

# **IMPACTS OF MINIMUM WAGE INCREASES IN KANSAS: A BACKGROUND REPORT**

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Prepared for:  
Kansas Action Network

December, 2007

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<sup>1</sup>This report was funded by the Ad Astra Institute and Kansas Action Network. Helpful comments were received from Bill Beachy, Mary Davidson, David Smith, and Heidi Zeller. All opinions expressed herein are those of the author and are not necessarily shared by Ad Astra Institute or the Kansas Action Network.

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## **Executive Summary**

### **Purpose of this study**

Since 1973 the benefits of U.S. economic growth have been allocated on net almost entirely to the rich. This allocation is the outcome of fundamental economic changes driven by changes in technology, international trade, and business practice, but in a deeper sense it is entirely determined by government policy. In other words, American government across all levels has or can adopt adequate tools to manage the distribution of income. The minimum wage is one such tool.

Given the increasingly regressive direction taken by income policy at the federal level, raising the minimum wage has become an important political issue at the state and local level. This report summarizes background information concerning potential impacts of minimum wage laws in Kansas, estimates the numbers of workers likely to be affected by increases in the minimum wage, summarizes theories of general economic impact, reviews some of the empirical economic impact literature, and draws inferences for minimum wage impacts in Kansas.

### **Selected findings**

- The Kansas minimum wage of \$2.65/hour is the lowest among the 45 states that have chosen to set a wage floor (five states in the deep South have no minimum wage at all). The Kansas law has no effect on workers covered by the federal law, but covers certain employees exempt from the federal law. These include the following occupational categories:
  - Employees of private firms grossing less than \$500,000/year and not engaged in or producing for interstate commerce (and also not engaged in education, residential care, or running a hospital)
  - Employees of certain seasonal amusement or recreational establishments
  - Employees of certain small newspapers and switchboard operators of small telephone companies
  - Childcare workers
  - Companions to the elderly or infirm.
  
- A total of 17,000 Kansas workers received less than the \$5.15/hour minimum wage in 2006, the last year for which data are available. Because the Federal minimum wage increased to \$5.85 on July 24, 2007, the corresponding figure has risen because of an unknown number of workers not covered by federal law who received between \$5.15 and \$5.85/hour. (This figure also omits a significant but unknown number of low-paid workers in the informal or “underground” economy, as well as certain low-paid workers not viewed as “employees.” )
  
- According to the Economic Policy Institute's modeling of the direct and indirect impacts on employees of the federal minimum wage increases now in progress (from \$5.15 to

\$7.25/hour), 240,000 Kansas workers were expected to be affected. This represents 19.1% of the state workforce, with wage impacts limited to the bottom two deciles of the wage scale (based on 2005 data).

- According to modeling by Ad Astra Institute, more than 58% of all affected Kansas workers are concentrated in just 3 industry-related occupational groups: food preparation and serving-related occupations, typically in restaurants and bars (31%); sales and related occupations, mainly in retailing, wholesaling, and marketing (19%); and transportation and material moving (8%).
- The less urban areas of Kansas are relatively less prosperous and hence are disproportionately affected by the changes in the federal minimum wage. Areas not in Metropolitan Statistical Areas (MSAs) have 35% of all workers, but 45% of affected workers.
- Minimum wage increases at any level of government could cause businesses in the industries listed above to experience some noticeable short-run adjustments in prices, but one would reasonably expect to see no substantial long-term effects on output, employment or profits. Moreover these price changes are likely to be much too small to have significant impacts on the overall price level, and will not cause an ongoing inflationary spiral.
- In 2004 Kansas had an estimated 300,000 persons in poverty. About 100,000 were under 18 and 30,000 were over 65, leaving about 170,000 of working age. Of the 170,000, around 110,000 worked full time or part time, and 60,000 did not work. More than 20,000 of the 60,000 had severe disabilities. The scheduled federal minimum wage increases will benefit a substantial share of the 110,000 working poor, but the planned increases are too small to lift many of them out of poverty.
- The Fiscal Policy Institute found that businesses with fewer than 50 employees grew faster during 1998-2003 in states with high and increasing state-level minimum wages than in states with low minimum wages.
- These and other empirical data suggest that employment impacts (in either direction) of a federal, state, or local minimum wage increase would be relatively small.
- Likewise, the literature suggests that impacts on economic development could go in either direction, but are likely to be small.
- Public policy decisions concerning minimum wage levels tend to depend more on ideology and value judgments about “fairness” than on any solid evidence about the economic consequences.

# 1. Introduction

## *Why the minimum wage matters*

1973 was a landmark year. For well over a century, each generation of Americans at each income level had enjoyed a distinctly higher standard of living than their parents.<sup>2</sup> Since 1973, however, significant increases in the standard of living have been largely limited to the upper half of the income distribution, mainly concentrated in the top 10%, and especially concentrated in the top 1%. Individuals and families in the bottom deciles have suffered actual declines in their standard of living.<sup>3</sup>

In other words, since 1973 the benefits of economic growth have been almost entirely allocated to the rich. This allocation is the outcome of fundamental economic changes driven by shifts in technology, international trade, and business practice, but in a deeper sense it is entirely determined by government policy. In other words, American government across all levels has or can adopt adequate tools to manage the distribution of income (at least within wide parameters). Moreover, whether actively or passively it cannot avoid deciding how those tools will be used. In recent years it has in fact used those tools to benefit the rich rather more than the poor. Examples of such tools include progressive or regressive tax laws, regulations supporting or opposing unionization, expansions or reductions in Social Security benefits, and tax regulations supporting or opposing foreign outsourcing.

This is not to deny that aggressive use of these tools to reduce inequality could have negative impacts on output and growth. However the policy tradeoffs made since 1973 have greatly increased income inequality, without, it must be said, achieving any demonstrable increase in the rate of economic growth.<sup>4</sup>

From the point of view of those among the bottom deciles of wage earners, the most important of

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<sup>2</sup> Among readily available data sources, standard of living for most people is best measured by real wage rates. (Household income data, among other problems, do not account for work inside the home and family composition.)

<sup>3</sup> Eckstein and Nagypál [2004]; Gottschalk [1997]. The exact details of this story are controversial among economists. Economists of the “perfect-market” school (as defined below) argue for example that the rate of inflation has been overstated in the official data, leading to an understatement of real income growth [e.g. Boskin *et al.* 1998]; for a contrary view see Moulton [1996]. What is not controvertible is that since 1973 there has been an unprecedented increase in inequality, while those at the very bottom have suffered a substantial and real loss of earning power. Wolff, Zacharias, and Caner [2004] show that the increase in inequality looks much more severe when effects on well-being of work time and public goods are accounted for.

<sup>4</sup> However, perfect-market economists claim the growth slowdown would have been even worse in the absence of the pro-rich policy changes actually adopted.

these tools is the minimum wage.<sup>5</sup> In order to share the benefits of growth with lower income workers, the minimum wages would need to increase steadily over time in real terms. Instead, the real U.S. minimum wage topped out in 1968 (at about \$7.71 in 2006 dollars), and has tended to decline ever since. As a share of average earnings, it topped out even earlier--in 1950, at 56%.<sup>6</sup> That share is now about 31%. These trends are shown in Figures 1 and 2.

The minimum wage was not increased from 1997 to 2007, leading by 2006 to a loss after inflation of 18% since 1997, and loss of 30% since 1968. Following the 2006 Democratic takeover of Congress, a minimum wage increase was passed and is scheduled to take effect in three steps. On July 24, 2009 it will reach \$7.25, which (in the absence of significant intervening inflation) would bring us back close to the real level of 1980, somewhat below the real level of 1968. It is considerably less than the \$9.30 that would be required to keep up with growth since 1950 in average earnings for non-supervisory workers. An even higher wage would be needed to match the average wage growth for all workers.<sup>7</sup>

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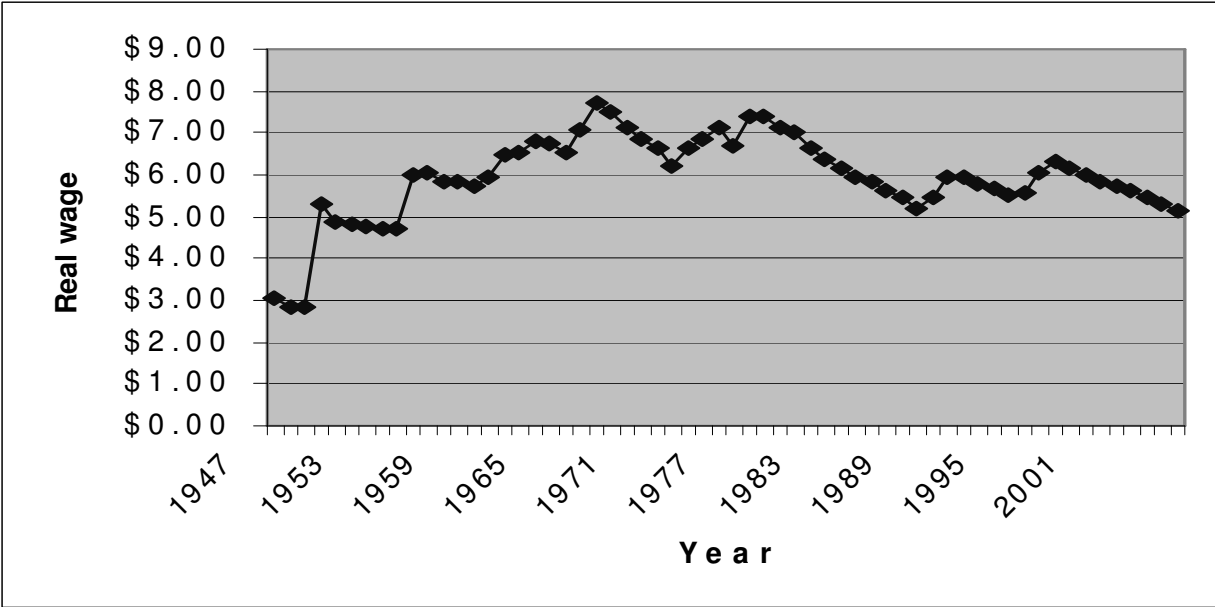
<sup>5</sup> Some perfect-market economists pick away at this claim indirectly. They argue for example that large numbers of minimum wage recipients are teenagers and other secondary wage earners, and that increases in the minimum wage cause increases in unemployment. Some also argue that increases in welfare payments have better target efficiency (though at the same time, perfect-market economists generally argue against increases in welfare payments, in order to prevent welfare dependency). It has also been argued that the Earned Income Tax Credit (EITC) is more effective than the minimum wage; for a rejoinder see Maag [2007]. (Since the EITC is roughly proportional to earnings, it is tilted towards the upper reaches of low wage workers. Also, the EITC is a tax subsidy that has to be offset by tax increases on someone else; the negative impacts of those taxes are rarely taken into account.) None of those claims contradicts the following core realities:

1. Low wage primary workers who have jobs are in fact helped by the minimum wage;
2. There are significant numbers of such workers; e.g. about 26% of persons affected by the minimum wage are parents [Economic Policy Institute, 2007, Table 1]. While a majority of primary workers receiving the minimum wage live in households above the poverty line, most of those households are relatively close to the poverty line.
3. Except during recessions, most low wage primary workers except Black males have in fact been able to find jobs.
4. Efforts to explain recessions as resulting from minimum wages aren't successful. E.g., conventional macroeconomic forecasting models don't include minimum wages as predictors. More fundamentally, economic models can't explain higher frequency events such as unemployment fluctuations using lower frequency events such as minimum wage changes.
5. Efforts to explain differential unemployment among Black males as primarily caused by minimum wage laws rather than by social problems seem disingenuous, in that they beg the question of why Blacks are singled out while Whites are unaffected.

<sup>6</sup>As share of average wage for private nonsupervisory employees. Source: Economic Policy Institute [2007]. A comparison with all workers would make the trend look considerably worse. Also, a comparison that took non-wage benefits into account would most likely look worse yet, given that those benefits are disproportionately skewed towards higher income workers [Pierce, 1999]. A comparison with the average income of persons who live primarily on capital earnings would look by far the worst of all.

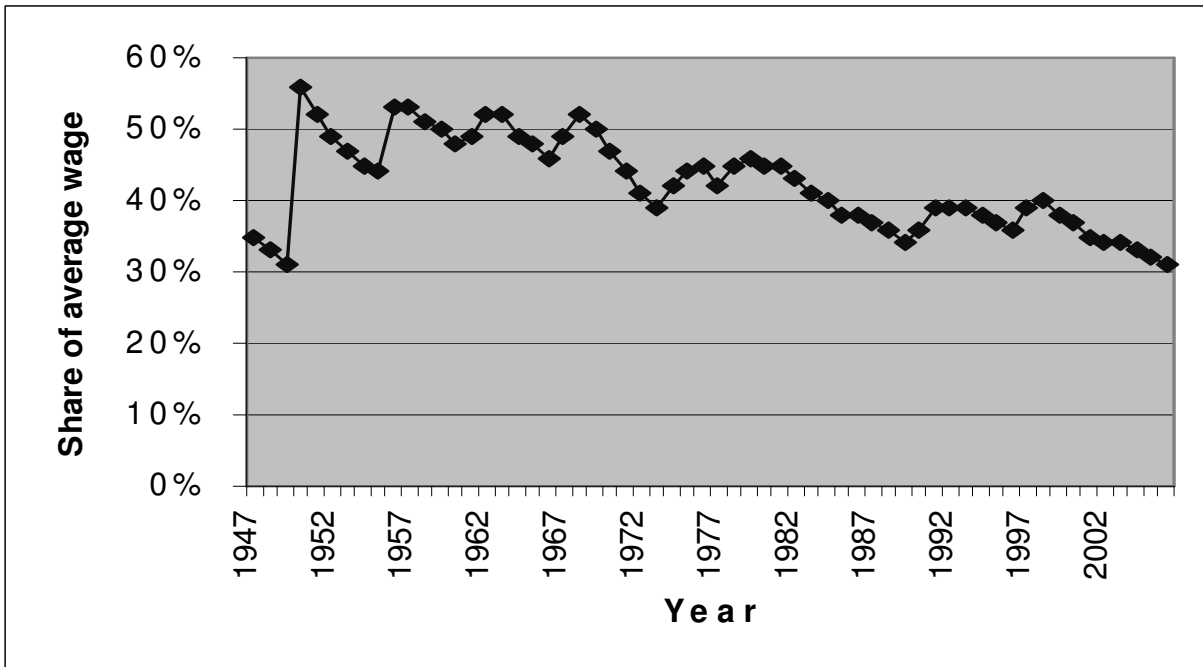
<sup>7</sup> All of these numbers overstate the real benefits of the proposed increase somewhat, because they fail to account for inflation between mid-2006 and the time when the increase becomes effective. Inflation is currently running around 3% a year. Since the effect of the full \$7.25 is delayed until mid 2009, there will be a real loss of around \$.60 in 2006 dollars.

**Figure 1:  
Minimum wage in 2006 dollars**



Source: Economic Policy Institute [2007]

**Figure 2:  
Minimum wage as a share of the average nonsupervisory wage**



Source: Economic Policy Institute [2007]

Given the increasingly regressive direction taken by income policy at the federal level, raising the minimum wage has become an important political issue at the state and local level. This report summarizes some readily available background information concerning potential impacts of a minimum wage increase in Kansas.

### *Minimum wage controversies*

Public policy that affects the income distribution is usually controversial and the minimum wage is no exception. Economists have sharply differing views on the minimum wage. These differences are based partly on value differences and partly on deep differences in maintained assumptions about how the economy operates. This disagreement reflects important disagreements within the larger society, but the discussion is carried out with considerably more clarity among economists. To make the issues as clear as possible, this paper occasionally contrasts two polar or extreme views (even though most economists probably take intermediate positions). We will refer to the two positions as "perfect-market economics" and "neoKeynesian economics." Crudely put, perfect-market economists believe that increases in minimum wages are nearly always harmful, while neoKeynesians believe that in practice they are usually beneficial. Chapter 4 contrasts the two positions in more detail.

However there is less controversy at the level of specific data. While these data depend to some degree on debatable assumptions, economists are in much closer agreement on existing conditions than on policy impacts.

### *Scope of the report*

This report summarizes some background information on the likely economic effects of creating or changing minimum wage laws in Kansas and elsewhere. While it does not provide any new primary data or behavioral modeling, it does provide some data modeling to draw out descriptive implications for Kansas of previously published data. This report reviews selected literature, but doesn't attempt to provide a full literature review or legal analysis of any topic.

This report also identifies some of the contested value judgments that drive the controversy, without attempting to analyze their respective merits. Differences in value judgments do affect theories and perceptions of economic impacts, and this does need to be taken into account.

The plan of the report is as follows:

Section 2 summarizes existing legal eligibility for minimum wage protection in Kansas.

Section 3 estimates the numbers of Kansas workers likely to be affected by increases in the minimum wage, broken out by occupational categories.

Section 4 summarizes theories of general economic impact.

Section 5 discusses some of the empirical economic impact literature.



Section 6 draws some inferences for minimum wage impacts in Kansas.

Section 7 makes concluding remarks on the value judgements that drive the minimum wage debate.

## 2. Coverage and exemptions

### *Legal basics*

Local, state, and federal minimum wage laws have concurrent coverage. That is, states, if they so choose, can increase the minimum wage above the federal standard, or extend coverage to groups of workers not covered by federal law. Cities and counties in turn, both in Kansas and elsewhere, can set standards higher than state standards. However apparently the only city or county minimum wage law in Kansas is the Lawrence Living Wage ordinance, which applies only to a small number of enterprises subsidized by tax abatements.

The federal Davis-Bacon Act imposes prevailing wage standards on federal construction contracts in Kansas and elsewhere, and hence operates as an additional concurrent minimum wage. Kansas was the first state in the union to adopt a prevailing wage law for state contracts, but it was repealed in 1987. Topeka has adopted prevailing wage laws for specific narrow projects.

The Kansas minimum wage of \$2.65/hour is the lowest state minimum in the nation. (Five states in the deep South have no minimum wage at all.) The Kansas law is intended to have no effect on workers covered by the federal law, but is intended to cover certain employees exempt from the federal law.

Federal and Kansas law, however, share a somewhat limited view of which workers are “employees.” Persons not classed as “employees” are not covered by either law.

Federal law also has a special provision for “subminimum” wages in certain cases, as described below. In addition, employers may pay employees on a piece-rate basis, as long as they receive at least the equivalent of the required minimum hourly wage rate.

There is also a large informal or “underground” economy of workers who for various reasons receive less than the minimum wage they are legally entitled to.

### *Federal subminimum wage employees*

The main classes of employees who are covered by federal law, but receive a lower or variant wage rate (rather than the standard minimum wage of \$5.85) are as follows.

- Youths under 20 years of age may be paid a minimum wage of \$4.25 an hour during the first 90 consecutive calendar days of employment with an employer. Employers may not displace any employee to hire someone at the youth minimum wage.
- Tipped employees who regularly receive more than \$30 a month in tips can be paid less than minimum by the amount of their tips, but employers must pay a direct wage of at least \$2.13 per hour if they claim a tip credit. They must also meet certain other

conditions.<sup>8</sup>

- Certain individuals may be employed at wage rates below the statutory minimum wage under certificates issued by the U.S. Department of Labor:
  - Student learners (vocational education students);
  - Full-time students in retail or service establishments, agriculture, or institutions of higher education; and
  - Individuals impaired by physical or mental disabilities, including those related to age or injury, provided the disability leads to reduced productivity on the job as employed.

### *Federally exempted employees*

The main classes of employees exempted from federal coverage are as follows [U.S. Department of Labor, 2007]:

- Employees of private firms grossing less than \$500,000/year and not engaged in or producing for interstate commerce (and also not engaged in education, residential care, or running a hospital).
- Domestic service workers, such as day workers, housekeepers, chauffeurs, cooks, or babysitters receiving less than \$1,300 in cash wages from one employer in a calendar year, and not working a total of more than eight hours a week for any one employer.
- Executive, administrative, and professional employees (including teachers and academic administrative personnel), outside sales employees, and certain skilled computer professionals.
- Employees of certain seasonal amusement or recreational establishments (receiving at least 2/3 of receipts in six months of the year).
- Employees of certain small newspapers (mainly, single county weeklies with under 3000 circulation) and switchboard operators of small telephone companies.
- Seamen employed on foreign vessels.
- Employees engaged in fishing operations.
- Employees engaged in newspaper delivery.
- Farm workers employed on small farms (farms using less than 500 person-days of farm labor in a calendar quarter).
- Casual babysitters and persons employed as companions to the elderly or infirm.

### *Kansas exempted employees*

Persons not covered by the Kansas \$2.65 minimum wage law are:

- Persons covered by the federal minimum wage.
- Employees in agriculture.
- Employees in domestic service in a private home.
- Executive, administrative or professional employees.

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<sup>8</sup> Tipped employees covered by the Kansas minimum wage but exempt from the federal minimum wage have an even lower subminimum wage of \$1.59.

- Outside salesperson on commission.
- Federal employees.
- Volunteers to a nonprofit organization.
- Employees 18 years of age or younger and employed part-time.
- School district employees working in an executive, administrative or professional capacity during 50% or more of their working time.

#### *Kansas covered employees*

So who does that leave? The employees covered by the \$2.65 Kansas minimum wage would seem to be:

- Employees of private firms grossing less than \$500,000/year and not engaged in or producing for interstate commerce (and also not engaged in education, residential care, or running a hospital).
- Employees of certain seasonal amusement or recreational establishments.
- Employees of certain small newspapers and switchboard operators of small telephone companies.
- Seamen employed on foreign vessels.
- Employees engaged in fishing operations.
- Employees engaged in newspaper delivery.
- Casual babysitters and persons employed as companions to the elderly or infirm.

#### *Workers not viewed as employees*

We failed to locate a full discussion of classes of workers not viewed as “employees” and therefore not covered under either federal or Kansas law. An incomplete listing would include:

- “Independent contractors.” Roughly speaking, this refers to employment for a specific well-defined job where the customer does not supervise its implementation. In practice this is probably the most important loophole in the minimum wage law. Its boundaries are contested and subject to shifting regulations.
- Professional service providers. If you are a “client” then you are not viewed as an “employer.”
- Self-employed persons, a category that overlaps with the above.
- Foster parents.
- Financially-motivated volunteer labor. Individuals may volunteer for a nonprofit in hopes of later getting a job.
- Certain student interns.
- Certain institutionalized persons providing labor without pay.
- Prisoners providing labor for low pay.
- and, of course, housewives, stay-at-home mothers, house-husbands, and others providing unpaid family household services.

### *The informal or “underground” economy*

Many employers and workers collude to evade the minimum wage laws, at least partly because the worker has a motive for keeping the transaction off the record. Worker motives might include undocumented immigration, desire to avoid paying taxes or child support, desire to keep one’s name or location unknown, performance of illegal child labor, or performance of work in support of a criminal enterprise.

Workers may also be extorted, blackmailed, or duped into accepting illegally low wages, or feel forced to do so by absence of better jobs or absence of documented immigration status.

The special provision for tips can create another opportunity for evasion. A waitress who fails to make enough tips to bring her income up to the minimum wage has a right to ask the employer for the difference—but might well be fired if she does so. If she has no better employment opportunities, she might choose to put up with it.

A substantial fraction of off-books transactions are instigated by employees or business people seeking to evade income taxes, but this would typically involve exempt jobs or above-minimum-wage jobs in higher tax brackets.

### *Estimates of numbers of workers with limited or no coverage*

Published data on workers not covered by the federal minimum seem to be sparse. The U.S. Bureau of Labor Statistics [2007] estimates that a total of 17,000 Kansas workers received less than the \$5.15 minimum wage in 2006. This constituted 2.2% of Kansas workers paid by the hour, but only about 1.1% of all Kansas wage and salary workers. Because the Federal minimum wage increased to \$5.85 on July 24, 2007, the corresponding figure has risen because of an unknown number of workers not covered by federal law who receive between \$5.15 and \$5.85.

The 17,000 figure includes most of the exempted workers in the above-ground economy, plus workers covered by federal law but allowed subminimum wages. However it does not include workers in the underground economy or workers not classed as “employees.” The report gives no breakout by specific exemptions.

The size of the national underground economy is controversial, but some estimates place it as high as 15 to 25% of GDP in the U.S. [KcKenzie and Lee, 1991]. This suggests that underground employment in Kansas may be considerably larger than legal below-minimum-wage employment. However, not all underground employment is at low wage rates; undoubtedly, many of these informal workers are receiving above-minimum-wage remuneration.

### 3. Affected workers and Kansas wage distributions

#### *Directly and indirectly affected workers*

An increase in the minimum wage directly affects all covered employees whose previous wage rate was lower than the new minimum. It can also have indirect effects on workers at somewhat higher wages.

These indirect effects occur partly because many employers of low-skill workers have business motives for paying a wage premium above the minimum wage (even when not absolutely required to by market forces). Some of these motives are:

- to reduce employee turnover
- to hold on to workers who are already trained
- to enable hiring of higher quality workers
- to improve morale, dedication, and productivity
- to match going market wages for certain “low-skill skills.”

When the minimum wage increases, these employers tend to increase their wage offers as well in order to maintain the desired premiums (though possibly with a time lag). Because of competition for hiring workers, the effects of any minimum wage increase tend to work their way up through the wage and occupational hierarchy, though with effects that diminish as the wage increases. Minimum wage laws are unlikely to have any effect on wages of middle and upper income workers.

#### *Statewide worker impacts of an increase from \$5.15 to \$7.25*

Economic Policy Institute [2007] did state-by state modeling of the direct and indirect impacts on employees of the planned federal minimum wage increase from \$5.15 to \$7.25, based on 2005 data. Their results for Kansas are given in Table 1. The Table also compares their estimates with total employees in the Kansas workforce.

The table shows that about 240,000 employees would be affected, some 19.1% of the workforce. Consequently, wage impacts would be limited to the bottom two deciles of the wage scale.

#### *A model of numbers of affected workers by occupation*

We can use Kansas Department of Labor [2006] data on employment by occupation in 2005 to break these totals out by occupation, though in a relatively crude way. These data give numbers of employees and median wage rates for some 707 occupations in Kansas.

Table 2 lists the occupations where more than half of the employees would have been directly affected by the increase. However, many additional employees would be affected indirectly in those occupations, and also affected both directly and indirectly in other occupations. We have no data by occupation on how many workers are affected indirectly.

**Table 1:**  
**Kansas workers who would be affected by**  
**raising federal minimum wage from \$5.15 to \$7.25, 2005**

	<i>Number</i>	<i>Percentage</i>
Affected directly	105,000	8.3%
indirectly	135,000	10.8%
total	240,000	19.1%
Workforce total	1,257,000	100.0%

SOURCE: Economic Policy Institute [2007].

Note: EPI 2005 total workforce estimate differs from Kansas Department of Labor estimate of 1,316,000

**Table 2:**  
**Kansas occupations with median wage less than \$7.25, 2005**

<i>Occupational Title</i>	<i>Employment</i>	<i>Median wage</i>
1 Waiters and Waitresses	22,750	\$6.35
2 Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	4,500	\$6.45
3 Dancers	NA	\$6.51
4 Cooks, Fast Food	8,460	\$6.56
5 Combined Food Preparation and Serving Workers, Including Fast Food	20,130	\$6.57
6 Amusement and Recreation Attendants	1,990	\$6.60
7 Janitors and Cleaners, Except Maids and Housekeeping Cleaners	90	\$6.65
8 Dishwashers	4,370	\$6.71
9 Dining Room and Cafeteria Attendants and Bartender Helpers	2,380	\$6.72
10 Cooks, Short Order	2,850	\$6.88
11 Ushers, Lobby Attendants, and Ticket Takers	1,390	\$6.92
12 Tour Guides and Escorts	140	\$6.92
13 Bartenders	3,650	\$7.06
14 Personal Care and Service Workers, All Other	110	\$7.07
15 Hotel, Motel, and Resort Desk Clerks	2,190	\$7.08
16 Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	1,570	\$7.12
17 Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	3,030	\$7.19
Workers in listed occupations	79,600	\$6.57
All workers	1,315,630	\$12.63

SOURCE: summarized from KDOL [2006].

However, one can model the missing data on affected workers by occupation using reasonable assumptions.<sup>9</sup> Table 3 Shows the top 30 occupations ranked by total number of affected workers in Kansas.<sup>10</sup> There are no surprises. There is a heavy representation of food, entertainment, and retail service workers.

*A model of numbers of affected workers by occupational group and major industry*

There are no direct data on impact of minimum wage increase by industry. However, the individual occupations used in the occupational data are grouped into 22 major categories. Table 4 shows the modeled data on affected workers aggregated into those 22 major groups. Most but not all of these occupation groups tend to be associated with specific groups of industries. However, occupational groups such as management and financial operations are associated with many different industries. These various occupations could be sorted into industries to some extent using a table showing industry employment by occupation, but we will proceed more informally.

Table 4 lists the occupational groups in declining order of numbers of affected workers. The Table indicates an informal judgment showing which groups are strongly associated with an industry group and which are not. Of the 6 major occupational groups not associated with specific industries, 4 have no affected workers (at least according to the model). The two major cross-industry groups with affected workers are Office and Administrative Support; and Building and Grounds Cleaning and Maintenance. Together these two groups account for about 20% of affected workers, widely distributed across all industries.

About 31% of affected workers work in Food Preparation and Serving-Related occupations, typically in restaurants and bars. 19% work in Sales and Related occupations, mainly in retailing, wholesaling, and marketing. Between 4% and 8% work in each of four other groups closely related to specific industries: Transportation and Material Moving; Personal Care and Service; Healthcare Support; and Production (mainly manufacturing). All other occupations combined

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<sup>9</sup> We make the following assumptions:

1. Within an occupation, the share of workers that are affected (directly plus indirectly) by the increase in the minimum wage decreases linearly with the median wage for that occupation.
2. All workers are affected if the median wage in that occupation equals the previous minimum wage of \$5.15.
3. Exactly half of the workers are affected in an occupation if the median wage equals a certain number of dollars (say, X) more than the new minimum. In other words, we assume that the indirect effects of a wage increase peter out to nothing for workers with \$X or more above the new minimum wage.

We can calibrate this model by varying X until the model replicates the total of 240,000 affected workers predicted by Economic Policy Institute. The corresponding X turned out to equal \$1.39.

<sup>10</sup> EPI data on total number of workers differ from KDOL data. For reasons of comparability in Tables 3 through 6, the total number of workers in each occupation are adjusted so that they sum to the EPI total.



**Table 3:**  
**Top 30 occupations by numbers of Kansas workers affected directly or indirectly by a \$2.10 increase in the federal minimum wage, 2005**

<i>Occupational Title</i>	<i>Adjusted employment</i>	<i>Affected workers</i>	<i>Median wage</i>
1 Cashiers	33,010	23,066	\$7.47
2 Retail Salespersons	37,682	20,059	\$8.58
3 Waiters and Waitresses	21,736	18,839	\$6.35
4 Combined Food Preparation and Serving Workers, Including Fast Food	19,233	16,035	\$6.57
5 Janitors and Cleaners, Except Maids and Housekeeping Cleaners	18,994	9,171	\$8.91
6 Office Clerks, General	21,946	7,437	\$9.87
7 Nursing Aides, Orderlies, and Attendants	20,265	7,141	\$9.78
8 Cooks, Fast Food	8,083	6,751	\$6.56
9 Food Preparation Workers	9,870	6,645	\$7.64
10 Laborers and Freight, Stock, and Material Movers, Hand	17,418	5,850	\$9.89
11 Maids and Housekeeping Cleaners	8,293	5,832	\$7.44
12 Stock Clerks and Order Fillers	15,698	5,767	\$9.68
13 Personal and Home Care Aides	8,742	4,877	\$8.41
14 Child Care Workers	6,927	4,539	\$7.76
15 Packers and Packagers, Hand	7,987	4,180	\$8.64
16 Landscaping and Groundskeeping Workers	8,188	4,150	\$8.75
17 Cooks, Restaurant	6,573	3,726	\$8.35
18 Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	4,299	3,662	\$6.45
19 Cooks, Institution and Cafeteria	6,602	3,584	\$8.51
20 Dishwashers	4,175	3,393	\$6.71
21 Receptionists and Information Clerks	10,194	3,180	\$10.05
22 Secretaries, Except Legal, Medical, and Executive	15,230	3,129	\$10.76
23 Tellers	6,678	2,794	\$9.34
24 Home Health Aides	5,752	2,665	\$9.04
25 Bartenders	3,487	2,651	\$7.06
26 Bus Drivers, School	9,478	2,160	\$10.61
27 Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	2,895	2,144	\$7.19
28 Cooks, Short Order	2,723	2,144	\$6.88
29 Counter and Rental Clerks	4,338	2,094	\$8.91
30 Helpers--Production Workers	5,169	1,945	\$9.62

SOURCES: AAI; KDOL [2006]. See text.

**Table 4:  
Affected Kansas workers by major occupational groups, 2005**

<i>Major Occupational Group</i>	<i>Industry Specific?</i>	<i>Adjusted Total Workers</i>	<i>Affected Workers</i>	<i>Share of occupation</i>	<i>Share of Affected workers</i>	<i>Median Wage</i>
1 Food Preparation and Serving-Related	yes	103,474	74980	72.5%	31.2%	\$6.98
2 Sales and Related	yes	127,254	46696	36.7%	19.4%	\$10.07
3 Office and Administrative Support	no	215,221	29147	13.5%	12.1%	\$11.98
4 Building and Grounds Cleaning and Maintenance	no	40,052	19425	48.5%	8.1%	\$8.72
5 Transportation and Material Moving	yes	92,792	19376	20.9%	8.1%	\$11.60
6 Personal Care and Service	yes	32,542	17016	52.3%	7.1%	\$8.39
7 Healthcare Support	yes	39,412	12612	32.0%	5.2%	\$10.08
8 Production	yes	118,780	10149	8.5%	4.2%	\$12.76
9 Protective Service	yes	24,010	2648	11.0%	1.1%	\$14.05
10 Construction and Extraction	yes	61,243	2005	3.3%	0.8%	\$15.21
11 Healthcare Practitioners and Technical	yes	63,680	1626	2.6%	0.7%	\$20.52
12 Arts, Design, Entertainment, Sports, and Media	yes	14,370	1402	9.8%	0.6%	\$13.32
13 Installation, Maintenance, and Repair	yes	54,154	1069	2.0%	0.4%	\$16.76
14 Community and Social Services	yes	15,516	868	5.6%	0.4%	\$14.77
15 Education, Training, and Library	yes	81,021	786	1.0%	0.3%	\$15.86
16 Farming, Fishing, and Forestry	yes	2,408	528	21.9%	0.2%	\$11.26
17 Management	no	54,489	0	0.0%	0.0%	\$33.05
18 Business and Financial Operations	no	48,823	0	0.0%	0.0%	\$22.50
19 Computer and Mathematical	no	25,587	0	0.0%	0.0%	\$28.60
20 Architecture and Engineering	yes	25,424	0	0.0%	0.0%	\$28.23
21 Life, Physical, and Social Science	no	9,306	0	0.0%	0.0%	\$22.05
22 Legal	yes	7,443	0	0.0%	0.0%	\$21.81
All workers		1,257,000	240,334	19.1%	100.0%	\$12.63

SOURCES: AAI; KDOL [2006]. See text.

**Table 5:  
Affected workers by region, 2005**

	<b>Kansas</b>	<b>Greater KC MSA</b>	<b>Topeka MSA</b>	<b>Wichita MSA</b>	<b>Rest of Kansas</b>
Median wage	\$12.63	\$14.51	\$13.86	\$12.59	\$13.52
Adjusted total workers					
Number	1,257,000	416590	97867	272371	444652
Share of Kansas workers	100.0%	33.1%	7.8%	21.7%	35.4%
Affected workers					
Number	240334	60655	16599	50730	107596
Share of Kansas workers	19.1%	4.8%	1.3%	4.0%	8.6%
Share of all affected workers	100.0%	25.2%	6.9%	21.1%	44.8%
Share of all regional workers	19.1%	14.6%	17.0%	18.6%	24.2%

SOURCES: AAI; KDOL. See text.

account for less than 5% of affected workers.<sup>11</sup>

*A model of numbers of affected workers by selected regions*

The previous model can be extended to the six regions for which the KDOL Kansas wage data are broken out. Selected modeling results are shown in Tables 5 and 6. The data regions were determined by existing Metropolitan Statistical Areas (MSAs), as follows:

- Doniphan MSA (Doniphan County)
- Greater Kansas City MSA (Franklin, Johnson, Leavenworth, Linn, Miami, and Wyandotte Counties)
- Lawrence MSA (Douglas County)
- Topeka MSA (Jackson, Jefferson, Osage, Shawnee, and Wabaunsee Counties)
- Wichita MSA (Butler, Harvey, Sedgwick, and Sumner Counties)
- Rest of Kansas (all 88 non-MSA counties)

However, the Tables in this report omit Doniphan and Lawrence MSAs. Because these counties are relatively small, a major part of the data were suppressed in the original KDOL data source for confidentiality and other reasons.<sup>12</sup>

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<sup>11</sup> Note however that total employment listed by KDOL for Farming, Fishing, and Forestry (which in Kansas is mainly farming) is much too small to be credible – i.e. 2,408 employees, which are spread across an estimated 64,000 Kansas farms. This anomaly reflects limitations in coverage for payroll tax data on farm workers; workers not reported on payroll tax returns do not appear in the survey.

<sup>12</sup> Out of 697 occupations listed in the survey, just 23 occupations were reported in Doniphan County, including only 600 employees. The 2000 Census estimates the Doniphan County workforce at around 4,200. For Douglas County, 168 occupations were reported, including about 24,100 employees, out of a 2000 Census

Table 5 shows that the less urban areas of Kansas are relatively less prosperous and hence are disproportionately impacted by the federal minimum wage. Kansas areas not in MSAs have 35% of all workers, but 45% of affected workers. At the other extreme, the relatively prosperous region of Greater Kansas City has 33% of all workers, but only 25% of affected workers. In the Topeka and Wichita MSAs, the share of all workers is approximately the same as the share of affected workers.<sup>13</sup>

Table 6 shows specific occupations for which certain regions are substantially and differentially impacted by affected workers. The statistic shown in the Table estimates the excess number of affected workers in the occupation in that region. (A negative number indicates a deficit in the number of affected workers.) "Excess number" refers to the difference between the actual number in that occupation and region, versus what would be predicted based on the statewide pattern. The table shows the 20 occupations with the generally highest excesses or deficits.<sup>14</sup> (Numbers are shown as percentages of all workers in the region.)

Table 6 shows a relatively small number of significant occupational effects. The Rest of Kansas region has a somewhat high representation of affected cashiers, nursing aids, and bookkeepers. Greater KC MSA has a relatively small number of nursing aids, and Topeka has a relatively small number of home care aids.

In Greater KC, affected workers taken together are fewer on net than expected, by about 4% of the workforce. In the Rest of Kansas region they are greater than expected by about 6% of the workforce, while Wichita and Topeka are about at the statewide average.

#### *A model of numbers of subminimum wage workers by region*

There are no data showing numbers of very low wage workers in Kansas broken out by region. However, we can form a rough estimate by treating the number of directly and indirectly affected workers as a proxy for very low wage employment in a region. Using the 2006 state-wide figure of 17,000 workers earning under \$5.15, and prorating it on the regional numbers of affected workers in given Table 5, leads to the estimates shown in Table 7.

As would be expected, these estimates show significant numbers of low wage workers in each region in 2006, but with disproportionately high numbers in rural Kansas and disproportionately low numbers in Greater Kansas City. Most or all of these workers could have benefitted from increases in the Kansas minimum wage or from adoption of local minimum wages.

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workforce of about 58,000.

<sup>13</sup> Based on incomplete data, Lawrence also appears about average in its share of affected workers.

<sup>14</sup> In particular, it shows the 20 occupations ranked highest by greatest absolute value of excess affected workers in that occupation for any region.

**Table 6:**  
**Disproportionately affected occupations by region, 2005**  
**(Excess affected workers as a share of regional employment)**

<i>Occupational Title</i>	<i>Greater KC MSA</i>	<i>Topeka MSA</i>	<i>Wichita MSA</i>	<i>Rest of Kansas</i>
1 Nursing Aides, Orderlies, and Attendants	-0.37%	-0.06%	-0.08%	0.53%
2 Cashiers	-0.14%	0.09%	-0.11%	0.46%
3 Bookkeeping, Accounting, and Auditing Clerks	-0.12%	-0.06%	-0.08%	0.34%
4 Personal and Home Care Aides	-0.07%	-0.34%	-0.05%	0.05%
5 Maids and Housekeeping Cleaners	-0.15%	-0.06%	-0.09%	0.30%
6 Bus Drivers, School	-0.11%	-0.03%	0.27%	-0.03%
7 Janitors and Cleaners, Except Maids and Housekeeping Cleaners	-0.21%	0.10%	0.07%	0.26%
8 Combined Food Preparation and Serving Workers, Including Fast Food	-0.23%	-0.02%	0.25%	0.13%
9 Slaughterers and Meat Packers	-0.12%	-0.12%	-0.10%	0.24%
10 Office Clerks, General	-0.17%	0.04%	-0.03%	0.23%
11 Retail Salespersons	0.14%	0.22%	-0.07%	0.00%
12 Cooks, Institution and Cafeteria	-0.13%	-0.02%	-0.08%	0.21%
13 Driver/Sales Workers	-0.03%	-0.13%	0.21%	-0.02%
14 Secretaries, Except Legal, Medical, and Executive	-0.12%	0.05%	-0.12%	0.20%
15 Bill and Account Collectors	0.20%	-0.01%	-0.05%	-0.02%
16 Cooks, Fast Food	-0.17%	-0.16%	0.07%	0.20%
17 Landscaping and Groundskeeping Workers	-0.09%	-0.11%	-0.09%	0.18%
18 Packers and Packagers, Hand	0.18%	0.18%	-0.11%	-0.06%
19 Waiters and Waitresses	0.16%	0.04%	-0.06%	0.05%
20 Security Guards	-0.05%	0.16%	-0.01%	0.03%
sum top 20	-1.85%	-0.35%	-0.02%	2.90%
sum all	-3.62%	-1.22%	0.45%	6.02%

SOURCE: AAI; KDOL. See text.

**Table 7:**  
**Estimates of on-books workers receiving less than \$5.15/hour, 2006**

	<i>Kansas</i>	<i>Greater KC MSA</i>	<i>Topeka MSA</i>	<i>Wichita MSA</i>	<i>Rest of Kansas</i>
Number of low wage workers	17000	4300	1200	3600	7600
Share of all Kansas workers	1.4%	0.3%	0.1%	0.3%	0.6%
Share of all low wage workers	100.0%	25.3%	7.1%	21.2%	44.7%
Share of all regional workers	1.4%	1.0%	1.2%	1.3%	1.7%

SOURCES: AAI; USDOL. See text.

In all likelihood the number of workers who could benefit from state or local minimum wage increases is substantially higher now than these 2006 figures indicate, and will grow even larger in the future. In particular, because the federal minimum wage has increased to \$5.85 and is scheduled to increase twice more in the future, increasing numbers of workers with wages over \$5.15 but not covered by the federal law are finding themselves earning less than the federal minimum. However, an offsetting factor is that competitive forces on nominal wages due to ongoing inflation and employment expansion have tended to reduce these numbers each year since the last recession, and this process is likely to continue until the next recession.

In addition, an unknown but probably substantial number of workers in the informal or “underground” economy are receiving off-books wages below the federal minimum wage. While these workers are not likely to benefit directly from state or local minimum wages (which aren’t enforced very well in the informal economy), nevertheless these workers *are* likely to benefit indirectly. When jobs in the formal economy become more remunerative, some workers are hired away from the informal economy to fill jobs that previously would have been vacant in the formal economy. This process generates competitive pressures that tend to drive up wages in the informal economy.

#### *Impacts on poverty*

In 2004 Kansas had an estimated 300,000 persons in poverty. About 210,000 of them lived in about 55,000 family units, while about 90,000 lived as unrelated individuals. About 100,000 were under 18 and 30,000 were over 65, leaving about 170,000 of working age [U.S. Bureau of the Census, 2007].

Extrapolating from U.S.-wide data, of the 170,000 around 110,000 worked full time or part time during the year, and 60,000 did not work. Over 30,000 of the 170,000 (and over 20,000 of the 60,000) had severe sickness or disabilities. Therefore less than 40,000 of these unemployed were able-bodied. Some of these were actively seeking work but unable to find it, while others had given up looking.

Because the poverty level for single persons was a little under \$10,000 in 2004, no unrelated individual who worked full time for a full year at wages much above the \$5.15 minimum could have remained in poverty. Therefore one can assume that nearly all of the unrelated individuals in poverty who were able to find jobs would be helped by the scheduled increases in the minimum wage.

Of the families with wage earners, some were already earning as much as \$8 to \$10 per hour; they would receive no direct benefit and little or no indirect benefit from an minimum wage increase to \$7.25. This points out the fact that \$7.25, while an improvement over \$5.15, is not high enough to bring a family with multiple dependents out of poverty—it is not a living wage.

Other potential wage earners were not able to find work prior to any increase in the minimum wage; their situation would be unlikely to be much improved by the increases. According to the perfect-market model, some of the already-employed might even lose their existing jobs.

The remaining households are the working poor who stand to benefit from the scheduled increases. Note however that most of them would probably not be lifted out of poverty. For example, the 2007 poverty level for a family of 3 is \$17,170. A single worker who worked 2000 hours/year would need a wage of \$8.58 to earn that amount. \$7.25 is not enough.

## 4. Theories of economic impact

Increases in a local minimum wage could have effects on income, unemployment, and growth. The effects depend on the unit of government imposing the changes (i.e. the geographic scope), on the coverage of workers, on the size of the wage increase, and on the current state of the local economy. Effects can "spill over" into neighboring geographical areas, and these spillovers can be either in the same direction or opposite direction as the original effect. Economists use specific models or theories to help them understand and measure these impacts. As noted above, some aspects of these theories are controversial—especially with respect to impacts on unemployment, somewhat less so with respects to impacts on economic growth and development.

### *Perfect market theories of short-run unemployment*

Assumptions. Perfect-market economists have a very clear mathematical model that assumes:<sup>15</sup>

- Labor markets operate like simple commodity markets.  
At each point in time there is a well defined quantity of labor units being supplied by workers, and a well-defined number of labor units being demanded by employers, and there is a well-defined market price.
- All labor units being supplied or demanded are economically identical.  
Since in the real world the exact opposite seems to be true—i.e. each worker has a unique bundle of economically-relevant characteristics—this needs to be understood in a special way. First, labor units are distinct from labor hours. If one worker is twice as productive as another, then the first worker is said to produce twice as many labor units per hour. Second, we may need to break the labor market up into independent sub-markets. For example, there might be separate markets for doctors and bricklayers and factory workers. In the minimum wage context, we are mainly concerned with low skill workers, and they are usually assumed to be hired in a single unified market.
- Unless the government interferes by imposing a minimum wage, all markets clear.  
In other words, the price of labor units automatically adjusts to the point where quantity supplied equals quantity demanded and there is neither unemployment nor labor scarcity.
- The sole purpose of good government policy is to maximize total real income.  
Another way to put this is the "dollar is a dollar" assumption, which states that a dollar received by a rich person is just as socially valuable as a dollar received by a poor person.
- Other technical conditions are true.<sup>16</sup>

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<sup>15</sup> For a rather aggressive example of the perfect-market approach to the minimum wage, see the elementary economics text by Bade and Parkin [2003].

<sup>16</sup> These technical assumptions are not necessarily true in the real world, but they are standard in economic models showing how competitive markets can be socially efficient. These models are inspired by Adam Smith's "invisible hand."



Predictions. Certain conclusions follow mathematically from these assumptions. For example:

- All unemployment is caused by the minimum wage.
- As the minimum wage increases, unemployment increases.
- As the minimum wage increases, total output falls (the minimum wage is inefficient).

Discussion. The heart of the perfect-market critique claims that a minimum wage increase will cause increased unemployment. This charge is far less devastating than it may appear. Even if the claim were granted, there are two ameliorating conditions:

- Many of the newly unemployed consist of new entrants to the labor market attracted by a putatively higher wage level. They cannot be said to suffer much actual loss from merely failing to find work they didn't even want before the government intervened.
- In opinion surveys, poor people tend to say they would be willing to accept some degree of job loss if it meant higher wages for those who do get jobs. The issue therefore becomes empirical, not theoretical: how many jobs are actually lost? The perfect-market critique is not persuasive without empirical evidence of rather sharp increases in unemployment resulting from the minimum wage.

As a more concrete example, perfect market economists have claimed that a 10% increase in the subminimum wage for teenagers causes a 1% to 3% reduction in jobs [Card and Krueger, 1995]. If so, teenagers as a whole would still gain about 7% to 9% in total dollars from the increased wage. It's hard to see why this trade-off would be viewed as obviously unfavorable.

Some perfect-market economists counter that spells of unemployment can have negative and irreversible long-term consequences that need to be taken into account. However, higher wages also have irreversible long-term consequences, but these tend to be positive in nature. We aren't aware of any quantitative analysis comparing long-term costs of unemployment spells with long-term benefits of higher wages.

### *NeoKeynesian theories of short-run unemployment*

Assumptions. NeoKeynesian economists assume that:

- The commodity model of labor is a useful approximation in some respects, but not for explaining the impacts of the minimum wage.
- Unemployment is largely a macroeconomic phenomenon that happens because markets do not automatically clear.
  - If there is unemployment at the national level, then the government should step in to reduce it by using fiscal and monetary policy to increase total demand for goods and services. Unemployment at the local level can be addressed with a combination of economic development efforts and out-migration of excess workers. Fiscal deficit finance could also play a role in increasing local demand for goods and services (e.g., mounting short-term public construction projects financed by debt).
- A dollar given to a poor person has more social value than a dollar given to a rich person.

- NeoKeynesians have several competing ideas to explain why labor markets do not clear.<sup>17</sup>

Predictions. Certain conclusions follow from these and other assumptions.

- Generally speaking, the level of the minimum wage has little to do with the rate of unemployment.
  - However, if there is excess unemployment in a community, increasing the minimum wage can actually increase local income, leading to increases in local demands for goods and services, which reduces unemployment.
- The minimum wage is an effective tool that should be used for increasing the income of the poor.
- It is theoretically possible (but politically improbable) that the minimum wage could be set too high.
  - As an extreme example, if the minimum wage exceeded the average value added per worker in each business, then no employer could make a profit, most businesses would cease operating, and the economy would grind to a halt.
- Increases in the minimum wage can increase total output (the minimum wage can be efficient).

Discussion. The core neoKeynesian claim is that the minimum wage has little to do with unemployment, either locally or nationally, or could even have positive effects. Their larger point is that the issue has to be settled with careful data analysis, not theory. Perfect market economists respond, with some justice, that good data analysis depends on having a tight theoretical model, and neoKeynesians have not yet settled on an agreed model.

### *Theories of local growth and long-run economic development*

Unemployment refers to people out of work at one point in time, while growth refers to changes over significant periods of time. Accepted theories of growth and development are quite distinct from the theories used to explain unemployment.

In the neoKeynesian model, economic growth has very little to do with the minimum wage: local growth is determined by economic development policy and by external conditions. However, some neoKeynesians argue that a local minimum wage law could encourage economic development through various channels. For example, by reducing local poverty and inequality, a minimum wage can have positive effects on crime, labor quality, and social conditions, making

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<sup>17</sup> For example, "efficiency wage" models assume that if workers are paid more than the market-clearing wage, then they will put out higher work effort. "Wage rigidity models" assume that workers resist explicit (nominal) wage cuts announced by employers more than they resist implicit real wage cuts caused by inflation. (Perfect-market economists view this hypothesized behavior as irrational and refer to it as "money illusion.") "Imperfect competition" models assume that employers have market power giving them some independent control over wage rates. According to old Keynesian "pump priming" models, low income workers tend to spend most of their income immediately, while upper income households tend to save a higher share of income; therefore, at least during a recession, shifting income from upper income households towards low wage workers tends to increase demand for goods, leading to more employment. All of these assumptions would seem quite realistic to non-economists but are considered unorthodox by perfect-market economists.

that location more attractive to new industry. In particular, increasing the income of the poor increases their opportunity to improve their education, leading to an enhanced work-force quality.

The perfect-market assumptions listed above also have surprisingly little to say about local growth. A minimum wage increase is viewed as likely to put low-skilled workers out of work, but it has little impact on high-skill labor markets—but as it happens, high skill markets are where most of the action is for modern economic development. Nevertheless, perfect-market economists tend to believe that the minimum wage discourages economic development.

Some standard ideas about local economic development are generally accepted by urban and regional economists. They come in both perfect-market and neoKeynesian flavors, but the basic ideas are:

- The local economy has just two important parts:
  - the “export base” sector brings in money from outside the area.  
Examples typically include farming, mining, manufacturing, retirement income, government transfer payments, higher education.
  - the “domestic” sector produces goods and services for local use.  
Examples typically include local government, local utilities, retailing, and most services. The domestic sector recycles the money brought in by the export base locally, leading to an economic “multiplier.” The multiplier is limited by money that leaks away to buy goods “imported” from outside the area.<sup>18</sup>
- In principle, there are two main modes of economic development:
  - export base expansion, which means bringing in more money for the multiplier to work on; and
  - import substitution, which means producing goods locally (i.e. “domestically”) that were previously imported, thereby increasing the multiplier.
- However, import substitution tends to be a dead end! It generally means giving up on gains from trade and giving up on the economies of scale that drive world development.

According to this approach, economic development policy should focus on expanding the export sector.<sup>19</sup> The domestic sector will generally take care of itself—e.g., wherever lots of people with money live, someone will build a restaurant and a grocery store. Thus, helping restaurants be born is generally not a good use of public economic development resources. Another way to put this is that domestic sector businesses are generally immobile—they have to locate close to their markets. Export sector businesses need more policy attention because they tend to be mobile.

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<sup>18</sup> In more sophisticated models, the multiplier varies with the type of export sector, while most sectors of the economy are producing a mix of domestic and export goods, but the basic ideas are the same.

<sup>19</sup> In contrast, “community development” is concerned with improving private-sector impacts on the local quality of life (including the income distribution), and focuses more on the domestic sector. The local food movement, for example, makes more sense as community development than as economic development. Because high quality of life can encourage business owners and managers to locate in a particular place, the two forms of development can have overlapping objectives, but the ultimate goals are different.

However, applications of this theory can be very fact-specific. E.g., there are a few cities as well as rural tourist areas where restaurants sell mainly to outsiders, making restaurants arguably a major part of the local export base. The distinction hinges on whether adding a new restaurant mainly attracts new tourists, or mainly drives existing restaurants out of business.

In general terms, low-skill low-wage workers tend to be employed in the domestic sector, and high-skill high-wage workers in the export sector. To the extent that this holds true, minimum wages don't affect the export sector and hence have no effect on growth and economic development.

Perfect-market economists point to counterexamples showing low-skill low-wage jobs in local export sectors. Examples could include call centers and farms using migrant labor. Communities that base their economic development strategy on these kinds of low-wage jobs could logically be opposed to having a local minimum wage.

Another counterexample is a low-wage domestic sector business that also contributes to the export sector—e.g., a major retail store that brings dollars into the local community by serving a wider community. For example, Wal-Mart (the largest low-wage employer in the world) has made such claims when it is seeking local permits. However such claims are often exaggerated; in the case of Wal-Mart, impact studies have shown that, at best, economic development impacts are tiny in comparison with impacts of a factory or federal government installation with similarly sized employment. At worst, in some cases a new Wal-mart store could have net negative impacts on income and employment.

### *Inflationary impacts*

The minimum wage is sometimes said to be "inflationary." In the language of formal economics, inflation refers to ongoing increases in average or overall price levels. There is no mainstream theory of ongoing price level changes in advanced economies for which the minimum wage plays an important causal role. Instead, inflation is caused by macroeconomic factors such as money supply expansion and business cycle conditions.<sup>20</sup> Indeed, it is hard to see how a one-time minimum wage increase could explain ongoing price changes. In any case, inflation is entirely determined at the national level and has no significance for state-level policy-making.

Using looser language, an increase in the minimum wage can lead to one-time increases in the prices of selected goods produced with low-wage labor, and these price changes are sometimes called "inflationary" by non-economists. However, as shown in Section 6 these changes are likely to be much too small to have significant impacts on the overall price level.

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<sup>20</sup> However, in underdeveloped countries a minimum wage can help sustain inflation once it gets started if the minimum covers a large rather than a small share of urban workers and is constantly increased in step with inflation.

## 5. Empirical studies of economic impact

### *The Washington/Idaho border, 1999-2007*

The easiest way to understand some of these ideas is by telling stories. Here is an example.

When Washington state raised its minimum wage in 1999-2000, cities and store owners along the Idaho border protested vigorously because they expected to lose business to nearby Idaho communities, where store owners paying lower wages would be able to offer lower prices. What happened instead was that many Idaho workers took jobs in Washington, leading to a labor shortage on the Idaho side, until Idaho wages were eventually forced up to Washington levels [Egan, 2007].

It is important to understand, however, that things could have turned out very differently. As it happened, 2001-2006 were prosperous and high growth years for Washington state as a whole, leading to increasing demands for labor along the border. Had those years instead been a time of increasing unemployment, it is plausible that Idaho stores would have been able to maintain lower wages and eventually been able to outcompete Washington stores by offering lower prices.

### *Statistical studies of state and local minimum wage impacts*

Economists traditionally were unified in believing that the minimum wage increased unemployment. Card and Krueger [2004] and others shattered that consensus with many careful studies showing, for example, that a 1992 increase in the New Jersey minimum wage appeared to have the opposite effect. Neumark and Wascher [1994] then produced nonsystematic New Jersey data suggesting the opposite, but Card, Katz, and Krueger [1994 and later articles] responded with more and better data that supported their original claim.

In a widely cited paper, Neumark and Adams [2003] looked at U.S. cities with living wage ordinances. These ordinances are less than a full minimum wage in that they affect only employees of firms that have certain kinds of contracts with the city. They found significant negative effects on city employment. However, as Brenner [2004] pointed out, the Neumark and Adams data analysis doesn't seem credible under close examination, because changes in the numbers of workers actually affected by those ordinances are much too tiny a share of the local economy to show up in changes in total employment data.

Nearly all such studies look at low-wage labor markets in isolation and ignore interactions across markets. However, Holland, Bhattacharjee, and Stodick [2006] studied the likely results of the Washington State minimum wage increases after 1998 using a computational general equilibrium (CGE) model based on perfect-market assumptions. (A CGE model looks at policy impacts in multiple interacting markets that cover an entire economy.) They predicted that the total income of low wage workers would improve even though their employment dropped. This is consistent with the predictions of perfect-market single-market studies.

## *Empirical studies of growth and development*

There is no consensus among economists that minimum wage laws either do or do not have a net positive or negative long term effects on regional growth and development, and the topic has not been well researched. Minimum wage laws do not show up as an important factor volunteered by managers of mobile businesses when they are surveyed about preferred locations for business investment, but when asked directly most managers prefer not to have minimum wages. Frank [undated] provides data suggesting that income inequality has a negative effect on the growth of U.S. states; if so minimum wages could encourage growth by reducing inequality, but this question is also unresolved.<sup>21</sup>

There is a much broader and partially unresolved debate about the impact of general wage levels and other direct business costs on regional growth and development. Most economists agree that geographically mobile businesses prefer to locate where there are high labor skills yet low wages, high levels of government services yet low taxes. What isn't clear are what tradeoffs businesses will accept between these corresponding benefits and costs. (For a survey of evidence indicating that taxes linked to government services do not harm growth, see Lynch [2004].) It is helpful to consider the distinction between "high road" and "low road" government strategies for economic development (see e.g., Swinney [1998]):

- High road strategies focus on delivering high skills, high wages, and high levels of education, government services, and quality of life, typically at the expense of having relatively high taxes and direct business costs.
- Low road strategies focus on delivering low wages, low taxes, and low business costs, typically at the expense of having low levels of skills, education, government services, and quality of life.

Both kinds of economic development strategies can be successful in attracting new business, as can a range of intermediate strategies. However, in the long run, when low road strategies succeed and income levels increase, workers and voters become increasingly likely to push for higher levels of education and services. For that and other reasons, many regional development economists tend to support high road strategies. (At the same time, some of them would argue for financing high road strategies using taxes on households rather than on businesses.) State and local minimum wage laws would seem to be more consistent with high road strategies than low road strategies.

The over-all direction of the impact of minimum wage laws on growth is unknown. It seems reasonable to assume that, if minimum wage laws had especially strong impacts either for or against economic development, it would have shown up strongly enough in the data to have been accepted by many economists. That hasn't happened.

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<sup>21</sup> There is an emerging consensus that, in the context of international growth and development, inequality retards growth, at least for underdeveloped countries, although the precise mechanisms at work have not been agreed on [Aghion, Caroli, and García-Peñalosa, 1999]. Presumably the minimum wage would be expected to enhance growth by reducing inequality. Moreover, Lustig and McLeod [1997] show that increases in the real minimum wage are strongly associated with reductions in poverty in developing countries.

## 6. The likely economic impacts of minimum wage increases in Kansas

Section 3 described the impacts of federal minimum wage increases on low-wage Kansas workers who have jobs. This section discusses other possible economic impacts.

### *Impacts of minimum wage increases on employers*

Impacts on typical employers. In the first instance, an increase in the minimum wage imposes a simple transfer payment from the employer to the employee. It is natural that many employers would oppose such increases.

Nevertheless, some economists think their opposition tends to be disproportionately intense.<sup>22</sup> Most economists agree that increases in labor cost will, in all probability, be passed on to consumers in the form of higher prices rather than deducted from the employer's pocket. (For empirical support see e.g. MacDonald and Aaronson [2000].) Employers who think otherwise seemingly don't understand how competitive markets work.

However, that would be an oversimplification. Many businesses do have well-founded business reasons for opposing minimum wage increases:

- It takes time for markets to adjust. If a business is the first to raise its prices, it may lose some sales in the short run. If it waits to raise prices, there will be a period of time during which it fails to recover losses due to the wage increase.
- Even after markets adjust, there could be some continuing net loss of sales. For example, if all meals in restaurants get more expensive relative to food cooked at home, then there could be some loss of restaurant patronage in favor of meals at home.
- In the case of a purely local minimum wage law, there could be ongoing additional losses of sales to nearby competitors who aren't covered by the law.

But all in all, typical losses would not be especially large. Suppose for example that a particular firm is subjected to an increased minimum wage, and make relatively conservative assumptions as follows:

- labor costs are 50% of all costs (an above-average ratio in most industries); and
- half of the payroll is received by workers who are affected by the wage increase<sup>23</sup>; and

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<sup>22</sup> Note that the perfect-market argument against minimum wages claims that low-wage workers will be hurt; it doesn't claim that business owners will be significantly hurt. Yet, ironically, it is business owners that nearly always lead the charge against the minimum wage, while low-wage workers overwhelmingly support it. Some perfect-market economists have responded that the workers are behaving irrationally—which is inconsistent with the usual perfect-market assumption that all economic actors are rational.

<sup>23</sup> Even if as many as 2/3 of the employees are earning low wages, all together they are receiving less than half of the payroll, assuming the other 1/3 of the employees earn at least the Kansas median wage.

- there is a 20% average increase in labor costs per affected worker<sup>24</sup>; and
- the consumer responsiveness to prices (known as a “price elasticity”) is 50% (a rather typical value);

then the net loss of quantity of units sold would be  $(50\%)(50\%)(20\%)(50\%) = 2.5\%$ .<sup>25</sup> Because of the price increase, the revenue loss percentage would be even smaller. This is smaller than many other fluctuations in sales that are a normal part of doing business. A well-functioning business would generally be expected to take such events in stride. (For direct California data suggesting that typical impacts would be considerably smaller than even this estimate, see Vassaloti [2005].)

Impacts on marginal businesses. Under more extreme assumptions, if a very small business paid 100% of its employees exactly the minimum wage, and had a very high cost share for labor of, say, 75%, then a 20% increase in the minimum wage could cause a unit cost increase of  $(100\%)(75\%)(20\%) = 15\%$ . If the business were already struggling, barely profitable, and unable to increase prices, then it might well fail when otherwise it might have survived another year.

A negative impact on marginal businesses should not be confused with a negative impact on the economy as a whole. Sales lost from a failed enterprise create opportunities for gain by more successful competitors and cause little or no net impact in the aggregate.

Impacts on small businesses. There is no reason to believe that small business is especially sensitive to minimum wage increases. In fact, Fiscal Policy Institute [2006] found that businesses with fewer than 50 employees grew faster during 1998-2003 in states with high and increasing minimum wages than in states with low minimum wages.

Impacts on locally owned businesses. The Kansas economic development strategy [Kansas Inc., 2001] strongly supports Kansas startups (especially though not only in high tech), but otherwise does not place any specific importance on locally owned businesses. However, there are many good policy reasons for supporting a locally owned business; for example, its profits do not flow out of state, and its owners are more likely to take local community interests into account when making business decisions.

In general, theory suggests that locally-owned businesses would not respond any differently to minimum wages than similar out-of-state businesses operating in Kansas—with one exception. If there are negative impacts on economic development, and in particular if a functioning business considers moving out of the area to avoid the wage increase, attachments by the owner to the state or to the local community would weigh against moving out.

In terms of numbers of affected businesses, we didn’t locate any direct data on what share of

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<sup>24</sup> This would often correspond to an increase of 30% or more in the minimum wage, because many affected workers already had wages higher than the previous minimum, and consequently will receive a percentage increase smaller than the percentage increase in the minimum.

<sup>25</sup> If there are profitable opportunities to adopt labor-saving equipment, the losses would likely be even smaller.



Kansas business are locally owned, but it is substantial. In Kansas, some 97% of firms providing some 54% of private employment are businesses with less than 500 employees [U.S. Small Business Administration, 2006], and most small business is owned locally.

### *Impacts on workers and households that do not receive a direct or indirect wage increase*

In a full-employment economy, the extra income that a wage increase provides to low-wage workers is a transfer payment that has to come from someone else. Some of it shows up as reduced profits for businesses that rely on low-wage workers—but as suggested above that is likely to constitute a rather minor share overall. The major share shows up as price increases for goods and services produced by the low wage sectors. Impacts of these price increases are ultimately shared across all workers and households, and they amount to a small reduction in their real income.

Suppose for example that the minimum wage were raised for all Kansas workers by \$2.10/hour (equaling the federal increases now in progress). We can estimate the statewide payroll impact as a share of Kansas income as shown in Figure 3 (below).

Based on this model, the total loss of real income experienced by consumers everywhere would amount to less than 0.4 % of Kansas income. Moreover, because of economic linkages that extend throughout the U.S. economy, much of this impact would be borne by households residing outside of Kansas, leading to a net Kansas impact of less than 0.2% of income. Because the total impacts are a tiny share of the economy and are shared widely, the specific impact on any one household would not be noticeable.

### *Macroeconomic impacts*

Impacts on the distribution of income. Based on the models used in Section 3, nearly all of the positive impact of a \$2.10 minimum wage increase would be felt by workers in the bottom 20% of wage rates. Based on the model in Figure 3, an affected worker might receive a wage increase of around \$1.40/hour if directly affected, or \$.70/hour if indirectly affected, leading to an average increase of around a dollar an hour, which amounts to something like a 15% increase in pre-tax earnings. As a share of the wage rate of a median wage earner in Kansas, their wages might increase from around 50% to 58%.

Because workers have varying amounts of non-labor income and may belong to family units that include other workers with different wage rates, impacts on family income distribution are more complicated than impacts on wage distributions. Consequently the impacts of a minimum wage increase can extend into all deciles of household income.

Impacts on unemployment. Perfect-market economists predict that minimum wage increases will increase unemployment among low-wage workers. NeoKeynesian economists predict a possible reduction in unemployment (see Section 4). The empirical data reviewed in Section 5 suggest that employment impacts in either direction would be relatively small.

Impacts on growth and economic development. The literature suggests that impacts on economic development could go in either direction, but are likely to be small. Local governments with “low

**Figure 3:**  
**Payroll impact of a \$2.10 minimum wage increase, as a share of Kansas state income**

Number of directly affected workers: 105,000 (see Section 3)  
Assumed: the average share of minimum wage increase received by directly affected workers is 2/3\*  
Average hourly wage increase: \$1.40  
Average annual payroll impact per worker if they work 1500 hours on average: \$2100  
Estimated total payroll impact of directly affected workers: \$220 M

Number of indirectly affected workers: 135,000 (see Section 3)  
Assumed: the average share of minimum wage increase received by directly affected workers is 1/3\*\*  
Average hourly wage increase: \$.70.  
Average annual payroll impact per worker if they work 1500 hours on average: \$1050  
Estimated total payroll impact of indirectly affected workers: \$142 M

Estimated total payroll impact of directly plus indirectly affected workers: \$362 M  
Assumed: share passed on to consumer goods purchased by Kansans<sup>15</sup> is 40%.\*\*\*  
Total impact on Kansas consumers: \$145 M

Total Kansas household income in 2005: \$89 B  
Kansas consumer impact as share of household income: 0.16%

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\* This share must be between ½ and 1, assuming that the wage distribution is flat and that wage premiums above the minimum wage are only partially preserved.  
\*\* This share must be between zero and the previous share, assuming the wage distribution is flat and that portion of the wage premium retained declines with distance above the new minimum wage.  
\*\*\* If 80% of output went to consumption (and the rest to investment), a 40% domestic consumption share would imply an economic impact income multiplier of 2. Higher multipliers or investment shares would imply lower domestic consumption shares and hence lower impacts on Kansans.  
SOURCE: AAI.

road” strategies aimed at attracting low wage employers would send an inconsistent message if they adopted a minimum wage law. On the other hand, governments with clearly articulated “high road” strategies that adopt minimum wage laws send the consistent message that they expect people living in their community to have a relatively high standard of living.

*Region- and sector-specific impacts*

Impacts by major regions of Kansas. Table 5 shows that the share of workers affected by a federal minimum wage increase would average about 5 percentage points above the state level in non-metro rural and small town regions of Kansas, about 4 percentage points below the state level in Greater Kansas City, and about at the state level in other Metropolitan Statistical Areas.

Those differentials would lead to certain interregional cash flow differentials, which in the case of rural and small town areas can be approximated as follows. Each of these three regions contains about a third of all Kansas employees. Figure 3 estimates total new wages received by all affected workers in Kansas at around \$360M/year. Therefore the dollar impact of the

differential for rural and small town areas would be around  $(5\%)(1/3)(\$360M)$ , or around \$6M. When shared over a large rural region containing nearly a million people and most of the land area of the state, this amount of money is not economically significant.

The differential effects in other regions would be even less significant.

Impacts by sector. Table 4 shows that more than 58% of all affected workers are concentrated in just 3 industry-related occupational groups:

Food Preparation and Serving-Related  
Sales and Related  
Transportation and Material Moving.

Businesses in those industries might experience some noticeable short-run adjustments in prices, but for reasons given above one might reasonably expect to see no substantial long-term effects on output, employment, or profits.

Other affected workers are widely scattered across industries, leading to effects that are likely to be less significant.

Impacts of a Kansas state minimum wage increase. If Kansas increased its minimum wage to federal levels (say from \$2.65 to \$7.25), as noted in section 2 only relatively small numbers of workers would be affected (namely, those who are exempt from federal law but not exempt from Kansas law). Some workers covered by Kansas but not federal law are presently operating in the informal economy; for them there is little or no data, but compliance with the law in the informal economy would likely be incomplete at best. For those whose wages are reported to the authorities, Section 2 casts some light. About 17,000 Kansas workers were reported as receiving less than \$5.15/hour in 2006. However, some of these were nonexempt but paid a federal subminimum wage; they would not be affected by an increase limited to exempt workers. If the increase were so limited, the number of workers now earning under \$5.15 who would be affected is probably significantly less than 17,000. On the other hand, a number of exempt workers who were earning between \$5.15 and \$7.25 would also be affected, but no information is available on their numbers.

The main impacts would be felt in very small firms not engaged in interstate commerce. Other impacts would be on seasonal amusement or recreational establishments; very small weekly newspapers; newspaper delivery workers; casual babysitters; and persons employed as companions to the elderly or infirm.

Babysitting is an interesting case because much of it takes place in the informal economy. The U.S. Bureau of the Census [2005] estimates that about 2.5M U.S. children are in regular but informal (unlicensed) day care arrangements. A proportionate share for Kansas would be about 25,000 children. There is also a large additional demand for irregular or occasional babysitting. This suggests that Kansas has some tens of thousands of informal babysitters. Many of these are not covered by either federal or Kansas law because they receive less than \$1,300 per year from any one employer. However, some are covered—though we know of no evidence that the coverage is currently being enforced. Any increase in the minimum wage for babysitters would

be equally hard to enforce.

Impacts of a Kansas minimum wage higher than federal levels. For most sectors and firms, increases in the Kansas minimum wage above federal levels would have impacts little different from increases in the federal level.

Within Greater Kansas City, if the new Kansas minimum wage significantly exceeded the Missouri minimum wage, a few firms specializing in low-wage production might find it advantageous to relocate across the border into Missouri. However most low-wage firms are concentrated in businesses such as food and drink services and retailing that cannot easily relocate because they are attached to specific locations serving neighborhood markets. The Missouri minimum wage is currently \$6.50, but it is indexed to the cost of living. The federal minimum wage is scheduled to increase to \$7.25 in 2009, which will supercede the Missouri minimum for most workers. At that time, any such incentive to move across the border would be eliminated for most Kansas firms.

Impacts of a new city or county minimum wage. A local minimum wage higher than the federal minimum wage could have somewhat different impacts than a similar statewide minimum wage, mainly because of a limited number of additional opportunities for low-wage businesses to avoid the law by relocating outside the local jurisdiction.

## 7. Conclusions

From the point of view of the economy as a whole, perhaps the most interesting thing about the minimum wage controversy is how small the stakes actually are. Only the least well-paid 19% of workers are likely to feel any direct or indirect impact from the \$2.10 increase in the federal minimum wage now in progress. Because the increase is relatively small and low-wage workers receive a disproportionately small share of wages, the total dollar impact as a share of Kansas income is likely to be less than 0.2%. Note that this does not represent any increase or reduction in total income, but rather a transfer of a small portion of income to low wage workers from everyone else. The burden of this transfer will be widely distributed across all income groups and generally won't be noticeable.

While some of the firms that oppose an increase may have a special stake due to their heavy reliance on low wage workers, the size of the impacts they predict are often hard to credit. As argued in Section 6, initial impacts would typically be well under 3% of total costs, and these costs will tend to be offset by increases in market prices of the goods and services the firm produces. Moreover, the strongest opponents seem to be trade organizations (e.g. Kansas Chamber of Commerce [2003]) and journals (e.g. *Wall Street Journal* [2005]) that are differentially supported by large firms that already pay most of their workers well above the minimum wage. They would seem to be acting more from perfect-market ideology than from short-run self-interest.

Similar remarks apply to the proponents of a minimum wage increase. A relatively small share of workers actually stand to benefit. Moreover, those beneficiaries typically do not belong to any powerful lobbying groups capable of pushing through a minimum wage increase; for example, low wage workers are rarely unionized. Rather, the increases are lobbied through by organizations with ideological social justice motives, such as churches and labor unions (see e.g., the membership roster for Kansas Action Network [2007]).

It is hard to avoid concluding that the minimum wage controversy has very little to do with the economic impacts considered in this report. Instead, it relates to disputes about basic fairness.

Economic analysis can't arbitrate between competing concepts of fairness, but it can help clarify what those concepts are. Opponents of a minimum wage tend to believe that the negotiated outcomes of private contracts are fair by definition, and that any effort by government to change the terms of contracts is innately unfair. Perhaps the best articulation of this position is by Robert Nozick [1974]. Proponents of a minimum wage believe that a fundamental role of governments is to advance a common good which views all citizens as connected not just by economic ties, but also by ties of sympathy and compassion. As articulated in the Preamble to the U.S. Constitution, we do ordain and establish our government partly in order to promote the general welfare.

These competing visions for society are simply incommensurate. Consequently, the issue has to be resolved on political terms rather than through economic analysis. Increases in the minimum wage seem to be supported by large majorities of Americans [e.g., Superville, 2007], which suggests it will continue to be a politically live issue.

## References

- Aghion, Philippe; Eve Caroli; and Cecilia García-Peñalosa. 1999. "Inequality and Economic Growth: The Perspective of the New Growth Theories," *Journal of Economic Literature* XXXVII, December, pp. 1615–1660
- Bade, Robin; and Michael Parkin. 2003. *Foundations of Microeconomics, second edition*. New York: Addison Wesley
- Boskin, Michael J.; Ellen R. Dulberger; Robert J. Gordon; Zvi Griliches; and Dale W. Jorgenson. 1998. "Consumer Prices, the Consumer Price Index, and the Cost of Living," *Journal of Economic Perspectives* 12(14), Winter, pp. 159-177
- Brenner, Mark D. 2004. "The Economic Impact of Living Wage Ordinances," Political Economy Research Institute Working Paper, University of Massachusetts-Amherst (accessed July 20, 2007 at <http://www.epinet.org/briefingpapers/170/bp170.pdf>)
- Card, David; L. Katz; and Alan B. Krueger. 1994. "Comment on David Neumark and William Wascher, 'Employment Effects of Minimum and Subminimum Wages: Panel Data on State Minimum Wage Laws,'" *Industrial and Labor Relations Review* 48(3), pp. 487-496
- Card, David; and Alan B. Krueger. 1994. "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania," *American Economic Review* 84(4), pp. 772-793.
- Card, David; and Alan B. Krueger. 1995. "Time-Series Minimum-Wage Studies: A Meta-analysis," *American Economic Review* 85(2), May, Papers and Proceedings of the Hundredth and Seventh Annual Meeting of the American Economic Association Washington, DC, January 6-8, 1995, pp. 238-243
- Eckstein Zvi; and Éva Nagypál. 2004. "The Evolution of U.S. Earnings Inequality: 1961–2002," *Federal Reserve Bank of Minneapolis Quarterly Review* 28(2), December, pp. 10-29 (accessed July 29, 2007 at <http://www.minneapolisfed.org/research/QR/QR2822.pdf>)
- Economic Policy Institute. 2007. "EPI Issue Guide–Minimum Wage" (accessed January 30, 2007 at [http://www.epinet.org/content.cfm/issueguides\\_minwage](http://www.epinet.org/content.cfm/issueguides_minwage))
- Egan, Timothy. 2007. "For \$7.93 an Hour, It's Worth a Trip Across a State Line," *New York Times*, January 11
- Frank, Mark W. Undated, c. 2004. "Income Inequality and Economic Growth in the U.S.: A Panel Cointegration Approach" (accessed July 22, 2007 at [http://www.shsu.edu/~eco\\_www/resources/documents/IncomeInequalityandEconomicGrowth.pdf](http://www.shsu.edu/~eco_www/resources/documents/IncomeInequalityandEconomicGrowth.pdf))
- Fiscal Policy Institute. 2006. "States with Minimum Wages above the Federal Level have had

Faster Small Business and Retail Job Growth," (accessed July 23, 2007 at <http://www.fiscalpolicy.org/FPISmallBusinessMinWage.pdf>)

Gottschalk, Peter. 1997. "Inequality, Income Growth, and Mobility: The Basic Facts," *The Journal of Economic Perspectives* 11(2), Spring, pp. 21-40

Holland, David W.; Sanjoy Bhattacharjee; and Leroy Stodick. 2006. "Assessing the Economic Impact Of Minimum Wage Increases on The Washington Economy: a General Equilibrium Approach, " Washington State University School of Economic Sciences Working Paper # WP 2006-12, September 25 (accessed July 21, 2007 at <http://www.ses.wsu.edu/PDFFiles/WorkingPapers/WP2006-12.pdf>)

Kansas Action Network. 2007. "KAN Members" (accessed July 21, 2007 at <http://www.ksactionnet.org/kanmembers.htm>)

Kansas Chamber of Commerce. 2003. "Kansas Chamber's 1st No-Biz Award Goes to Big Labor's Campaign for So-called "Living Wage" in Lawrence, KS," News Release, July 9 (accessed July 21, 2007 at <http://www.kansaschamber.org/mx/hm.asp?id=pr070903>)

Lustig, Nora Claudia; and Darryl McLeod. 1997. "Minimum Wages and Poverty in Developing Countries: Some Empirical Evidence," Chapter Three in Edwards, Sebastian; and Nora Lustig, eds. 1997, *Labor Markets in Latin America*, Washington DC: Brookings Institution Press (accessed July 22, 2007 at [http://www.fordham.edu/economics/mcleod/Lustig&McLeod\\_small.pdf](http://www.fordham.edu/economics/mcleod/Lustig&McLeod_small.pdf))

Kansas Department of Labor. 2006. *Kansas Wage Survey, 2006 Edition* (accessed January 12, 2007 at <http://www.dol.ks.gov/LMIS/wagesurvey/wagesurvey.html>)

Kansas, Inc. 2001. *2001 Kansas Strategic Plan—Making the Knowledge Economy Work for All Kansans—Kansas Comprehensive Strategic Plan Update* (accessed September 9, 2006 at [http://www.kansasinc.org/strategic\\_report.shtml](http://www.kansasinc.org/strategic_report.shtml))

Lynch, Robert G. 2004. *Rethinking Growth Strategies: How State and Local Taxes and Services Affect Economic Development*, Washington, D.C.: Economic Policy Institute (accessed January 30, 2007 at [http://www.epinet.org/books/rethinking\\_growth\\_\(full\).pdf](http://www.epinet.org/books/rethinking_growth_(full).pdf))

Maag, Elaine. 2007. "Tax Credits, the Minimum Wage, and Inflation," Tax Policy Issues and Options 17, Urban-brookings Tax Policy Center No. 17, January 2007 (accessed July 20, 2007 at <http://www.urban.org/publications/311401.html>)

MacDonald, James M.; and Daniel Aaronson. 2000. "How Do Retail Prices React to Minimum Wage Increases?," Federal Reserve Bank of Chicago Working Paper WP 2000-20 (accessed July 21, 2007 at [http://www.chicagofed.org/publications/workingpapers/papers/wp2000\\_20.pdf](http://www.chicagofed.org/publications/workingpapers/papers/wp2000_20.pdf))

McKenzie, Richard B.; and Dwight R. Lee. 1991. "Government in Retreat," NCPA Policy Report No. 97, National Center for Policy Analysis, June (accessed July 23, 2007 at <http://www.ncpa.org/studies/s164/s164.html#b28>)

- Moulton, Brent R. 1996. "Bias in the Consumer Price Index: What is the Evidence?," *The Journal of Economic Perspectives* 10( 4), Autumn, pp. 159-177
- Neumark, David; and W. Wascher. 1994. "Employment Effects of Minimum and Subminimum Wages: Reply to Card, Katz, and Krueger," *Industrial and Labor Relations Review* 47(3), pp. 497-512
- Neumark, David, and Scott Adams. 2003. "Do Living Wage Ordinances Reduce Urban Poverty?," *Journal of Human Resources* 38(3), pp. 490-521
- Nozick, Robert. 1974. *Anarchy, State, and Utopia*, New York: Basic Books
- Pierce, Brooks. 1999. "Compensation inequality," Working Paper 323, Bureau of Labor Statistics, June (accessed July 29, 2007 at <http://www.bls.gov/ore/pdf/ec990040.pdf>)
- Willis, Robert J. 1986. *Wage determinants: A survey and reinterpretation of human*
- Superville, Darlene. 2007. "Poll finds strong support for minimum wage boost," *Oakland Tribune* Jan 3, Associated Press (accessed July 20, 2007 at [http://findarticles.com/p/articles/mi\\_qn4176/is\\_20070103/ai\\_n17091481](http://findarticles.com/p/articles/mi_qn4176/is_20070103/ai_n17091481))
- Swinney, Dan. 1998. "Building the Bridge to the High road--Expanding Participation and Democracy in the Economy to Build Sustainable Communities," Chicago IL: Center for Labor & Community Research (accessed July 20, 2007 at <http://www.clcr.org/publications/btb/8.2500.pdf>)
- U.S. Bureau of the Census. 2005. "Who's Minding the Kids? Child Care Arrangements: Winter 2002," October (accessed July 23, 2007 at <http://www.census.gov/prod/2005pubs/p70-101.pdf>)
- U.S. Bureau of the Census. 2007. "Small Area Income & Poverty Estimates for 2004" ( accessed February 5, 2007 at <http://www.census.gov/hhes/www/saipe/>)
- U.S. Bureau of Labor Statistics. 2007. "Characteristics of Minimum Wage Workers: 2006," (accessed October 20, 2007 at <http://www.bls.gov/cps/minwage2006.pdf>)
- U.S. Department of Labor. 2007. "Employment Law Guide Chapter: Minimum Wage and Overtime Pay," (accessed July 20, 2007 at <http://www.dol.gov/compliance/guide/minwage.htm>)
- U.S. Small Business Administration. 2006. "Small Business Profile: Kansas," (accessed July 23, 2007 at <http://www.sba.gov/advo/research/profiles/06ks.pdf>)
- Vassalotti, Amy. 2005. "How will an increase from \$6.75 to \$7.75 in the California minimum wage impact the California economy?," Spring, Institute of Industrial Relations, University of California, Berkeley (accessed July 23, 2007 at <http://www.iir.berkeley.edu/research/vassalotti.pdf>)
- Wall Street Journal*. 2005. "Job Slayers," lead editorial, August 27



Wolff, Edward N.; Ajit Zacharias; and Asena Caner. 2004. *Levy Institute Measure of Economic Well-Being: United States, 1989, 1995, 2000, and 2001*, Annandale-on-Hudson NY: The Levy Economics Institute of Bard College (accessed February 21, 2007 at <http://www.levy.org/modules/pubslib/files/limew0504.pdf>)