PROCEDURE FOR DERIVING MIGRANT REGIONAL DISTRIBUTION FOR ALLOCATING MIGRANT LEGAL SERVICE PROGRAM FUNDS

by

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RATIONALE FOR THE ALLOCATION METHODOLOGY

The 1977 Lillesand study for the Migrant Legal Action (MLA) Program estimated the number of migrant workers in most states and has been used as a basis for allocating program funds since its completion. The methodology for this study and the results were considered by some to be controversial when first published.

In the intervening 13 years, MLA program staff feel conditions within the migrant population have changed with more individuals moving into and others out of specific parts of the country. The conclusion reached by MLA is that this is an appropriate time to update migrant population state estimates for funding allocation purposes. Program personnel wanted to explore a methodology different from what had been used in the 1977 study.

None of the data sources currently available provide a reliable estimate of the migrant population (with or without dependents) on a state-by-state basis. Most sources are geared to measure some other feature of agricultural labor or a related area. Although the National Agricultural Workers Survey (NAWS), currently in its fourth year, holds some promise of better data to come, it does not now provide the reliable information needed for determining migrant allocation by state.

Exact numbers of migrant workers (and their dependents) are very difficult to determine as any one estimate only provides data for a specific point in time. Given changing conditions which affect the agricultural labor composition from year to year, such a measurement would most probably be prejudiced in one manner or another.

An examination of the proportion of migrant workers present in one area compared to another area would be a better way to estimate the migrant population. This method would lend itself to allocation purposes with greater reliability; i.e., comparison of size has a greater assurance of accuracy than determination of absolute number.

Even this proportional allocation would be difficult to obtain on a state-by-state basis as the data do not lend themselves to that fine a detail. By grouping the states into agricultural regions, there is a greater likelihood of accuracy.

Because no one source for proportional estimates can be considered authoritative, a methodology that approaches the issue from a variety of viewpoints might be best suited to meet the needs. Comparing separate estimates from various sources, acknowledging the strengths and weaknesses of each, and using an independent arbitrator to determine the final proportional allocation is suggested as a means to overcome the shortcomings discussed here.

There are a series of steps in the process contemplated in this document. First, securing the services of knowledgeable persons (consultants) who can actually assemble and prepare the materials described herein. To be credible this should be done through an institution independent of MLA (see further discussion on p. 7). Second, convening a Review Panel of experts who can assess the relative merits of the regional distribution based on each source. Third, arriving at a "best estimate" of the actual regional distribution. Fourth, in those cases where it is possible, extending these estimates to the state level. Steps (1) and (2) should be the work of the knowledgeable persons who are hired to carry out the plan of work. Step (3) is the responsibility of the Review Panel. Step (4) could become the responsibility of the consultants upon recommendation from the Review Panel.

The central point of the research design outlined in this paper is that the most widely accepted current data collection efforts by Federal agencies regarding hired farm workers are based on USDA-defined "crop regions" or areas of the country where cropping patterns are relatively homogeneous. There are 19 crop regions (see definitions of regions in Table 1 of this document) with Alaska, California, Florida and Hawaii being the only states constituting individual regions. Both USDA and USDoL design their data collection efforts on the basis of these regions.

DESCRIPTION OF METHODOLOGY

Brief

The proposed methodology involves deriving at least three, and possibly four, independent estimates for the 19 USDA-defined agricultural regions throughout the country and using a Review Panel to compare each to determine final proportional estimates. The regions are defined by the U.S. Department of Agriculture (USDA). The estimates are for the proportion of the total national migrant population residing in each region. The Review Panel will make their decisions based on an assessment of the strengths and weaknesses of each source.

Agricultural Regions

The USDA has divided the contiguous United States into 17 agricultural areas, or regions, composed of from 1-7 states each. These are used, among other purposes, in the quarterly Farm Labor report, published by the Agricultural Statistics Board, National Agricultural Statistics Service, USDA. Hawaii and Alaska are excluded from this delineation, and are added as separate regions. Table 1 describes each agricultural region.

TABLE ONE
AGRICULTURAL REGIONS

Region Name	States Included
Appalachian I	NC, VA
Appalachian II	KY, TN, WV
Cornbelt I	IL, IN, OH
Cornbelt II	IA, MO
Northern Plains	KS, NE, ND, SD
California	CA
Delta	AR, LA, MS
Southeast	AL, GA, SC
Florida	FL
Lake	MI, MN, WI
Mountain I	ID, MT, WY
Mountain II	CO, NV, UT
Mountain III	AX, NM
Northeast I	CT, ME, MA, NH, NY, RI, VT
Northeast II	DE, MD, NJ, PA
Pacific	OR, WA
Southern Plains	OK, TX
Alaska	AK
Hawaii	HI

Proportional Estimates

At least three, and possibly four, separate estimates of the proportion of migrants in each region will be developed. Each will use a independent source of data. Exact numbers will not be provided, only proportion of the total population within each area. Only regional, not state, estimates will be presented. The four proportional estimate sources include:

* Demand for Labor. As used by the U.S. Public Health Service for estimating target population for the Migrant Health Program, involves calculating peak presence based on demand for laborers. The formula calls for determination of peak presence activity, in relation to a specific crop or crops, by defining the number of crop acres, person hours needed to produce one acre, length of harvest season and average number of hours worked per day. The result are county estimates. A detailed description of

this method is appended to this document.

The demand for labor estimates would be prepared by an outside contractor hired by MLA or the study sponsoring institution. Work performed would be in accordance with prescribed guidelines. The other two estimates (COA and NAWS) would be developed by the study monitoring agent.

* Adjusted Census of Agriculture (COA) estimate. Using contract labor and hired farm labor expenses, adjusted for regional wage levels and benefits provided, grouped by region. The computation relies on the 1987 Census of Agriculture and published wage levels from the USDA report Farm Labor.

* National Agricultural Workers (NAWS) Survey. Publication of the 1990 NAWS Survey provides an opportunity to re-define the public perception of farm workers. The purpose of the Survey is to determine annual changes in the supply of workers who provide seasonal agricultural services for perishable crops in the U.S. Though designed for a different purpose the data collection effort is sufficiently thorough to include a detailed two-year job history for each worker who is interviewed. Hence, the location of each job as well as the home base for each worker may permit the classification of a given job as "migrant."

Thus, NAWS can provide a direct determination of the fraction of all farm workers in the sample who are migrants. According to Rick Mines, NAWS data can be analyzed to provide regional estimates of the fraction of seasonal farm workers who are also migrants. NAWS uses the same crop regions as USDA for survey design purposes but collapses them into six regions for reporting and analysis. This is done to assure that the sample size remain large enough in each reporting region to yield statistically stable results. Mines is willing to push the data as far as statistical reliability can allow to provide regional estimates of the fraction of farm workers who are also migrants.

* National Agricultural Statistics Service (NASS) Survey of Agricultural Labor Demand. For purposes of the annual determination of the need for Replenishment Agricultural Workers (RAW) under the Immigration Reform and Control Act, USDA conducts a survey of agricultural producers to determine their estimated labor needs based on current and planned cropping patterns. This demand estimate is then compared with data from NAWS to arrive at a determination of a "shortage number" for estimating the need to issue RAW visas. The NASS survey is based on the same USDA crop regions as described above. That is, the data is collected by a survey of producers in each crop region. The final result of the this part of the NASS survey is an estimate of the number of person-hours of labor required for seasonal agricultural services on a national basis: a single number. There are, at present, no published data disclosing the regional distribution so that it would be necessary to request that USDA provide the regional breakdowns. Leslie Whitener of USDA is now the Head of the

Agricultural Labor group and could be approached for assistance. It is possible that these data might not become available within the time frame needed for the present purpose.

Family Size Multipliers

NAWS can also be utilized to answer such questions as household size (by region and ethnicity), which is of great value in calculating the "multiplier" needed for the final "migrant count." The percent of workers who are migrants within each region, also determined through the survey, would be applied. The results for each region would then be compared and a proportional estimated determined.

It is also recommended that an independent contract be prepared for the completion of a thorough literature review. This review could be expected to provide additional information regarding such matters as family size by ethnicity and, possibly, by region.

Compilation of Estimates

Once the separate estimates are prepared, an unbiased description of the strengths and weaknesses of each would be developed clearly stating the techniques used for data gathering, the comprehensiveness of the results, the probable holes or duplication in what is presented and any other considerations relative to making comparisons. In addition, directors from each MLA state program would be invited to present written comments concerning special features for the development of data from their area or specific critiques of a particular estimation technique.

State-Specific Data Sources

There are several additional data sources that are state-specific and which may be able to provide independent measures of the distribution of migrant farm workers on a national basis. We suggest that the sponsoring agency be responsible for the compilation of these data. In several cases the information provided may not be able to accomplish this goal directly but the data can provide a test of the accuracy of other measures. These can be classified according to the type of methodology utilized: cross-section (household or employer), administrative and establishment.

Cross-Section

* State Level Surveys. A number of state-level surveys of individual crops or of groups of crops have been conducted by various scholars. For example, Mason has conducted surveys of a half-dozen Oregon crops. And the California raisin industry itself

has prepared its own analysis of the time flow of workers. From these survey sources it should be possible to obtain better estimates of peak labor demand. California EDD recently commissioned the construction of a comprehensive electronic bibliography of publications addressing farm labor market issues. Prof. Jeff Perloff of UC Berkeley was the Principal Investigator under this EDD contract. The project has now been completed and the data base may be accessed. This source should be examined for references to other state-level cross-sectional surveys.

Administrative

* California Unemployment Insurance (UI) records. California is one of the very few states with comprehensive UI coverage. It is also the single most important state in terms of agricultural production, numbers of farm workers and numbers of migrant farm workers. The California Department of Employment Development (EDD) has recently initiated publication of an annual "Agricultural Employment Patterns Study." EDD uses a definition of "migrant farm worker" in its analysis which is more limited in its scope than the Legal Services Corp. (LSC) definition. These data make it possible to estimate both the fractional share of all California persons who have performed hired farm work during a given year and who are "migrant" by this definition, as well as their absolute number. EDD has published results for 1987 and 1988. Phil Martin has used the same data set for 1984 and has applied, successively, several different definitions in making estimates of the number of migrant farm workers in 1984. These data show a steady increase in the absolute number of migrant farm workers in California over the most recent four years.

* ES-223 reports. These reports purport to directly reflect the absolute numbers of "migrant farm workers" at the local (state) level. Since only states having local areas which include at least 500 seasonal farm workers are required to file estimates of their number it is not possible to include data for all states.

Establishment

* Quarterly Agricultural Labor Survey (USDA). The Quarterly Agricultural Labor Survey is published as part of the National Agricultural Statistics Survey of farm businesses and reports on the number of persons directly hired by such establishments and for agricultural service firms (labor contractors) active in either Florida or California. No effort is made to identify migrant farm workers. These data can be supplemented with other data to estimate the actual total number of workers on a regional or national basis. For example, Mines can furnish the fraction of farm workers who are migrants in each region, roughly 50% on a national basis. QALS gives a number for the total number of hired farm workers within each of the 18 crop regions. It should be relatively straightforward to analyze this

set of data and obtain an estimated number of migrant farm workers within each region.

* Wage and Salary Workers by Industry. National data are available from the Bureau of Labor Statistics on the number of persons employed in specific SIC codes. Those corresponding to food processing, fresh fruit and vegetable packing, and citrus packing are of special importance. Corresponding state data are available from state employment departments. These data should be consulted to provide information on those industry sectors.

Some thoughts on the Review Panel

The Review Panel would be composed of individuals familiar with migrant data and/or knowledgeable of techniques for hard-to-count populations. It would be expected that the background and frame of reference of the members would vary; e.g., familiarity with farm labor, agricultural economics, migrant dependents, general demographics and other related areas. They would approach the topic from both an academic and a practical standpoint.

The actual individuals selected might represent migrant service programs, academia, agricultural employers, the Bureau of the Census, the U.S. Department of Agriculture or other agencies and institutions familiar with migrant data/counting issues. No MLA staff would participate on the Panel in a decision-making capacity.

The directive to the Panel would be to sift through the resulting migrant proportionalities, derived from the three separate methods, compare and contrast results, weigh the strengths and weaknesses of each technique and make a final determination on migrant proportion by region. Their decision would be considered final for allocation of migrant legal services funding. The actual mechanics of funding adjustments and time frames would be developed by MLA personnel.

It would be wise to obtain good regional representation from academics as well as broad agency representation (USDA, DoL, INS, CAW). There is likely to be relatively little controversy about the actual numbers generated from each data source. However, there are a number of delicate issues not directly addressed in this proposal. It would be desirable for the Review Panel to provide guidance to the consultant on these issues.

First, to what extent can regional data be further broken down into state-by-state data. Since this is the ultimate purpose of this exercise, the advice of the Review Panel might be valuable.

Second, for migrant workers, to what extent is it possible to attribute fractional shares of a person's annual potential work

time to home state residence vs. out-of-state migrant employment (this is of special concern for "sending states" such as Texas).

Third, to what extent are the results skewed by the lack of consideration of unemployed farm workers. Also, to what extent have the increasing numbers of undocumented farm workers who have entered the U.S. since 1986 become a direct factor in the demand for legal services.

PROJECT MONITORING

It is proposed that this data development process be housed within an institution independent of MLA; e.g., the University of Texas Center for the Study of Human Resources. An entity within this institution, or an outside agent, should be responsible for the overall development of the system including:

* Monitoring the work of the contractor charged with developing the demand for labor estimates.

* Developing or monitoring the development of COA and NAWS estimates.

* Detailing the strengths and weaknesses of each estimation technique.

* Incorporating notes from individual MLA programs on considerations specific to one state or area in a form usable by the Panel of Experts.

* Convening the Panel of Experts and providing members with appropriate material for deliberations.

* Facilitating the meeting of the Panel of Experts.

* Preparing a final report on the data development process and the results.

PROCESS ACTION STEPS

The following are the steps necessary to plan for and complete this migrant allocation process:

* Approving the concept by all MLA program staff (state and national levels).

* Identifying the monitoring agent and sponsoring institution.

* Developing the RFP for the demand for labor estimates and hiring the contractor.

* Identifying and securing the agreement to participate from members of the Panel of Experts.

* Developing the two other methodological techniques (COA and NAWS).

* Writing the strengths and weaknesses of each of the three data techniques.

* Soliciting data-related comments from state MLA program directors.

* Assembling material for the Panel of Experts.

* Convening the Panel of Experts to make decisions on proportional allocations.

* Writing the final report of study results.

ALLOCATION SYSTEM CONSIDERATIONS

The following points should be considered before adoption of this allocation system:

* How should home-based migrants who do not work in their home base area be included in the methodology? The three data techniques described are based on actual agricultural employment.

* How should migrant dependents be included in this methodology?

* What should be the definition of "migrants" included in the methodology?

* How will the impartiality of the Panel of Experts be guaranteed?

* Will MLA state program directors have enough confidence in the Panel of Experts and this process to consider its outcome final for allocation purposes?

* Who will be the sponsoring institution for the process, and how will assurance in the ability of this methodological monitor be guaranteed?

* How will this process be funded?

DEMAND FOR LABOR TECHNIQUE ESTIMATION DETAILS

CORE ESTIMATES

An outside contractor would be hired by MLA or the study sponsoring institution to develop demand for labor estimates of the migrant population using a technique similar to that employed in Methodology for Designating High Impact Migrant and Seasonal Agricultural Areas, prepared in 1985 for the U.S. Public Health Service, Migrant Health Program. Enhancement procedures to this technique would be undertaken comparable to the method used in the Region X Interagency Profiling Project Report, developed by the Northwest Regional Primary Care Association, Seattle, Washington, 1989.

The demand for labor technique uses an estimate of the maximum number of workers required to harvest crops (per acre) within a defined geographic area. "Crops" are defined as those which are labor-intensive, requiring manual labor, not machines, to harvest. The first determination must be the crop (or crops) activity occurring at worker peak presence. Therefore, it is necessary to check crop activity and normal harvest season dates. These must be verified with the state sources listed below.

Given identification of target crops, four components are needed to make the initial demand for labor estimate within a specific area:

* Number of acres of the crop.

* Person-hours needed to harvest one acre of the crop.

* Length of the harvest season.

* Average number of hours worked per day by one worker harvesting the crop.

To derive the estimate the number of acres harvested are multiplied by the number of hours needed to harvest one acre. This is divided by the average daily number of hours worked by a single worker times the number of days in the harvest season.

$$\text{Peak workers} = [(A)(H)]/[(W)(D)]$$

A = Number of acres planted for crop.
H = Hours needed to harvest one acre of crop.
W = Average daily number of hours worked by worker.
D = Number of days in harvest season.

The following would be the primary source(s) for the required data:

* Number of acres planted: 1987 Census of Agriculture,

published by the Bureau of the Census, and State Departments of Agriculture special reports. This should be verified through state land grant university's agriculture departments (State Extension Service) and personnel in State Departments of Agriculture.

* Hours to harvest one acre: State Departments of Agriculture or State Extension Service for "Crop Budget Reports." These specify the component costs required to harvest specific crops. National estimates are also available from the USDA.

* Average daily number of hours worked: The Methodology for Designating High Impact Migrant and Seasonal Agricultural Areas estimates that "on the average, a migrant works eight hours per day for six of the seven days in a week." This was not found to be universally true in all regions or in every crop and should be checked at the state level.

* Number of days in harvest season: The USDA produces three handbooks specifying harvest dates throughout the country. "Handbook No. 283 provides harvest dates for field and seed crops; Handbook No. 507 covers fresh market and processing vegetables; and Handbook No. 186 gives dates for fruits and nuts." (Methodology for Designating High Impact). Information provided should be verified through state sources: Departments of Agriculture, State Extension or State Departments of Employment.

As noted, each factor should be verified through personal contact with local personnel in state government agencies and other local sources.

Data will be sought on a state-wide basis. This will require first, examining the COA to determine the hand-harvested crop activity; second, defining the harvest period for each crop; and third, specifying the overlap in crop-related tasks to determine the time of peak activity.

It may be found that different regions of the state harvest the same crop at different times. In addition, it may be necessary to examine certain states by regions to determine peak presence for the state as a whole.

ENHANCEMENTS

Four other possibly significant agriculturally-related activities can occur simultaneous to harvest peak or can represent a greater peak than actual harvest: work in horticultural specialties (green houses, nurseries and similar industries), food processing operations, reforestation activity, and home-based workers. Each are estimated differently.

Horticultural Specialties

To estimate horticultural-related activity, a process similar

to the regular demand for labor technique should be employed. The first major determination should be whether the activity coincides with peak worker presence in the state.

Data regarding "crop" production can be obtained from the 1987 Census of Horticultural Specialties and verified through the sources noted. Similarly, person-hours needed for production, length of season and average number of hours worked per day can be obtained through sources similar to those for field crops. All information should be verified by state sources.

Food Processing

State sources and state commodity specific associations can provide information concerning dates of worker activity in various types of food processing operations. If it is determined such employment coincides with worker peak presence in the state, a listing of food processors should be obtained and each called to determine the number of days workers are employed and the average number of workers hired for that period. It might be possible to locate a state-specific report which can provide the necessary information, although none are presently known.

Reforestation

Research conducted by Alice Larson for Oregon Legal Services (Data Source Review and Comparative Estimates for Migrant Workers in Oregon, 1987) attempted to identify sources for estimating the number of reforestation workers in Oregon. The results of this research are described with the assumption that similar estimation sources are available in each state where reforestation activity might be a consideration for peak presence. Three sources were found to provide such information, but did not meet the research needs.

* Forest Service, U.S. Department of Agriculture -- estimates labor hours for all reforestation contract activity on Forest Service owned land but does not summarize this information.

* Bureau of Land Management, U.S. Department of the Interior -- similar to Forest Service for reforeststation contract activity on land owned by the Bureau, but no summary is available.

* Bureau of the Census, Decennial Census -- In 1980, reforestation workers were categorized as "Forestry Workers, Except Logging" together with those "maintaining wood lots and forest stands, and maintaining tree lots, such as Christmas tree lots," This involves jobs such as: tree planting, greens picking, sap gathering, tree trimming, bark scaling, chain hooking and others. It should be remembered, however, that the decennial census only records worker employment for the week prior to April 1 and may exclude many in this occupation category. Employment data from the 1990 Census will not be available until 1992.

The only source found in Oregon to provide some estimate of those involved in reforestation activity was unemployment compensation figures reported by employers covered under the state Unemployment Insurance Law. Statistics were reported by SIC code, with "Major Group 08 - Forestry," "Industry Number 0851 - Forestry Services" identified as the category of interest. Specific jobs within this classification included: "cruising timber, estimating timber, fire fighting, forest management plans, forestry services, pest control, reforestation and timber valuation." Coverage is for all private employers hiring one or more individuals. In Oregon, this was felt to be approximately 95% of all reforestation employees.

The Oregon Employment Division publishes this information annually, identifying employment by SIC code on a monthly basis. These figures were used in the Oregon research effort as an estimate of reforestation workers at peak presence.

Home-Based Workers

Some states may record greater presence during the off-agricultural season when migrants are at their home base. Many of these individuals may not actually work in their home base area, but may be present and need assistance for many months before they again migrant to other parts of the country to work in agriculture.

In states where the presence of home-based workers may provide a larger peak than actual agricultural activity, local service providers from migrant health, migrant Head Start, MLA, migrant JTPA, migrant education and other programs geared to assist such individuals should be questioned about dates of peak presence. If it is possible worker presence during this period may exceed worker presence during actual agricultural activity, an estimate of home-based workers should be made.

UNANSWERED QUESTIONS

1. Do we want to and do we need to specify the proportion of mig vs. seasonal? [see my proposed second study/contract-AL]

2. Do we need to or want to add dependents? [see my proposed second study/contract-AL]

3. Don't have an estimate for unemployed migrants. NWRPCA used one but it was very WEAK!