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September 2002

COLLECTIVE BARGAINING RIGHTS

Information on the Number of Workers with and without Bargaining Rights



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### **Abbreviations**

AFSCME	American Federation of State, County, and Municipal
	Employees
BLS	Bureau of Labor Statistics
CES	Current Employment Statistics Survey
CPS	Current Population Survey
INS	Immigration and Naturalization Service
IRCA	Immigration Reform and Control Act of 1986
NCS	National Compensation Survey
NLRA	National Labor Relations Act
SBA	Small Business Administration
SIC	Standard Industry Classification
SOC	Standard Occupational Classification
USDA	U.S. Department of Agriculture

# United States General Accounting Office Washington, DC 20548

September 13, 2002

The Honorable Edward M. Kennedy Chairman, Committee on Health, Education, Labor, and Pensions United States Senate

The Honorable Paul Wellstone Chairman, Subcommittee on Employment, Safety and Training, Committee on Health, Education, Labor, and Pensions United States Senate

In 1935, the federal National Labor Relations Act (NLRA),¹ also known as the Wagner Act, provided many U.S. workers the right to bargain over wages, hours, and other terms and conditions of employment with their employers, forming the framework for collective bargaining in the United States. The NLRA not only allowed workers to join together to form unions, but also required that employers recognize certified employee unions and bargain "in good faith." While the NLRA applied broadly to "employees," it and subsequent amendments excluded certain groups of workers from its coverage. Since then, other federal, state, and local statutes have provided rights to some persons in these excluded groups.

As Congress reviews the extent that American workers have bargaining rights, you asked us to determine and assess (1) how many workers have statutory collective bargaining rights<sup>2</sup> in the current civilian U.S. workforce, (2) the types and numbers of workers without such rights, (3) how the extent of collective bargaining rights among the workforce may have changed during the past 40 years and (4) the potential impact of

<sup>&</sup>lt;sup>1</sup>29 U.S.C. 151 et seq.

<sup>&</sup>lt;sup>2</sup>For this report, we consider statutes as providing "collective bargaining rights" if they not only permit individuals to join together and form unions, but also require employers to recognize employee organizations and to "bargain in good faith." Note that having collective bargaining rights does not necessarily imply the exercise of those rights through union membership or other forms of collective action. Although not statutes, in several instances we included workers who received rights through gubernatorial executive orders.

two recent Supreme Court decisions—the *Kentucky River* and *Hoffman Plastic* cases<sup>3</sup>—on the types and numbers of workers without collective bargaining rights.

To provide you with this information, we reviewed the NLRA of 1935 and subsequent amendments and Supreme Court decisions and National Labor Relations Board (Board) cases with regard to the scope of the act's coverage. We also identified and reviewed those other federal, state, or local statutes that provide collective bargaining rights to employees. We met with staff, Board members, and the General Counsel of the Board and outside organizations and experts to assist in our review. We then developed a methodology, using data from the February 2001 Current Population Survey (CPS) Supplement collected by the Bureau of the Census and from other data sets, to construct a quantitative estimate of the percentage of the labor force that currently has statutory collective bargaining rights. Our work was conducted between November 2001 and June 2002 in accordance with generally accepted government auditing standards.

### Results in Brief

We estimate that about three-quarters of the civilian workforce—or about 103 million of the approximate 135 million people in the labor force as of February 2001—had some form of collective bargaining rights from federal, state, or local statutes. Among the 115 million private sector workers, about 78 percent had bargaining rights, mostly from coverage under the NLRA. Coverage varied among industries, being the highest (90 percent) for the 20.4 million workers in the manufacturing sector. In general, coverage in the private sector was higher than that in the public sector, where about 66 percent of 20 million government workers had some form of collective bargaining rights, most often under state or local statutes.

In contrast, about 32 million civilian workers were without collective bargaining rights under any law, either federal or state. The largest groups without rights were about 8.5 million independent contractors; 5.5 million employees of certain small businesses; 10.2 million supervisory/managerial employees (including 8.6 million first-line supervisors); 6.9 million federal,

<sup>&</sup>lt;sup>3</sup>National Labor Relations Board v. Kentucky River Community Care, Inc., 532 U.S. 706 (2001) and Hoffman Plastic Compounds, Inc. v. National Labor Relations Board, 122 S.Ct. 1275 (2002).

state and local government workers; approximately 532,000 domestic workers; and 357,000 agricultural workers.

Our analysis of available data suggests that the proportion of the total labor force with collective bargaining rights has likely increased since 1959. Since 1959, no major group of workers has lost bargaining rights under the NLRA. However, other federal, state, and local laws have extended rights to some workers in the groups excluded from the NLRA, providing bargaining rights to about 14.5 million workers, primarily nonprofit health care workers; federal, state, and local government workers; and agricultural workers. In addition, because of inflation, there has likely been a decline in the proportion of the labor force employed in small businesses with annual dollar sales volumes too small to be under the Board's jurisdiction. While other excluded groups like managers and supervisors may have increased in size, it is unlikely that their growth was sufficiently large to offset the gains in the number of workers obtaining rights.<sup>4</sup>

Under two recent Supreme Court cases affecting Board decisions, some workers currently with bargaining rights may either lose bargaining rights or have their rights diminished. In the Kentucky River decision, the Supreme Court ruled that the Board should revise its test for determining whether a worker is a supervisor, an excluded group under the NLRA, finding that the Board's test served to categorically include certain employees as covered under the act. Because any future tests used by the Board to determine whether or not employees are supervisors should be less categorical and more case-specific, the Kentucky River decision could increase the number of employees considered supervisory and thus excluded from coverage under the act. The Board has not yet devised alternative tests in response to the decision, and given the case-by-case determination required by the Court, we are unable to estimate the number of employees that could potentially be deemed supervisors as a result of this decision. In the case of Hoffman Plastic, the Court reversed the Board's decision to award back pay to an undocumented alien worker who was fired for union activity. While the Court did not exclude undocumented alien workers from protection under the NLRA, per se, it prohibited the Board from awarding back pay to these undocumented alien workers whose rights had been violated, stating that this remedy would conflict with federal immigration law. Since back pay is one of the

<sup>&</sup>lt;sup>4</sup>For specifics on our methodology, see app. I.

major remedies available to workers for a violation of their rights, the Court's decision effectively diminishes the bargaining rights of such workers under the NLRA. Undocumented alien workers potentially affected by the *Hoffman* decision are estimated to number about 5.5 million.

### Background

The NLRA, enacted in 1935, is the cornerstone of labor relations and collective bargaining in the United States, providing the basic framework governing private sector labor-management relations. It provides employees the right to form unions and bargain collectively and requires employers to recognize employee unions that demonstrate support from a majority of employees and to bargain in good faith. The act includes the payment of back pay and the reinstatement of employment as remedies for certain violations of the act. It also created an agency called the National Labor Relations Board (Board) to administer and enforce the act. Subsequently, in 1947, the Taft-Hartley Act and the Landrum-Griffin Act in 1959 amended the NLRA, among other things, to clarify coverage under the NLRA, prohibit certain union activities, and set requirements on union governance. Together, these statutes established the basic policies and procedures under which most private sector collective bargaining still operates today.

Although the NLRA applies in general to all "employees," certain groups of workers are excluded from its provisions, either by express statutory language in the original act and its amendments or by Board or judicial interpretation. Among the groups of workers excluded from the act are (1) supervisors and managers; (2) independent contractors; (3) employees of certain small businesses; (4) domestic workers; (5) agricultural workers; and (6) federal, state, and local government employees. These

 $<sup>^{5}\!\</sup>text{Back}$  pay is monetary compensation, including interest, for the wages lost because of the violation.

<sup>&</sup>lt;sup>6</sup>Labor-Management Relations Act, ch. 120, 61 Stat. 136 (1947).

<sup>&</sup>lt;sup>7</sup>Labor-Management Reporting and Disclosure Act of 1959, P.L. 86-257 (1959).

<sup>&</sup>lt;sup>8</sup>Other groups of excluded employees include workers who are employees of a parent or a spouse, U.S. employees of international organizations like the World Bank, confidential assistants of labor relations managers, and lay teachers at religious schools. Because we were unable to accurately estimate the numbers of these workers in the total workforce using a national database, we have not included these groups in our estimates. However, we believe that the numbers of workers in these groups to be small, particularly in relation to the total workforce, and thus would not have a major impact on our overall estimates.

categories of excluded workers have been defined through various tests, which the Board can apply to determine coverage of the act. For example, the act sets forth a three-part test for determining supervisory status. Employees are statutory supervisors if (1) they hold the authority to engage in any 1 of 12 listed supervisory functions—hire, transfer, suspend, lay off, recall, promote, discharge, assign, reward, or discipline other employees or responsibility to direct them, to adjust their grievances, or effectively to recommend such action; (2) their exercise of such authority is not of a merely routine or clerical nature, but requires the use of independent judgment; and (3) their authority is held in the interest of the employer.

While the NLRA underpins much collective bargaining activity in the United States, other federal, state, and local statutes also provide bargaining rights to many individuals excluded from the NLRA, particularly government workers and agricultural workers. The bargaining rights and procedures under these statutes generally differ from those under the NLRA, with variation in important areas such as what may be bargained for, and how disputes are handled. For example, many state laws covering public employees prohibit the right to strike, while the NLRA does not.

# Three-Quarters of U.S. Workers Have Collective Bargaining Rights

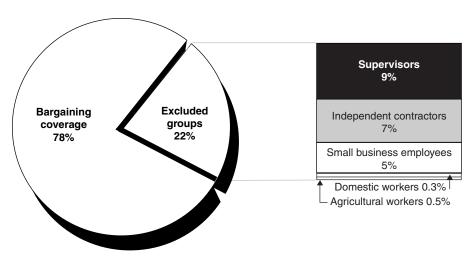
We estimate that about 103 million workers had collective bargaining rights in their primary job in February 2001. These workers constituted about 77 percent of the 135 million people in the civilian workforce. The percentage of workers with bargaining rights varied among industries and between the private and public sector. As certain workers are not covered under the NLRA but rather under various other federal, state, and local statutes, not all workers—particularly agricultural workers and public sector workers—have rights equivalent to those under the NLRA.

<sup>&</sup>lt;sup>9</sup>This estimate is for the entire workforce and includes workers who were both the employed and unemployed. For those workers who were unemployed, we determined whether they had rights or not on the basis of their most recent primary job.

<sup>&</sup>lt;sup>10</sup>In February 2001, the total workforce of full-time and part-time workers included about 141 million people aged 16 and above. From this total, we subtracted about 5.8 million people we classified as "self employeds"—those self-employed who were not independent contractors—resulting in a workforce of about 135 million people. (See app. I.)

Private Sector Coverage Varies by Industry while Public Sector Coverage Varies by State Nearly an estimated 90 million private sector workers had collective bargaining rights, about 78 percent of all persons who worked for private employers. (See fig.1.) The percentage of covered private sector workers varied by industry, with certain industries having coverage below 70 percent—agriculture/forestry, construction, and finance/real estate. Coverage also varied between the private and public sectors, with overall coverage among government workers (about 66 percent of 20 million workers) markedly lower than that among all private sector workers. Figure 2 compares the number of workers with bargaining rights with the total number of workers, by industry.

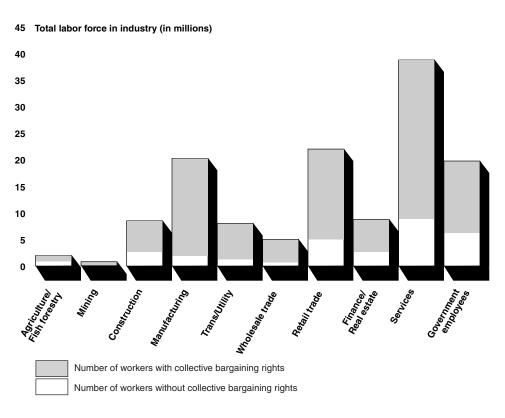
Figure 1: Private Sector Collective Bargaining Coverage and Key Groups with No Rights, February 2001



Source: GAO's analysis of February 2001 CPS Supplement, the 1997 Economic Census, and the 1997 Bureau of Labor Statistics National Compensation Survey.

<sup>&</sup>lt;sup>11</sup>An alternative methodology to counting the number of workers with rights would be to count the number of jobs covered by these laws. When we compared our CPS estimates with those from the job-based Current Employment Statistics survey, we found little difference in the percentage of the nonagricultural labor force with collective bargaining rights. (See app. I.)

Figure 2: Comparison of Number of Workers with Collective Bargaining Rights with Total Number of Workers, by Industry, February 2001



Source: GAO's analysis of February 2001 CPS Supplement.

Coverage varied largely with the proportion of excluded workers across each industry. However, in general, the industries with the lowest coverage rates were also those with a greater proportion of independent contractors. (See fig. 3.)

Figure 3: Percent of Work Force That Has Collective Bargaining Rights and Percent Who Are Independent Contractors by Private Sector Industry, February 2001

Work force that has collective bargaining rights

Industry workforce that are independent contractors

Among public sector workers, uneven coverage among states led to the relatively low percentage of workers with bargaining rights. While 26 states and the District of Columbia have laws that provide collective bargaining rights to essentially all public employees, 12 states essentially do not have any laws for collective bargaining among state and local

Source: GAO's analysis of February 2001 CPS Supplement and the 1997 National Compensation

Survey.

<sup>&</sup>lt;sup>12</sup>The 26 states are Alaska, California, Connecticut, Delaware, Florida, Hawaii, Illinois, Iowa, Maine, Massachusetts, Michigan, Minnesota, Montana, Nebraska, New Hampshire, New Jersey, New York, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Vermont, Washington, and Wisconsin. Delaware has an employer "opt-in" provision for local government employees in cities and towns with fewer than 100 employees. As with the NLRA, the state laws that provide collective bargaining rights to public employees often exclude various groups of employees (e.g., many states expressly exclude management officials) from coverage.

employees.<sup>13</sup> The remaining 12 states have laws that provide bargaining rights to specific groups of workers (e.g. state workers, teachers, or firefighters) but not to all state and local government workers.<sup>14</sup>

### Bargaining Rights Conferred under Other Laws Are Not Identical to Those under the NLRA

Among workers with bargaining rights, most are covered by the federal NLRA. However, other federal, state, or local statutes cover some private sector workers as well as those public workers who currently have rights. While some of these statutes provide broader rights than those available under the NLRA, other statutes offer substantially fewer rights than those provided by the NLRA. Although we did not attempt to either catalog or assess the other bargaining statutes, we did outline some of their key differences.

Within the private sector, airline and railroad employees have somewhat different collective bargaining rights than other workers. Airline and railroad employees are covered by the federal Railway Labor Act, <sup>15</sup> a law that predates the NLRA by 9 years. Among other differences, the Railway Labor Act applies to "all subordinate officials," thereby permitting many supervisory employees to join in collective bargaining.

While agricultural workers are excluded from the NLRA, nine states provide these workers with bargaining rights. However, these statutes vary from the NLRA's provisions. For example, in Arizona the state agricultural statute has different standards for bargaining unit determination than the NLRA. California also has different standards for bargaining unit

<sup>&</sup>lt;sup>13</sup>Twelve states do not have collective bargaining laws for public employees. They are Alabama, Arizona, Arkansas, Colorado, Louisiana, Mississippi, New Mexico, North Carolina, South Carolina, Texas, Virginia, and West Virginia. In addition, Texas prohibits collective bargaining for most groups of public employees. However, firefighters and police may bargain in jurisdictions with approval from a majority of voters.

<sup>&</sup>lt;sup>14</sup>These states are Georgia, Indiana, Idaho, Kansas, Kentucky, Maryland, Missouri, Nevada, North Dakota, Oklahoma, Tennessee, and Wyoming. Three of these states, Indiana, Kentucky and Missouri, extend collective bargaining rights to certain public employees through an executive order from the governor. Many public employees may be covered by local laws, for example, in Maryland they do not have a comprehensive law covering all public employees. All state employees are covered under state labor laws, but state statutes cover local employees only in certain counties. Local governments in Maryland may have their own ordinances giving local public employees collective bargaining rights, but these ordinances do not exist in every county.

 $<sup>^{15}45</sup>$  U.S.C. 151-188. Employees covered by the Railway Labor Act are excluded from the provisions of the NLRA. 29 U.S.C. 152(3).

determination than the NLRA and allows agricultural workers to use secondary boycotts, <sup>16</sup> actions prohibited under the NLRA.

Within the public sector, where federal, state, and local government workers rely on an array of federal, state, and local statutes for bargaining rights, most workers are prohibited from striking. Although some states allow certain workers the right to strike for at least some employees, <sup>17</sup> many states <sup>18</sup> provide compulsory binding interest arbitration (a procedure unavailable under the NLRA that requires an arbitrator to resolve differences in the event of an unsettled dispute between the union representing the employees and the employer).

# Over 32 Million Workers Do Not Have Collective Bargaining Rights

We estimate that about 32 million workers currently do not have any collective bargaining rights. These workers include over 25 million private sector workers—8.5 million independent contractors, 5.5 million employees of certain small businesses, 10.2 million managers and supervisors (including 8.6 million first-line supervisors), 532,000 domestic workers, <sup>19</sup> and 357,000 agricultural workers. Those groups without rights also include over 6.9 million federal, state, and local government employees. In general, these workers do not have bargaining rights under any federal or state statute. <sup>20</sup>

<sup>&</sup>lt;sup>16</sup>A secondary boycott is an organized refusal to purchase the products of, do business with, or perform services for (such as deliver goods) a company that is doing business with another company where the employees are on strike or in a labor dispute.

<sup>&</sup>lt;sup>17</sup>According to the American Federation of State, County, and Municipal Employees, a union that represents 1.3 million public employees, 11 states provide the right to strike to some public employees.

<sup>&</sup>lt;sup>18</sup>Twenty-one states and the District of Columbia have such provisions. In many cases, mandatory binding arbitration serves as a "quid pro quo" for the prohibition of strikes by public employees.

 $<sup>^{19} \</sup>rm These~532,000~domestic~workers~do~not~include~an~additional~126,000~domestic~workers~who~classify~themselves~as~independent~contractors.$ 

<sup>&</sup>lt;sup>20</sup>It is likely that some of these workers, particularly the employees of certain small businesses, have bargaining rights under state labor relations statutes. Eighteen states have state labor relations acts or "little Wagner Acts," modeled after the federal NLRA, and although many exclude the same groups as under the NLRA, some do not expressly exclude agricultural workers, supervisors, or independent contractors and only one excludes employees of small businesses. (See app. I.) Except for agricultural workers, we did not have sufficient information to determine the number of workers affected by these statutes.

About 7 Percent of Private Workforce Were Independent Contractors, Not Employees About 7 percent (8.5 million) of all private sector workers classified themselves as independent contractors<sup>21</sup> in February 2001. The percentage of independent contractors in private sector industries varied widely. For example, for the construction sector this figure was 19 percent and for the manufacturing sector it was 1.5 percent. (See fig. 3.) Although the NLRA specified that its provisions applied to employees,<sup>22</sup> it was not until the 1947 Taft-Hartley amendments that "independent contractors" were expressly excluded from the act. Traditionally, the Board and the Supreme Court have looked at the factual circumstances underlying the relationship between the worker and the employer to determine whether the worker is an independent contractor or an employee.<sup>23</sup>

About 5 Percent of Private Sector Workers Employed by Firms Too Small for Board Jurisdiction Although the NLRA provides the Board with broad jurisdiction, the Board's jurisdiction does not extend to retail employers with annual dollar sales volumes less than \$500,000 and many non-retail employers with sales volumes less than \$50,000. Since the standards were modified in 1958, the annual dollar sales volumes in the standards have remained unchanged.<sup>24</sup>

<sup>&</sup>lt;sup>21</sup>Using the February 2001CPS Supplement, we first subtracted the sole proprietors or self-employeds—those people identifying themselves as self-employed but not an independent contractor—from the labor force. For our group of independent contractors, we counted all persons who identified themselves as self-employed and as independent contractors or who were wage/salary workers and independent contractors. Independent contractors are defined as workers who typically have control and judgment over how contracted services are performed and, therefore, they decide the time and place the work is to be done, supply their own necessary tools and instruments, and have a risk of financial profit or loss. They also typically perform work that requires a particular skill not ordinarily used in the course of business.

<sup>&</sup>lt;sup>22</sup>However, according to the act, this shall not include any individual employed as an agricultural laborer or in the domestic service of any family or person in his or her home or in any individual employed by his or her parent or spouse.

 $<sup>^{23}</sup>$ To do this, the Board has considered factors such as a worker's autonomy to perform work and where the work is being performed. See *National Labor Relations Board v. United Insurance Co. of America*, 390 U.S. 254 (1968).

<sup>&</sup>lt;sup>24</sup>Since 1950, the Board has held that its jurisdiction does not extend to labor disputes involving certain small businesses. Requiring a "pronounced impact" on interstate commerce before it asserts federal jurisdiction, the Board set minimum standards for specific types of employers, generally stated in terms of a yearly sales volume. In 1959, however, the Landrum-Griffin amendments to the NLRA upheld the Board's interpretation of its jurisdictional thresholds, but limited such exclusions to the standards in effect as of August 1, 1959. Our analysis extended only to those industries with a specified dollar sales volume. (See app. I.)

We estimate in February 2001 that about 5 percent (5.5 million) of private sector workers were employed in firms with dollar sales volumes below the Board's jurisdictional reach. For most industries, the percentage of employees excluded under these standards is very small—less than 1 percent for mining, construction, and manufacturing. However for retail trade, the \$500,000 sales limit excludes about 12 percent of all workers in that industry (about 2.6 million workers). The standards also exclude 11 percent of the workers in the finance/real estate sector (mainly real estate brokers) and 4 percent of service workers. (See app. I.)

Supervisors and Managers Are the Largest Group of Employees without Collective Bargaining Rights We estimate that about 10.2 million<sup>25</sup> (including 8.6 million first-line supervisors) of 115 million private sector workers were either first-line supervisors or higher-level managers in February 2001.<sup>26</sup> This group comprised about 9 percent of the total private sector labor force. Although the original NLRA, as enacted in 1935, was silent on the exclusion of supervisors and management officials, early Board rulings interpreted the NLRA as excluding managers from its protections. However, whether supervisors—particularly the first-line supervisors (or the so-called "foremen")—should be excluded as managerial officials was much debated in the years following the enactment of the NLRA in 1935.<sup>27</sup> In 1947, the Taft-Hartley amendments to the NLRA specifically excluded supervisors from coverage of the NLRA.<sup>28</sup> The Board and the courts continue to interpret the act as excluding managers.

<sup>&</sup>lt;sup>25</sup>The 10.2 million estimate is based on 1997 NCS calculations on full-time employees. To the extent that part-time employees are also supervisors, the total number of employees in this group is underestimated. In addition, some managers and supervisors had already been excluded when we corrected for employees in those firms deemed too small for Board jurisdiction. We do not include them here to avoid double counting. (See app. I.)

<sup>&</sup>lt;sup>26</sup>In keeping with the 1997 NCS definitions, we define first-line supervisor as one who directs staff through face-to-face meetings and where performing the same work as subordinates is not the principal duty. Consistent with the NCS, we define second line supervisors as one who directs staff through intermediate supervisors. See James Smith, *Supervisory Duties and the National Compensation Survey*, in Compensation and Working Conditions, Spring 2000, and appendix I.

<sup>&</sup>lt;sup>27</sup>The Supreme Court's holding in *Packard Motor Car Co. v. NLRB*, 330 U.S. 485 (1947) that general foremen (supervisors and managers) were entitled as a class to bargaining rights under the NLRA served to spur the subsequent enactment of Taft-Hartley, which specifically excluded supervisors from coverage.

<sup>&</sup>lt;sup>28</sup>29 U.S.C. 152(11).

### Over One-Half Million Employees Excluded as Domestic Workers

Domestic workers—"domestic servants" employed by any homeowner or resident of the home in which the services are rendered—have been expressly excluded from NLRA since 1935. Moreover, most if not all states that enacted labor relations acts similar to the NLRA expressly excluded domestic workers.<sup>29</sup> In February 2001, there were about 658,000 domestic workers in private households. However, about 20 percent of these workers were classified as wage employees working as independent contractors. Therefore, in our analysis, these workers were counted as independent contractors, while the remaining 532,000 were considered domestic workers.

### About 357,000 Agricultural Workers Excluded from Bargaining Rights

In 1935, the NLRA excluded any individual employed as an "agricultural laborer." Due to the federal exclusion of agricultural laborers, nine states have either enacted a separate agricultural labor relations act (Arizona, California, Oregon, and Maine) or did not expressly exclude agricultural workers in a state labor relations act (Hawaii, Massachusetts, New Jersey, and Wisconsin), with one state (Kansas) in both categories. Thus, agricultural workers have obtained some collective bargaining rights under these state statutes. In February 2001, we estimate about 680,000 agricultural workers whose primary job included "any task associated with running or manufacturing a farm." Approximately 357,000 of these workers resided in a state that had some bargaining rights for agricultural workers. Thus, about one-half of all agricultural workers were without federal or state bargaining rights.

<sup>&</sup>lt;sup>29</sup>However, in California, the state labor code provides workers the right to organize into unions, and it has been held to apply to employees in a private household. See *Annenberg v. Southern California District Council of Laborers and its Affiliated Local 1184*, 38 Cal. App. 3d 637 (1974). We did not incorporate this or other state exceptions into our domestic worker estimate.

<sup>&</sup>lt;sup>30</sup>Subsequently, the definition of agricultural laborer was expanded to include not only crop workers but also workers who work on a farm in practices incidental to farming, such as packing produce for shipment from the farm. Because the number of workers matching the secondary definition is not available using national survey data, we limited our analysis of laborers to agricultural workers who work with crops and livestock. Thus, we may be overestimating the percentage of agricultural workers who have collective bargaining rights.

<sup>&</sup>lt;sup>31</sup>Our data are based on February 2001 employment levels. For most agricultural commodities, February represents the annual employment "trough." Employment in agriculture fluctuates significantly over the year and, in 2001, had an annual monthly average of about 745,000 individuals employed as agricultural laborers.

### About 6.9 Million Public Employees Do Not Have Bargaining Rights

We estimate that about 6.9 million federal, state, and local government workers out of about 20 million government workers did not have collective bargaining rights as of February 2001. These include about 900,000 federal employees who are not eligible to collectively bargain either because they are considered management employees or because they work for a noncovered agency. They also include state and local public employees in the 12 states without bargaining rights, and those in the 12 states where only some of the employees have rights. The other 13 million workers have some collective bargaining rights.

Federal, state, and local government workers were excluded from the NLRA in 1935. For many federal employees, the Federal Service Labor Management Relations Statute<sup>33</sup> provides collective bargaining rights, specifically for employees of most executive branch agencies as well as employees of the Library of Congress and the Government Printing Office. In addition, all but 12 states have some collective bargaining rights for at least one group of government worker, and 26 states as well as the District of Columbia have collective bargaining procedures that cover most public employees.

## Percentage of Total Labor Force with Bargaining Rights Likely Increased Since 1959

Our analysis of available data suggests that the proportion of the labor force with statutory collective bargaining rights has likely increased since 1959. Over this period, no major groups of workers have lost collective bargaining rights, and about 14.5 million workers have gained bargaining rights through the enactment of federal, state, and local laws. In addition, the proportion of the labor force employed in small businesses that are excluded from NLRA's jurisdiction has likely declined, because the standard for determining NLRA's jurisdiction dollar sales volume has not been corrected for inflation. While some excluded groups like independent contractors, managers, and supervisors may have increased in size, it is

<sup>&</sup>lt;sup>32</sup>Among the major agencies not covered include: the Federal Bureau of Investigation, the Central Intelligence Agency, the National Security Agency, the Tennessee Valley Authority, and the U.S. Secret Service. 5 U.S.C. 7103(a)(3).

<sup>&</sup>lt;sup>33</sup>5 U.S.C. 7101.

unlikely that their growth was sufficient to offset the gains in the number of workers obtaining rights.  $^{34}$ 

### About 14.5 Million Workers Gained Bargaining Rights Since Last Major Exclusion in 1959

The major categories of workers excluded from the NLRA—managers and supervisors, independent contractors, employees of small businesses affected by the Board's jurisdiction standards, agricultural workers, domestic workers, government workers, and workers covered by the Railway Labor Act—were all established by 1959. The original 1935 act excluded agricultural workers, domestic workers, government workers, and workers covered by the Railway Labor Act. Subsequently, supervisors and independent contractors were excluded in 1947, and between 1950 and 1959, the Board set size standards for determining which small businesses would be under its jurisdiction based on annual dollar sales volume.

Since 1959, federal, state, and local laws have extended rights to some of the groups excluded under the NLRA's coverage. Federal laws allowed many federal workers bargaining rights, and added nonprofit health care workers to those covered by the NLRA. State and local statutes provided bargaining rights to many state and local government workers, as well as to many agricultural workers. We estimate that about 14.5 million workers in today's workforce have bargaining rights as a result of the federal, state, and local laws enacted since 1959. (See table 1.)

<sup>&</sup>lt;sup>34</sup>We chose 1959 because it was the last year when major comprehensive amendments were made to the NLRA and when the Board jurisdiction standards were last revised. However, it may be that this analysis is sensitive to the comparison dates used. As one expert has pointed out, while the percentage of workers with bargaining rights has likely increased between 1959 and 2001, this might not be true, for example, for the period 1981 to 2001. By 1981, nonprofit health care workers and some agricultural workers had already gained rights, and major increases in public sector rights had also occurred. This would leave less growth to balance out any increase in excluded groups like independent contractors or supervisors. The early 1980s are considered an important period by some industrial experts because it heralded the economic restructuring of a number of key industries and a shift in the industrial relations policies of many employers. However, data were not available to address this concern.

Table 1: Number of Workers Receiving Collective Bargaining Rights from 1959 through February 2001

Years bargaining rights received	Worker group affected	Number of workers
1959-2001	State and local government workers	About 10,000,000 <sup>a</sup>
1978	Federal workers	1,500,000
1970 <sup>b</sup>	Postal workers	700,000
1972-1997	Agricultural workers	360,000
1974	Nonprofit health care workers	1,900,000
Total		About 14,500,000

<sup>&</sup>lt;sup>a</sup>A few states did confer collective bargaining rights to certain groups of public employees prior to 1959

Source: GAO's analysis, analysis of the February 2001 CPS Supplement and *Draft Comprehensive Transformation Plan*, U.S. Postal Service, October 1, 2001.

Net Increase Likely since 1959, Even with Growth in Some Major Excluded Groups Our analysis of available data on the key groups of employees excluded under the NLRA suggests that the extent of collective bargaining rights among the total civilian U.S. workforce has increased since 1959. The number and proportion of public employees and supervisors with bargaining rights increased over this period, and the effects of inflation on the Board's small business jurisdictional exclusions have likely reduced the number of small business employees excluded from the act. The proportion of the labor force with bargaining rights has increased even with the conservative assumptions that the percentage of the labor force in businesses excluded from the Board's jurisdiction has not changed since 1959, not correcting for the extension of bargaining rights to nonprofit health care workers. It also assumes that the proportion of the labor force excluded as independent contractors, managers, and supervisors had more than doubled over this period. (See table 2.)

<sup>&</sup>lt;sup>b</sup>Postal Reorganization Act, 39 U.S.C. 1001, provided collective bargaining rights to postal workers.

<sup>&</sup>lt;sup>35</sup>Regarding trends in private sector bargaining rights alone, increases in workers with rights in agriculture and health care and the effects of inflation on the Board's small business jurisdiction standards must be counterbalanced by increases in the percentage of the workforce that are independent contractors, supervisors, or managers. Data limitations, however, preclude a definitive answer.

Table 2: Net Effects of Changes in Excluded Groups on Percent of the Labor Force That Has Bargaining Rights, 1959 and 2001

Excluded group	Trend	Approximate percentage point change in labor force with bargaining rights since 1959
Public employees	About 12.2 million public employees have gained bargaining rights since 1959.	+9
Employees of small businesses excluded under Board jurisdiction standards	The number of workers affected by the Board's small business jurisdiction exclusion was about 4 percent of the total civilian labor force in 2001. The annual sales volumes required by the minimum standards for the Board's jurisdiction over a business have not been adjusted for inflation since 1959. For example, the current Board standard for retail employers of \$500,000 annual sales would be about \$3 million in 2001, if adjusted for inflation. In 2001, about one-third of all retail employees (over 7 million) worked for firms with annual sales under \$3 million, while only about 12 percent (about 2.6 million) work for firms with annual sales less than \$500,000. We assume no change in the percentage of the labor force excluded under these standards between 1959 and 2001, a conservative assumption.	0
Independent contractors	Comparable data on independent contractors for 1959 and 2001 are not available. We assume, conservatively, that the 6.5 percent of the 2001 total civilian labor force who were independent contractors had more than doubled since 1959, increasing 3.5 percentage points.	-3.5
Managers and supervisors	Although some evidence suggests that private sector managers and supervisors may have grown in number and as a share of the total civilian labor force over this period, little data are available on these groups for 1959 and 2001. We assume that the 7.5 percent of the 2001 total civilian labor force who were managers and supervisors had more than doubled since 1959, increasing 4 percentage points.	-4
Agricultural workers and domestic workers	Domestic workers were a small proportion of the labor force in 1959 and 2001. Virtually no agricultural workers had statutory bargaining rights in 1959 while about half of those workers had such rights in 2001. This would increase the percentage of the total labor force in 2001 that had bargaining rights. We assume, conservatively, that there was no change in the relative size of either group as a percent of the labor force since 1959.	0
Net effect since 1959		+1.5

<sup>a</sup>A few states did confer bargaining rights to certain groups of public employees prior to 1959. Data are unavailable to estimate the number of public employees in these states with rights prior to 1959. The percentage of the nonfarm civilian labor force that the public employees in these states comprised in 2001 was 0.5 percent, and we apply this same percentage to 1959.

blt is possible that industry shifts in the economy towards sectors where businesses are typically of smaller size could have led to a relative increase in the number of employees below the dollar limit and thus an increase in the number of employees without rights. Although, on balance, the sixfold increase in inflation since 1959 more than likely resulted in a net increase in the number of employees in smaller businesses with bargaining rights; we assumed no change in the relative size of this exclusion between 1959 and 2001.

<sup>°</sup>However, data on independent contractors suggests that this group exhibited no growth between 1995 and 2001. U.S. General Accounting Office, *Contingent Workers: Income and Benefits Lag Behind Those in Rest of Workforce*, GAO-00-76, June 30, 2000, Washington, D.C.

<sup>4</sup>Available evidence suggests that while managers and supervisors have increased significantly as a percentage of the labor force, they have not increased at the levels necessary to reduce the percent of the labor force that has collective bargaining rights. A recent Department of Labor study found that the percentage of supervisors in the services sector increased from 8.6 to 12.8 percent between 1969 and 1999, about a 67 percent increase. In retail trade, the percentage of supervisors increased from 7.5 to 12.0 percent between 1959 and 1999, a 63 percent increase. See U.S. Department of Labor, *The "New Economy" and Its Impact on Executive, Administrative and Professional Exemptions to the Fair Labor Standards Act* (January 2001).

Source: GAO's analysis of Bureau of Labor Statistics National Employment, Hours and Earnings data. 1959 and 2001.

### Two Recent Supreme Court Cases Could Affect Gains in Coverage over the Last 40 Years

Under two recent Supreme Court rulings, some workers currently with bargaining rights may either lose bargaining rights or have their rights diminished. The Kentucky River ruling affected the test that the Board uses to determine supervisory status, a status that can determine coverage of the act and, therefore, bargaining rights. The Court ruled that the Board's test was inconsistent with the NLRA in that it introduced a categorical restriction on the term "independent judgment," a key concept in the statutory definition of a supervisor. Because any future tests used by the Board to determine whether or not employees are supervisors should be less categorical and more fact-specific, the Kentucky River decision could have the effect of increasing the number of employees considered supervisory and thus excluded from coverage under the act. Given that the Board has not yet devised alternative tests in response to the opinion, we are unable to estimate the number of employees who could potentially be deemed supervisors as a result of this decision. In the Hoffman Plastic case, the Supreme Court ruled that undocumented alien workers were not eligible for back pay under the NLRA. This case did not exclude undocumented alien workers from coverage of the NLRA; however, because back pay is one of the major remedies available for a violation, this decision diminished the legal bargaining rights available to these workers under the act. We estimate that this group of workers potentially affected by this decision numbers about 5.5 million.

Kentucky River Requires a Determination of Supervisory Status on a Case-by-Case Basis

In the *Kentucky River* case, the Court ruled that the Board should revise its test for determining supervisory status, a status that can determine coverage under the act and, therefore, bargaining rights, for certain groups of employees, in this instance, charge nurses. Specifically, the case focused on the portion of this test that examines whether the nurses' exercise of supervisory authority is not merely routine, but requires the use of "independent judgment." A previous line of Board decisions stated that employees did not use independent judgment when they exercised "ordinary professional or technical judgment in directing less-skilled employees to deliver services in accordance with employer-specified

standards" and thus were not supervisors excluded by the act's coverage. The Board reasoned, in this line of cases, that judgment informed by professional or technical training or experience is not "independent," and thus, the employee should not be considered to be a supervisor.

The Court rejected the Board's test in determining supervisory status and held that for employees involved, the question of supervisory status turns on whether the employee is exercising independent judgment. This determination, according to the Court, must be based solely on the degree of judgment exercised by the employee, not the type of judgment, that is, professional or technical. For this group of employees, the Court would not accept an automatic or categorical finding that they are not supervisors; rather, on a case-by-case basis, the Board must focus solely on the degree of independent judgment that the employee exercises. The supervisors is a case-by-case basis, the Board must focus solely on the degree of independent judgment that the employee exercises.

Because any future tests used by the Board to determine whether or not certain employees are supervisors should be less categorical and more fact-dependent, the *Kentucky River* decision could have the effect of increasing the number of employees considered supervisory and thus excluded from coverage under the act. However, given the uncertainty of the Board's response to the opinion and the fact-intensive nature of the legal tests involved, we are unable to estimate the number of employees who could potentially be deemed supervisors as a result of the *Kentucky River* case.

<sup>&</sup>lt;sup>36</sup>While the Court clearly rejected the Board's approach in these cases, the Court pointed out that it falls within the Board's discretion to determine, within reason, what scope of discretion qualifies as independent so as to deem the employee a supervisor.

<sup>&</sup>lt;sup>37</sup>In considering the potential reach of this decision, it is important to note that the decision requires a change in how the Board will determine supervisory status for that group of employees who exercise "...ordinary professional or technical judgment in directing less-skilled employees to deliver services in accordance with employer-specified standards."

<sup>&</sup>lt;sup>38</sup>In a recent case, the Board applied a revised test, in accordance with *Kentucky River*, to determine supervisory status of certain tugboat pilots. Reversing an earlier decision, the Board found that these pilots exercised independent judgment in carrying out supervisory functions and thus were supervisors under the act. See *American Commercial Barge Line Company et al.*, 337 N.L.R.B. 168 (2002).

About 5.5 Million Undocumented Alien Workers Have Rights Diminished

The Supreme Court ruling in the *Hoffman Plastic* case reversed a Board decision awarding back pay, a key remedy under the NLRA, to undocumented alien workers. The case involved a Board decision concerning an employer's termination of an undocumented alien worker to rid itself of known union supporters, a violation of the act. The Board had ruled that the employer should award back pay and conditional reinstatement and, in doing so, applied the protections and remedies of the act to undocumented alien workers in the same manner as it does to other workers. The Supreme Court reversed this decision and ruled that back pay remedies cannot be awarded to an undocumented alien because such awards are in conflict with the Immigration Reform and Control Act of 1986 (IRCA), which makes it unlawful for employees to use fraudulent documents to establish employment.

To remedy a violation of the NLRA, the Board had traditionally found that unlawfully discharged employees were entitled to unconditional reinstatement with back pay to make them whole for any losses they may have suffered because of the unlawful layoffs. The Board maintained that the congressional objective of deterring unauthorized immigration embodied in IRCA and the labor law protections of the NLRA are complementary. Specifically, according to the Board, coverage of undocumented workers by the NLRA furthers IRCA's goals by helping to both ensure reasonable working conditions by decreasing competition from illegal aliens willing to accept substandard wages and employment conditions and to eliminate economic advantages—and thus incentives—to employers for hiring undocumented workers in preference to American citizens or alien employees working lawfully. The Board, therefore, concluded that awarding back pay effectuates the policies of both IRCA and NLRA.

While the Court acknowledged that the NLRA vests the Board with broad discretion in choosing an appropriate remedy where it has substantiated an unfair labor practice, the Court concluded that awarding back pay to

<sup>&</sup>lt;sup>39</sup>An undocumented alien worker is a non-U.S. citizen present in the United States in violation of the U.S. immigration laws, e.g., a person who entered the United States without being inspected by an Immigration officer or a non-U.S. citizen who entered legally but overstays or violates his or her immigration status.

<sup>&</sup>lt;sup>40</sup>The Board stated that the employer's reinstatement of the discharged workers is dependent upon the employer demonstrating appropriate documentation of eligibility for U.S. employment as required under the Immigration Reform and Control Act of 1986. See *A.P.R.A. Fuel Oil Buyers Group, Inc.*, 320 N.L.R.B. 408 (1995).

undocumented alien workers lies outside the limits of the Board's discretion. Although the Court's decision reinforces the goals of federal immigration policy, it diminishes the legal protections available to undocumented alien immigrant workers under the NLRA. Back pay is an important remedy under the act because it provides an incentive to report law-violating behavior and imposes financial penalties on an employer and job protection for the workers.

Adjusting year 2000 U.S. Census data on the foreign-born population, we estimate a total of 8.7 million undocumented immigrants, of which 7.1 million are between the ages of 18 and 65.<sup>41</sup> Applying an estimate that 77 percent of private sector workers have collective bargaining rights under the NLRA, we calculated that approximately 5.5 million unauthorized immigrants are in the workforce and have collective bargaining rights under the NLRA.<sup>42</sup> We were unable, however, to disaggregate this number by industry.

As agreed with office, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time we will send copies of this report to the chairman, members and general counsel of the National Labor Relations Board, the Secretary of Labor, and other interested parties. In addition, the report will be available at no charge on the GAO Web site at <a href="http://www.gao.gov">http://www.gao.gov</a>.

<sup>&</sup>lt;sup>41</sup>This estimate also includes persons in "quasi-legal" status, persons who cannot be conclusively determined as being in the country legally or illegally. (See app. I.)

<sup>&</sup>lt;sup>42</sup>We derived our 77-percent estimate for NLRA coverage from our total private sector coverage estimate of 78 percent and correcting for coverage under the Railway Labor Act. (See app. I for further details.)

If you or your staff should have any questions, please call me at (202) 512-9889. The major contributors to this report are Charles A Jeszeck, Assistant Director, who can be reached at (202) 512-7036; Nancy Peters, Analyst in Charge; Kara Kramer, Analyst; and Tom Beall, Paula Bonin, Mark Ramage, and Joan Vogel.

Robert E. Robertson

Director, Education, Workforce and Income Security Issues

# Appendix I: Methodology

### Overall Approach

Our methodology consists of a review of key statutes, National Labor Relations Board and U.S. Supreme Court decisions, a statistical analysis of several national representative data sets, and discussions with Board staff and officials and organizations that are active and familiar with bargaining rights outside of the National Labor Relations Act of 1935 (NLRA). The organizing concept for the review of key statutes and the statistical analysis was the NLRA (or the Wagner Act). We reviewed the original act and subsequent amendments, and Supreme Court and Board decisions to identify those segments of the labor force that were excluded from coverage under the act. We then conducted a review of other relevant federal, state, and local laws to identify those excluded workers who obtained bargaining rights from other statutes. We consulted with Board staff and representatives of several outside organizations for their technical advice. Once we completed this review, we used a variety of nationally representative data sets to construct a quantitative estimate. Using an estimate of the workforce in February 2001, we subtracted those groups of workers identified as excluded from the NLRA and then added back those groups of workers who obtained bargaining rights from other laws.

### Legal Review

The NLRA is the central law governing private sector labor management relations in the United States. We reviewed the NLRA and subsequent amendments to identify the key groups of employees who were excluded from coverage under the act. We also reviewed pertinent Supreme Court and Board decisions affecting the act's scope of coverage. In particular we analyzed *Kentucky River* and *Hoffman Plastic* Supreme Court decisions. We identified and reviewed those other federal state and local laws that provided certain bargaining rights to employees excluded from coverage under the NLRA. These include the Railway Labor Act and the Federal Service Labor-Management Relations Statute.

# Definition of Bargaining Rights

An important issue in this analysis is the definition of bargaining rights. There is variation in the rights provided under the NLRA, the Railway Labor Act and the many state and local laws governing collective bargaining. These differences span a host of issues, from the procedures governing representation elections, the right to strike, and binding arbitration, to the scope of bargaining and the remedies for violations. Although the right to strike could be considered part of a "core definition of bargaining rights," we based our definition on the concepts of union recognition—permitting individuals to join together and form unions and the requirement that employers recognize employee organizations—and

"good faith bargaining"—bargaining with intent to reach an agreement.<sup>1</sup> These are key elements of the rights granted under the NLRA.<sup>2</sup>

Different definitions of collective bargaining rights would likely lead to different empirical estimates of the percentage of the labor force that has bargaining rights. However, because of the predominance of the NLRA and the Railway Labor Act in the private sector, most of the differences among laws occur in the public sector. Thus, for many alternative definitions, for example, one based on the right to strike, the change in the percent of the labor force with rights would be largely limited to changes in the number of public employees who had this right.

# Workforce Estimations and Analysis

To develop our quantitative estimates of the number of workers with collective bargaining rights, we started with an estimate of the total labor force and then subtracted those groups of workers we identified as excluded from coverage under the NLRA. We then added back those groups of excluded workers who obtained bargaining rights from other statutes.

For our quantitative estimates, we relied on the February 2001 Current Population Survey (CPS) Supplement collected by the U.S. Bureau of the Census. We used the CPS to estimate the total percentage of workers in the civilian labor force with collective bargaining rights on their primary jobs because it is a nationally representative dataset that also has information available for independent contractors, a key group excluded from coverage under the NLRA. Using the CPS, we adjusted our estimates for six key groups excluded from coverage under the NLRA:

(1) supervisors and managers; (2) independent contractors; (3) employees of certain small businesses; (4); domestic workers; (5) agricultural workers; and (6) federal, state, and local government employees. We did not attempt to construct estimates for the other groups excluded under the NLRA, for example, religious organization employees and student employees, because reliable data were not readily available. Because these

<sup>&</sup>lt;sup>1</sup>This definition would exclude laws that only provide that parties "meet and confer."

<sup>&</sup>lt;sup>2</sup>This report does not assess the adequacy of the rights granted under the NLRA, in terms of fostering collective bargaining nor to how it compares with any international standards on collective bargaining or workers rights, nor the degree to which those rights are protected.

other groups are small, we believe that their exclusion from our estimates would have only a small effect.<sup>3</sup>

### Self-employed Persons and Independent Contractors

Using CPS data, we first subtracted out sole proprietors or the "selfemployeds"4—those persons identifying themselves as self-employed but not independent contractors—from our labor force estimates. Independent contractors are all those who were identified as independent contractors, consultants, and freelance workers in the supplement, regardless of whether they were identified as wage and salary workers or self-employed in the responses to basic CPS labor force status questions. For our group of independent contractors, we added together those persons identifying themselves as being self-employed and independent contractors and those who identified themselves as wage/salary workers and independent contractors and subtracted this total from the total civilian labor force. The CPS defines independent contractors as workers who typically have control and judgment over how contracted services are performed and, therefore, they decide the time and place the work is done, supply their own necessary tools and instruments, and have a risk of financial profit or loss. They also typically perform work that requires a particular skill not ordinarily used in the course of business. About 88 percent of independent contractors were identified as self-employed in the main questionnaire, while 12 percent were identified as wage and salary workers. Conversely, about half of the self-employed were identified as independent contractors. Workers identified as self-employed in the basic CPS are those workers who obtain customers on their own to provide a product or service.

<sup>&</sup>lt;sup>3</sup>The excluded groups we did not estimate include religious organization employees, employees of international organizations, children or spouses employed by parents or spouses, and student employees. Not estimating these excluded groups will tend to overstate the percentage of the labor force with bargaining rights. Employees covered by the Railway Labor Act and employees of nonprofit healthcare providers and educational institutions and are included in our estimates.

<sup>&</sup>lt;sup>4</sup>The sequencing of our analysis was an important consideration so that we could avoid potential double counting and potential overestimation of workers in particular excluded groups. We first subtracted the self-employeds and independent contractors out of the total labor force. We then calculated the number of employees excluded by the Board's jurisdictional standards on business size, then managers and supervisors and other groups.

Employees of Small Businesses with Annual Dollar Sales Volumes Below the Board Jurisdictional Limit Standards

Although the Board has broad jurisdiction under the NLRA, it typically declines jurisdiction over certain small employers with annual dollar sales volumes less than a specified level as well as employers who meet certain other criteria. (See table 3.) However, the CPS does not identify workers by firm size, where size is determined by annual dollar sales volume of the firm. To identify those employees who would be excluded under the Board's jurisdictional standards, we applied these sales volume standards to 1997 data we obtained from the Small Business Administration (SBA). SBA periodically requests that the Census calculate the number of employees employed by firms with specific dollar sales volumes, by industry classification. We chose the SBA data because this was the only dataset available that categorically separates each industry by volume of sales receipt. We chose data for 1997 because that was the most recent data available that still used the Standard Industrial Classification (SIC) code system of industry classification and thus would be comparable with the classification used in the CPS. The SBA data identifies the number of workers by firms' annual dollar sales volumes so that we were able to calculate the number of employees with and without bargaining rights according to the Board's jurisdictional standards. We estimated the exclusionary effect of the Board's small business jurisdictional standards by calculating a percent of employees in each industry who would be employed by a firm with annual dollar sales below the Board's standard and thus exempt under the Board's guidelines. We then applied these industry exclusion percentages to the February 2001 CPS Supplement estimates of the total number of workers in each industry classification, vielding a number of excluded workers for each industry classification.<sup>5</sup> (See fig. 4.) Once we estimated these excluded industry totals, we subtracted them from the CPS labor force total. Summing all of the industry totals provides an estimate of the total number of employees effectively excluded from NLRA coverage by the Board's jurisdictional

<sup>&</sup>lt;sup>5</sup>We applied the percentages derived from the 1997 SBA data to our 2001 CPS industry workforce estimates. To the extent that the distribution of small businesses across industries has changed demonstrably over the time interval, we may not have an accurate estimate of the number of workers excluded by these standards in 2001. However, SBA officials believe that the industrial distribution of small businesses changes very slowly over time so this should not be a major problem.

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standards.<sup>6</sup> We did not attempt to estimate those Board jurisdictional standards that did not specify an annual dollar sales volume.

#### Table 3: Minimum Annual Dollar Sales Volumes for Coverage under NLRA

Industry/economic activity	Minimum annual sales volume for NLRA jurisdiction
Nonretail industries	\$50,000
Retail	\$500,000
Office buildings and shopping centers	\$100,000
Public utilities	\$250,000
Newspapers	\$200,000
Radio and TV stations	\$100,000
Hotels, motels, apartments, and condominiums	\$500,000
National defense enterprises	Substantial impact on national defense, irrespective of whether other standards are met.
Employer association	If any member meets other jurisdictional standards or the combined operations of all members meet any such standard.
Single employer engaged in multiple enterprises	Overall operations meet any standard.
Instrumentalities links and channels of interstate commerce	\$50,000
Other transit systems <sup>a</sup>	\$250,000
Restaurants and country clubs	\$500,000

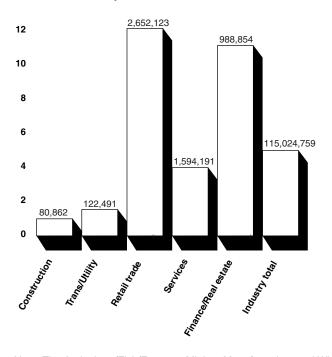
<sup>&</sup>lt;sup>a</sup>Local and suburban transit, interurban highway passenger transportation, and transportation utilities. The Board also extends NLRA jurisdiction to secondary employers involved in labor disputes.

Source: Hardin, P. (1992). Developing Labor Law: The Board, the Courts, and the National Labor Relations Act. Bureau of National Affairs.

<sup>&</sup>lt;sup>6</sup>The total number of employees excluded under the Board's jurisdictional standards also includes supervisors and managers in those firms; these employees would still be excluded from NLRA coverage even if there were no Board jurisdictional limits. Assuming that the percent of supervisors in these small businesses was the same as our estimate for the labor force as a whole, about 9 percent or about 500,000 employees in these excluded small businesses would be excluded under NLRA's supervisor/manager exclusion.

Figure 4: Percentage of Workers Affected by the Board's Dollar Sales Volume Standards, by Industry, February 2001

#### 14 Percent of industry work force



Note: The Agriculture/Fish/Forestry, Mining, Manufacturing, and Wholesale Trade industries all had less than 1 percent of their workers excluded by the Board's jurisdictional standards. The numbers in the chart refer to the estimated number of workers affected by the Board's jurisdictional standards in February 2001.

Source: GAO's analysis of February 2001 CPS Supplement, 2000 Economic Census, and the 1997 NCS

### Supervisors/Managers

The NLRA also excludes managers and supervisors from coverage. To estimate the percentage of managers and supervisors by industry, we used data from the 1997 Bureau of Labor Statistics' National Compensation

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Survey (NCS). The NCS provides recent nationally representative employer-reported data on job duties at the establishment level, permitting the estimation of the number of jobs in a particular industry that are supervisory or managerial in nature. Among the information collected in the job survey is a ranking or leveling factor measuring supervisory duties. This factor is designed to account for the additional responsibilities of supervisors and to indicate the hierarchical level of the positioning of the organization. Using this generic leveling factor, jobs are classified according to their supervisory duties. (See table 4.)

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<sup>&</sup>lt;sup>7</sup>BLS collects data for the NCS from more than 16,000 establishments, weighted to represent more than 335,000 establishments employing almost 67 million workers. When an establishment is first surveyed, specific jobs are selected through a sampling procedure and then classified to an appropriate occupation. The work level of the particular job is established by assessing the duties and responsibilities of the job according to the survey's nine generic leveling factors: (1) knowledge, (2) supervision received, (3) guidelines, (4) complexity, (5) scope and effect, (6) personal contacts, (7) purpose of contacts, (8) physical demands, and (9) work environment. Each factor contains a number of levels, and every level has an associated description and point value. See James Smith, Supervisory Duties and the National Compensation Survey, Compensation and Working Conditions, Spring 2000.

Level	Definition
Team leader, group leader, or lead worker <sup>a</sup>	Employee sets pace of work for the group and shows other workers in the group how to perform assigned tasks. He or she performs the same work as the group in addition to lead duties.
First line supervisor	Directs staff through face-to-face meetings. Organizational structure is not complex, and internal and administrative procedures are simple. Performing the same work as subordinates is not the principal duty.
Second line supervisor	Directs staff through intermediate supervisors. Internal procedures and administrative controls are formal. Organization structure is complex and is divided into subordinate groups that may differ from each other as to subject matter and function.
Third line supervisor	Directs staff through two or more subordinate supervisory levels with several subdivisions at each level. Programs are usually interlocked on a direct and continuing basis with other organization segments, requiring constant attention to extensive formal coordination, clearances, and procedural controls.

Note: An additional leveling factor is no supervisory responsibilities. This category would include line workers.

<sup>a</sup>Team leaders, group leaders, or lead workers are considered in the NCS as representing nonsupervisory positions. Based on the NCS, there are approximately 3.4 million private sector full-time employees who would fall into the "team leader" category, including 1.7 million team leaders in professional and technical occupations. Team leaders include employees in professional and technical occupations who may exercise considerable independent judgment. Professional and technical occupations have a much higher percentage of team leaders than first line supervisors; examples of these occupations would include registered and licensed practical nurses, computer systems analysts, and computer scientists.

Source: James Smith, *Supervisory Duties and the National Compensation Survey*, Compensation and Working Conditions, Spring 2000.

We obtained NCS-based estimates of the supervisory level percentages for wage and salary employees with full-time status by industry. We then applied these percentages to the CPS full-time workforce estimates by industry to estimate the number of full-time managerial and supervisory employees. We defined supervisors as first-line supervisors and managers as second-line and third-line supervisors.

We assume the industry percentage of supervisors applies to all firms in an industry regardless of size. To avoid double counting, we applied the NCS industry level supervisor percentages to the CPS total labor force estimate of full-time wage and salary workers by industry net of the small business

exclusion.<sup>8</sup> To calculate the percentage of workers excluded as managers and supervisors, we divided the total number of full-time supervisors by the total number of private sector employees. To the extent that managers and supervisors are part-time employees, we underestimated the total number of employees in that category, although we believe that this number is small.

The NCS, while it provides reasonable data to estimate the number of supervisors excluded under the NLRA, has several limitations. The NCS data used in this report were collected in 1996 and thus may not completely reflect the hierarchical structure of establishments in 2001. In addition, the NCS data are based on a description of jobs, and while reasonable conceptually, it is not strictly comparable with our worker-based estimates from the CPS. In addition, there were certain occupations that could not be leveled (e.g., musicians), and there are some small groups of jobs that were restricted to a certain level (e.g., personnel managers were restricted to supervisory duties of the first tier or higher). However, we believe that these limitations are probably not large enough to have a significant effect on our estimate.

### **Domestic Workers**

The NLRA excludes coverage of domestic workers. Using the February 2001 CPS, we estimated the number of domestic workers to be excluded by first focusing on the personal service/private household (SIC 761). Within that SIC, we then defined domestic workers as employees in the following Standard Occupational Classification (SOC) codes: laundry/ironers: 403, cooks 404, child-care providers 406, and cleaner/servant/housekeeper 407. We summed the total number of employees in these SOC codes to estimate the number of those excluded in this category and then subtracted them from the CPS total labor force. 9

### **Agricultural Workers**

Using the U.S. Department of Agriculture (USDA) definition for "hired hands," we estimated all excluded agricultural workers from the CPS

<sup>&</sup>lt;sup>8</sup>The Railway Labor Act has a different definition of supervisor than the NLRA. For those industries covered by the Railway Labor Act, we defined supervisors as second-level supervisors and managers as third-level supervisors.

<sup>&</sup>lt;sup>9</sup>Because of sampling limitations, we did not correct our estimated number of domestic workers by subtracting those domestic workers, for example, those in California, who might have rights under other laws. Making such a correction would slightly increase the percentage of the labor force that has collective bargaining rights.

estimates for agricultural wage and salary workers. <sup>10</sup> USDA defines hired hands as SOC 475 for managers, farms, excluding horticultural; 476 for managers, horticultural specialty farms; 477 for supervisors, farm workers; 479 for general farm workers; and 484 for general nursery workers. We used these same SOC codes as a definition to exclude agricultural workers from the workforce in the CPS. Because nine states have separate laws that give agricultural laborers bargaining rights with either (1) an agricultural labor act<sup>11</sup> or (2) private employer labor relation acts without exclusion of agricultural workers, <sup>12</sup> we added the estimates of agricultural workers from these states back into the total estimate to account for state and local laws. The estimated number of total agricultural workers in the CPS is likely low because the CPS tends to undercount agricultural workers and February is often the low employment month for many crops. It is unclear how these factors affect our estimate of the number of agricultural workers with collective bargaining rights.

### Public Employees

Although the NLRA excludes public employees from coverage, many public employees have rights under other laws.<sup>13</sup> To estimate the number of state and local public employees with rights, we used data from the

<sup>&</sup>lt;sup>10</sup>USDA conducted its research using the CPS as a basis to define agricultural workers and also uses the National Agricultural Statistical Survey to estimate and describe this population. We chose USDA's definition because it is derived from a 12-month data filing method to calculate the number of agricultural workers in the United States so that we would be able to separate the number of agricultural workers in February to correspond with our data. See J. Runyan, *USDA*, (2001), which also includes annual demographic and geographic averages of these workers.

<sup>&</sup>lt;sup>11</sup>These states are Arizona, California, Oregon, Kansas, and Maine.

<sup>&</sup>lt;sup>12</sup>These states are Hawaii, Massachusetts, New Jersey, Wisconsin, and Kansas.

<sup>&</sup>lt;sup>13</sup>Prior to 1995, the Board declined jurisdiction over employers whose employees worked under a contract with a government entity, i.e., an entity not covered by the NLRA, where the employer/contractor lacked control over the essential terms and conditions of employment. See *Res-Care*, *Inc.*, 280 N.L.R.B. 670 (1986). The Board no longer limits its jurisdiction in this way. *Management Training Corporation*, 317 N.L.R.B. 1355 (1995). In this report, such workers are treated as private sector employees.

2000 Census Annual Survey of Government Employment, 14 a data source that provides detailed information on state and local government employees. We applied all of the state and local laws that excluded certain occupations from coverage—in many cases police officers, firefighters, and teachers—to estimate a percentage of workers with collective bargaining rights within those occupations. 15 We applied a similar methodology for federal employees. Starting with the CPS estimates for the total number of federal employees, we first subtracted the number of employees in the legislative and judicial branches of government and in the U.S. Postal Service, using their relative shares of federal employment as estimated in using the Federal Civilian Workforce Statistics: Employment and Trends as of March 2001. We then adjusted for those agencies, for example, the Central Intelligence Agency, who have been exempted from bargaining rights. 17 We then calculated the percentage of federal employees who were managers or supervisors using the September 2001 Office or Personnel Management's Central Personnel Data File (CPDF) and reduced the remainder by the number of exempted manager and supervisors in the executive branch workforce. 18 For postal workers,

<sup>&</sup>lt;sup>14</sup>The U.S. Census Annual Survey of Government Employment provides data on full-time and part-time government employment. The survey reports on hours worked and payroll statistics by type of government (state, county, city, township, special district, school district) and by government function (elementary and secondary education, higher education, police protection, fire protection, financial administration, other government administration, judicial and legal, highways, public welfare, solid waste management, sewerage, parks and recreation, health, hospitals, water supply, electric power, gas supply, transit, natural resources, correction, libraries, air transportation, water transport and terminals, other education, state liquor stores, social insurance administration, and housing and community development). See *The U.S. Census Annual Survey of Government Employment 2001*.

<sup>&</sup>lt;sup>15</sup>For purposes of enumeration, we counted as having collective bargaining rights those public employees in three states who obtained rights meeting our definitional criteria from a gubernatorial executive order, rather than a statute. In those states with collective bargaining laws that include an "opt-in" provision, we also counted as having rights those employees who received rights from public employers who actually opted to provide those rights.

<sup>&</sup>lt;sup>16</sup>Federal Civilian Workforce Statistics: Employment and Trends as of March 2001, U.S. Office of Personnel Management, OMSCE-OW1-05-01, May 2001.

<sup>&</sup>lt;sup>17</sup>We assumed this estimate to be about 15 percent of the federal workforce. However, we did not review all federal agencies to identify those workers who are exempted. Furthermore, for some of these agencies, like the National Security Agency, the employment levels are unavailable. See *Federal Civilian Workforce Statistics: Employment and Trends as of March 2001*, U.S. Office of Personnel Management, OMSOE-OW1-05-01, May 2001, note on p. 7.

<sup>&</sup>lt;sup>18</sup>This estimate from the CPDF was 12.6 percent.

we applied the percentage of the postal workforce estimated by the U.S. Postal Service to be management employees and then added the remainder back to the number of net non-postal federal workers to obtain a total number of federal employees with bargaining rights.<sup>19</sup>

### Definitional Differences Between the CPS, NCS, and NLRA

While our datasets define many of the employee categories relevant to the NLRA, few of these groups are definitionally identical to those specified in the NLRA. (See table 5.) For example, although we were able to use the NLRA's definitions to estimate the number of employees excluded by the Board's small business jurisdictional standards, the definitions of independent contractors, supervisors, and agricultural workers from the datasets that we used are not identical to the NLRA's definitions. To the extent that the definitions of these groups we use in our datasets operationally diverge from the NLRA, our estimates may not accurately capture the size of the NLRA's defined groups. However, we believe that there is considerable overlap between the two sets of definitions and that there is no systematic bias that we can identify in using the CPS and other datasets to estimate the NLRA categories.

 $<sup>^{19}</sup>$  This estimate was 10.8 percent. See Draft Comprehensive Transformation Plan, U.S. Postal Service, October 1, 2001, p. 19.

Table 5: Comparison of NLRA Definitions of Private Sector Excluded Groups and Those Used in GAO's Quantitative Estimates

Excluded group	NLRA definition	Definition Used in quantitative estimates
Independent contractor	An independent contractor relationship is determined by applying the common law agency test and considering all incidents of the individual's relationship to the employing entity. See <i>NLRB v. United Insurance Co. of America</i> , 390 U.S. 254 (1968); <i>Roadway Package System</i> , Inc., 326 N.L.R.B. 842 (1998); and <i>Dial-a-Mattress Operating Corp.</i> , 326 N.R.L.B. 884 (1998).	Wage and salary workers or self-employed in the CPS who answered affirmatively to the question, "Last week, were you working as an independent contractor, an independent consultant, or a free-lance worker? That is, someone who obtains customers on their own to provide a product or service."
Supervisor/manager	A supervisor is one who has the authority, in the interest of the employer, to hire, transfer, suspend, lay off, recall, promote, discharge, assign, reward, or discipline other employees or responsibly to direct them, or to adjust their grievances, or effectively to recommend such action, if such authority is not merely of a routine or clerical nature, but requires the use of independent judgment. 29 U.S.C. § 152(11).  A managerial employee is one who formulates and effectuates management policies by expressing and making operative the decisions of their employer, who exercises discretion within, or even independently of, established employer policy, and who is aligned with management. NLRB v. Yeshiva University, 444 U.S. 672 (1980).	First, second and third-line supervisors as defined in table 4.
Domestic worker	A domestic worker is one whose employment falls within the commonly accepted meaning of the term "domestic servant." <i>Ankh Services, Inc.</i> , 243 NLRB 478 (1979); 29 U.S.C. § 152(3).	Employees in SOC codes 403: laundry/ironers 404: cooks, 406: child-care providers, and 407 cleaner/servant/housekeeper, employed in SIC code 761, personal service/private household.
Agricultural worker	An agricultural worker is one who engages in farming in all its branches, including the cultivation and tillage of the soil, dairying, the production, cultivation, growing, and harvesting of any agricultural or horticultural commodities, the raising of livestock, bees, fur-bearing animals, or poultry, and any practices (including any forestry or lumbering operations) performed by a farmer or on a farm as an incident to or in conjunction with such farming operations, including preparation for market, delivery to storage or to market or to carriers for transportation to market. National Labor Relations Board Appropriation Act, 60 Stat. 698, ch. 672, Title IV (1947), referring to the Fair Labor Standards Act, 27 U.S.C. § 203(f).	"Hired hands" defined as SOC Codes 475: managers, farms, excluding horticultural; 476: managers, horticultural specialty farms; 477: supervisors, farm workers; 479: general farm workers; 484: general nursery workers.
Employees of certain small businesses	See table 3.	Same annual sales dollar volume.

Source: GAO legal analysis and definitions from selected datasets.

# Estimation of the Number of Undocumented Alien Workers

We also constructed an estimate of the undocumented alien immigrant population that could have their rights diminished by the *Hoffman Plastic* decision. To construct this estimate, we used the U.S. Census Bureau's estimated number of 8.7 million for the residual foreign-born population (see table 6) and adjusted it for a variety of factors.<sup>20</sup> First, to estimate the number of eligible workforce participants, we counted only those above the age of 18 and below 65 in the 8.7 million number, yielding a total of about 7.1 million persons. (See table 6.) We then accounted for the percent that are likely to be covered by collective bargaining rights in the workforce. We apply an estimate of the private sector labor force covered by the NLRA of 77 percent to obtain an estimate of about 5.5 million persons (5,485,538). Although the bulk of this estimate contains undocumented alien workers, it also includes a small group of so-called quasi-legal residents; persons who are in a variety of transitional immigrant categories but at the time do not have explicit legal or illegal status.21

<sup>&</sup>lt;sup>20</sup>This residual foreign-born population is not an estimate of the number of unauthorized immigrants. This estimate also includes people who are here legally but are not yet included in the official estimates of legal migrants and refugees. Because the method was derived from a residual methodology, any limitations in the methods or in the measurement of other migration components are reflected in the residual number. For a discussion of issues in estimating undocumented alien workers see Lindsay Lowell and Robert Suro (2002). How Many Undocumented? The Numbers Behind the U.S.- Mexico Migration Talks. The Pew Hispanic Center. Bean, F., R. Corona, R. Tuiran, K. Woodrow-Lafield and J. Van Hook. (2001). Circular, Invisible, and Ambiguous Migrants: Components of Difference in Estimates of the Number of Unauthorized Mexican Migrants in the United States. Demography 38:411-422. Passel, Jeffrey S., Estimates of Undocumented Immigrants Living in the United States: 2000, The Urban Institute. August 2001.

<sup>&</sup>lt;sup>21</sup>The Census estimates the quasi-legal migrant population to be approximately 1.7 million. This estimate includes refugees (who have not yet adjusted status) and asylum applicants (awaiting claim adjudication) (200,000 and 400,000, respectively), migrants deported during the decade (200,000), and population legalizing (adjusting status) during the decade (900,000).

Table 6: Census Level Estimates of the Foreign-Born Population by Migrant Status in 2000

Migrant status	Number
Foreign-born population	31,098,945
Legal immigrants	21,612,023
Temporary immigrants	781,507
Residual foreign-born	8,705,419°

<sup>&</sup>lt;sup>a</sup>The residual foreign-born estimate also includes people in quasi-legal status who are awaiting action on their legal migration requests.

Source: J. Gregory Robinson. ESCAP II: Demographic Analysis Results (2001). U.S. Census Bureau.

Table 7: Estimates of Residual Foreign-Born by Age

Age of work eligible	work eligible Total number of persons in that age group	
18-29	3,483,802	
30-49	2,605,123	
50+	627,538	
50-64	407,613	
Total	7,124,076	

Note: The number of persons in each age group includes persons of all races.

Source: Costanzo, J., Davis, C., Caribert, I., Goodkind, D., and Ramirez, R. Estimating the Residual Foreign Born Population in 1990 and 2000. U.S. Census, Population Division. May 2002.

There were several limitations to consider when determining the estimate of undocumented alien immigrants due to the characteristics and circumstances of this population. We include the quasi-legal population in the residual foreign-born estimate because it includes people who are waiting for action to be taken on their legal migration requests. We included this group in our total estimate because they were assumed to be illegal at the time they were counted in the Census.<sup>22</sup>

To obtain an estimate of the workers affected by the *Hoffman Plastic* decision, we assumed that the distribution of undocumented alien workers across industries was identical to that of the total civilian labor force. Our methodology for the entire workforce was conducted in February 2001 while the Census estimates are for the entire year of 2000. In addition,

<sup>&</sup>lt;sup>22</sup>We also assumed that this group continuously replaces itself by new quasi-legal immigrants of similar characteristics who are awaiting legal action on their migration requests so it would not affect our estimates of the total work eligible population.

although undocumented alien workers are likely not to be distributed in this manner, it is unclear what their distribution is. For example, undocumented alien workers are probably less likely to be employed in government employment, although they may be more likely to work in small businesses that are exempt from Board jurisdiction and as domestic workers. In addition, we based our assumption that the percentage of private sector workers with collective bargaining rights under the NLRA (77 percent), on our private sector estimate of 78 percent, and then corrected for coverage under the Railway Labor Act. 23 However, there is a high percentage of undocumented alien workers in agriculture, another industry excluded from the NLRA, suggesting that the 77 percent may be an overestimate. On the other hand, undocumented workers may be more likely to be rank and file workers rather than supervisors and thus covered by the NLRA. We also assumed 100 percent Census coverage of the foreign-born population, although, historically, Hispanic populations have been undercounted in the Census, and the majority of undocumented alien immigrants are of Hispanic origin. Such an undercount would imply that our estimate is an undercount as well. However, there is currently no available data on the size of the undercounted population in the Census.<sup>24</sup> On balance, the 77-percent estimate appears to represent a reasonable approach.

Estimates of the Percentage of the Labor Force with Collective Bargaining Rights Based on "Jobs" Data We chose to estimate the percentage of the labor force with bargaining rights using data based on persons because bargaining rights is a concept associated with persons and not jobs. However, because some workers are multiple jobholders, it is possible that deciding whether workers have rights on the basis of their primary job could result in discrepant misclassifications. <sup>25</sup> An alternative methodology would be to identify those jobs that would confer rights to individuals. Using the 2001 Current Employment Statistics Survey (CES) that collects information through the

<sup>&</sup>lt;sup>23</sup>Using the CPS Supplement, there were approximately 1.3 million workers in the airline and railway industries, or about 1 percent of the civilian labor force, in 2001.

<sup>&</sup>lt;sup>24</sup>We also assumed a labor force participation rate (the total of the employed and unemployed) for undocumented alien workers of 100 percent. While data are not available to estimate the labor force participation rate of undocumented workers, it is likely to be quite high.

<sup>&</sup>lt;sup>25</sup>For example, a worker who was primarily an independent contractor but who also worked at a covered job secondarily would not be counted under our methodology.

survey of employers,<sup>26</sup> we constructed estimates for the percentage of the non-farm non-supervisory, private labor force that would have bargaining rights and then compared the estimates with the CPS. While we found that the CES survey had a total nonfarm private workforce estimate that was somewhat higher than the CPS, our estimates for the percentage of the nonfarm private labor force with bargaining rights were quite close.<sup>27</sup>

#### Reliability of Workforce Estimates

Our estimates of workers either having or not having collective bargaining rights are imprecise. For the most part, our final national population estimates are derived from data obtained from different national survey samples of the worker population taken at different times. These surveys are subject to both nonsampling and sampling errors. Nonsampling errors can stem from many sources, such as a failure to sample a segment of the population, inability to obtain information from respondents in the sample, differences in interpretation of a question, or errors made in the collection or processing of the data obtained.

Sampling errors occur because the observations used to develop an estimate are not based on the entire population but rather on one of a number of samples of the same size that could have been selected using the sample design. For any given survey, estimates derived from the different samples would differ from each other. A measure of such variation in samples, known as the standard error or sampling error, can be used to develop a confidence interval around an estimate. The confidence interval establishes an upper and lower bound on the estimate that would encompass the true population value with an expressed degree of probability.<sup>28</sup>

<sup>&</sup>lt;sup>26</sup>The CES survey is an establishment payroll survey administered to a monthly sample of nearly 400,000 business establishments nationwide. The primary statistics derived from the survey are monthly estimates of employment, hours, and earnings for the nation, states, and major metropolitan areas.

<sup>&</sup>lt;sup>27</sup>While the number of nonfarm private sector workers was about 90 percent of comparable CES figures, the percentage of the labor force with bargaining rights in the CPS was about 1 percent point higher (83 percent of nonfarm workers in the private sector had rights in the CPS compared with 82 percent in the CES).

<sup>&</sup>lt;sup>28</sup>For extensive discussion of survey errors and their evaluation, see The Office of Management and Budget's *Statistical Policy Working Paper 31: Measuring and Reporting Sources of Error in Surveys*, June 2001.

In an effort to partially reflect the imprecision associated with our estimates, we also developed an associated estimate of an upper and lower bound to convey a range in which the true population value was most likely to fall. The estimates that we developed are based on estimates of sampling error only. We did not attempt to assess or account for the various other sources of error in the data sources we used to develop our workforce estimates of eligibility for collective bargaining. For example, we do not know nor can we assess the errors associated with using data referring to different years, based on somewhat different industry classification systems, or being collected from individuals versus establishments.

For our estimates of the following labor segments—independent contractors, domestic workers, agricultural workers, employees of certain small businesses, federal, state and local government employees, and federal, state and local government employees eligible for collective bargaining rights—we produced confidence intervals at the 95-percent level based on standard error estimates provided in the technical documentation for the February 2001 CPS.

Our confidence interval estimates for independent contractors, employees of certain small businesses, and state and local government employees were at or below  $\pm$  3 percent of the figures reported. Federal employees were at or below  $\pm$  6 percent of the figures reported. For domestic workers and agricultural workers, our confidence interval estimates were at or below  $\pm$  15 percent of the figures reported.

We also used February 2001 CPS standard error estimates to calculate the confidence intervals for our estimates of certain labor segments by private sector industries. For all industries, our confidence intervals for estimates of the proportion that are employees of certain small businesses is  $\pm$  1 percentage point or less. The independent contractor confidence intervals for all industries is  $\pm$  3 percentage points or less.

For the NCS, which we used to obtain estimates of managers and supervisors in the private sector and the state and local government workforce, there were no available estimates of sampling error for employee estimates. In preparing the NCS data on occupational wages and benefits, BLS only produces measures of sampling error on earnings and not estimates of the number of employees whose job characteristics include supervisory or managerial work factors. Instead, we developed approximate estimates of sampling error using information about the

allocation of the NCS sample<sup>29</sup> and applying a conservative assumption of the survey's design effect.

Our confidence interval estimate for excluded private sector managers and supervisors overall is  $\pm$  18 percent of the figure reported. For first-line supervisors, our estimated interval is  $\pm$  21 percent.

The multiple steps and data sources used in our estimation procedures precluded direct computation of confidence intervals for our overall estimates of workers eligible for collective bargaining either nationally or by industry. In an effort to provide some quantified bounds reflecting the imprecision of our national and overall industry estimates, we used mean and variance estimates (by industry) for various components of the overall estimates to approximate the sampling distributions for each of those components. We then used these distributions to simulate how our overall estimate would vary due to sampling.<sup>30</sup>

Our overall bounds estimate for the total civilian workforce, total government workforce, and total private sector workforce eligible for collective bargaining rights is  $\pm$  3 percent or less. For all industries except mining and construction, our bounds estimates of the proportion that are eligible for bargaining rights is  $\pm$  6 percentage points or less. For construction, the bound is  $\pm$  9 percentage points, and for mining it is  $\pm$  19 percentage points.

#### State Labor Relations Laws

Although we made an effort to identify and count those workers who might have rights from laws other than the NLRA, there are some for whom we did not do so. In particular, one group of these employees would be those covered by state private sector labor relations laws (Little Wagner Acts). There are 18 states that have laws that provide collective bargaining rights to some employees who would otherwise be excluded

<sup>&</sup>lt;sup>29</sup>Technical Note in *Occupational Compensation Survey: Occupational Wages in the United States*, 1997, Bureau of Labor Statistics, U.S. Department of Labor, Revised September 1999.

<sup>&</sup>lt;sup>30</sup>While there are no widely accepted methodologies for combining sampling errors associated with estimates derived from multiple data sources, we believe that this nonparametric approach is a reasonable method to use for approximating bounds around our national estimates.

Appendix I: Methodology

from the federal NLRA.<sup>31</sup> Of these 18 states, 17 states extend coverage to employees of small businesses, 11 states to independent contractors, 8 states include supervisors, 5 to agricultural laborers, and 1 includes domestic servants.<sup>32</sup> Except for agriculture, we did not incorporate the coverage under these state laws into our quantitative estimates and on balance this would lead to an underestimation of the percentage of the labor force with collective bargaining rights.

<sup>&</sup>lt;sup>31</sup>The states with a state labor relations act are Colorado, Connecticut, Hawaii, Kansas, Massachusetts, Michigan, Minnesota, New Jersey, New York, North Dakota, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, West Virginia, and Wisconsin.

<sup>&</sup>lt;sup>32</sup>State labor relations laws covering agricultural laborers are Colorado, Connecticut, Michigan, Minnesota, and Wisconsin. Wisconsin's labor relations law covers domestic servants. State labor relations laws covering supervisors are Connecticut, Kansas, Massachusetts, New Jersey, New York, Pennsylvania, Rhode Island, and Utah. State labor relations laws covering independent contractors: are Connecticut, Kansas, Massachusetts, Michigan, Minnesota, New Jersey, New York, Pennsylvania, Rhode Island, South Dakota, and Utah. Those states covering employees of small businesses are Colorado, Connecticut, Kansas, Massachusetts, Michigan, Minnesota, New Jersey, New York, North Dakota, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, West Virginia, and Wisconsin.

Α	Appendix I: Methodology

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