

Comments on Migrant Enumeration (Draft 4)

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1. The estimate of the number of migrants and dependents takes no account of the fact that many workers are employed in peak-season tasks in more than one crop and state. The Demand for Labor (DFL) methodology seeks to determine the number of migrants and dependents by estimating the total worker-hours required for peak-season activity on a crop-by-crop basis. Totals for each state are then determined by simple addition of the estimates for individual crops.

This method contains several hidden assumptions, the most questionable of which is the idea that an individual worker is employed in only one crop, in just one state. Thus, a single individual may be counted multiple times in the DFL computation. No account is taken of the fact that different crops often have peak seasons at different times of the year. An individual who works, for example, in asparagus harvesting in the early spring may also harvest cherries in the late spring and apples in the fall.

Those states with the largest estimated total of migrants and dependents are also the states where this effect will be greatest. This is because they are Sun Belt states where growing conditions favor year-round activity. Even in cases where workers are employed in just one crop, they may perform multiple peak-season tasks in the course of one year. For example, broccoli and lettuce are harvested on a year-round basis in California, yet the DFL assumes that the entire acreage of each is harvested in approximately 50 days. It is well established that, during the course of the calendar year, the major California lettuce producers (Bruce Church, Tanimura & Antle, Dole Fresh Vegetables) move their crews from the Imperial Valley to the San Joaquin Valley, to the South Coast, to the Central Coast, back to the San Joaquin Valley and finally back to the Imperial Valley. A large fraction of the harvest labor force travels with the equipment to each location and this crew is supplemented with local workers to do the less-skilled tasks such as cellophane wrapping.

Mines et al have analyzed the National Agricultural Workers Survey data to show that roughly 90% of all seasonal agricultural work is performed by individuals who string together a series of short-term jobs, interspersed with periods of unemployment. Thus, the DFL method overstates the actual number of migrants and dependents by an unknown amount.

2. The estimate of migrants and dependents assumes a fraction of the total farm labor force who migrate that is much larger, on a national basis, than is supported by current national survey data. The national "per cent migrant" of 61.5% used in the estimate conflicts with the NAWS finding of 40%. While individual state survey data vary greatly from the national figure, attention must be directed to why the national "per cent migrant" is 50% higher than is found in survey data.

3. Workers who live but do not work in Texas or Puerto Rico are counted twice, once in the home state and again as migrant workers in another state. This "double-counting" effect is inconsistent with the careful effort to determine "single counts" of peak-season harvest workers and should be eliminated.

4. DFL computations are inconsistent in several important crops which are among the largest contributors to the migrant and dependent totals. For example, is it really the case that all North Carolina tobacco is hand harvested and none is mechanically harvested? Since the estimated hours-per-acre required for the two harvest methods differ by more than a factor of two, the effect of taking proper account of this factor will be substantial.

Similarly, there is a great variation in labor requirements for fresh tomato harvest depending upon cultural practice and variety. Pole tomatoes require a great deal more labor than bush varieties. And cherry tomatoes have a different labor requirement.

While the authors have, in nearly every case, used a single national labor coefficient for each crop (hours per acre), the great variation in coefficients used for tomatoes requires stands as unique. At the same time no effort has been evidently been made to take account of the large variation according to tomato variety described above.

5. Estimates of production in the five states with the largest estimated number of migrants and dependents appear to be inconsistent with the migrants and dependents totals. The five top states in the DFL estimated number of migrants and dependents are shown below.

<u>State</u>	<u>Number</u>	<u>Fraction</u>
California	711,825	0.42
Florida	235,469	0.14
North Carolina	226,226	0.13
Texas	349,174	0.20
Washington	180,522	0.11

On the other hand, production data show strikingly different proportions. For example, harvested vegetable, orchard and tobacco acreage figures reported in the 1987 Census of Agriculture for these states show the following.

<u>State</u>	<u>Total Acreage</u>	<u>Fraction</u>
California	2,972,217	0.58
Florida	1,032,842	0.20
North Carolina	363,307	0.07
Texas	406,474	0.08
Washington	384,701	0.07

While there are great differences in cropping patterns among the five states, the striking feature of this production data is that California acreage is roughly three times that of Florida and that the latter three states are roughly equivalent and, combined are less than half that of California.

If production value data are used for vegetable, orchard, nursery and tobacco crops for these states, again from the 1987 Census of Agriculture, we find the following.

<u>State</u>	<u>Value (billion \$)</u>	<u>Fraction</u>
California	7.033	0.59
Florida	2.629	0.22
North Carolina	0.896	0.07
Texas	0.564	0.05
Washington	0.849	0.07

Again, as with the acreage data, the feature that most clearly stands out is that California's production value is roughly three times that of Florida and the remaining three states are roughly equivalent and, combined, are less than half that of California.

Finally, labor expense data show a similar type of discrepancy with the enumeration totals. The 1987 Census of Agriculture data on total labor expense (direct hire plus contract labor) are shown below.

<u>State</u>	<u>Expense (billion \$)</u>	<u>Fraction</u>
California	2.999	0.54
Florida	1.002	0.18
North Carolina	0.329	0.06
Texas	0.773	0.14
Washington	0.469	0.08

As with the other data, California's total labor expense is reported to be about three times that of Florida while the other three states have a total which is ~~less than~~ half that of California's.

While none of these three measures directly determine the number of migrants and dependents, it is suggestive that labor intensive crop production (acreage and value) indicates that California's total is roughly three times that of Florida, and that North Carolina, Texas and Washington are roughly equivalent. Of course, by including corn detasseling and cotton hoeing, Texas' share would be somewhat larger (California and North Carolina cotton hoeing would partly offset this factor).

While these data are merely intended to be suggestive of other measures of labor-intensive crop needs, we need to take account of this set of observations in the final report of this study.

6. There are major discrepancies between published UI wage reports and the DFL enumeration data. Unfortunately there are only a few states for which UI wage data are available. For California, the total number of distinct Social Security numbers is reported to be 890,000 in agricultural jobs. Using the migrant fraction of the DFL study we find an indicated number of migrants and dependents of more than 900,000, as compared with the total of 711,000 of the DFL study.