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## The Link Between Teen Childbearing and Employment in Georgia\*

Each year in the United States, over 800,000 teens become pregnant, and more than half of these pregnancies result in live births.<sup>1</sup> Public policy issues related to teen pregnancies range from concerns for child poverty and health, to the costs of public assistance, and remedial strategies for training and workforce development. Yet, despite ongoing research efforts, the relationship between teen pregnancy and any number of social problems remains elusive.

One of the most puzzling questions is to what extent giving birth as a teenager affects the mother's future employment and earnings. Isolating the direct causal effect of the teen birth itself (apart from pre-existing differences in socioeconomic background that may make teen mothers different) has proven difficult, and conclusions from various studies have not been consistent. One of the more rigorous, most recent studies relating teen births to employment outcomes reported the rather counter-intuitive finding that teen mothers, during their mid-20s to early 30s, worked more hours and had higher earnings than their counterparts who did not experience early childbearing.<sup>2</sup> This study used a sample of national teen births to examine education and labor activities after the birth of a child by teenagers. The study was based on survey data and so relied on self-reported information regarding education and employment.

In this policy brief, we take a first look at the teen birth-employment interactions specific to

Georgia. To conduct this research, we use birth records from the Georgia Department of Human Resources, Division of Public Health, Office of Health Information and Policy and match these with quarterly earnings information reported to the Georgia Department of Labor for those in covered employment. Our data cover 1994-2002, which enables us to follow the labor patterns for girls giving birth as teens for up to 9 years. This policy brief focuses on the patterns found in those data—we do not control for other factors that influence the teen birth itself, nor do we systematically control for differences between mothers other than the teen/non-teen distinction. Also, for girls who do not work, we cannot definitively determine whether they remain non-workers since, if they leave the state of Georgia, they drop out of our data file entirely—working or not. These issues remain for future study.

The results of this first look at the teen birth-labor activity in Georgia begin to quantify one of the costs of teen births. Since we have the entire population of teen births and labor supply (for covered workers) in Georgia, our analysis is more robust than that of previous studies. In future research, we will control for other factors that may explain the labor patterns of the young mothers and control to the extent possible for migration out of the state.

## Teen Births in Georgia

While teen births are on the decline, the southern states continue to have some of the highest teen birth rates, well above the median in 1990 and 1999. In 1990, the national teen birth rate (births per 1,000 females ages 15-17) was 37 and in Georgia it was 50; in 1999 the same figures were 38 and 29 respectively. National statistics are not readily available to compare teen birth rates for mothers younger than 15. More detailed data of births in Georgia reflect some startling statistics regarding teen pregnancies. If we look at all births to mothers below the age of 19, in 2000, 4 percent of those births are to mothers younger than age 15 (at time of delivery) and 26 percent to mothers ages 15-16. Of teen births in 2000, 93 percent were covered by Medicaid.<sup>3</sup>

The costs of teen births are many and varied. Teen moms may delay their schooling, which can reduce their future earnings. Medical, childcare, and living expenses for children must be paid. Fathers of these children may also delay schooling. Fathers may be less active in the child's life than fathers of non-teen births, which can add to complications and costs of teen childbirth. To adequately inform the policy debate regarding teen births and the cost of teen births to the individuals as well as to society, we need to be able to actually distinguish between the costs associated with a teen birth and costs that are associated with other conditions of the teens. The latter may include their parents' education and socio-economic status, health, or migration patterns, for example. In this brief, we do not make those specific distinctions. Here we focus on the pattern of teen births and labor behavior, which is a first step to a further analysis of the issue.

## Data Used in the Analysis

We utilize two datasets in the analysis of teen birth and employment. The first dataset is comprised of birth records from the Department of Human Resources. These data include detailed information on the birth of a child, the health status of the mother and child, and basic

demographic information including the age of the mother.

The second dataset used is the Georgia Department of Labor employment file (DOL). The DOL data include quarterly wage information for individuals who are in "covered employment" in Georgia. A merge between these two files allows us to determine if a young mother was working before the birth of a child and after the birth of a child, we can follow the woman for up to 9 years (from 1994-2002). If the mother dropped out of the labor force or left Georgia, we cannot determine what happened to her—she just drops from our employment data file. If we assume that these girls stay in Georgia for family support, we can make an estimate of the impact of the birth on their employment in Georgia. In the future, we hope to obtain information from the Social Security Administration that will enable us to determine whether or not a girl who drops from our data file goes to work in another state.

The merged dataset is therefore an administrative dataset covering the years of 1994-2002. We find that we have a total of 1,007,053 observations (births) in the entire file and 148,185 incidents of teen births. The number of teen births varies by year: the maximum teen births occurred in 1995 (17,188) and the minimum is in 2002 (14,382). On average, there are 16,465 teen births per year in Georgia during this time period.

## Employment of Teen Mothers

We develop a series of descriptive tables and graphs to analyze the birth-employment relationship for teen mothers and older mothers.<sup>4</sup> The data in Table 1 show the average time off before birth (in quarters) for those mothers who worked before birth and the average wages for all of those mothers--whether they went back to work or not--in quarters before and after birth. We identify these "pre-birth working mothers" as those who were working within the four quarters preceding birth and for whom quarterly wages were \$250 or more. There are a number of observations with much lower wages, but these are not included in our definition of "working" as

these women would have to be working very few hours in a quarter to generate the low wages. According to our classification, the data show that the youngest teen mothers were less likely to be employed prior to birth than non-teen mothers (33 percent of teen moms were reported as working prior to birth versus 70 percent of non-teen mothers). Interestingly, we see a pattern of increased employment but reduced wages as the leave for birth nears. Some of the pattern of increased employment is confounded by the aging of the young women over the period. If the youngest mothers finish high school as the birth nears, they are more able to enter employment, regardless of their pregnancy status.

In Table 2a and 2b, we focus on the mothers who had jobs before the birth and returned to work (defined as for Table 1). Table 2a reports the leave and wage statistics prior to leave for the birth, and Table 2b reports the same information post-leave. According to the data, a large percentage of the women return to work after the birth of their children. Over 90 percent of teen mothers returned to work if they are working prior to birth and 89 percent of non-teen mothers return to work at some point after birth. Teen mothers take more time out of the labor force prior to birth (2.46 quarters versus 1.67 quarters for non-teen mothers). And, while we see a pattern of increased employment with reduced wages prior to birth, Table 2b shows the opposite pattern. In the post-birth case (Table 2b), we see that reported wages rise, but the number of women employed declines for both teen and non-teen mothers in the quarters after birth. The decline is somewhat larger for the teen mothers.

We also look at the employment and wage statistics for women who have more consistent employment prior to the birth. In particular, we tabulate the statistics for mothers who had four quarters of employment before and after the leave. These data are found in Tables 3a and 3b. The employment statistics show that fewer women (both teens and older mothers) are employed long-term prior to the leave for birth. About 17 percent of teen mothers and 40 percent of non-

teen mothers are employed for at least four quarters prior to the birth. Prior to birth, we see again the reduction in wages for both groups of women (Table 3a), but post-birth we notice a large increase in income by the second quarter post-birth. The increase for teen mothers is more dramatic for all quarters than for non-teen mothers.

The relative wage and change in those wages are also presented in Figure 1 and Figure 2. Figure 1 shows the absolute level of reported wages, and Figure 2 shows the percent changes. The latter figure is more dramatic, and it is apparent from that figure, that teen mothers make up their pre-birth losses faster and to a larger extent than non-teen mothers. Again, some of this may be due to those teen mothers finishing high school and entering different jobs or moving from part to full time jobs. The data in Table 4 are the annual wages reported pre- and post-birth and again demonstrate the large relative increase in average annual wages for teen mothers post-birth. By the fourth quarter post-birth, the average quarterly wage of teen mothers \$2,776 and for non-teen mothers it is \$6,276. By comparison, in Georgia, the average quarterly wage of all women 19 and under is \$1,259 and for women over 19 years of age is it \$6,167.<sup>5</sup> Wages of teen mothers are substantially higher than wages of their non-mother counterparts.

### **Concluding Remarks**

This policy brief provides an overview of the birth-employment outcomes for young women and for non-teen mothers. What we find is that there are similar patterns of pre- and post-birth employment experiences for the groups of women, but among those who work, the younger mothers "recover" their earning post-birth to a greater extent than older mothers. At this point, we do not investigate longer employment impacts including whether the young mothers who are not in the workforce around the time of the birth are more or less likely to join the workforce later on than older mothers or than teens who are not

mothers. These issues and others will be analyzed in future work.

**Notes:**

\*We would like to thank the Georgia Department of Human Resources and Department of Labor for approval to use their data for this analysis.

1. Centers for Disease Control and Prevention (CDC) (2002a). "National and State-Specific Pregnancy Rates Among Adolescents—United States, 1995-1997." July 14, 2002; and Centers for Disease Control and Prevention (CDC) (2002b). "Teenage Births in the United States: State Trends, 1991-2000, an Update." National Vital Statistics Reports 50(9), May 30, 2002.

2. Hotz, Joseph et al. (1996). "The Impacts of Teenage Childbearing on the Mothers and the Consequences of Those Impacts for Government." In Rebecca Maynard (ed.), *Kids Having Kids: Economic Costs and Social Consequences of Teen Pregnancy*. Washington, DC: The Urban Institute Press, p.55-94.

3. Based on tabulations of Georgia Medicaid and Georgia Vital Statistics records.

4. There are various definitions of "teen mothers" in terms of actual age. Here, we define teen mothers quite literally as 19 years of age or younger. In other analysis contained in this report, we look at 17 and younger as the "teen" group of interest.

5. The Georgia statistics are presented for 2000 and are consistent with the inflation adjusted wages reported in all tables of this report.

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**TABLE 1: PRE-BIRTH STATISTICS IRRESPECTIVE OF RETURN TO WORKFORCE AFTER BIRTH**

	Total Number of Births	Average Number of Quarters off Before Birth Including Birth Quarter	-----Average Wage* Prior to Maternity Leave-----							
			Last qtr before leave		One qtr before last qtr before leave		Two qtr before last qtr before leave		Three qtr before last qtr before leave	
			#	Wage	#	Wage	#	Wage	#	Wage
Total	1,007,053	0.94	680,730	\$4,629	595,825	\$5,283	561,057	\$5,488	534,301	\$5,480
17 and Under	57,255	1.73	19,435	\$1,247	11,596	\$1,616	8,699	\$1,701	6,983	\$1,805
18 & 19	90,746	1.58	58,368	\$1,466	42,711	\$1,764	37,141	\$1,823	33,450	\$1,685
19 and Under	148,001	1.61	77,803	\$1,411	54,307	\$1,733	45,840	\$1,800	40,433	\$1,705
20+	859,052	0.86	602,927	\$5,044	541,518	\$5,640	515,217	\$5,816	493,868	\$5,789

\*All the wages are chained to 2000 dollars. Numbers are number of mothers who had jobs before giving birth irrespective of their return to workforce after birth. There are mothers in the data set who worked in the quarter they gave birth and a partial time off was assigned based on their wages in the birth quarter and quarter before or after. For example, if the wage in birth quarter is less than one third of the wage in the pervious quarter (or quarter after), it is assumed that the mother took two months of the quarter off as a maternity leave.

**TABLE 2A: PRE-BIRTH STATISTICS OF MOTHERS WHO HAD JOBS BEFORE GIVING BIRTH AND RETURNED TO WORKFORCE AFTER BIRTH**

Number of Births	Average Number of Quarters off Before Birth Including Birth Quarter	-----Average Wage* Prior to Maternity Leave-----								
		Last qtr before leave		One qtr before last qtr before leave		Two qtr before last qtr before leave		Three qtr before last qtr before leave		
		#	Wage	#	Wage	#	Wage	#	Wage	
Total	1,007,053	0.85	612,663	\$4,800	541,204	\$5,385	512,416	\$5,569	489,474	\$5,545
17 and Under	57,255	1.70	18,334	\$1,260	11,089	\$1,627	8,373	\$1,709	6,739	\$1,817
18 & 19	90,746	1.53	54,160	\$1,485	40,115	\$1,774	35,160	\$1,835	31,741	\$1,693
19 and Under	148,001	1.57	72,494	\$1,428	51,204	\$1,743	43,533	\$1,811	38,480	\$1,715
20+	859,052	0.75	540,169	\$5,252	490,000	\$5,766	468,883	\$5,918	450,994	\$5,872

**TABLE 2B: POST-BIRTH STATISTICS OF MOTHERS WHO HAD JOBS BEFORE GIVING BIRTH AND RETURNED TO WORKFORCE AFTER BIRTH**

Number of Births	Average Number of Quarters off After Birth Including Birth Quarter	-----Average Wage* After Maternity Leave-----								
		First qtr after leave		Second qtr after leave		Third qtr after leave		Fourth qtr after leave		
		#	Wage	#	Wage	#	Wage	#	Wage	
Total	1,007,053	1.77	612,663	\$3,992	519,876	\$5,194	482,334	\$5,465	461,565	\$5,631
17 and Under	57,255	2.64	18,334	\$1,482	13,578	\$2,063	12,092	\$2,149	11,548	\$2,341
18 & 19	90,746	2.47	54,160	\$1,608	42,066	\$2,330	37,747	\$2,497	35,707	\$2,595
19 and Under	148,001	2.51	72,494	\$1,576	55,644	\$2,265	49,839	\$2,413	47,255	\$2,533
20+	859,052	1.67	540,169	\$4,316	464,232	\$5,545	432,495	\$5,817	414,310	\$5,984

**TABLE 3A: PRE-BIRTH STATISTICS OF MOTHERS WHO HAD AT LEAST 4 QUARTERS OF EMPLOYMENT BEFORE AND AFTER MATERNITY LEAVE**

	Number of Births	Qtr Off Before	Number Employed	Average Wage and % Change in Wage Before Maternity						
				1st	2nd	%chg	3rd	% chg	4th	% chg
Total	1,007,053	0.48	328,626	\$6,100	\$6,302	-3.20	\$6,349	-0.75	\$6,143	3.36
17 and Under	57,255	0.85	2,995	\$2,469	\$2,537	-2.68	\$2,655	-4.43	\$2,591	2.46
18 & 19	90,746	0.96	15,382	\$2,069	\$2,214	-6.52	\$2,247	-1.50	\$1,995	12.66
19 and Under	148,001	0.94	18,377	\$2,134	\$2,266	-5.82	\$2,314	-2.05	\$2,092	10.60
20+	859,052	0.45	310,249	\$6,335	\$6,541	-3.14	\$6,588	-0.72	\$6,383	3.22

**TABLE 3B: POST-BIRTH STATISTICS OF MOTHERS WHO HAD AT LEAST 4 QUARTERS OF EMPLOYMENT BEFORE AND AFTER MATERNITY LEAVE**

	Number of Births	Qtr Off After	Number Employed	Average Wage and % Change in Wage After Maternity						
				1st	2nd	%chg	3rd	% chg	4th	% chg
Total	1,007,053	0.94	328,626	\$5,202	\$6,246	20.07	\$6,407	2.57	\$6,439	0.50
17 and Under	57,255	1.30	2,995	\$2,964	\$3,358	13.28	\$3,256	-3.04	\$3,527	8.33
18 & 19	90,746	1.41	15,382	\$2,141	\$2,872	34.10	\$3,074	7.06	\$3,093	0.61
19 and Under	148,001	1.39	18,377	\$2,276	\$2,951	29.68	\$3,104	5.19	\$3,164	1.93
20+	859,052	0.92	310,249	\$5,376	\$6,442	19.83	\$6,603	2.50	\$6,633	0.46

**TABLE 4: PRE- AND POST-BIRTH ANNUAL STATISTICS OF MOTHERS WHO HAD AT LEAST 4 QUARTERS OF EMPLOYMENT BEFORE AND AFTER MATERNITY LEAVE**

	Number of Births	Qtr Off	Number Employed	Average Wage and % Change in Wage		
				Pre-Birth	Post-Birth	% change
Total	1,007,053	0.42	328,626	\$24,894	\$24,295	-2.41
17 and Under	57,255	1.14	2,995	\$10,252	\$13,106	27.84
18 & 19	90,746	1.37	15,382	\$8,525	\$11,181	31.16
19 and Under	148,001	1.33	18,377	\$8,806	\$11,495	30.53
20+	859,052	0.36	310,249	\$25,847	\$25,053	-3.07

FIGURE 1

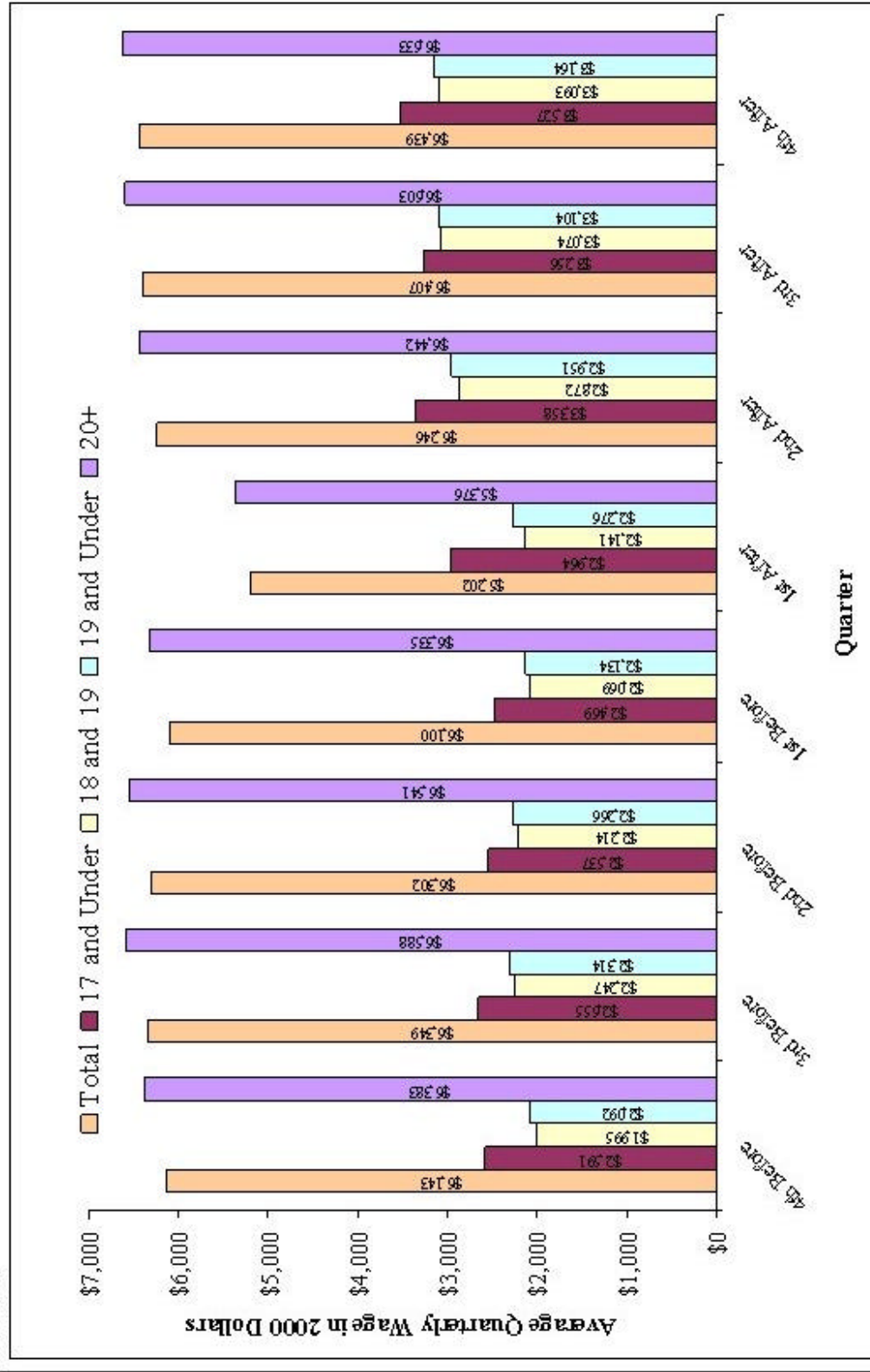
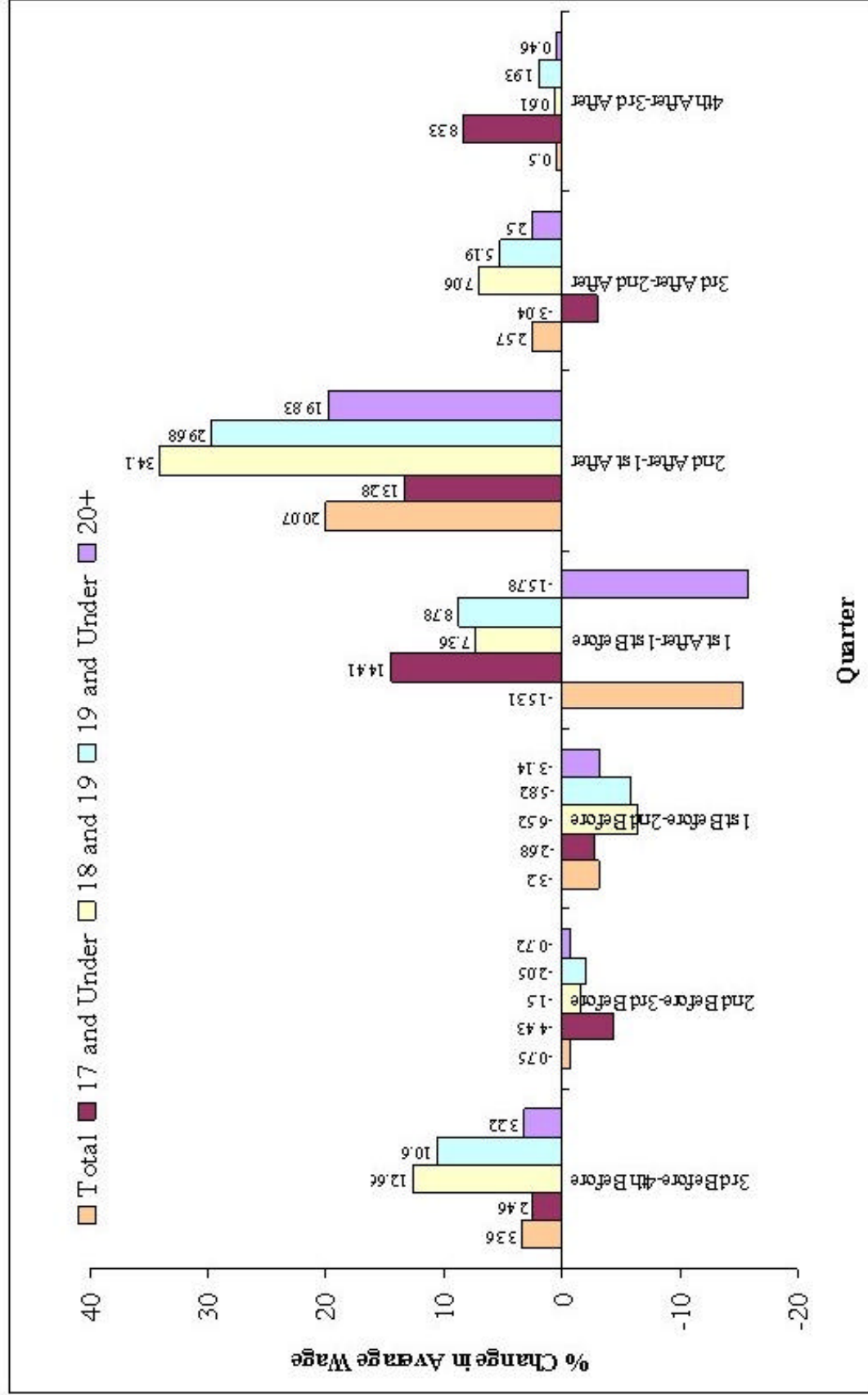




FIGURE 2



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