-wage workers are not “goods,” and the low-wage labor market is far from the competitive laboratory that exists in Econ 101 textbooks. But even if this were not the case, when we construct economic policy, we need to empirically test economic theories.

The theory that “small” increases in the minimum wage lead to job losses has been repeatedly tested and repeatedly found lacking (“small” in this case refers to increases which simply serve to replace some portion of the real value of the minimum wage which was eroded by inflation; see Figure 1). The estimates of the so-called “negative employment elasticity” have essentially hovered about zero, leading objective observers, including many economists, to be skeptical of the simple model’s predictions. The state of economists’ understanding of the issue was recently summarized by Nobel laureate Robert Solow, who noted that “the main thing about this research is that the evidence of job loss is weak. And the fact that the evidence is weak suggests that the impact on jobs is small.”⁴

Further proof of this contention comes from a recent survey of labor economists from leading research institutions in the U.S.⁵ The median estimate of the disemployment effect among these economists was -0.1%, meaning a 10% increase in the minimum wage would be associated with a 1% decline in the employment rates of teenagers, a group disproportionately employed at or near the minimum. Research that has looked for

³ The data in this paragraph are from Bernstein and Schmitt (1998).

⁴ Quoted in Louis Uchitelle, “Minimum Wage and Jobs,” *The New York Times*, January 12, 1995, p. D1.

⁵ See Fuchs et al, 1998.

disemployment effects among older workers has generally come up empty handed. If we were to apply this parameter to the current proposal, the conclusion would be that over 99% of the affected workforce would benefit from a wage increase.

But this practice, while it is sometimes followed in the literature, is an example of what economist John Schmitt calls “applied prejudice.” It simply assigns a negative elasticity, which, by definition, yields a negative result. The accepted practice among empirical economists is to investigate the actual impact of minimum wage increases.

Bernstein and Schmitt (1998) investigate the employment effects of the 1996-97 increase. They ran four separate tests of the employment impact of the increase and found:

- None of the tests show systematic job loss;
- The effect on employment is generally economically small and statistically insignificant; any impact is almost as likely to be positive as negative;
- Our update of the traditional method for estimating the minimum wage’s employment effects (time-series models) reveals a statistically *insignificant* result that is less than half the magnitude of even the lowest of earlier estimates.

Since that research was completed in early 1998, the labor market conditions facing low-wage labor market have continued to improve, contrary to the predictions of those who opposed the increase. Month after month in the current labor market, low-wage and minority workers post historic gains. In recent months, unemployment rates of African-Americans, Hispanics, and 16-24 year olds (who are likely to be low-earners) all hit 30-year lows. Figure 2 shows the changes in unemployment rates for various groups of disadvantaged workers from the month before the last increase to the most recent month for which data are available (March, 1999; these data are seasonally adjusted). In every case, unemployment rates have declined.

Similarly, the *employment* rate of young (16-25 year old) African-American women with a high-school degree increased by 6.6 percentage points, 1995-98, and their unemployment rate fell by 4.2 percentage points. These gains are much larger than the average, economy-wide changes in these labor market indicators.

This last group (young, minority females, with high-school degrees) is particularly relevant to the issue of the minimum wage and poverty. Due to welfare reform, many single mothers are required to leave the welfare rolls for the job market. Has the minimum wage increase been a complement or an impediment to their progress?

Due to both the change in welfare policy and the growing economy, welfare caseloads have fallen precipitously since 1996, when the minimum wage was increased. But, in the context of the job loss critique, the relevant question is whether the 1996-97 increase made it tougher for the women to enter the labor market. In fact, the employment rates of single mothers, after stagnating for many years, rose steeply from 62% in 1995 to 69% by 1998, directly over the period when the minimum was increased. Of course, not all single mothers are on welfare, but among those receiving welfare,

employment rates grew from 40% in 1995 to 49% in 1997, by far the highest level on record.⁶

Of course, one could always argue that these gains would have been larger in the absence of the minimum wage increase. Such claims are unknowable, and in this context should be discounted. Note, for example, that the seven and nine percentage-point increases in the employment rates of single mothers just cited were six and nine times, respectively, greater than the increase in the overall rate of employment growth over this period. The fact that these low-wage labor market indicators have far outpaced the overall changes in the labor market should convince objective observers that the 1996-97 increase has not hurt the employment prospects of low-wage workers.

Will the Increase Lower Poverty?

In this final section, I address the evidence regarding minimum wage increases and the poverty rate. The key points here are:

- In reviewing literature for this hearing, I found that the vast majority of analyses found small poverty-reducing effects, i.e., increases in the minimum wage were associated with small declines in the poverty rate. In fact, a review of articles on this topic published over the last 10 years in peer reviewed journals revealed no case in which the increase was associated with significant increases in the poverty rate.
- The channel through which this occurs is by delivering more earnings to the working poor. All of the above research finds this to be the case.
- Neumark et al's recent work on this topic has been raised to cast doubt on this widely held conclusion. In fact, their findings also support the general literature. As these authors note in a recent paper, "one might reasonably interpret our results as indicating that minimum wages have little effect on poverty rates." As regards the impact of minimum wage increases on the incomes of poor families, these authors write: "we also find that the minimum wages tend to boost the incomes of poor families that remain below the poverty line." Finally, they note that, as regards the question of whether minimum wages lead to an increase in the family poverty rate, they write: "this estimated net effect is insignificant."⁷
- The reason the anti-poverty effects of the minimum wage have historically been found to be small is due to the marginal labor market participation of many poor persons. However, as the above employment rate trends reveal, we should expect these effects to grow as more poor and near-poor persons increase their hours of work. This fact also underscores the importance of complementary income policies targeted at low-income workers such as the Earned Income Tax Credit and food stamps.
- When considering the impact of minimum wage increases, it is a mistake to focus solely on those below the poverty line. Many families move in and out of poverty, and near-poor families should also be considered as potential beneficiaries of the policy. Also, minimum wage increases have been found to increase the incomes of

⁶ See Blank et al, 1998.

⁷ These quotes are from pages 21, 30, and 31 of their NBER paper #6127.

poor families without necessarily lifting them above the poverty line (thus, lowering the poverty gap).

- Finally, there has been only one paper of which I am aware that includes the impact of the most recent increase on poverty rates. This newly published study finds a small poverty-reducing effect of minimum wage increases. My tabulations of the impact of the most recent increase on poverty show 1) a net increase in the share of persons moving out of poverty, 1996-97, and, among those persons who remained in poor families in both 1996 and 1997, an nominal increase in annual earnings of 13% (over this period, the federal nominal minimum wage was raised by 12%).⁸

An objective reading of the literature on minimum wages and poverty leaves one with two salient impressions. First, the minimum wage is a useful, though limited, anti-poverty tool, and second, from the perspective of economic policy analysis, it is a big mistake to limit this analysis solely to the poor, i.e., to ignore the near-poor.

As noted above, the empirical economics literature is widely agreed on the contention that minimum wage increases have small anti-poverty effects. In a 1989 paper, Burkhauser and Finegan find that an increase in the minimum wage would reduce the poverty rate of low-wage workers by 21%. Mincy (1990) also finds an anti-poverty effect of a similar magnitude. However, both of these studies point to the fact that many of the benefits from the increase flow to families above the poverty line, a point I return too shortly. Card and Krueger (1995) also examine this issue, finding some evidence that between 1989 and 1991, states where the minimum wage increase had a greater impact had slightly larger declines in their poverty rates. Their results, however, like most in the literature are statistically fragile. These authors, both of whom are renowned empirical economists, argue that the small magnitude of these effects "points to a modest poverty-reducing effect of the minimum wage," (p. 307).

The most recently published evidence of the minimum wage as an anti-poverty tool comes from the work of Addison and Blackburn (1999). Their work is particularly germane to the question of a new increase because it contains data through 1996. The authors write that their "results provide evidence that increases in minimum wages in the 1990s *have* served to reduce poverty," (p. 407, italics in original). One particularly interesting finding from this paper is that in their analysis, minimum wage increases go from having no statistically identifiable effect on poverty in the 1980s to having an anti-poverty effect (specifically for teenagers and high-school dropouts) in the 1990s. These effects are driven by increases in both earnings and weeks worked. This finding has two implications: first, it supports the speculation, noted above, that as welfare reform pushes poor persons into the labor market, minimum wage increases will be increasing useful as a poverty reduction tool. Second, it lends support to the policy currently under consideration. Raising the minimum wage should help to make work pay for poor and near poor persons entering the labor market.

⁸ The 1996-97 increase of \$0.90 occurred in two steps. Weighting the minimum wage in each year by the number of months the increases were in place yields nominal values of \$4.38 and \$4.88.

Conclusion

The evidence strongly supports the contention that minimum wage increases reduce poverty. The effect, however, is small. Why is this the case?

There are two related reasons. First, while the benefits of the increase go disproportionately to low-income families, not all of these families have incomes below the poverty line. It is important to recall that our poverty definition is a fixed income line; thus, a family whose income puts them one dollar above this line is not considered poor in our national accounting system. However, few would deny that these families also need to be supported by a national wage floor. In this regard, the poverty criterion is a somewhat artificial one in this aspect of the debate.

Second, many poor families are only marginally attached to the labor market. In 1997, the most recent year for which we have data on poor families, the average hours of work for poor families (pooled across the family, and excluding one-person families) was 1,042; for families with at least one worker, the average was 1,503. Even with the proposed increase currently under consideration, a single-parent family of three that depended wholly on the minimum would be poor.

As noted throughout this testimony, the work effort of poor families has been growing quite swiftly in recent years, in part due to welfare reform (for all poor families, the increase in average annual hours, 1996-97, was 6.3%). For this reason, it is reasonable to expect the minimum wage will play an increasingly important anti-poverty role as time progresses (the findings in Addison and Blackburn (1999) support this). Nevertheless, if our intention is to help working poor families reach, if not surpass, the poverty line, then these families clearly need other income supports. Three obvious candidates are the EITC, food stamps, and subsidized child care.

Figure 3 shows two stacked bars representing the income of a single mother with two children, with earnings from the minimum wage before and after the increase (minus payroll taxes), the EITC and food stamps.⁹ In both cases, I assign the average hours of work, pooled across the family, for poor single mothers with children: 1,164 in 1997. In neither case, does the family reach the poverty line of about \$13,000. However, the EITC and food stamps just about double the after-tax earnings of this poor, single parent.

Note also that some of the extra earnings from the increase are lost due to the reduction in food stamps, which are phased out as earnings increase.¹⁰ This has the disadvantage that low-income families on food stamps do not receive the full benefit of the increase in the minimum wage. From the perspective of public spending however, the minimum wage increase clearly reduces public expenditures for the poor. Thus, the composition of family income shifts such that the share of income from earnings

⁹ Ed Lazere of the Center for Budget and Policy Priorities provided the spreadsheet for these calculations.

¹⁰ The EITC also has a phase out range, but in this example, the family is on the "up slope," both before and after the increase. Twenty percent of earnings, a standard deduction, a shelter allowance are deducted from income for the determination of food stamp benefits.

increases relative to the share from unearned sources. Given that this Congress has continuously stressed the importance of reducing dependence on unearned income, the minimum wage increase should be viewed favorable in this regard.

By itself, the increase in the minimum wage will not end working poverty. But the evidence presented in this testimony strongly points to the conclusion that the increase will help lift the living standards of working poor families, thus helping to reconnect their economic fortunes to those of the rest of America's workforce.

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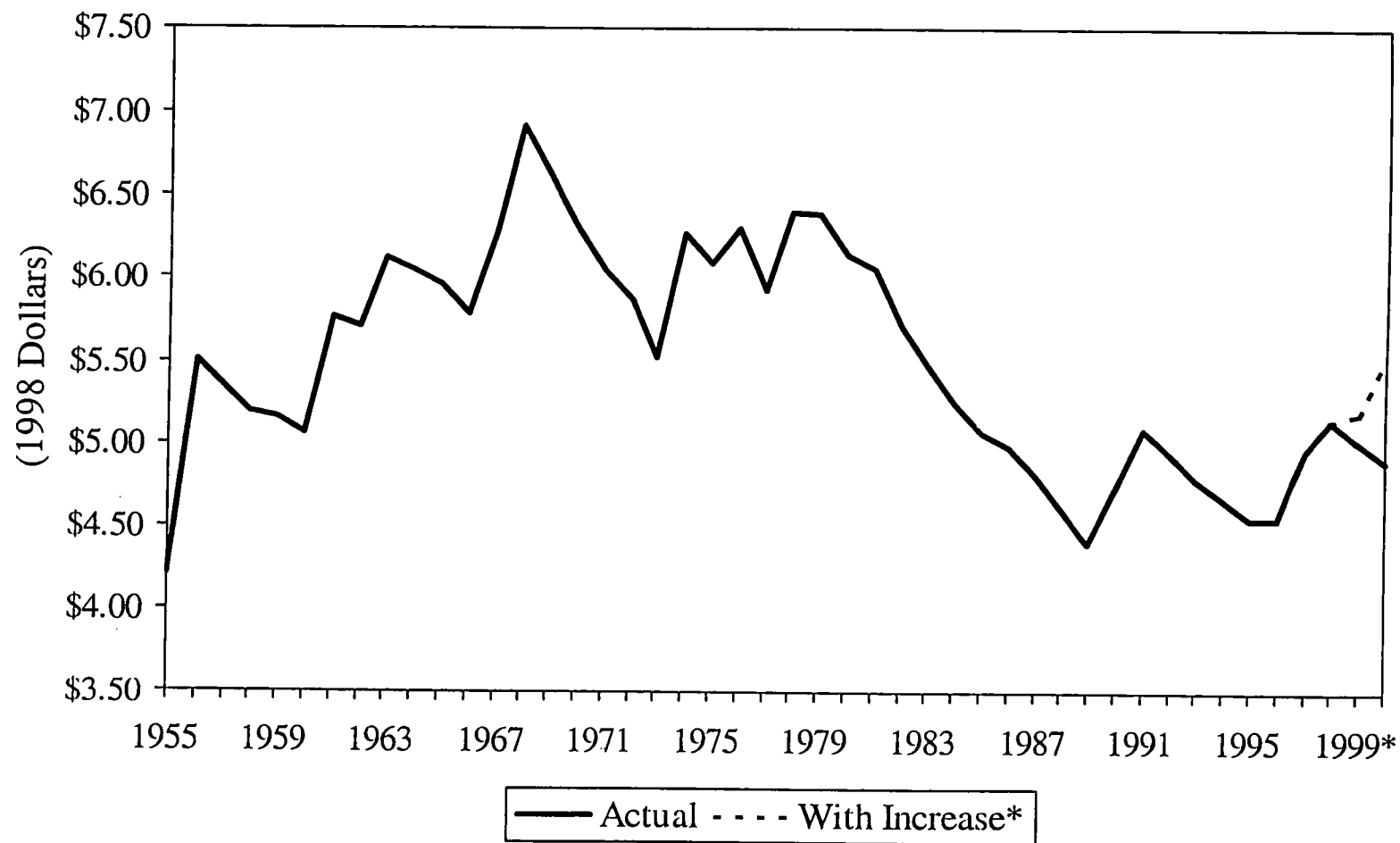
Table 1
Characteristics of Workers by Wage Range, 1998

Characteristic	Affected Directly by Increase	Other Low-Wage Workers (Minimum+\$1)	\$7.15 and Above	All
Average Wage	\$5.65	\$6.72	\$16.13	\$13.79
Employment	11,776,770	9,750,642	89,962,641	116,259,651
Share of Total	10.1%	8.4%	77.4%	100.0%
Demographics				
Male	40.8%	41.9%	55.4%	52.3%
16-19	13.4%	6.4%	0.9%	3.0%
20+	27.4%	35.5%	54.6%	49.3%
Female	59.2%	58.1%	44.6%	47.7%
16-19	14.7%	6.4%	0.6%	3.0%
20+	44.6%	51.7%	43.9%	44.8%
White	63.3%	64.2%	76.4%	73.4%
Male	24.6%	24.9%	42.2%	38.3%
Female	38.8%	39.2%	34.1%	35.1%
Black	15.1%	15.3%	10.6%	11.6%
Male	5.5%	5.8%	5.3%	5.4%
Female	9.6%	9.4%	5.3%	6.2%
Hispanic	17.4%	16.4%	8.7%	10.6%
Male	8.8%	9.2%	5.5%	6.3%
Female	8.5%	7.1%	3.2%	4.3%
Teens(16-19)	28.1%	12.8%	1.5%	5.9%
Work Hours				
Full-Time (35+)	48.2%	69.2%	89.0%	81.8%
Part-Time				
20-34 hours	32.9%	21.7%	8.1%	12.6%
1-19 hours	18.9%	9.1%	2.9%	5.6%
Industry				
Manufacturing	9.0%	12.7%	19.0%	17.0%
Retail Trade	43.7%	30.3%	11.4%	17.1%
Union				
Union	4.4%	6.7%	18.3%	15.4%
Non-union	95.6%	93.3%	81.7%	84.6%

Note: "Affected workers" are those who earn between the minimum wage level in their state and the proposed new level (\$6.15).

Source: EPI analysis of 1998 CPS ORG data.

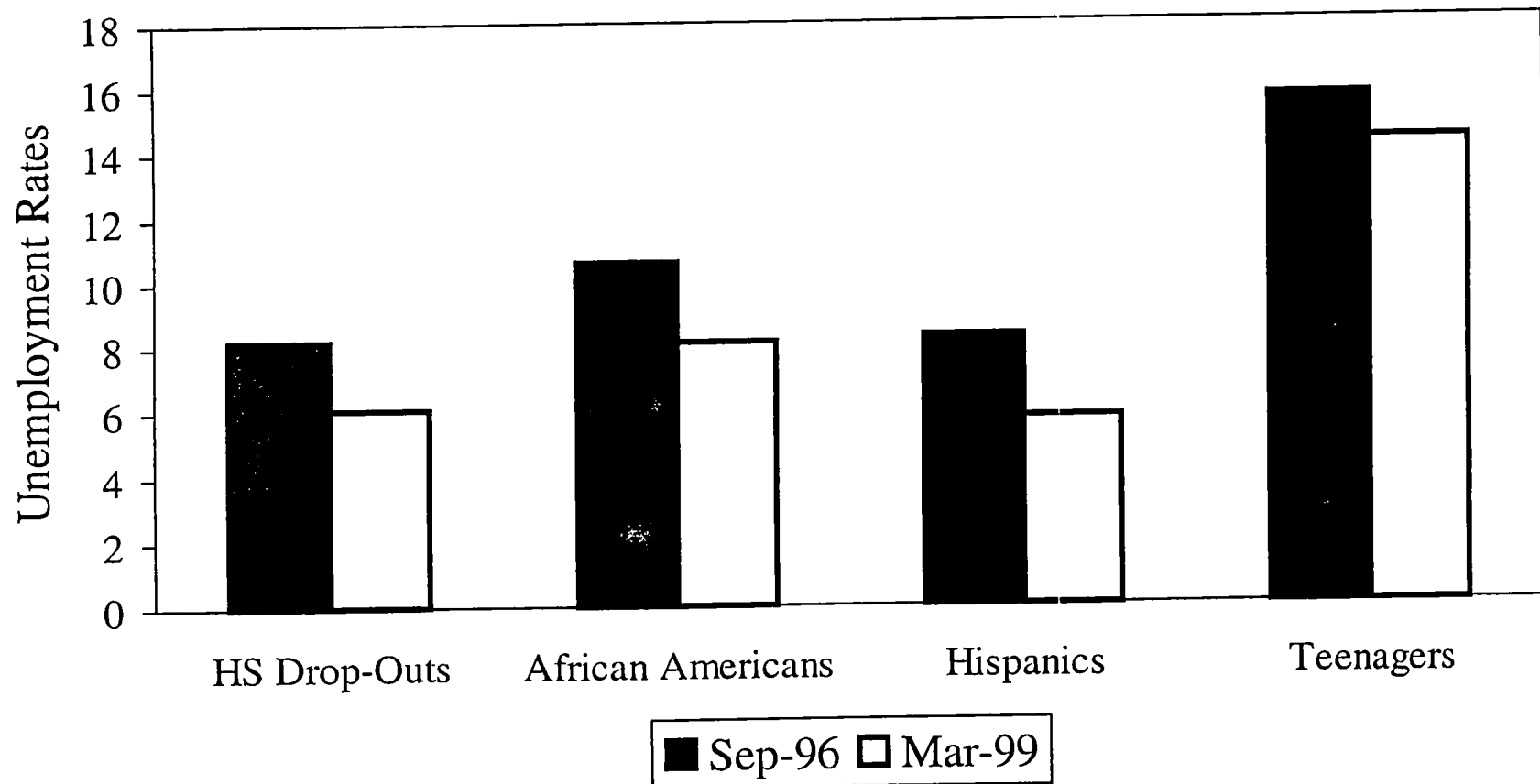
Figure 1
The Real Value of the Federal Minimum Wage,
1955-2000
(1998 Dollars)



Source: Economic Policy Institute

*See text.

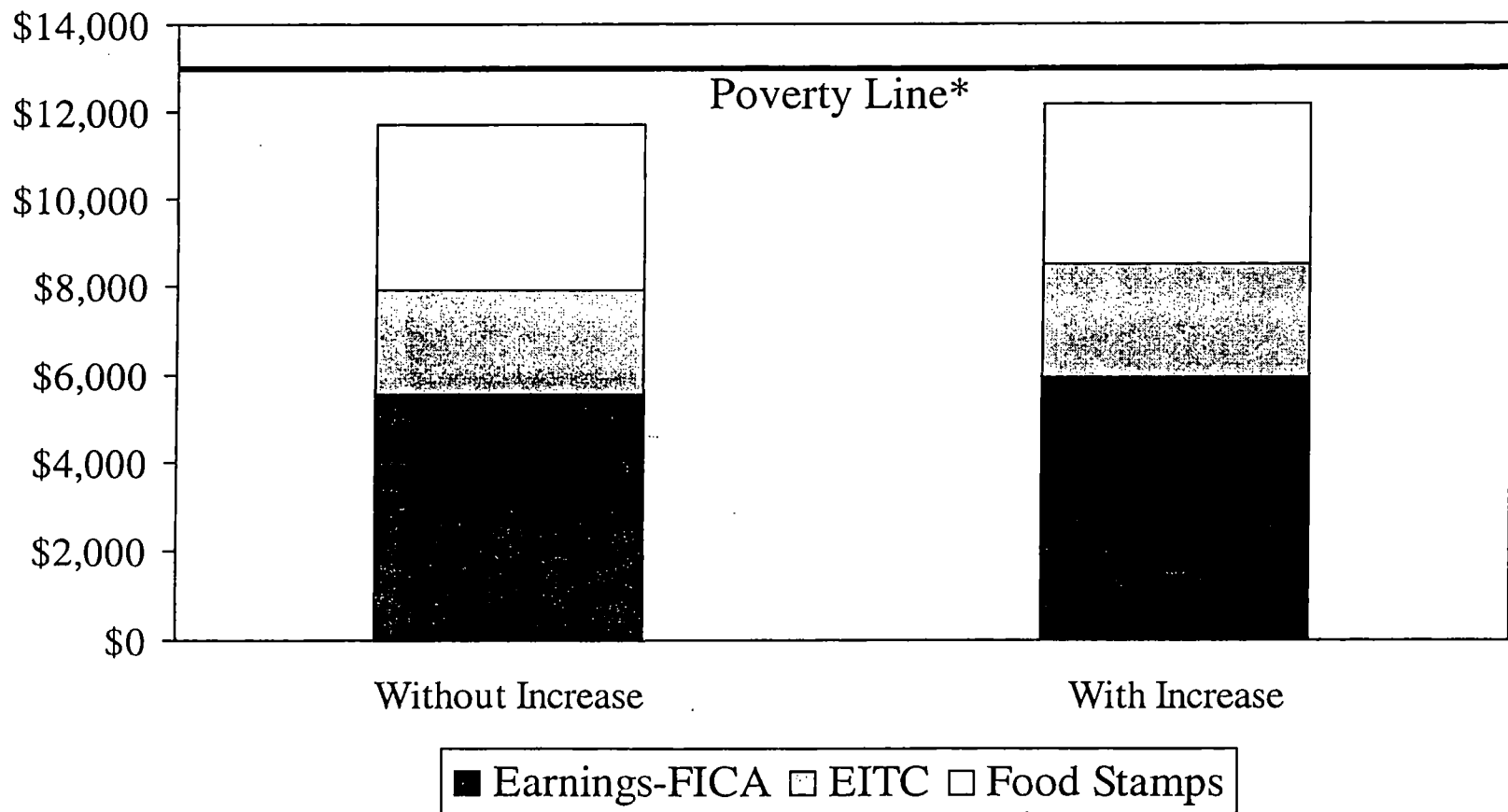
Figure 2
Changes in Unemployment Rates* of Low-wage
Workers Since Last Minimum Wage Increase



*Seasonally Adjusted

Source: Bureau of Labor Statistics.

Figure 3
Income Components, Low-Wage Parent with Two
Children, 1998



*Poverty Line, \$13,132.

Note: Earnings represent old and new minimum wage (in 1998 dollars) times 1,164 hours, the average annual hours of work by a single mother with children from the March 1998 CPS. FICA taxes of 7.65% are deducted from earnings.

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The Minimum Wage Debate in the United States

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The purpose of this report is to provide members of the Low Pay Commission and other interested parties a tour of the U.S. debate over the minimum wage. Unfortunately, but not surprisingly, the recent debate has generated much more heat than light. My intention here is to try to filter out the darkness and salvage a few shards of light.

The U.S. debate over the minimum wage might usefully be divided into three categories: political, economic theoretical, economic empirical. Of these, the empirical debate is the most interesting and relevant to today's symposium and will thus be the focus of much of this report, but I will briefly review the first two categories.

The main findings of this overview are:

- The U.S. political debate over increases in the minimum wage has become particularly obfuscated by vested interests; there is little to be learned from that aspect of the debate;
- The neoclassical theory of the labor market generates what have turned out to be very unreliable predictions regarding the employment impact of a minimum wage increase;
- A recent spate of careful empirical research on the disemployment effects of modest increases in the minimum have yielded elasticities that hover about zero;
- While the debate as to which side of zero the truth lies is relevant to empirical economists, it is less so to policy makers who are faced with the unquestionable conclusion that benefits of the policy to low-wage workers outweigh the costs in terms of job losses;
- One key message from the recent developments in the U.S. labor market is that macroeconomic conditions are a much more important determinant of employment and earnings opportunities facing low-wage workers than minimum wages;
- Given that the employment elasticity appears to be "small," the questions of how the increase is absorbed and which workers are affected (the targeting question) need more attention and evaluation than they have received;
- In the U.S. case, the benefits of recent increases have gone disproportionately to adult workers (20 years and older), women, and minorities. Regarding household income, half of the gains from the proposed dollar increase currently under debate in the U.S. are expected to go to working households with incomes below \$25,000;
- Although the policy is clearly redistributive in the sense that the gains go disproportionately to those in the bottom two income quintiles, it is not perfectly targeted—some of the benefits go to workers in high income households.
- The low-wage labor market is the source of numerous market failures which distort market signals. Policy makers can address this problem through interventions in the primary distribution, such as the minimum wage, or through the secondary distribution, using such redistribution schemes as our Earned Income Tax Credit. I argue that these approaches are complementary.

The Political Debate

To state the obvious, the political debate in the U.S. over the minimum wage has become quite distorted. Contributions by vested interests play a much more significant role in our political process than in that of many other advanced democracies, and this is clearly evident in recent debates over increasing the minimum wage. Trade groups representing low-wage employers, such as the National Restaurant Association (NRA), lobby vigorously against the policy, since it will raise the labor costs of their members. This is by no means unexpected. What's unusual, however, is that their public lobbying effort focuses almost exclusively on the alleged disemployment effects of the increase. Will I am not privy to their thinking, they must perceive this to be a more sympathetic argument.

To an economist, this should seem a bit strange. The neo-classical model does predict disemployment effects, but says nothing about profits, which is presumably why trade organizations such as the NRA exist.¹ Why should dues-paying members of the NRA want their representatives lobbying Congress on behalf of low-wage teenagers? Thus the opposition has embraced a particularly hypocritical stance. They claim to subscribe to a rational model of the economy, but neglect to realize that such a model is built upon rational actions of rational economic actors. Such actors would not support a minimum wage increase if they thought it would cost them their jobs, yet low-wage workers overwhelming do so. Nor would such actors pay a membership organization to represent the interests of low-wage workers, as opposed to employers, but that's exactly what the public is asked to believe. Perhaps for these reasons (along with some of the empirical evidence noted below), these arguments have been largely ineffective of late.

Political supporters of the policy are not burdened with hypocritical arguments, and thus tend to take the moral high ground, arguing that low-wage workers deserve a raise. To the extent that these arguments sometimes go too far, it is because they ignore the "no free lunch" rule and the targeting issue. Regarding the first point, U.S. advocates of higher minimum wages typically argue, with strong empirical evidence, that "moderate increases" will not lead to disemployment effects, price hikes, or other economic distortions. This begs numerous questions. First, what is moderate? Second, the increase has to come out somewhere—what absorption mechanism do advocates have in mind? Regarding the second point, advocates of the policy cannot avoid the fact that the minimum wage is not a perfect delivery system for raising the wages of low-wage workers in low-income families. Like so many other redistributive schemes, some of the water splashes out of the bucket on the way from the well to the fire. I offer further thoughts on these questions below.

¹ The model simply reasons that if employers are forced to pay workers above the market wage (i.e., their marginal product) they will be forced to cut employment. Overall economic output will fall in such a model, but the firm itself continues to survive, albeit at a distorted equilibrium.

The Economic Debate, Theory and Findings

The Theoretical Debate: Economists are typically taught that a minimum wage increase, by interfering with market signals, can only lead to less employment and ultimately lower output. Thus, the challenge of the empirical findings, which fail to support the theory, have very much raised the hackles of some members of our profession. For many of these economists, the argument that a moderate increase in the minimum wage would not necessarily lead to job loss is akin to arguing the water flows uphill. The argument challenges the fundamental law of the classical model, and thus, their fervor in defending this model borders on the religious.

The theory of disemployment and the minimum wage is based on the following set of assumptions about the low-wage labor market:²

- all employers and all workers can costlessly enter or leave the market;
- all employers can costlessly hire or fire workers and all workers can costlessly find or leave employment;
- all employers and all workers have perfect, instantaneous, knowledge of the technology, tastes, and abilities of all market participants;
- each worker's productivity is identical and known to each employer before the worker is hired; and
- all workers work to their full potential without the need for guidance or supervision.

In this competitive labor market, prior to the introduction of the minimum wage, employers can hire as many workers as they need at the going wage and all workers effortlessly find employment at this wage rate. Any firm foolish enough to try to pay even a penny below the going wage would find their perfectly-informed workforce heading for the door. Similarly, any employer who paid more would have to pass the cost of the wage increase forward to consumers, and would thus lose market share and soon go bankrupt.

Once the minimum wage is introduced, firms would reduce employment up to the point where the productivity of the worker next in line to be dismissed just equaled the new minimum.³ Workers who previously worked for less than the new minimum (those in what is called the “affected range”) would still like to work at the new minimum but are unable to and are thus involuntarily unemployed.

² This is a summary of Section 4 from Bernstein and Schmitt (1998).

³ Even though all jobs and workers are alike, the productivity of each newly created job is lower than the next most-recently created job because of diminishing marginal returns, the idea that each additional worker contributes marginally less than the previous worker. As employers reduce the number of workers after the minimum wage rises, the productivity of the marginal job therefore rises. A slightly more sophisticated model would allow for workers to have different levels of productivity. In this context, the minimum wage would displace the lowest-productivity workers first. Firms would cut back until the productivity of the next worker to go was equal to the minimum wage.

Anyone with even a casual familiarity with the low-wage labor market in the U.S. knows that none of these conditions hold there. And one would be hard pressed to find a U.S. labor economist to defend the pure theory of the competitive market. But many economic analysts reasonably believe that some of these conditions hold to some extent, and thus view the empirical employment tests of minimum wage increases as a measure of how far this theory goes in describing the reality of the low-wage sector. I turn now to this research.

The Empirical Debate: The two camps just discussed—the political and theoretical—have unfortunately come to be dominated by ideologues, and, in economics, as in the rest of life, we learn nothing from ideologues. Thankfully, this is not the case with the empirical debate. This debate is, for the most part, carried on by those who are genuinely trying to determine the impact of minimum wage increases on the wage and employment opportunities facing low-wage workers. Of course, these authors bring pre-conceived notions to the table as well, but for the most part, such notions are kept in check.

For those interested in some of the technical aspects of the current empirical debate, I provide an appendix which explains some of more important recent developments. Summarizing the state of the current empirical research, I think it is fair to say that the best econometric models find that the disemployment effects of recent increases in the US hover about zero. Note also that this result applies to teenagers, who represent 29% of those affected by the last U.S. minimum wage increase; most work finds that disemployment effects of older workers are smaller than those of teens and less likely to be statistically significant.

There are enough reliable findings slightly below zero (in the negative 1-3% range for a minimum wage increase of 10%) to assuage those who cannot abide other results, but there are equally careful studies which find no systematic disemployment. The best of these are presented in the influential 1995 book *Myth and Measurement: The New Economics of the Minimum Wage* by David Card and Alan Krueger. Some of the findings from this work are discussed in the appendix.

All told, a dispassionate observer would probably come away from this literature concluding that water usually does flow downhill, but, at least in the low-wage sector, very slowly.

And if the same observer examined the impact of the most recent U.S. minimum wage increase, she would be forced to revise even this tepid hypothesis. Our analysis (Bernstein and Schmitt, 1998) of the last increase applied four separate tests (including the “Card” test, which I argue in the appendix is the most revealing), and found no evidence of significant disemployment effects. In fact, as has been widely reported in our business press, the low-wage labor market in the U.S. is stronger than it has been in years. Unemployment rates have hit historical lows for all groups of disadvantaged workers, and real wages have been growing consistently for the first time in decades. Even Fed Reserve chief Alan Greenspan, no friend of the minimum wage, has

acknowledged that the strong macroeconomy has swamped any disemployment effects from the 1996-97 increase.⁴

The lesson from the U.S. experience for policy makers concerned with the low-wage sector is that it is macroeconomic conditions, not the minimum wage, that largely determines labor demand, and thus the extent of employment opportunities in the low-wage labor market. Of course, a minimum wage set "too high" could change this equation, but so far, our experience is that the macroeconomy is the key determinant of employment for low-wage workers. How high is "too high"? I return to this question in the conclusion.

These empirical facts, in tandem with the Card/Krueger volume, have begun to reshape how economists think about the issue of the minimum wage and disemployment.⁵ A 1996 survey of labor economists, published in a journal of the American Economics Association, showed that on *average*, the economists in this survey estimated that a 10% increase in the minimum wage would lower teenage employment 2.1%.⁶ This is right in the middle of the 1%-3% range that has persisted since the time-series models were run in the early-1980s.

But the study also presented the range of estimates from the survey. Fully 30% of the economists responded that an increase in the minimum wage would either *raise* teen employment or leave it unchanged. The median estimate was a 1% decline, half the job loss predicted on average.⁷

In 1995, when much of the recent spate of minimum wage analysis work was being published and discussed, one of our great framers of economic wisdom in the U.S., Nobel-prize-winning economist Robert Solow, told the *New York Times*: "The main thing about this research is that the evidence of job loss is weak. And the fact that the evidence is weak suggests that the impact on jobs is small." Later that same year, 101 economists, including 7 past presidents of the American Economics Association, 3 of whom had also won Nobel prizes, signed a letter urging a 90-cent per hour increase in the federal minimum wage. As my EPI colleague John Schmitt has noted, thanks to the empirical research of the last decade, professional economists can no longer be counted on to mount a united front against the minimum wage.

Thus, the disemployment debate among economists is now whether the negative elasticity is "small" or zero. While this is not a trivial debate among empiricists, it is not very elucidating from the perspective of policy makers. Even if they choose to believe the upper bound of the more reliable estimates (omitting outliers on both sides of zero)

⁴ See Greenspan's exchange with Rep. Barney Frank in the *Congressional Record*, July 22, 1998.

⁵ This section borrows heavily from John Schmitt, "What Economists Really Think About the Minimum Wage," forthcoming.

⁶ Note that Alan Krueger was a co-author of this study.

⁷ The survey also asked economists to rate the desirability of the minimum wage [increase?] on a scale from zero ("strongly oppose") to 100 ("strongly favor"). The median estimate was 50, split the difference; the average estimate was 53.

the benefits of the policy, in terms of raising the hourly pay of young, low-wage workers, clearly outweigh the costs of job losses (or hours reductions).

An extremely consistent finding from this literature is that increases in the minimum wage clearly lift the earnings of low-wage workers. Thus, the fact that strong disemployment effects predicted by the classical model are not observable cannot be because the increase fails to reach anyone.

In this regard, another important lesson from the U.S. debate is that we here have spent too much time arguing about the costs of the policy, and too little arguing about the benefits. Policy makers should of course be concerned with disemployment, and should frequently monitor this potential problem. But given the weight of the evidence against the classical model, policy makers need to turn to other questions which have gotten less attention. What are the characteristics of the beneficiaries; does the increase go to those who need it most? And how is the increase absorbed? Finally, given the labor market and social policy options available, is the minimum wage a worthy candidate? I discuss the first two questions below and turn to the third in the conclusion.

As we speak, there is a proposal being debated in the U.S. Congress to raise the minimum wage from its current level of \$5.15 to \$6.15. Table 1 examines the characteristics of those affected by the increase. The top panel shows that 11.8 million workers (10.1% of the workforce) would receive an average hourly increase of \$0.50 if the minimum wage is raised to \$6.15.⁸

The rest of the table examines the demographic characteristics of workers by wage levels. The first column looks at those directly affected by the increase in the minimum wage, i.e., workers whose earnings are between their state's current minimum and \$6.15. Most of these workers, 59.2%, are female, and about 72% are adults (age 20 or older). Close to half (48.2%) work full-time, and another third work between 20 and 34 hours.

Comparing the first column to the last—"All Workers"—shows the extent to which different types of workers are over- or under-represented in the affected range. Note, for example, that the U.S. minimum-wage workforce is disproportionately minority. While 11.6% of the overall workforce is African-American, 15.1% in the affected range are in this minority; similarly, 10.6% of the total workforce is Hispanic, compared to 17.4% of the minimum wage workforce. Minimum wage workers are concentrated in the retail trade industry and underrepresented in the manufacturing sector. They are also the least likely group of workers to be represented by unions.

Various studies have found that, due to so-called "spillover effects," the group earning above the minimum (perhaps as much a dollar above) also benefits from the increase.⁹ Workers in this group, shown in the second column, are more likely to be older (87% are adults) and to work more hours (69% full-time) than those in the directly affected range.

⁸ Using the data in Table 1 and the national wage bill of \$4.2 trillion (*Survey of Current Business*, January, 1999), the proposed increase amounts to 0.2% of national earnings.

⁹ See, for example, Spriggs and Klein, 1994.

Table 2 provides a glimpse into the targeting issue. Since workers in the data base used for this analysis (the outgoing rotation groups from the Current Population Survey) provide brackets information about their household income, we can examine where the gains from the increase go in the income distribution.¹⁰ The data confirm that the policy is not perfectly targeted, though much of the water gets to the fire. Half of the benefits go to households with incomes below \$25,000—the modal category is the \$10,000-25,000; 32% of the gains go to those in this range. On the other end of the income scale, 21% of the gains go to workers in households with incomes of \$50,000 or above, certainly not the target group.

Another relevant targeting question asks: how do the distribution of gains compare to the distribution of income? In other words, from the perspective of the distribution of income, how redistributive is the policy? In our evaluation of the 1996-97 increase, we compared the share of gains from the increase with the share of income going to each quintile of working households. Figure 1 shows the ratio of the former over the latter. Thus, a bar at level one means the gains from the increase are equal to the quintile's share of national income. The figure reveals that, relative to income shares, the benefits of the increase are clearly concentrated among low-income households.

On the second point (i.e., how is the increase absorbed?), the four absorption channels we typically consider are employment reduction, price increases, lower profits, and efficiency gains. The first is discussed above—this channel had not played a large role in the U.S. experience. There is some evidence of price increases in low-wage intensive firms, but not enough to move our aggregate price index. Although many analysts think redistribution is an under-appreciated absorption mechanism, there has been little evidence, mostly due to data limitations (there are few reliable data sources on profits at the industry level and even fewer at the firm level).

The efficiency gain argument has the most theoretical currency right now, though here too there is little evidence. The best case that can be made for this point is that none of the others seem that important. The argument is well-developed in Card and Krueger (1995); Bernstein and Schmitt (1998) offer a non-technical discussion. The point is that, contrary to the neo-classical model, many low-wage firms enjoy some monopsony power, and as such, are able to survive without realizing all the efficiencies available to them. They set their wage below the market level and as a result, suffer above-average levels of turnovers and vacancies. The mandated wage increase brings them more in line with the market and lowers these inefficiencies, allowing increased productivity to absorb the wage increase.

¹⁰ The calculation is made by 1) identifying workers affected by the proposed increase, 2) taking the difference between the new minimum and their current wage, 3) multiplying this by their weekly hours, and 4) accumulating this value over the income categories and taking it as a share of the total gains. Note that this approach assumes no disemployment. However, in the presence of disemployment effects, the shares would only be affected if the disemployment was non-random throughout the income distribution.

Conclusion

In closing, I address a number of policy questions. Regardless of where we stand on the policy, we all agree that a minimum wage set “too high” would be sure to generate economic distortions. How high is too high? Second, given the menu of options that contemporary policy makers face, is the minimum wage worth pursuing? The answer depends on the problem you’re trying to fix, and the costs and benefits of the policy relative to other choices as well as relative to doing nothing.

Can “Modest” Be Quantified?: Advocates of the policy have paid surprisingly little attention to the question of how high should you go. Since one of the conclusions of the current debate is that modest increases in the 1990s, which simply replace some portion of the value of the wage eroded by inflation over the 1980s, are not disemploying, it one seem that a solid quantifying of “modest” would be useful.

Two approaches come to mind. First, if one could generate reliable elasticities of supply and demand in the low-wage labor market, one could estimate the percent increase in the wage that would generate a known level of job displacement, allow analysts to judge the benefits of the increase relative to its costs. However, the range of estimates is far too wide to permit this approach (see the discussion of this point in Bartik, 1998). A much more reliable approach would be to examine how far a given proposal cuts into the wage distribution to evaluate the magnitude of the “bite.” A more refined version of this approach would examine where the proposal cuts into the distribution of key industries, i.e., those that are low-wage labor intensive.

There is one caveat to this approach. It is important to avoid comparing a minimum wage proposal to a level that is partly determined by the minimum itself. Thus, the benchmark should be a wage that is low enough to represent the affected sector of the labor market, but high enough so as not to be itself a function of the current minimum. As an example, in evaluating the current U.S. proposal to raise the minimum wage from \$5.15 to \$6.15, Bernstein (1998) argues that the 40th percentile wage serves as a useful benchmark. In that analysis, I examine the level of the 1979 minimum relative to the 40th percentile wage in 1979 and update this value to the present (the choice of 1979 is explained in the citation).¹¹

The Minimum Wage Relative to Competing Policies: In the U.S., the minimum wage was introduced in the heart of our deepest economic depression, when low-wage workers suffered from as severe a market failure as we’ve ever experienced. And while our current economy is working better now than in many decades, the functioning of our low-wage sector is still a far cry from the list of neo-classical conditions given above. We also have experienced a gradual increase in wage inequality that is clearly related to (though by no means wholly explained by) the decline in the real value of our minimum wage.

¹¹ A third approach is to survey employers asking them at what level would the minimum wage lead them to cut employment. See Levin-Waldman and McCarthy, 1998. Small Business and the Minimum Wage Policy Note No. 3, 1998

Thus, for us, the minimum wage is a venerable policy intended to place a floor on the segment of our labor market most prone to market failure, and thus most accommodating to market intervention. This suggests that policy makers considering the policy need to be guided by the extent to which the low-end of the labor deviates from the free market ideal. The guiding questions should be, I think, are low-wage workers likely to be paid their “marginal product?” Is there evidence of discrimination and other factors that would skew market signals? Is the low bargaining power of those at the bottom of the wage scale likely to lower their ability to be fairly compensated? In the US, as in many other advanced economies, the answers to these questions have led to a mandated wage floor.

Regarding competing policy options, it is useful to examine the interaction of the minimum wage with other policies targeting low-wage workers. In our current fiscal climate, it is very difficult to introduce any policy that calls for added public expenditures. In this sense, the minimum wage has the attribute of not requiring public outlays. In fact, some argue that the policy saves federal expenditures by lowering the outlays of means-tested benefits.¹²

Many opponents of the policy have argued that our Earned Income Tax Credit, a wage subsidy to workers in low-income families is a better way to help those at the bottom of both the wage and the income scale. As I have responded elsewhere (Bernstein, 1999), from the perspective of low-income workers, these policies should not be viewed as substitutes but as complements. In the above citation, I show that the EITC combined with the cash value of food stamps and full-time work at the minimum wage will lift a single-parent family of three (e.g., a mother and two children) above our poverty line of \$13,000. But average hours of work for poor single mothers are well below full-time (1,164 hours per year in 1997). In other words, low-income families need both wage policies if they are to achieve a modicum of well-being from a good-faith effort to join the labor market. And as just noted, in as tight a fiscal climate as that of the contemporary US, expanding public expenditures, even through tax credits, is quite unlikely.

But there is an equally compelling policy reason for pursuing both minimum wage and tax credit approaches to lifting the earnings of low-wage workers. The minimum wage is one of our few redistributive policies that affect the primary distribution of earnings. And if that’s where the market failure is, then we should at least consider direct intervention, as opposed to automatically assuming that it would be better to let the damage be done, and use the secondary distribution to make reparations. Of course, many economists are loathe to intervene in the market due to concerns about unintended consequences, fearing the ultimate outcome will always be worse than what would prevail in the absence of the intervention. In the case of the minimum wage, however, careful research shows such evidence to be lacking.

¹² I am not aware of any research to substantiate this claim, though some savings would certainly be expected. However, to the extent that such savings offset the gains from the wage increase, the worker is no better off after the increase.

The minimum wage is by no means a perfect or a sole solution to the problems facing low-wage workers. But in the interest of not letting the best be the enemy of the good, it is an important and useful public policy.

Appendix: A brief review of empirical tests of the disemployment effects of the US minimum wage.

As noted in the text above, the conventional wisdom among economists is that a 10% increase in the minimum wage will result in a 1-3% decline in the teenage employment rate. For older workers, the general thinking is that the elasticity is essentially zero.

These findings date from reduced-form, times series equations run by the Minimum Wage Commission back in the early 1980s (Brown et al, 1982). Their models regressed the log of teenage employment to population ratio on the logged Kaitz index (the minimum wage variable) and a set of controls.¹³ The controls were for the impact of the business cycle (captured through the unemployment rate of prime-age males), supply variables, such as the share of teenagers in the civilian population, and seasonal controls.

While the estimates generated by the commission's work have had real staying power, more recent work has updated their findings by extending the model. Card and Krueger (1995), in their chapter updating the time-series regressions show how the coefficient has become smaller in absolute value over time. Figure A1 shows a graph of the coefficient on the Kaitz index when observations (quarters) are added one at a time starting in 1974 (a so-called "rolling regression"). Note the drift of the estimate toward zero, along with the trend toward insignificance in the t-statistic as more observations (i.e., quarters) are added.

There have, however, been significant strides in time-series analysis since this work was undertaken, particularly in the area of testing for stationarity, and paying closer attention to the evaluation and treatment of seasonality (as would be expected, teenage employment rates are highly seasonal in the U.S.).¹⁴ To the extent that any of the variables in the time-series model are non-stationary (i.e., have unit roots), or the effect of seasonality is not fully extracted, the output from the traditional models is not reliable.

Paul Wolfson (1998) examines this issue and finds evidence of non-stationarity in some of the key variables and ineffective seasonal controls in the basic time-series models responsible for the 1-3% negative elasticity estimates. He suggests a model in which these variables are entered as first differences, and seasonality is controlled for by the addition of a lagged seasonal difference. Those estimates, shown in the bottom panel of Table A1 (models 4 and 5), are consistently smaller than those in the basic quarterly model and statistically insignificant.

The first row of the table shows the Kaitz index (the minimum wage variable) from the basic model and the associated t-statistic, based on a quarterly model run from 1954:1-99:2 (see table note for model specifications). The coefficient is never significant at the $p < 0.05$ level; putting this criterion aside, the first model suggests that a 20% increase in

¹³ The Kaitz index is the minimum wage relative to the average non-supervisory worker wage, weighted by coverage and teenage employment, and summed over eight industries. See Bernstein and Schmitt (1998, appendix).

¹⁴ A stationarity times series is (essentially) one in which the series has a constant mean and variance.

the Kaitz index would lower teenage employment rates by 1.2%. The second model replaces the quarterly dummies with seasonal adjusters for the log teenage employment rate from the U.S. Census seasonal adjustment procedure (X-12-ARIMA, which generates a different adjuster for each quarter). While this procedure has the tendency of adding to the serial correlation in the residuals, adding an $ar(1)$ term to this regression served to “whiten” the residual series.¹⁵

Nevertheless, running the model on seasonally adjusted data, as in model 2, engenders the possibility of various other econometric problems (Jaditz, 1994). Thus, model 3 “skirts” the seasonality question by running the data on annual observations. While this obviously reduces the degrees of freedom (the model has 43 observations after adjusting the endpoints for the ar terms), I am able to omit the “nuisance parameters” from the quarterly models (the quarterly dummies, trends, and their interactions). The Kaitz coefficients in models two and three are less than half the magnitude of that of model one, and are insignificant.

The attributes of the time-series models are that they are fairly transparent and are easy to update with readily available data of a reasonable quality. The downside of these models are that the series are highly serially correlated, some series have unit roots, the seasonality component is very strong, all of which make it difficult to separate signal from noise.

Given these limitations, labor economists, starting with Card in 1992, have taken a different, and in my view, a more illuminating approach to the question of the disemployment effects of the minimum wage. The key insight of this work is that a measure of the minimum wage, either by itself or relative to other wage levels provides too weak a signal to reliably measure its impact on employment (or any other dependent variable). In order to strengthen the econometrician’s ability to capture the impact of the minimum wage, i.e., to boost the signal to noise ratio, Card exploited the fact that different states in the U.S. had different shares of workers affected by an increase in the minimum. He introduced the concept of “bite,” arguing that if an increase was disemploying, it would be more so in states with a larger share of the teenage workforce affected. Thus, he examined cross-sectional variation in teenage employment rates as function of the share of affected workers in the states, along with other controls. He used this variable to examine the impact of the California increase in 1988 and the federal increase in 1990-91. Neither case provided evidence of significant job loss.¹⁶

Most of the interesting US analysis of the disemployment question in the 1990s has exploited state variation. Some of these models, such as Deere, Murphy, and Welch (1995) have used indicator variables for the minimum wage instead of the share affected, i.e., the bite approach favored by Card. Other have used the (log) value of the higher of

¹⁵ When the coefficient on the seasonal adjusters is very close to one, as it is in this regression, this reduces to running the model on a seasonally adjusted dependent variable.

¹⁶ Of course, the Card and Krueger also exploited state variation in their renowned New Jersey/Pennsylvania experiment. This research has been challenged by numerous analysts and interest groups, but has stood up well to all attacks. Their most recent follow-up, using a virtual census of all affected firms in both areas, confirms their earlier results (see Card and Krueger, 1997).

the state or federal minimum. My reading of these studies, in tandem with the time-series work, leads me to conclude that the bite variable is a far better measure, in the sense of boosting the signal to noise ratio, than indicator variables for changes in the minimum wage or the Kaitz index.¹⁷ However, to the extent that the time-series work continues to be pursued, the models which pay attention to the presence of unit roots should be preferred to those that ignore this possibility.

It is by no means the point of this appendix to provide a review of the contemporary studies. Interested parties will find that the Card and Krueger book provides an excellent summary of the literature through the mid-1990s.

¹⁷ Neumark and Wascher's 1992 model is of this type, using the log Kaitz index as the minimum wage variable. Card and Krueger review this work in their Chapter 7, showing that once the school enrollment variable is measured correctly, the elasticity on the Kaitz index is insignificant. Burkhauser et al (1999) have updated this model, using the log of the minimum wage and omitting the enrollment variable.

More importantly, they show that when the year effects are omitted, the minimum wage variable is negative and significant. This, however, is a mis-specification. The fact that the year effects are jointly significant with the minimum wage variable in the model reveals that there is some omitted variable(s) that 1) varies from year to year, 2) helps to explain teenage employment, and 3) is correlated with the minimum wage variable. The underlying assumption of a model that omits these effects is that the minimum wage variable, by itself, is the correct explanation for the year-to-year patterns (thus they can omit the year effects on the basis that these two are highly correlated and the wage variable is the better choice). If this were so, the minimum wage variable would "knock out" the year effects, i.e., they would be jointly insignificant in a model with both variables in the equation. Since this is not the case, the model without year effects is incorrectly specified.

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Table 1
Characteristics of Workers by Wage Range, 1998

Characteristic	Affected Directly by \$1 Increase in Min Wg	Other Low-Wage Workers (Minimum+\$1)	\$7.15 and Above	All
Average Wage	\$5.65	\$6.72	\$16.13	\$13.79
Employment	11,776,770	9,750,642	89,962,641	116,259,651
Share of Total	10.1%	8.4%	77.4%	100.0%
Demographics				
Male	40.8%	41.9%	55.4%	52.3%
16-19	13.4%	6.4%	0.9%	3.0%
20+	27.4%	35.5%	54.6%	49.3%
Female	59.2%	58.1%	44.6%	47.7%
16-19	14.7%	6.4%	0.6%	3.0%
20+	44.6%	51.7%	43.9%	44.8%
White	63.3%	64.2%	76.4%	73.4%
Male	24.6%	24.9%	42.2%	38.3%
Female	38.8%	39.2%	34.1%	35.1%
Black	15.1%	15.3%	10.6%	11.6%
Male	5.5%	5.8%	5.3%	5.4%
Female	9.6%	9.4%	5.3%	6.2%
Hispanic	17.4%	16.4%	8.7%	10.6%
Male	8.8%	9.2%	5.5%	6.3%
Female	8.5%	7.1%	3.2%	4.3%
Teens(16-19)	28.1%	12.8%	1.5%	5.9%
Work Hours				
Full-Time (35+)	48.2%	69.2%	89.0%	81.8%
Part-Time				
20-34 hours	32.9%	21.7%	8.1%	12.6%
1-19 hours	18.9%	9.1%	2.8%	5.6%
Industry				
Manufacturing	9.0%	12.7%	19.0%	17.0%
Retail Trade	43.7%	30.3%	11.4%	17.1%
Union				
Union	4.4%	6.7%	18.3%	15.4%
Non-union	95.6%	93.3%	81.7%	84.6%

Note: "Affected workers" are those who earn between the minimum wage level in their state and the proposed new level (\$6.15).

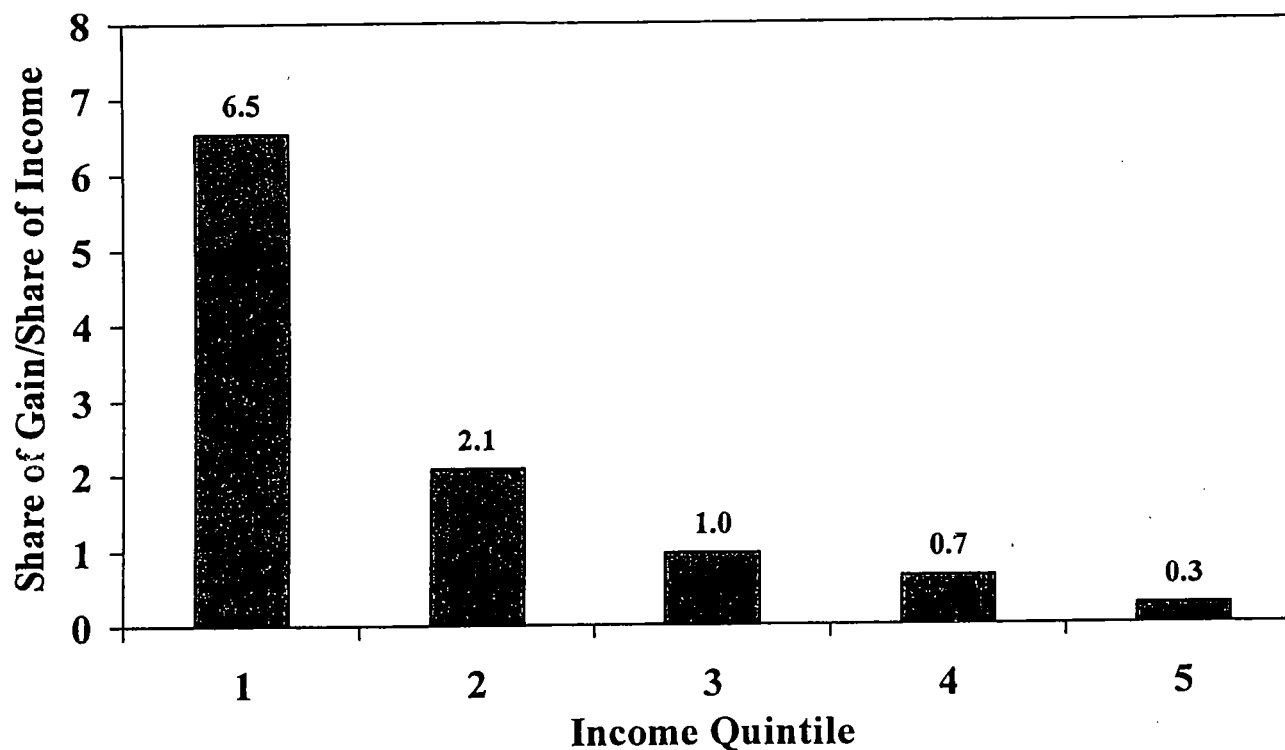
Source: Bernstein, 1998.

Table 2
Share of Gains from the Proposed Min Wg Increase of \$1 by Household Income Level, 1998

Household Income in Thousands	Share of Gains
Less than \$10	0.181
\$10-25	0.320
\$25-35	0.149
\$35-50	0.136
\$50+	0.214

Source: 1998 CPS ORG data. Sample excludes non-workers. For those in the affected range, gains are calculated as the difference between current earnings and the new level (by state). This value is multiplied by weekly hours and summed across each income group.

Figure 1
Distribution of Minimum Wage Gains Relative to Income Shares
by Fifth for Prime-Age Working Households, 1997



Quintile	Share of Gain	Share of Increase	Average Income
1	35.3%	5.4%	\$15,728
2	22.8	11.0	32,547
3	15.2	15.9	47,699
4	14.5	22.3	66,104
5	12.2	45.3	134,128

Source: Bernstein and Schmitt (1998)

Table A1

Results from times-series analysis: The Kaitz Index Coefficient, 1954:1-99:2

(Dependent variable: logged teenage employment rates)

Models	Minimum Wage Coefficient	T-Stat
Basic Model (1)	-0.061	-1.62
Further Seasonal Controls (2)	-0.023	-0.86
Annual Model (3)	-0.024	-0.46
Adjusting for Non-Stationarity		
Basic Model (4)	-0.031	-0.84
Annual Model (5)	-0.006	-0.11

Source: Author's analysis of time-series data as described in Bernstein and Schmitt (1998)

(1) The basic model regresses log quarterly teenage employment rates on the log of the Kaitz index, the log of the adult male unemployment rate, the fraction of 16-19 year olds who are 16 and 17, the log teenage share of the population, quarterly dummies, trend and trend squared (both of which are interacted with the seasonal dummies, and an ar(1) term.

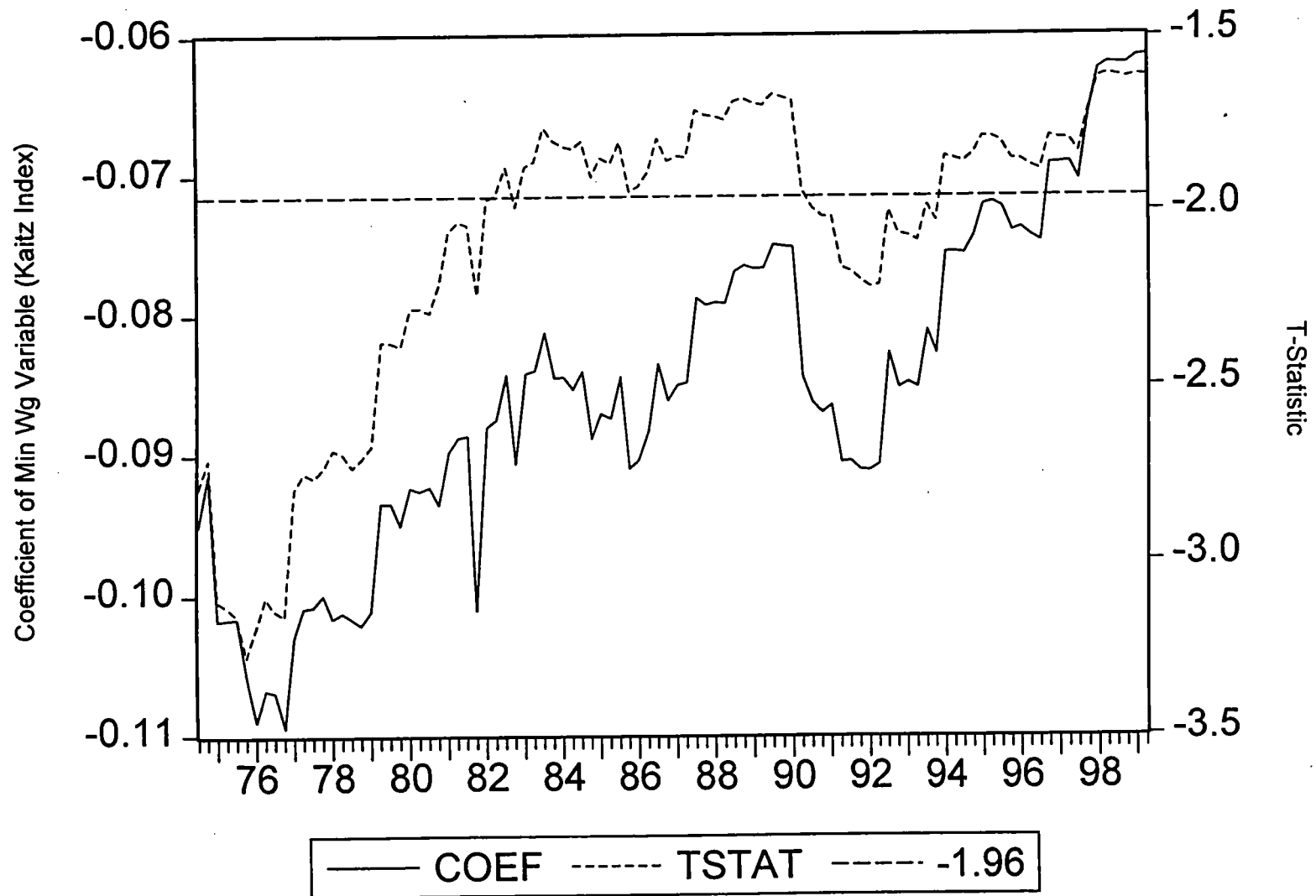
(2) This model removes the quarterly dummies (and their interactions) and adds in their place the set of seasonal adjusters generated by the X-12 ARIMA process (see text).

(3) This model averages each quarter's data and runs on annual observations, 1954-98. Relative to model (1), it omits the seasonals, the trends (which were statistically insignificant), and adds another ar term which was necessary to "whiten" the residuals.

(4) This model uses first differences for the dependent variable, the Kaitz index, the unemployment rate and the teenage share of the population (the 16-17 fraction of the teenage population is not differenced). It also includes quarterly dummies and the lagged seasonal difference of the dependent variable. See text for further discussion.

(5) The differenced version of model (3), with one ar term.

Figure A1: Kaiz Coefficient and T-Stat, "Rolling Regressions," 1974-99



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The Minimum Wage Debate in the United States

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The purpose of this report is to provide members of the Low Pay Commission and other interested parties a tour of the U.S. debate over the minimum wage. Unfortunately, but not surprisingly, the recent debate has generated much more heat than light. My intention here is to try to filter out the darkness and salvage a few shards of light.

The U.S. debate over the minimum wage might usefully be divided into three categories: political, economic theoretical, economic empirical. Of these, the empirical debate is the most interesting and relevant to today's symposium and will thus be the focus of much of this report, but I will briefly review the first two categories.

The main findings of this overview are:

- The U.S. political debate over increases in the minimum wage has become particularly obfuscated by vested interests; there is little to be learned from that aspect of the debate;
- The neoclassical theory of the labor market generates what have turned out to be very unreliable predictions regarding the employment impact of a minimum wage increase;
- A recent spate of careful empirical research on the disemployment effects of modest increases in the minimum have yielded elasticities that hover about zero;
- While the debate as to which side of zero the truth lies is relevant to empirical economists, it is less so to policy makers who are faced with the unquestionable conclusion that benefits of the policy to low-wage workers outweigh the costs in terms of job losses;
- One key message from the recent developments in the U.S. labor market is that macroeconomic conditions are a much more important determinant of employment and earnings opportunities facing low-wage workers than minimum wages;
- Given that the employment elasticity appears to be "small," the questions of how the increase is absorbed and which workers are affected (the targeting question) need more attention and evaluation than they have received;
- In the U.S. case, the benefits of recent increases have gone disproportionately to adult workers (20 years and older), women, and minorities. Regarding household income, half of the gains from the proposed dollar increase currently under debate in the U.S. are expected to go to working households with incomes below \$25,000;
- Although the policy is clearly redistributive in the sense that the gains go disproportionately to those in the bottom two income quintiles, it is not perfectly targeted—some of the benefits go to workers in high income households.
- The low-wage labor market is the source of numerous market failures which distort market signals. Policy makers can address this problem through interventions in the primary distribution, such as the minimum wage, or through the secondary distribution, using such redistribution schemes as our Earned Income Tax Credit. I argue that these approaches are complementary.

The Political Debate

To state the obvious, the political debate in the U.S. over the minimum wage has become quite distorted. Contributions by vested interests play a much more significant role in our political process than in that of many other advanced democracies, and this is clearly evident in recent debates over increasing the minimum wage. Trade groups representing low-wage employers, such as the National Restaurant Association (NRA), lobby vigorously against the policy, since it will raise the labor costs of their members. This is by no means unexpected. What's unusual, however, is that their public lobbying effort focuses almost exclusively on the alleged disemployment effects of the increase. Will I am not privy to their thinking, they must perceive this to be a more sympathetic argument.

To an economist, this should seem a bit strange. The neo-classical model does predict disemployment effects, but says nothing about profits, which is presumably why trade organizations such as the NRA exist.¹ Why should dues-paying members of the NRA want their representatives lobbying Congress on behalf of low-wage teenagers? Thus the opposition has embraced a particularly hypocritical stance. They claim to subscribe to a rational model of the economy, but neglect to realize that such a model is built upon rational actions of rational economic actors. Such actors would not support a minimum wage increase if they thought it would cost them their jobs, yet low-wage workers overwhelming do so. Nor would such actors pay a membership organization to represent the interests of low-wage workers, as opposed to employers, but that's exactly what the public is asked to believe. Perhaps for these reasons (along with some of the empirical evidence noted below), these arguments have been largely ineffective of late.

Political supporters of the policy are not burdened with hypocritical arguments, and thus tend to take the moral high ground, arguing that low-wage workers deserve a raise. To the extent that these arguments sometimes go too far, it is because they ignore the "no free lunch" rule and the targeting issue. Regarding the first point, U.S. advocates of higher minimum wages typically argue, with strong empirical evidence, that "moderate increases" will not lead to disemployment effects, price hikes, or other economic distortions. This begs numerous questions. First, what is moderate? Second, the increase has to come out somewhere—what absorption mechanism do advocates have in mind? Regarding the second point, advocates of the policy cannot avoid the fact that the minimum wage is not a perfect delivery system for raising the wages of low-wage workers in low-income families. Like so many other redistributive schemes, some of the water splashes out of the bucket on the way from the well to the fire. I offer further thoughts on these questions below.

¹ The model simply reasons that if employers are forced to pay workers above the market wage (i.e., their marginal product) they will be forced to cut employment. Overall economic output will fall in such a model, but the firm itself continues to survive, albeit at a distorted equilibrium.

The Economic Debate, Theory and Findings

The Theoretical Debate: Economists are typically taught that a minimum wage increase, by interfering with market signals, can only lead to less employment and ultimately lower output. Thus, the challenge of the empirical findings, which fail to support the theory, have very much raised the hackles of some members of our profession. For many of these economists, the argument that a moderate increase in the minimum wage would not necessarily lead to job loss is akin to arguing the water flows uphill. The argument challenges the fundamental law of the classical model, and thus, their fervor in defending this model borders on the religious.

The theory of disemployment and the minimum wage is based on the following set of assumptions about the low-wage labor market:²

- all employers and all workers can costlessly enter or leave the market;
- all employers can costlessly hire or fire workers and all workers can costlessly find or leave employment;
- all employers and all workers have perfect, instantaneous, knowledge of the technology, tastes, and abilities of all market participants;
- each worker's productivity is identical and known to each employer before the worker is hired; and
- all workers work to their full potential without the need for guidance or supervision.

In this competitive labor market, prior to the introduction of the minimum wage, employers can hire as many workers as they need at the going wage and all workers effortlessly find employment at this wage rate. Any firm foolish enough to try to pay even a penny below the going wage would find their perfectly-informed workforce heading for the door. Similarly, any employer who paid more would have to pass the cost of the wage increase forward to consumers, and would thus lose market share and soon go bankrupt.

Once the minimum wage is introduced, firms would reduce employment up to the point where the productivity of the worker next in line to be dismissed just equaled the new minimum.³ Workers who previously worked for less than the new minimum (those in what is called the "affected range") would still like to work at the new minimum but are unable to and are thus involuntarily unemployed.

² This is a summary of Section 4 from Bernstein and Schmitt (1998).

³ Even though all jobs and workers are alike, the productivity of each newly created job is lower than the next most-recently created job because of diminishing marginal returns, the idea that each additional worker contributes marginally less than the previous worker. As employers reduce the number of workers after the minimum wage rises, the productivity of the marginal job therefore rises. A slightly more sophisticated model would allow for workers to have different levels of productivity. In this context, the minimum wage would displace the lowest-productivity workers first. Firms would cut back until the productivity of the next worker to go was equal to the minimum wage.

Anyone with even a casual familiarity with the low-wage labor market in the U.S. knows that none of these conditions hold there. And one would be hard pressed to find a U.S. labor economist to defend the pure theory of the competitive market. But many economic analysts reasonably believe that some of these conditions hold to some extent, and thus view the empirical employment tests of minimum wage increases as a measure of how far this theory goes in describing the reality of the low-wage sector. I turn now to this research.

The Empirical Debate: The two camps just discussed—the political and theoretical—have unfortunately come to be dominated by ideologues, and, in economics, as in the rest of life, we learn nothing from ideologues. Thankfully, this is not the case with the empirical debate. This debate is, for the most part, carried on by those who are genuinely trying to determine the impact of minimum wage increases on the wage and employment opportunities facing low-wage workers. Of course, these authors bring pre-conceived notions to the table as well, but for the most part, such notions are kept in check.

For those interested in some of the technical aspects of the current empirical debate, I provide an appendix which explains some of more important recent developments. Summarizing the state of the current empirical research, I think it is fair to say that the best econometric models find that the disemployment effects of recent increases in the US hover about zero. Note also that this result applies to teenagers, who represent 29% of those affected by the last U.S. minimum wage increase; most work finds that disemployment effects of older workers are smaller than those of teens and less likely to be statistically significant.

There are enough reliable findings slightly below zero (in the negative 1-3% range for a minimum wage increase of 10%) to assuage those who cannot abide other results, but there are equally careful studies which find no systematic disemployment. The best of these are presented in the influential 1995 book *Myth and Measurement: The New Economics of the Minimum Wage* by David Card and Alan Krueger. Some of the findings from this work are discussed in the appendix.

All told, a dispassionate observer would probably come away from this literature concluding that water usually does flow downhill, but, at least in the low-wage sector, very slowly.

And if the same observer examined the impact of the most recent U.S. minimum wage increase, she would be forced to revise even this tepid hypothesis. Our analysis (Bernstein and Schmitt, 1998) of the last increase applied four separate tests (including the "Card" test, which I argue in the appendix is the most revealing), and found no evidence of significant disemployment effects. In fact, as has been widely reported in our business press, the low-wage labor market in the U.S. is stronger than it has been in years. Unemployment rates have hit historical lows for all groups of disadvantaged workers, and real wages have been growing consistently for the first time in decades. Even Fed Reserve chief Alan Greenspan, no friend of the minimum wage, has

acknowledged that the strong macroeconomy has swamped any disemployment effects from the 1996-97 increase.⁴

The lesson from the U.S. experience for policy makers concerned with the low-wage sector is that it is macroeconomic conditions, not the minimum wage, that largely determines labor demand, and thus the extent of employment opportunities in the low-wage labor market. Of course, a minimum wage set "too high" could change this equation, but so far, our experience is that the macroeconomy is the key determinant of employment for low-wage workers. How high is "too high"? I return to this question in the conclusion.

These empirical facts, in tandem with the Card/Krueger volume, have begun to reshape how economists think about the issue of the minimum wage and disemployment.⁵ A 1996 survey of labor economists, published in a journal of the American Economics Association, showed that on *average*, the economists in this survey estimated that a 10% increase in the minimum wage would lower teenage employment 2.1%.⁶ This is right in the middle of the 1%-3% range that has persisted since the time-series models were run in the early-1980s.

But the study also presented the range of estimates from the survey. Fully 30% of the economists responded that an increase in the minimum wage would either *raise* teen employment or leave it unchanged. The median estimate was a 1% decline, half the job loss predicted on average.⁷

In 1995, when much of the recent spate of minimum wage analysis work was being published and discussed, one of our great framers of economic wisdom in the U.S., Nobel-prize-winning economist Robert Solow, told the *New York Times*: "The main thing about this research is that the evidence of job loss is weak. And the fact that the evidence is weak suggests that the impact on jobs is small." Later that same year, 101 economists, including 7 past presidents of the American Economics Association, 3 of whom had also won Nobel prizes, signed a letter urging a 90-cent per hour increase in the federal minimum wage. As my EPI colleague John Schmitt has noted, thanks to the empirical research of the last decade, professional economists can no longer be counted on to mount a united front against the minimum wage.

Thus, the disemployment debate among economists is now whether the negative elasticity is "small" or zero. While this is not a trivial debate among empiricists, it is not very elucidating from the perspective of policy makers. Even if they choose to believe the upper bound of the more reliable estimates (omitting outliers on both sides of zero)

⁴ See Greenspan's exchange with Rep. Barney Frank in the *Congressional Record*, July 22, 1998.

⁵ This section borrows heavily from John Schmitt, "What Economists Really Think About the Minimum Wage," forthcoming.

⁶ Note that Alan Krueger was a co-author of this study.

⁷ The survey also asked economists to rate the desirability of the minimum wage [increase?] on a scale from zero ("strongly oppose") to 100 ("strongly favor"). The median estimate was 50, split the difference; the average estimate was 53.

the benefits of the policy, in terms of raising the hourly pay of young, low-wage workers, clearly outweigh the costs of job losses (or hours reductions).

An extremely consistent finding from this literature is that increases in the minimum wage clearly lift the earnings of low-wage workers. Thus, the fact that strong disemployment effects predicted by the classical model are not observable cannot be because the increase fails to reach anyone.

In this regard, another important lesson from the U.S. debate is that we here have spent too much time arguing about the costs of the policy, and too little arguing about the benefits. Policy makers should of course be concerned with disemployment, and should frequently monitor this potential problem. But given the weight of the evidence against the classical model, policy makers need to turn to other questions which have gotten less attention. What are the characteristics of the beneficiaries; does the increase go to those who need it most? And how is the increase absorbed? Finally, given the labor market and social policy options available, is the minimum wage a worthy candidate? I discuss the first two questions below and turn to the third in the conclusion.

As we speak, there is a proposal being debated in the U.S. Congress to raise the minimum wage from its current level of \$5.15 to \$6.15. Table 1 examines the characteristics of those affected by the increase. The top panel shows that 11.8 million workers (10.1% of the workforce) would receive an average hourly increase of \$0.50 if the minimum wage is raised to \$6.15.⁸

The rest of the table examines the demographic characteristics of workers by wage levels. The first column looks at those directly affected by the increase in the minimum wage, i.e., workers whose earnings are between their state's current minimum and \$6.15. Most of these workers, 59.2%, are female, and about 72% are adults (age 20 or older). Close to half (48.2%) work full-time, and another third work between 20 and 34 hours.

Comparing the first column to the last—"All Workers"—shows the extent to which different types of workers are over- or under-represented in the affected range. Note, for example, that the U.S. minimum-wage workforce is disproportionately minority. While 11.6% of the overall workforce is African-American, 15.1% in the affected range are in this minority; similarly, 10.6% of the total workforce is Hispanic, compared to 17.4% of the minimum wage workforce. Minimum wage workers are concentrated in the retail trade industry and underrepresented in the manufacturing sector. They are also the least likely group of workers to be represented by unions.

Various studies have found that, due to so-called "spillover effects," the group earning above the minimum (perhaps as much a dollar above) also benefits from the increase.⁹ Workers in this group, shown in the second column, are more likely to be older (87% are adults) and to work more hours (69% full-time) than those in the directly affected range.

⁸ Using the data in Table 1 and the national wage bill of \$4.2 trillion (*Survey of Current Business*, January, 1999), the proposed increase amounts to 0.2% of national earnings.

⁹ See, for example, Spriggs and Klein, 1994.

Table 2 provides a glimpse into the targeting issue. Since workers in the data base used for this analysis (the outgoing rotation groups from the Current Population Survey) provide brackets information about their household income, we can examine where the gains from the increase go in the income distribution.¹⁰ The data confirm that the policy is not perfectly targeted, though much of the water gets to the fire. Half of the benefits go to households with incomes below \$25,000—the modal category is the \$10,000-25,000; 32% of the gains go to those in this range. On the other end of the income scale, 21% of the gains go to workers in households with incomes of \$50,000 or above, certainly not the target group.

Another relevant targeting question asks: how do the distribution of gains compare to the distribution of income? In other words, from the perspective of the distribution of income, how redistributive is the policy? In our evaluation of the 1996-97 increase, we compared the share of gains from the increase with the share of income going to each quintile of working households. Figure 1 shows the ratio of the former over the latter. Thus, a bar at level one means the gains from the increase are equal to the quintile's share of national income. The figure reveals that, relative to income shares, the benefits of the increase are clearly concentrated among low-income households.

On the second point (i.e., how is the increase absorbed?), the four absorption channels we typically consider are employment reduction, price increases, lower profits, and efficiency gains. The first is discussed above—this channel had not played a large role in the U.S. experience. There is some evidence of price increases in low-wage intensive firms, but not enough to move our aggregate price index. Although many analysts think redistribution is an under-appreciated absorption mechanism, there has been little evidence, mostly due to data limitations (there are few reliable data sources on profits at the industry level and even fewer at the firm level).

The efficiency gain argument has the most theoretical currency right now, though here too there is little evidence. The best case that can be made for this point is that none of the others seem that important. The argument is well-developed in Card and Krueger (1995); Bernstein and Schmitt (1998) offer a non-technical discussion. The point is that, contrary to the neo-classical model, many low-wage firms enjoy some monopsony power, and as such, are able to survive without realizing all the efficiencies available to them. They set their wage below the market level and as a result, suffer above-average levels of turnovers and vacancies. The mandated wage increase brings them more in line with the market and lowers these inefficiencies, allowing increased productivity to absorb the wage increase.

¹⁰ The calculation is made by 1) identifying workers affected by the proposed increase, 2) taking the difference between the new minimum and their current wage, 3) multiplying this by their weekly hours, and 4) accumulating this value over the income categories and taking it as a share of the total gains. Note that this approach assumes no disemployment. However, in the presence of disemployment effects, the shares would only be affected if the disemployment was non-random throughout the income distribution.

Conclusion

In closing, I address a number of policy questions. Regardless of where we stand on the policy, we all agree that a minimum wage set "too high" would be sure to generate economic distortions. How high is too high? Second, given the menu of options that contemporary policy makers face, is the minimum wage worth pursuing? The answer depends on the problem you're trying to fix, and the costs and benefits of the policy relative to other choices as well as relative to doing nothing.

Can "Modest" Be Quantified?: Advocates of the policy have paid surprisingly little attention to the question of how high should you go. Since one of the conclusions of the current debate is that modest increases in the 1990s, which simply replace some portion of the value of the wage eroded by inflation over the 1980s, are not disemploying, it one seem that a solid quantifying of "modest" would be useful.

Two approaches come to mind. First, if one could generate reliable elasticities of supply and demand in the low-wage labor market, one could estimate the percent increase in the wage that would generate a known level of job displacement, allow analysts to judge the benefits of the increase relative to its costs. However, the range of estimates is far too wide to permit this approach (see the discussion of this point in Bartik, 1998). A much more reliable approach would be to examine how far a given proposal cuts into the wage distribution to evaluate the magnitude of the "bite." A more refined version of this approach would examine where the proposal cuts into the distribution of key industries, i.e., those that are low-wage labor intensive.

There is one caveat to this approach. It is important to avoid comparing a minimum wage proposal to a level that is partly determined by the minimum itself. Thus, the benchmark should be a wage that is low enough to represent the affected sector of the labor market, but high enough so as not to be itself a function of the current minimum. As an example, in evaluating the current U.S. proposal to raise the minimum wage from \$5.15 to \$6.15, Bernstein (1998) argues that the 40th percentile wage serves as a useful benchmark. In that analysis, I examine the level of the 1979 minimum relative to the 40th percentile wage in 1979 and update this value to the present (the choice of 1979 is explained in the citation).¹¹

The Minimum Wage Relative to Competing Policies: In the U.S., the minimum wage was introduced in the heart of our deepest economic depression, when low-wage workers suffered from as severe a market failure as we've ever experienced. And while our current economy is working better now than in many decades, the functioning of our low-wage sector is still a far cry from the list of neo-classical conditions given above. We also have experienced a gradual increase in wage inequality that is clearly related to (though by no means wholly explained by) the decline in the real value of our minimum wage.

¹¹ A third approach is to survey employers asking them at what level would the minimum wage lead them to cut employment. See Levin-Waldman and McCarthy, 1998. Small Business and the Minimum Wage Policy Note No. 3, 1998

Thus, for us, the minimum wage is a venerable policy intended to place a floor on the segment of our labor market most prone to market failure, and thus most accommodating to market intervention. This suggests that policy makers considering the policy need to be guided by the extent to which the low-end of the labor deviates from the free market ideal. The guiding questions should be, I think, are low-wage workers likely to be paid their "marginal product?" Is there evidence of discrimination and other factors that would skew market signals? Is the low bargaining power of those at the bottom of the wage scale likely to lower their ability to be fairly compensated? In the US, as in many other advanced economies, the answers to these questions have led to a mandated wage floor.

Regarding competing policy options, it is useful to examine the interaction of the minimum wage with other policies targeting low-wage workers. In our current fiscal climate, it is very difficult to introduce any policy that calls for added public expenditures. In this sense, the minimum wage has the attribute of not requiring public outlays. In fact, some argue that the policy saves federal expenditures by lowering the outlays of means-tested benefits.¹²

Many opponents of the policy have argued that our Earned Income Tax Credit, a wage subsidy to workers in low-income families is a better way to help those at the bottom of both the wage and the income scale. As I have responded elsewhere (Bernstein, 1999), from the perspective of low-income workers, these policies should not be viewed as substitutes but as complements. In the above citation, I show that the EITC combined with the cash value of food stamps and full-time work at the minimum wage will lift a single-parent family of three (e.g., a mother and two children) above our poverty line of \$13,000. But average hours of work for poor single mothers are well below full-time (1,164 hours per year in 1997). In other words, low-income families need both wage policies if they are to achieve a modicum of well-being from a good-faith effort to join the labor market. And as just noted, in as tight a fiscal climate as that of the contemporary US, expanding public expenditures, even through tax credits, is quite unlikely.

But there is an equally compelling policy reason for pursuing both minimum wage and tax credit approaches to lifting the earnings of low-wage workers. The minimum wage is one of our few redistributive policies that affect the primary distribution of earnings. And if that's where the market failure is, then we should at least consider direct intervention, as opposed to automatically assuming that it would be better to let the damage be done, and use the secondary distribution to make reparations. Of course, many economists are loathe to intervene in the market due to concerns about unintended consequences, fearing the ultimate outcome will always be worse than what would prevail in the absence of the intervention. In the case of the minimum wage, however, careful research shows such evidence to be lacking.

¹² I am not aware of any research to substantiate this claim, though some savings would certainly be expected. However, to the extent that such savings offset the gains from the wage increase, the worker is no better off after the increase.

The minimum wage is by no means a perfect or a sole solution to the problems facing low-wage workers. But in the interest of not letting the best be the enemy of the good, it is a important and useful public policy.

Appendix: A brief review of empirical tests of the disemployment effects of the US minimum wage.

As noted in the text above, the conventional wisdom among economists is that a 10% increase in the minimum wage will result in a 1-3% decline in the teenage employment rate. For older workers, the general thinking is that the elasticity is essentially zero.

These findings date from reduced-form, times series equations run by the Minimum Wage Commission back in the early 1980s (Brown et al, 1982). Their models regressed the log of teenage employment to population ratio on the logged Kaitz index (the minimum wage variable) and a set of controls.¹³ The controls were for the impact of the business cycle (captured through the unemployment rate of prime-age males), supply variables, such as the share of teenagers in the civilian population, and seasonal controls.

While the estimates generated by the commission's work have had real staying power, more recent work has updated their findings by extending the model. Card and Krueger (1995), in their chapter updating the time-series regressions show how the coefficient has become smaller in absolute value over time. Figure A1 shows a graph of the coefficient on the Kaitz index when observations (quarters) are added one at a time starting in 1974 (a so-called "rolling regression"). Note the drift of the estimate toward zero, along with the trend toward insignificance in the t-statistic as more observations (i.e., quarters) are added.

There have, however, been significant strides in time-series analysis since this work was undertaken, particularly in the area of testing for stationarity, and paying closer attention to the evaluation and treatment of seasonality (as would be expected, teenage employment rates are highly seasonal in the U.S.).¹⁴ To the extent that any of the variables in the time-series model are non-stationary (i.e., have unit roots), or the effect of seasonality is not fully extracted, the output from the traditional models is not reliable.

Paul Wolfson (1998) examines this issue and finds evidence of non-stationarity in some of the key variables and ineffective seasonal controls in the basic time-series models responsible for the 1-3% negative elasticity estimates. He suggests a model in which these variables are entered as first differences, and seasonality is controlled for by the addition of a lagged seasonal difference. Those estimates, shown in the bottom panel of Table A1 (models 4 and 5), are consistently smaller than those in the basic quarterly model and statistically insignificant.

The first row of the table shows the Kaitz index (the minimum wage variable) from the basic model and the associated t-statistic, based on a quarterly model run from 1954:1-99:2 (see table note for model specifications). The coefficient is never significant at the $p < 0.05$ level; putting this criterion aside, the first model suggests that a 20% increase in

¹³ The Kaitz index is the minimum wage relative to the average non-supervisory worker wage, weighted by coverage and teenage employment, and summed over eight industries. See Bernstein and Schmitt (1998, appendix).

¹⁴ A stationarity times series is (essentially) one in which the series has a constant mean and variance.

the Kaitz index would lower teenage employment rates by 1.2%. The second model replaces the quarterly dummies with seasonal adjusters for the log teenage employment rate from the U.S. Census seasonal adjustment procedure (X-12-ARIMA, which generates a different adjuster for each quarter). While this procedure has the tendency of adding to the serial correlation in the residuals, adding an $ar(1)$ term to this regression served to "whiten" the residual series.¹⁵

Nevertheless, running the model on seasonally adjusted data, as in model 2, engenders the possibility of various other econometric problems (Jaditz, 1994). Thus, model 3 "skirts" the seasonality question by running the data on annual observations. While this obviously reduces the degrees of freedom (the model has 43 observations after adjusting the endpoints for the ar terms), I am able to omit the "nuisance parameters" from the quarterly models (the quarterly dummies, trends, and their interactions). The Kaitz coefficients in models two and three are less than half the magnitude of that of model one, and are insignificant.

The attributes of the time-series models are that they are fairly transparent and are easy to update with readily available data of a reasonable quality. The downside of these models are that the series are highly serially correlated, some series have unit roots, the seasonality component is very strong, all of which make it difficult to separate signal from noise.

Given these limitations, labor economists, starting with Card in 1992, have taken a different, and in my view, a more illuminating approach to the question of the disemployment effects of the minimum wage. The key insight of this work is that a measure of the minimum wage, either by itself or relative to other wage levels provides too weak a signal to reliably measure its impact on employment (or any other dependent variable). In order to strengthen the econometrician's ability to capture the impact of the minimum wage, i.e., to boost the signal to noise ratio, Card exploited the fact that different states in the U.S. had different shares of workers affected by an increase in the minimum. He introduced the concept of "bite," arguing that if an increase was disemploying, it would be more so in states with a larger share of the teenage workforce affected. Thus, he examined cross-sectional variation in teenage employment rates as function of the share of affected workers in the states, along with other controls. He used this variable to examine the impact of the California increase in 1988 and the federal increase in 1990-91. Neither case provided evidence of significant job loss.¹⁶

Most of the interesting US analysis of the disemployment question in the 1990s has exploited state variation. Some of these models, such as Deere, Murphy, and Welch (1995) have used indicator variables for the minimum wage instead of the share affected, i.e., the bite approach favored by Card. Other have used the (log) value of the higher of

¹⁵ When the coefficient on the seasonal adjusters is very close to one, as it is in this regression, this reduces to running the model on a seasonally adjusted dependent variable.

¹⁶ Of course, the Card and Krueger also exploited state variation in their renowned New Jersey/Pennsylvania experiment. This research has been challenged by numerous analysts and interest groups, but has stood up well to all attacks. Their most recent follow-up, using a virtual census of all affected firms in both areas, confirms their earlier results (see Card and Krueger, 1997).

the state or federal minimum. My reading of these studies, in tandem with the time-series work, leads me to conclude that the bite variable is a far better measure, in the sense of boosting the signal to noise ratio, than indicator variables for changes in the minimum wage or the Kaitz index.¹⁷ However, to the extent that the time-series work continues to be pursued, the models which pay attention to the presence of unit roots should be preferred to those that ignore this possibility.

It is by no means the point of this appendix to provide a review of the contemporary studies. Interested parties will find that the Card and Krueger book provides an excellent summary of the literature through the mid-1990s.

¹⁷ Neumark and Wascher's 1992 model is of this type, using the log Kaitz index as the minimum wage variable. Card and Krueger review this work in their Chapter 7, showing that once the school enrollment variable is measured correctly, the elasticity on the Kaitz index is insignificant. Burkhauser et al (1999) have updated this model, using the log of the minimum wage and omitting the enrollment variable.

More importantly, they show that when the year effects are omitted, the minimum wage variable is negative and significant. This, however, is a mis-specification. The fact that the year effects are jointly significant with the minimum wage variable in the model reveals that there is some omitted variable(s) that 1) varies from year to year, 2) helps to explain teenage employment, and 3) is correlated with the minimum wage variable. The underlying assumption of a model that omits these effects is that the minimum wage variable, by itself, is the correct explanation for the year-to-year patterns (thus they can omit the year effects on the basis that these two are highly correlated and the wage variable is the better choice). If this were so, the minimum wage variable would "knock out" the year effects, i.e., they would be jointly insignificant in a model with both variables in the equation. Since this is not the case, the model without year effects is incorrectly specified.

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Table 1
Characteristics of Workers by Wage Range, 1998

Characteristic	Affected Directly by \$1 Increase in Min Wg	Other Low-Wage Workers (Minimum+\$1)	\$7.15 and Above	All
Average Wage	\$5.65	\$6.72	\$16.13	\$13.79
Employment	11,776,770	9,750,642	89,962,641	116,259,651
Share of Total	10.1%	8.4%	77.4%	100.0%
Demographics				
Male	40.8%	41.9%	55.4%	52.3%
16-19	13.4%	6.4%	0.9%	3.0%
20+	27.4%	35.5%	54.6%	49.3%
Female	59.2%	58.1%	44.6%	47.7%
16-19	14.7%	6.4%	0.8%	3.0%
20+	44.6%	51.7%	43.9%	44.8%
White	63.3%	64.2%	76.4%	73.4%
Male	24.6%	24.9%	42.2%	38.3%
Female	38.8%	39.2%	34.1%	35.1%
Black	15.1%	15.3%	10.6%	11.6%
Male	5.5%	5.8%	5.3%	5.4%
Female	9.6%	9.4%	5.3%	6.2%
Hispanic	17.4%	16.4%	8.7%	10.6%
Male	8.8%	9.2%	5.5%	6.3%
Female	8.5%	7.1%	3.2%	4.3%
Teens(16-19)	28.1%	12.8%	1.5%	5.9%
Work Hours				
Full-Time (35+)	48.2%	69.2%	89.0%	81.8%
Part-Time				
20-34 hours	32.9%	21.7%	8.1%	12.6%
1-19 hours	18.9%	9.1%	2.8%	5.6%
Industry				
Manufacturing	9.0%	12.7%	19.0%	17.0%
Retail Trade	43.7%	30.3%	11.4%	17.1%
Union				
Union	4.4%	6.7%	18.3%	15.4%
Non-union	95.6%	93.3%	81.7%	84.6%

Note: "Affected workers" are those who earn between the minimum wage level in their state and the proposed new level (\$6.15).

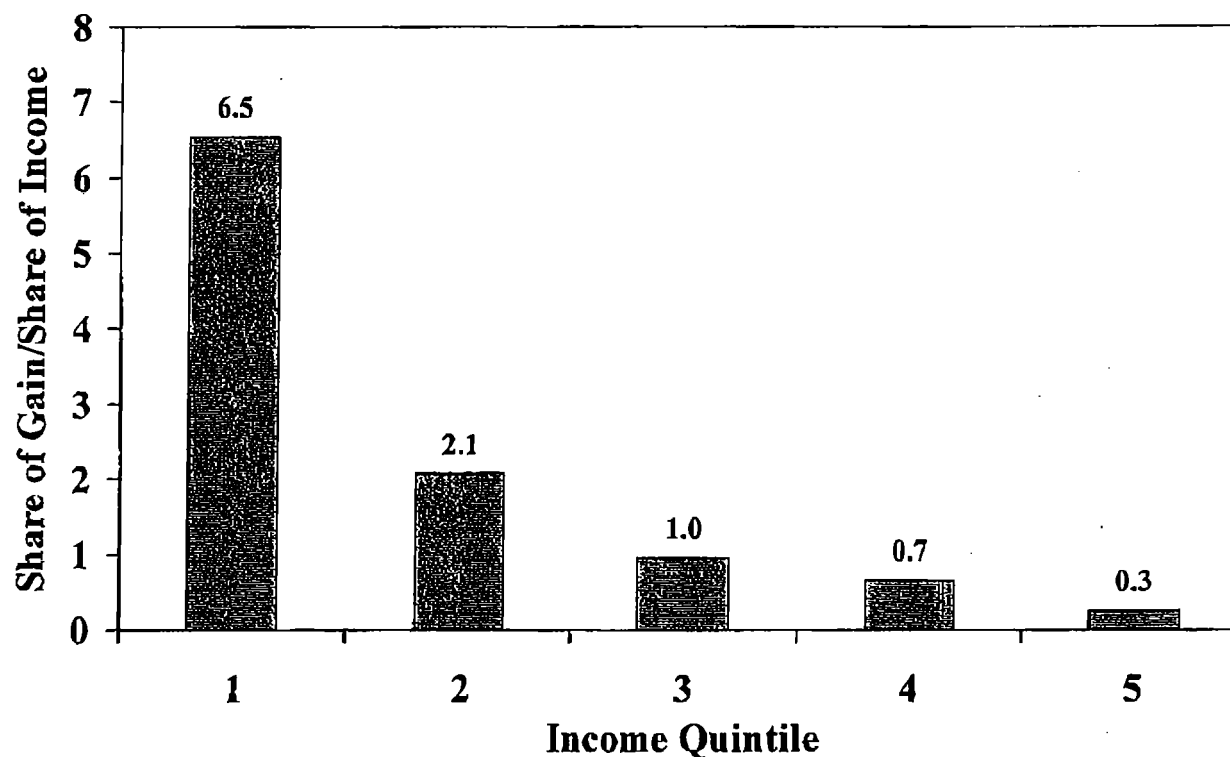
Source: Bernstein, 1998.

Table 2
Share of Gains from the Proposed Min Wg Increase of \$1 by Household Income Level, 1998

Household Income in Thousands	Share of Gains
Less than \$10	0.181
\$10-25	0.320
\$25-35	0.149
\$35-50	0.136
\$50+	0.214

Source: 1998 CPS ORG data. Sample excludes non-workers. For those in the affected range, gains are calculated as the difference between current earnings and the new level (by state). This value is multiplied by weekly hours and summed across each income group.

Figure 1
Distribution of Minimum Wage Gains Relative to Income Shares
by Fifth for Prime-Age Working Households, 1997



Quintile	Share of Gain	Share of Increase	Average Income
1	35.3%	5.4%	\$15,728
2	22.8	11.0	32,547
3	15.2	15.9	47,699
4	14.5	22.3	66,104
5	12.2	45.3	134,128

Source: Bernstein and Schmitt (1998)

Table A1

Results from times-series analysis: The Kaitz Index Coefficient, 1954:1-99:2
 (Dependent variable: logged teenage employment rates)

Models	Minimum Wage Coefficient	T-Stat
Basic Model (1)	-0.061	-1.62
Further Seasonal Controls (2)	-0.023	-0.86
Annual Model (3)	-0.024	-0.46
Adjusting for Non-Stationarity		
Basic Model (4)	-0.031	-0.84
Annual Model (5)	-0.006	-0.11

Source: Author's analysis of time-series data as described in Bernstein and Schmitt (1998)

(1) The basic model regresses log quarterly teenage employment rates on the log of the Kaitz index, the log of the adult male unemployment rate, the fraction of 16-19 year olds who are 16 and 17, the log teenage share of the population, quarterly dummies, trend and trend squared (both of which are interacted with the seasonal dummies, and an ar(1) term.

(2) This model removes the quarterly dummies (and their interactions) and adds in their place the set of seasonal adjusters generated by the X-12 ARIMA process (see text).

(3) This model averages each quarter's data and runs on annual observations, 1954-98. Relative to model (1), it omits the seasonals, the trends (which were statistically insignificant), and adds another ar term which was necessary to "whiten" the residuals.

(4) This model uses first differences for the dependent variable, the Kaitz index, the unemployment rate and the teenage share of the population (the 16-17 fraction of the teenage population is not differenced). It also includes quarterly dummies and the lagged seasonal difference of the dependent variable. See text for further discussion.

(5) The differenced version of model (3), with one ar term.

Figure A1: Kaiz Coefficient and T-Stat, "Rolling Regressions," 1974-99

