Comments on JBS estimates of farm laborers eligible for health services

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Independent test of accuracy of JBS methodology

The method proposed by JBS has several important aspects that deserve further comment. First, the method primarily relies on two sources of data, both of which are systematically collected in a manner that is objective and accurately representative of the population of interest.

Second, the method is subject to an independent test, based on the Quarterly Census of Employment and Wages (QCEW) published by the Bureau of Labor Statistics, for those states with universal unemployment insurance coverage, such as California. This test simply compares the QCEW findings for the total of full-time equivalent (FTE) direct-hire and contract-hire workers on crop farms with an estimate calculated from the JBS determination of the number of migrant and seasonal crop workers for the state.

To illustrate this second point, the 2007 QCEW data for California reports that annual average employment (direct-hire) on the state's crop farms was 172,222 FTE workers. Similarly, annual average employment by farm labor contractors and crew leaders was 117,854 FTE workers. Since nearly all persons employed by labor contractors in California work on crop farms, the reported total annual average employment of crop workers in 2007 was **290,076**.

The JBS estimate of the number of migrant and seasonal crop workers in California relies on the 2007 Census of Agriculture, which indicated the number of direct-hire "workers" (actually jobs) on the state's crop farms was 404,088 and the corresponding total direct-hire labor expense was \$4,133,695,000. Hence, following the JBS methodology, the average direct-hire labor expense per job was \$10,230. This latter figure will next be used to estimate the total number of contract-hire "workers" on the state's crop farms.

Following the JBS methodology, the total contract labor expense in 2007 on California crop farms is reported in the 2007 Census of Agriculture to be \$2,193,994,000. Using the same labor expense per job as for direct-hire workers, the estimated number of contract-hire "workers" is 214,473. Therefore, using the JBS methodology, the estimated total number of jobs on the state's crop farms in 2007 was 618,561.

Data from the NAWS can then be used to find the estimated number of full-time equivalent workers, as follows. The average number of farm employers per worker determined in the NAWS for California was 1.38 (2003-04 data), and the average number of weeks of farm work during the prior year per worker was 34.26 (2003-04 data). Combining these two factors with the estimated number of jobs yields an estimated total FTE employment on California crop farms equal to **295,316**.

The estimate of FTE employment on California crop farms in 2007 differs from the accurate figure reported by BLS in the QCEW by just 5,240 FTE, or 1.8%. It is, of course, necessary to correct the above estimate of FTE employment by using current NAWS findings for the average number of weeks of farm work and the average number of farm employers instead of relying on data from 2003-04.

Limitations of the JBS methodology

There are a few limitations of the JBS methodology in determinations of the number of county residents who are eligible for services under the criteria established by the Migrant Health program. First, some farm laborers who are employed in a given county may actually reside in an adjacent or nearby county and simply commute to work on a daily basis while remaining year-round residents of their home county. It is generally thought that this effect is likely to be small.

Second, some crop workers are "follow-the-crop" migrants, traveling from their home base to two, or sometimes more, counties or regions to obtain farm jobs. Clearly, it would be an unreasonable duplication to count such workers multiple times in two or more county estimates. Again, the numbers are believed to be small.

Third, NAWS sampling is based on USDA's crop regions, and NAWS data can only be reported at multi-state regional levels, not at state level, for all but three states, and never at the county level. All other states are within specific multi-state regions. Hence, NAWS data for a specific county, say in Washington or North Carolina, will be an average among all of the states in the regions of which those states are a part. If the true pattern of employment differs substantially in one or more counties in a specific region from the pattern in the remaining counties, it is possible that the regional average may either lead to overestimates or underestimates of the true eligible population in the counties where deviations are substantial.

Finally, in some counties, farm management companies handle all operational activities for a large portion of the area's farms. For example, half of the vineyard acreage of Napa County, California, is actually operated by vineyard management firms. The Census reports of each such farm's operating expenses, including use of labor, is merely an accounting convenience. The "farm operator" in such cases is normally the landowner who often has a full-time off-farm job, and is not the employer of record for the farm. Thus, even though it appears that such farms directly hire workers, in fact the workers are employed by another legal entity, most often a farm labor contractor who is brought in for a specific task by the management company. The main consequence of this type of arrangement is to misstate the county-wide number of direct-hire farm jobs by an unknown amount.

There is evidence that this latter data limitation may be more extensive than is generally realized. In Napa County, the 2007 Census of Agriculture finds 715 farms (both crop and

livestock) had direct-hire labor expenses. But the 2007 QCEW reports just 214 crop farm operators and 7 livestock farm operators actually had hired workers.

An even more extreme example of this same data limitation concerns San Diego County. The 2007 Census of Agriculture finds 2,548 farms (crop and livestock) had direct-hire labor expenses. But the 2007 QCEW reports just 527 crop farm operators and 75 livestock farm operators actually had hired workers. Of course, it is well-established that most of the avocado acreage in San Diego County is run by farm management firms.

EDD, Report 127, 1975

SIC 01 (crop farming)

Number of employers: Q1, 18,915; Q2, 19,424; Q3, 20,563; Q4, 20,885

Total wages (four quarters): \$1,170,600,175

SIC 02 (livestock farming)

Number of employers: Q1, 5,166; Q2, 5,348; Q3, 5,272; Q4, 5,223

Total wages (four quarters): \$211,571,745

COA report for 1974, California

All farms (crop and livestock)

Number of farms reporting hired labor: 35,829

Total labor expense: \$1,050,722,000

SIC 01 (crop farming) – Farms with Sales of \$2,500 and over

Number of farms reporting hired labor: 24,131

Total labor expense: \$875,655,000

SIC 02 (livestock farming) – Farms with Sales of \$2,500 and over

Number of farms reporting hired labor: 6,846

Total labor expense: \$162,575,000

SIC Not reported – Farms with Sales of \$2,500 and over

Number of farms reporting hired labor: 507

Total labor expense: \$76,000

QCEW reports for 2007, California

NAICS 111 (crop farming)

Number of employers: Q1, 10,697; Q2, 10,782; Q3, 10,802; Q4, 10,812

Total wages (four quarters): \$4,416,340,060

NAICS 112 (livestock farming)

Number of employers: Q1, 3,055; Q2, 3,076; Q3, 3,077; Q4, 3,076

Total wages (four quarters): \$848,164,799

COA report for 2007, California

All farms (crop and livestock)

Number of farms reporting hired labor: 29,661

Total labor expense: \$5,015,513,000

NAICS 111 (crop farming)

Number of farms reporting hired labor: 22,852

Number of "workers" (jobs): 404,088

Hired labor expense (crop farming): \$4,133,695,000

Contract labor expense (crop farming): \$2,193,994,000

Estimated number of contract labor "workers" (jobs): 214,473

NAICS 112 (livestock farming)

Number of farm reporting hired labor: 6,809

Number of "workers" (jobs): 44,095

Hired labor expense (livestock farming): \$881,819,000

QCEW reports for 2007, Napa County

NAICS 111 (crop farming)

Number of employers: Q1, 212; Q2, 214; Q3, 210; Q4, 209

Total wages (four quarters): \$83,215,822

NAICS 112 (livestock farming)

Number of employers: Q1, 6; Q2, 6; Q3, 6; Q4, 7

Total wages (four quarters): \$352,850

COA report for 2007, Napa County

All farms (crop and livestock)

Number of farms reporting hired labor: 715

Total labor expense (crop and livestock farming): \$88,771,000

QCEW reports for 2007, San Diego County

NAICS 111 (crop farming)

Number of employers: Q1, 489; Q2, 479; Q3, 517; Q4, 527

Total wages (four quarters): \$229,753,547

NAICS 112 (livestock farming)

Number of employers: Q1, 72; Q2, 73; Q3, 75; Q4, 75

Total wages (four quarters): \$25,868,915

COA report for 2007, San Diego County

All farms (crop and livestock)

Number of farms reporting hired labor: 2,548

Total hired labor expense (crop and livestock farming): \$281,127,000