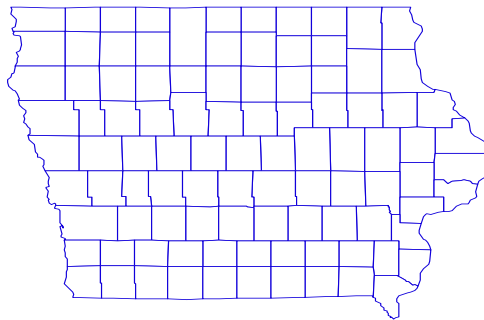


# **ECONOMIC IMPACT OF CLOSURES ON DISPLACED WORKERS**

**May 2002**

*Funding provided through a grant from the U.S. Department of Labor*



**Iowa Workforce Development  
Policy and Information Division**

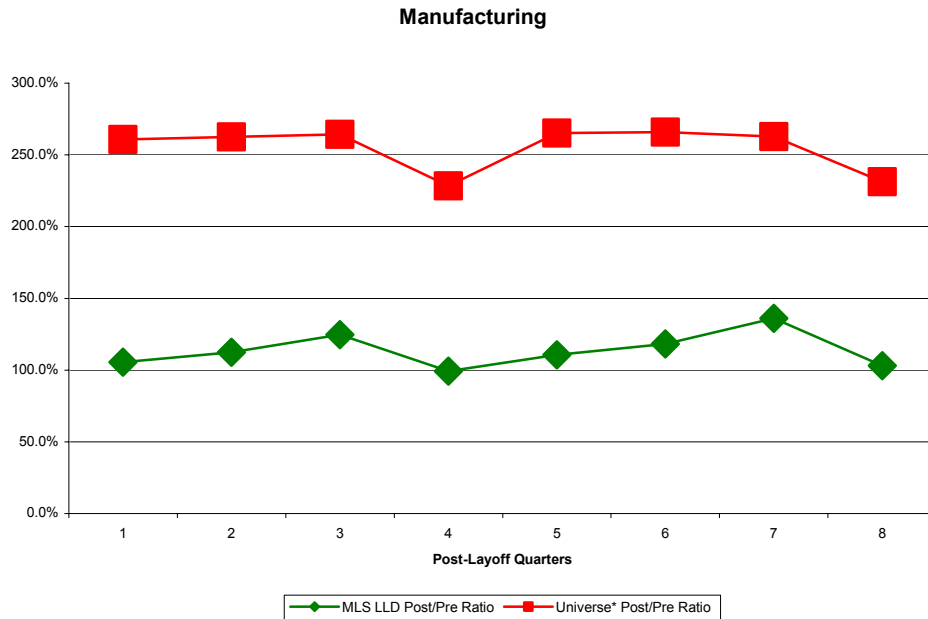
Yvonne Younes, Mass Layoff Statistics Program.  
Special thanks to Jeffrey Nall, Paulette Day, Patrick Callan, Patricia  
Paustian and Teresa Taylor of Iowa Workforce Development for  
administrative and technical support.

## INTRODUCTION

### BACKGROUND

Iowa Workforce Development research conducted in 2001 on Iowa workers displaced by layoffs indicated that post-layoff wages remained at or above pre-layoff levels. During the layoff quarters selected for analysis – first, second, and third quarters of 1998 – there were twenty-one layoff events, none of which were closures. The research at that time did not discriminate between closures or permanent layoffs for which no recall was expected and those layoff events expected to recall workers. The post/pre ratios<sup>1</sup> of the affected workers in manufacturing were at or above 100%, while remaining slightly below the universe pre/post ratios for the same time period. The following conclusion appears in the 2001 research:

The time period covered in this study was a time of economic growth. There were very few layoff events in Iowa, and few claimants were associated with “no recall” events. In light of this, care should be taken when attempting to apply these same conclusions during economic downturns. Few definite conclusions may be drawn from the data so far reviewed. On-going analysis of subsequent layoff quarters is needed in order to establish discernible patterns in post/pre ratios.



---

<sup>1</sup>The Post-Pre Ratio is the average wage during the 4 quarters prior to the layoff divided by the average wages of the post-layoff quarter.

The weakening economy in 2001 resulted in twenty-two closures and 15 permanent layoffs for which no recall was expected. This study focuses on workers separated from establishments that closed and for whom workforce grants were awarded.

The second half of this study follows pre- and post-layoff wages for those workers who were affected by closures not identified in WINMLS.<sup>2</sup>

### TIME PERIOD

The MLS closures selected for this study took place during the third quarter 2001. Pre- and post-layoff wages were determined beginning four quarters prior to the closure, the third quarter 2001 (i.e. the layoff quarter) and subsequent quarters. The study will be ongoing as wage data for quarters following the closure become available.

### **OUTCOME AND ANALYSIS**

#### MLS ESTABLISHMENT AND CLAIMANT CHARACTERISTICS

In 2001, there were twenty-two closures and seventy-six permanent layoffs for a total of ninety-eight events. During the quarter in which the identified closures triggered, there were eight closures and seven permanent layoffs, for a total of fifteen events. The events are distributed as follows:

Quarter	Closures	Permanent Layoffs
2001-1	3	12
2001-2	5	14
<b>2001-3</b>	<b>8</b>	<b>7</b>
2001-4	6	43

All events were categorized in the following industry groups:

Industry Group	Events	Separations
Construction & Mining	16	1,650
<b>Manufacturing</b>	<b>61</b>	<b>8,462</b>
Transportation, Utilities, Communications	4	541
Wholesale Trade	2	150
Retail Trade	4	1,007

<sup>2</sup> WINMLS is a Windows® -based database used for the identification of mass layoff events.

Finance, Insurance, Real Estate	0	0
Services	11	1,034
Public Administration	0	0

The closure events selected for this study were in the Manufacturing industry group and reported a total of 2,150 separations.

PRE/POST LAYOFF WAGES FOR SELECTED CLAIMANTS<sup>3</sup>

Average quarterly wages<sup>4</sup> for selected claimants show a sharp rise in wages two quarters prior to the layoff quarter. In 1998, claimant wages remained fairly consistent with universe<sup>5</sup> wages. In 2001, however, claimant wages show a dramatic increase two quarters before the closure (first quarter 2001), and a marked decline the quarter prior to the closure. The reasons for these prominent changes in wages are uncertain. Not surprisingly, claimant wages dip sharply in the quarter following the closure while universe wages remain fairly static. The difference between universe wages and claimant wages is shown in Figure 1.1.

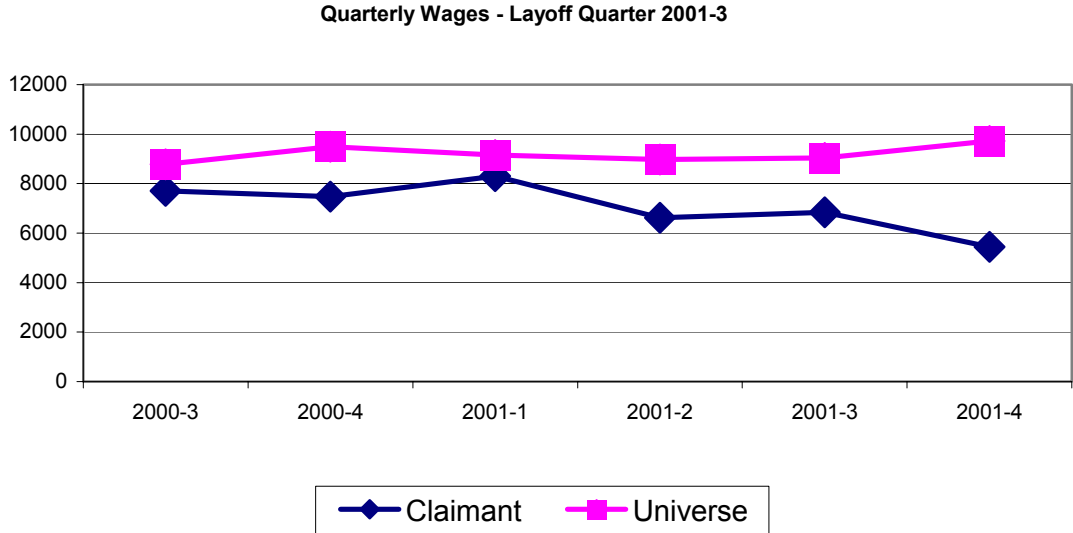


Figure 1.1 Claimant vs. Universe Wages

<sup>3</sup> “Selected Claimant” refers to those displaced workers associated with the closure events of the study who filed unemployment claims during the layoff quarter.

<sup>4</sup> Wages data are not adjusted for inflation, nor are they expressed in current dollars.

<sup>5</sup> Universe wages are average quarterly wages for all covered employees in the manufacturing industry from ES-202.

## Claimant Characteristics and Wages

Ninety-seven percent of the claimants are males. Average quarterly wages were significantly higher for males than for females although the rate of change in pre- and post-layoff wages remained consistent. In the quarter following the closure, wages for female workers dropped off more sharply than wages for males. Figure 1.2 shows average quarterly wages by gender.

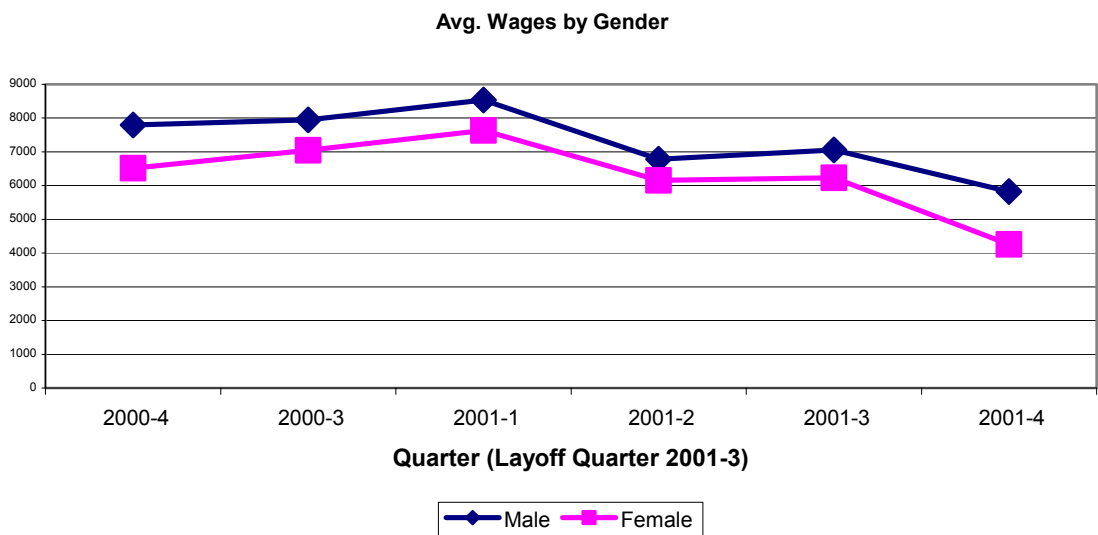


Figure 1.2 Average Quarterly Wages by Gender

Average quarterly wages indicate a noticeable difference in wages among age groups. The age groups are represented in the chart below.

25 or under	6.7%
26 to 35	27.6%
36 to 45	22.8%
45 to 55	20.9%
56 or older	15.7%

The “56 or older” age group with only 15.7 percent of the total claimants shows the highest average quarterly wages before the layoff quarter, and shows only a slight decrease during the first quarter following the closure. In the first post-layoff quarter, wages for this age group

dipped below the wages for the “46 to 55” age group. Figure 1.3 shows the average quarterly wage by age.

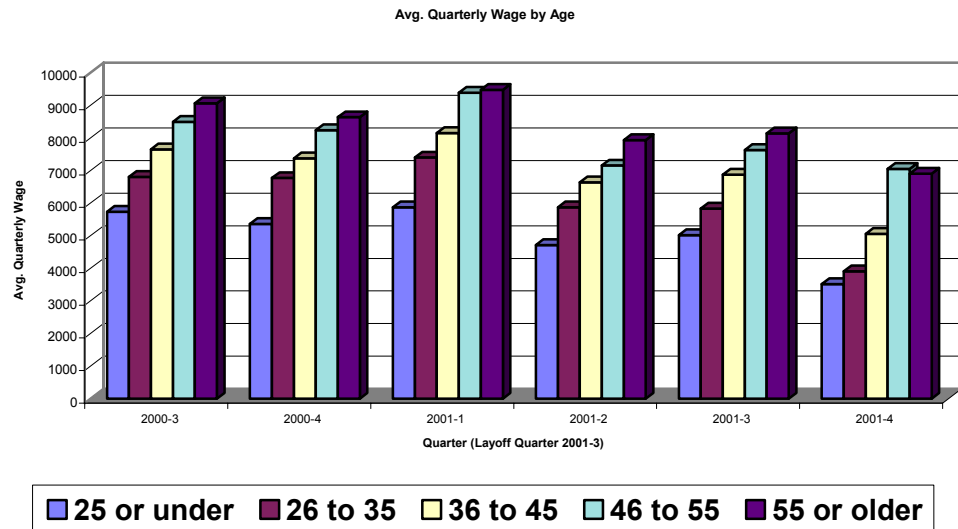


Figure 1.3 Wages by Age Group

More than 90 percent (91.8) of all claimants were White/non-Hispanic, and show the highest wages before, during, and after the layoff quarter.

Race/Ethnic	Percent of Total Claims
White/Non-Hispanic	91.8%
Black/Non-Hispanic	2.9%
Hispanic	1.9%
American Indian or Alaskan Native	0.5%
Asian or Pacific Islander	1.1%
Information not Available	1.8%

Black/non-Hispanic, Hispanic, and American Indian/Alaskan Native claimants show the sharpest declines in post-layoff wages. Figure 1.4 displays pre- and post-layoff wages by race/ethnicity.

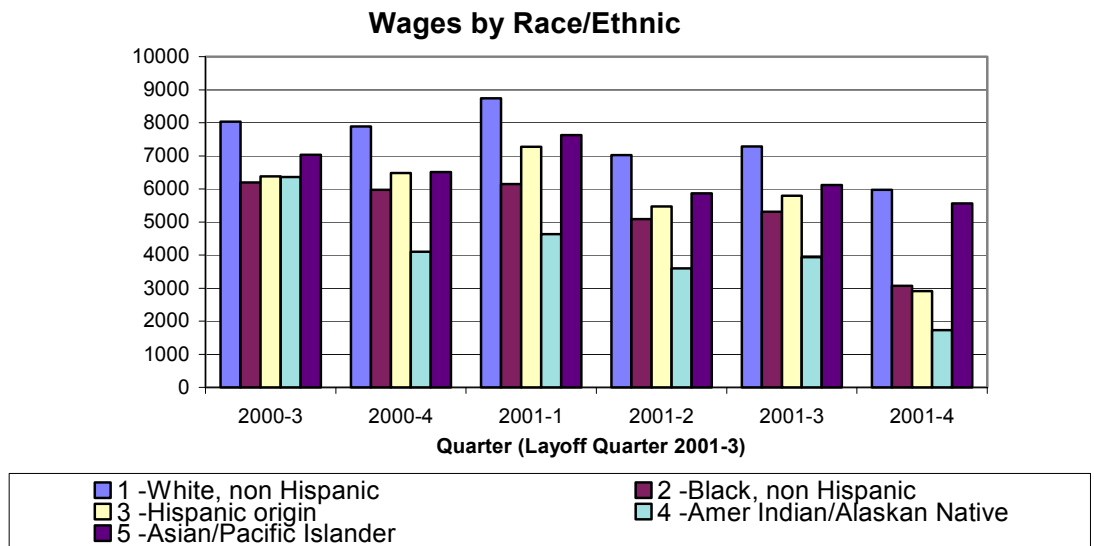


Figure 1.4 Wages by Race/Ethnicity

The majority of the claimants completed high school or the equivalent, while 2.8 percent had a baccalaureate degree or higher. Claimants with the higher education received higher wages; however, they also show the greatest drop in post-layoff wages. The table below shows the percentage of claimants by education level. Figure 1.5 demonstrates the average quarterly wage by education.

Education	Percent of Total
Less Than High School	12.5
H.S. or Equivalent	71.8
Some College.	12.9
Bacc. Or Higher	2.8

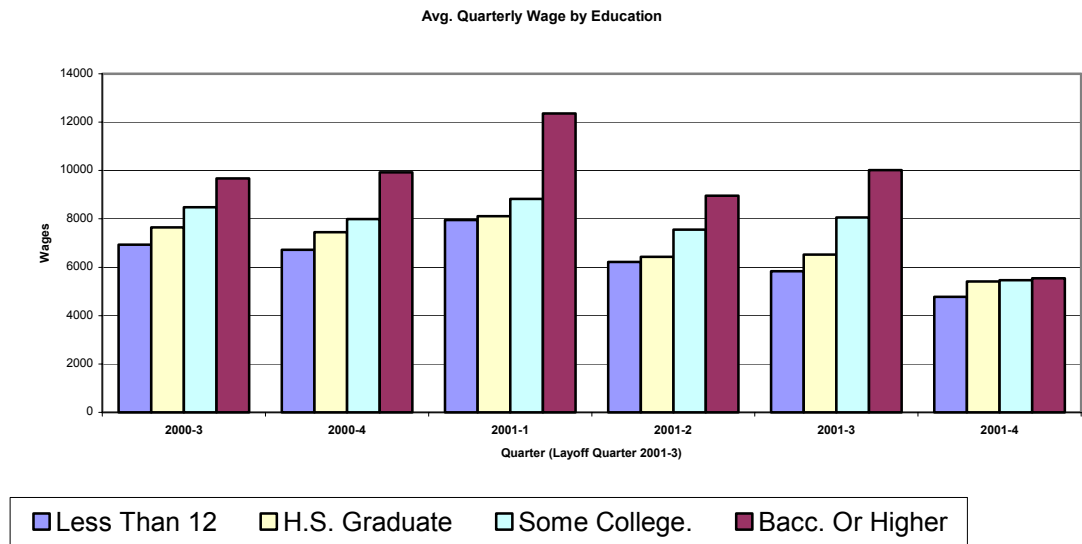


Figure 1.5 Avg. Quarterly Wages by Education

More than half (61.2 percent) of the claimants were employed in Machine Trade Occupations and Miscellaneous Occupation, while 7.3 percent were employed in Professional, Technical and Managerial Occupations.

Occupation	Percent of Total	Post/Pre Wage Ratio	2001-4 to 2001-2 Wage Ratio
Benchwork	10.7%	83.2%	64.6%
Clerical & Sales	11.5%	74.7%	65.9%
Machine Trades	29.1%	85.1%	72.3%
Miscellaneous Occupations	32.1%	83.5%	66.0%
Processing	2.6%	49.8%	38.0%
Professional, Tech, Managerial	7.3%	53.5%	52.8%
Services	3.8%	56.0%	35.8%
Structural Work	3.0%	78.9%	61.6%

Average quarterly wages for claimants varied sharply, dropping by half for most occupational groups. The Post/Pre Ratios and claimant percentage for occupational groups is listed below. Figure 1.6 shows the average quarterly wages by occupation.



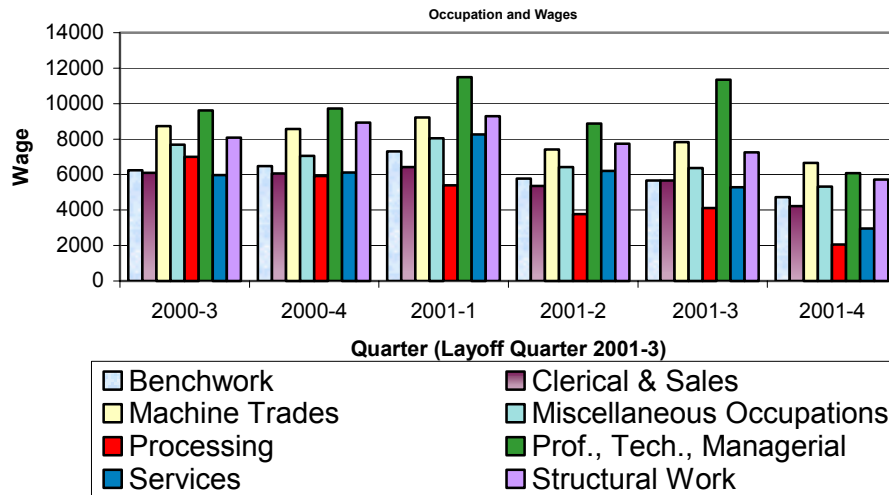


Figure 1.6 Avg. Quarterly Wages by Occupation

SUMMARY OF MLS CLAIMANTS' WAGES

Two quarters prior to the closure, wages for all claimants dramatically increased. Wages decreased somewhat during the layoff quarter, and declined sharply during the first post-layoff quarter. At this point, it is too soon to tell what the long-term economic impact of the closures will be.

A brief review of the services the claimants received shows that fewer than 35 percent of the claimants attended an orientation program, and less than one percent received additional services such as job counseling. This may indicate that claimants were employed shortly after being displaced due to closures. Future review of post-layoff wages will confirm or contradict this conclusion.

The demographics of those who received orientation but no other services were consistent with all other MLS claimant characteristics. No particular demographic group is over-represented by workers who received some kind of service from Iowa Workforce Development. The workers who had at least a baccalaureate degree were comparatively under-represented.

## NON-MLS LAYOFF EVENTS AND CLOSURES

Small businesses, that is, businesses employing less than fifty employees, make up 94.4 percent of the employers in Iowa, and employ 29.4 percent of the workers. As BLS defines a “BLS Event” as affecting at least 50 workers, smaller layoffs and closures would not trigger in WINMLS. Iowa defines a “State Event” as affecting at least twenty workers, although even the lower trigger does not pick up many of the smaller layoffs and closures.

Iowa Workforce Development maintains an internal database called Statewide Week in Review (SWR) that tracks business economic events in Iowa. Economic events include layoffs and closures that may or may not trigger in WINMLS. A review of the layoff and closure events indicate that a significant number of events (2,965) documented in SWR (since its inception in 1998) did not trigger in WINMLS. Review of the documentation gives some indication as to why the events did not trigger in WINMLS.

The majority of the events are from the local media, WARN notices, or some other company announcement. In many cases, the number of workers affected is simply too small to trigger an event in WINMLS. In 2001, there were more than 1,500 closures or layoffs documented in SWR. Of these, more than 73.5 percent affected less than twenty workers – the level at which Iowa defined State Events in WINMLS. Furthermore, comments in the SWR documentation point out that many of the potentially displaced workers will receive severance pay, vacation, or other separation benefits. In some instances, the event triggers in WINMLS the quarter *following* the quarter in which in the layoff actually took place. This is evidenced by the difference between the number of separations stated by the employer (8,235) and the number of initial claims filed (7,293) in third quarter 2001.

The table below shows the difference between MLS-reported separations and separations indicated in SWR for permanent layoffs and closures in 2001. Figure 2.1 shows the industries in which these events occurred.

Industry	Non-MLS Separations	MLS Separations	Difference (MLS-NonMLS)
Construction & Mining	239	1650	1411
Manufacturing	6658	8462	1804
Finance, Ins. Real Est	124	0	-124
Transportation, Utilities, Communication	907	541	-366
Trade	6198	1157	-5041
Services	1672	1034	-638
Public Admin	3	0	-3
Total	15798	12844	-2954

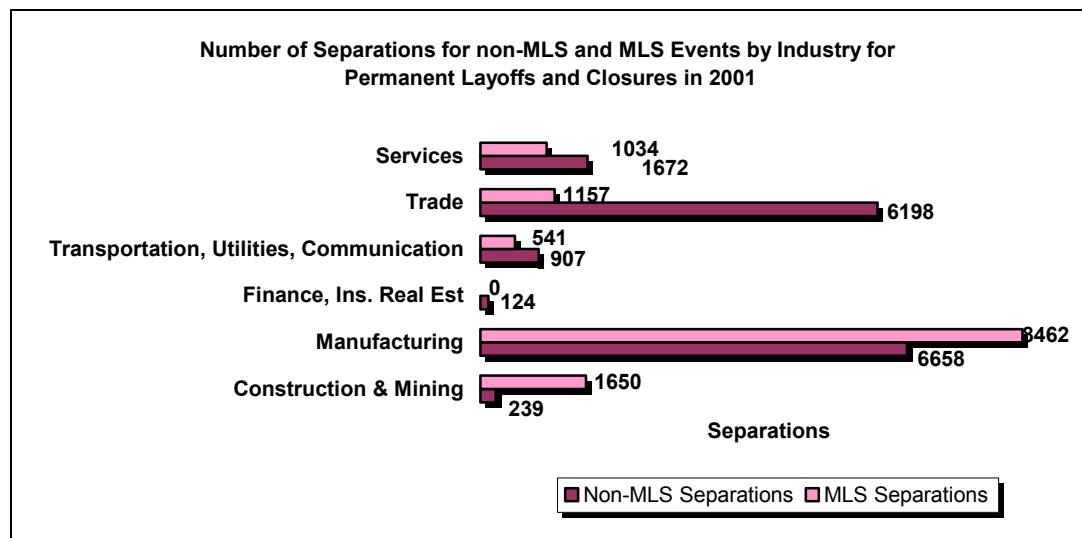


Figure 2.1 Number of MLS and Non-MLS separations in 2001

As the MLS claimant average quarterly wage was considerably below the universe wages for the same time period, the Non-MLS claimants were considerably lower than for MLS claimants. Figure 2.1 demonstrates the differences among Non-MLS, MLS and Universe average quarterly wages.

The Non-MLS average quarterly wage follows the same trend as the average quarterly wage for the universe, until the first post-layoff quarter when the closure wages dip sharply.

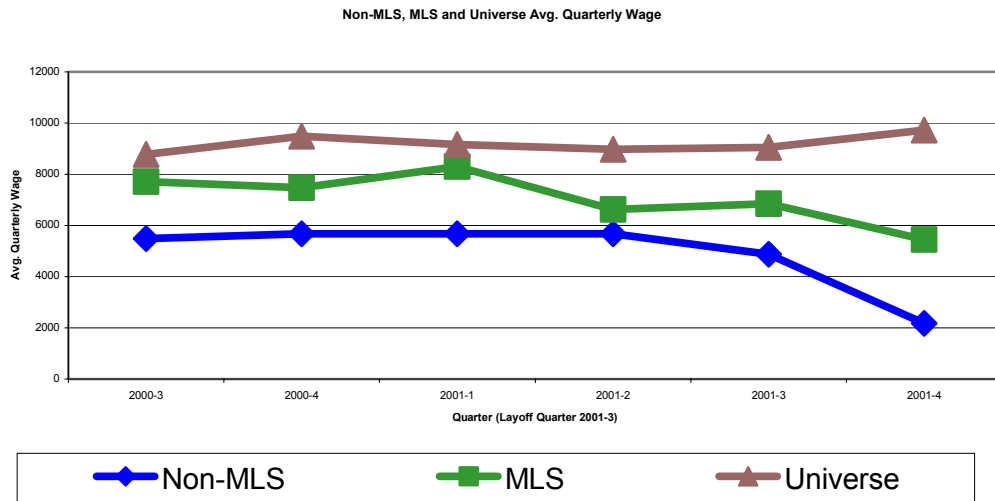


Figure 2.2 Non-MLS, MLS and Universe Average Quarter Wage

CHARACTERISTICS AND WAGES OF NON-MLS CLAIMANTS<sup>6</sup>

The majority of non-MLS claimants were female, however, wages for female workers were considerably lower than for males in the pre-layoff quarters. During the layoff quarter, average wages for females dropped, but not as significantly as wages for males. However, average wages for females in the post-layoff quarter did not recover quite as much as wages for males. It is significant to note that, while all the events in MLS were in manufacturing, non-MLS events were represented by a significant number of events in trade and services – jobs that traditionally employ women and with generally lower wages. Figure 2.3 shows the average quarterly wage by gender for non-MLS claimants.

<sup>6</sup> Non-MLS Claimants refers to those workers displaced by closures not identified in WINMLS occurring in 2001 3<sup>rd</sup> quarter, and who filed an unemployment claim during the layoff quarter.

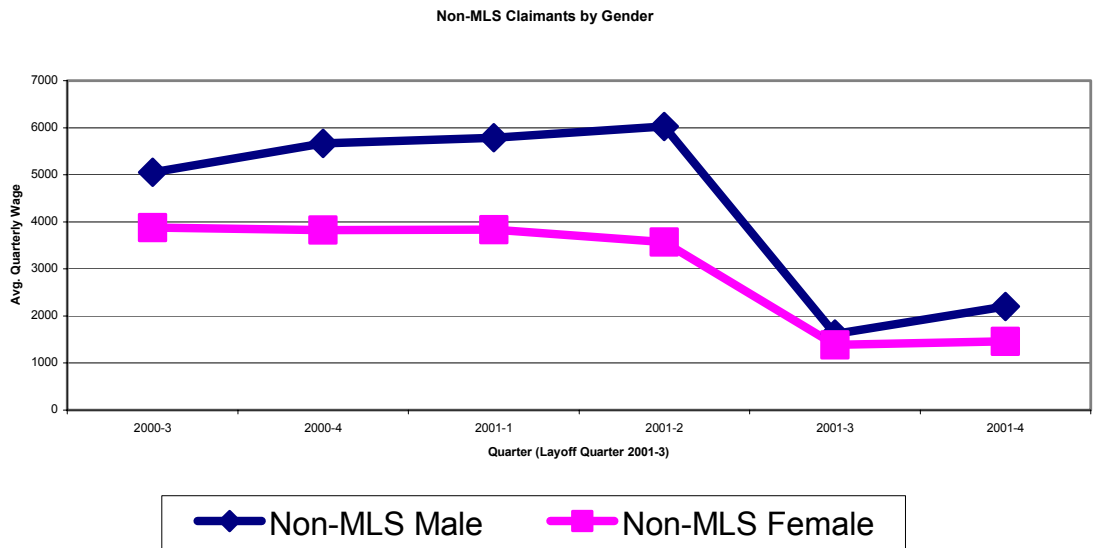


Figure 2.3 Non-MLS Claimants by Gender

Although average quarterly wages spiked two quarters prior to the closure for MLS claimants, non-MLS claimant wages went up slightly one quarter prior to the closure and dropped dramatically for non-MLS male claimants. Figure 2.4 displays the comparison among average wages for MLS claimants by gender and non-MLS claimants by gender.

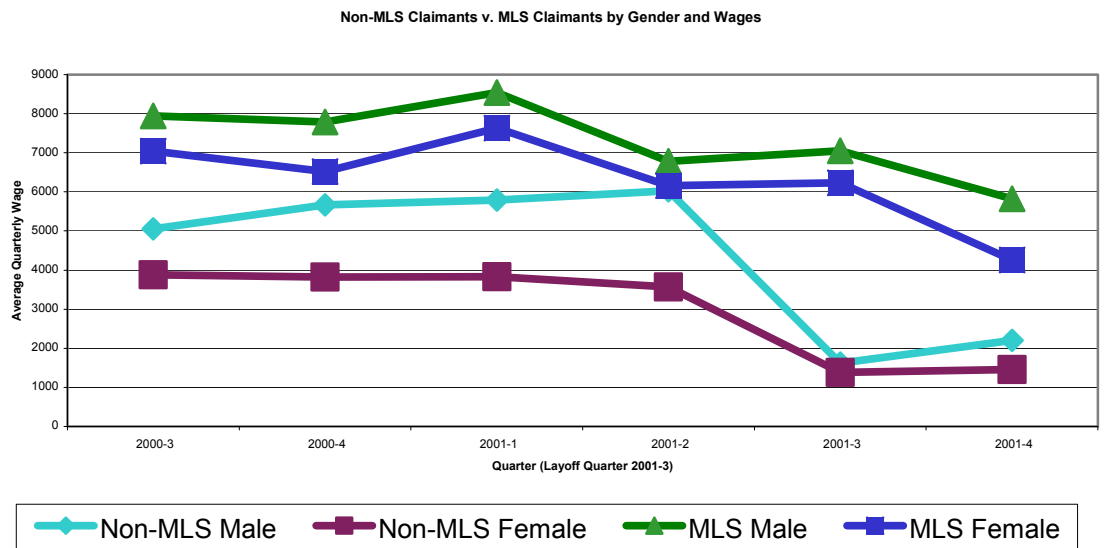


Figure 2.4 Non-MLS and MLS Average Quarterly Wage by Gender

More than 50 percent of the non-MLS claimants were in the 26 to 45 age groups. As in MLS average wages, Non-MLS claimant average wages show a marked difference among age groups. The older workers had much higher pre-layoff average wages, but suffered much more critical wage losses in the layoff quarter and post-layoff quarter. While wage losses for other age groups were quite significant, none were as dramatic as for the 55 or older age group. Figure 2.5 shows the Non-MLS average quarterly wage by age group.

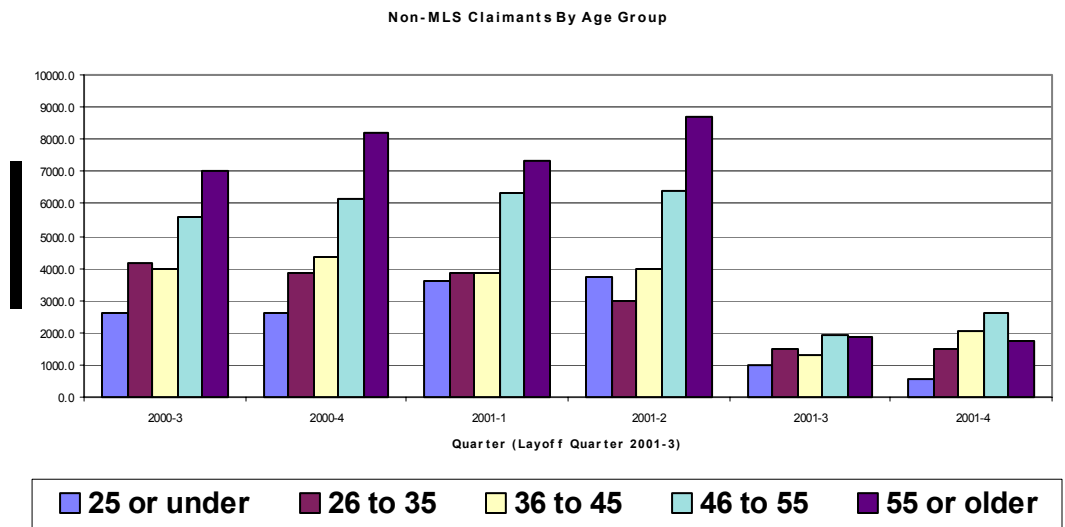


Figure 2.5 Non-MLS Avg. Quarterly Wages by Age Group

Average quarterly wages for non-MLS claimants by education have a pattern similar to MLS claimants; however, 1.6 percent of the non-MLS claimants reported having education beyond a baccalaureate degree. Wages for these claimants were only slightly higher than claimants with a baccalaureate degree. More than half the claimants reported having a high school education or equivalent. For claimants having less than a high school equivalent, wages dropped much more substantially in the post-layoff quarter than did MLS claimants with similar education. Figure 2.6 illustrated the average quarterly wages by education for non-MLS claimants.

Less than H.S.	7.2%
H.S. or Equiv	64.4%
Some College	20.9%
Bacc Degree	5.9%
Post-Bacc.	1.6%

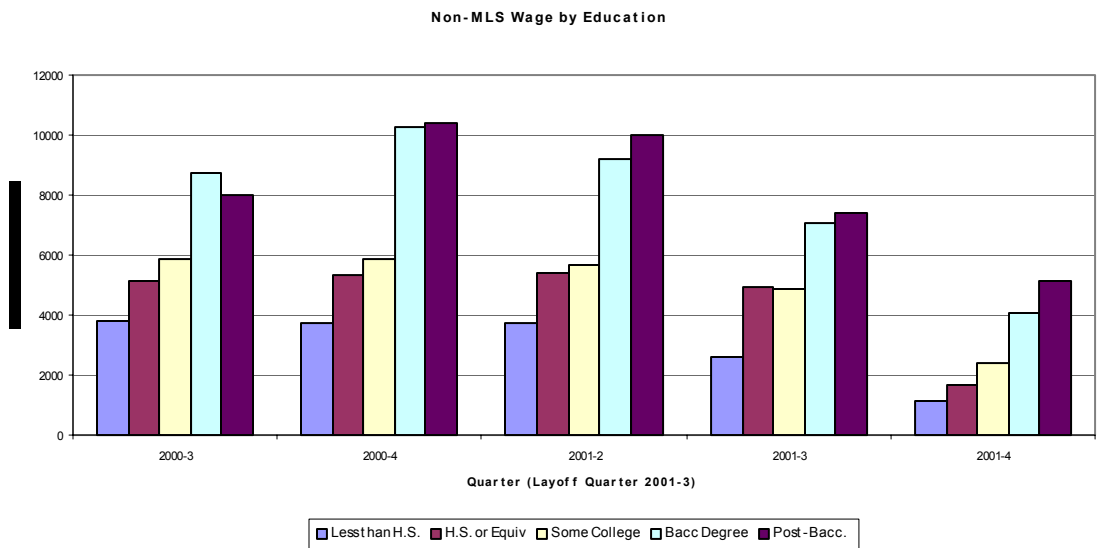
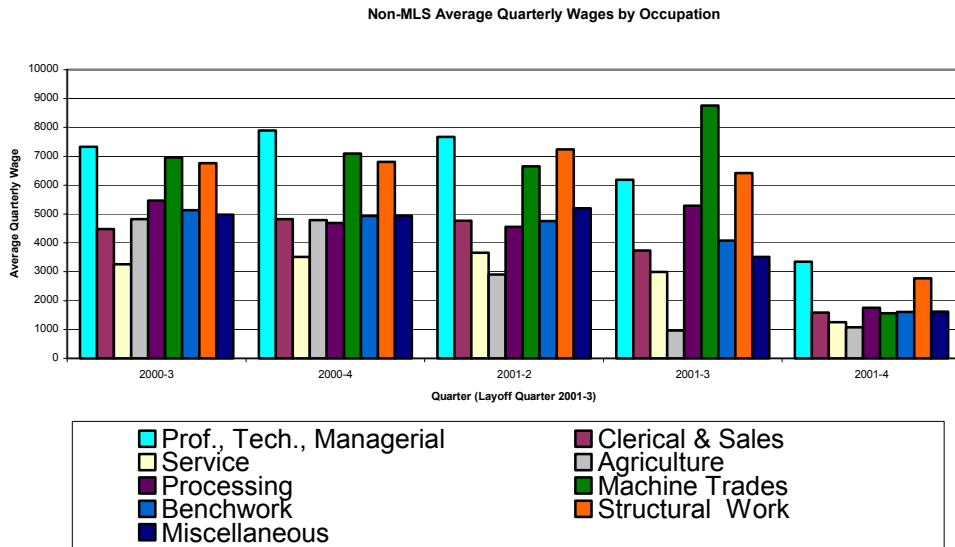


Figure 2.6 Non-MLS Avg. Quarterly Wages by Education

Average quarterly wages by occupation vary little between MLS and non-MLS claimants. However, professional, technical and managerial occupations represent 21.0 percent of the total non-MLS claimants, while only 7.3 percent of the MLS claimants were in this occupational group. For an undetermined reason, machine trade occupations, making up 29.1 percent claimants, showed a sharp

rise in wages in the layoff quarter. Figure 2.7 shows the average quarterly wages by occupation.

	Percent of total
Prof., Tech., Managerial	21.0%
Clerical & Sales	33.1%
Service	11.5%
Agriculture	0.6%
Processing	1.7%
Machine Trades	11.8%
Benchwork	5.9%
Structural Work	5.7%
Miscellaneous	8.6%



SUMMARY OF NON-MLS CLAIMANT’S WAGES

Average quarterly wages increased slightly in the quarter before the layoff quarter, and dropped dramatically, especially for males, in the layoff quarter. Unlike MLS claimants, females represented over half the non-MLS claimants, while average quarterly wages were well below wages for males - until the layoff quarter. Wages for all claimants dropped considerably in the first post-layoff quarter. It is still too soon to predict the long-term economic impact of these non-MLS closures. Ongoing evaluation of post-layoff wages is necessary to form broad conclusions.

**CONCLUSIONS AND RECOMMENDATIONS**

The year 2001 had more closures and more permanent layoffs than years previously reviewed in the MLS program. A study conducted on displaced workers who were part of layoffs in the first three quarters of 1998 shows that the average quarterly wage for post-layoff quarters were the same or higher than before the layoff. For workers displaced as a result of closures in the third quarter 2001, post-layoff wages for the first post-layoff quarter plummeted dramatically. Continued study of post-layoff wages for both MLS and non-MLS claimants is important in order to obtain longitudinal data for analysis.



Events that did not trigger in WINMLS affected more claimants during 2001 than MLS events. Iowa must continue to study the post-layoff wages of both MLS events and non-MLS events to determine the economic impact of closures and permanent layoffs.

Moreover, some demographic data was not available for both MLS and non-MLS claimants. Not all claimants filed for unemployment benefits, the only means by which the displaced workers may be identified. This is corroborated by the fact that the number of separations reported by the establishments for both MLS and non-MLS closures was consistently higher than the number of initial claims associated with these events. Iowa MLS should work closely with the Dislocated Workers unit and field staff who work directly with displaced workers to obtain the most accurate and complete data for further analysis.

Cooperative efforts among DWU, field staff, and MLS staff may provide evaluation tools for administration and planning. Further team analysis may help identify those workers in need and provide Iowa Workforce Development services to these workers when and where they are most needed.





Iowa Workforce Development  
Policy and Information Division  
Employment Statistics Bureau  
Mass Layoff Statistics  
1000 East Grand Avenue  
Des Moines, Iowa 50319  
(515) 281-8515  
[www.iowaworkforce.org](http://www.iowaworkforce.org)



Auxiliary aids and services are available upon request to individuals with disabilities.