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APPENDIX

To construct the instruments used in our analysis, we obtain information on emigration patterns for each Mexican state in our sample from the Mexican Migration Project (MMP118) database. The MMP118 reveals the U.S. state of residency of interviewed return migrants in various Mexican states. Using that information, we derive weights for the likely U.S. destinations of current Mexican emigrants from each Mexican state. These are used to construct weighted averages of U.S. unemployment for emigrants from each of the Mexican states in the ENIGH during each survey period. For example, about 31 percent of return migrants in the state of Durango resided in California, 28 percent resided in Texas, 26 percent in Illinois and 15 percent elsewhere in the United States. Using this information about emigration patterns, we compute average U.S. unemployment rate for emigrants from Durango in 2000 as follows: $(0.31 * \bar{u}_{CA} + 0.28 * \bar{u}_{TX} + 0.26 * \bar{u}_{IL} + 0.15 * \bar{u}_{US})$, where, for instance, $\bar{u}_{CA}$ $(\bar{u}_{US})$ denotes average unemployment rates in California (overall US) from the 2000 CPS Merged Outgoing Rotation Groups (commonly known as the MORG extracts).

To obtain a measure of uncertainty in U.S. unemployment rates in the year 2000, we compute the standard deviation of percentage changes in month-to-month unemployment rates in each U.S. state during 2000. The information on migration networks derived from the MMP118 is then applied to compute a weighted average of the standard deviation of percentage changes in month-to-month U.S. unemployment rates during the year 2000. For example, using the pattern of emigration from the State of Durango to the U.S. we compute the following weighted average of U.S. unemployment uncertainty for emigrants from Durango: $(0.31 * S_{CA} + 0.28 * S_{TX} + 0.26 * S_{IL} + 0.15 * S_{US})$ where, for instance, S_{CA} represents the variability of monthly

unemployment rates in California during 2000 according to the MORG extracts of the CPS. The weighted average of the volatility series proxies the unemployment uncertainty experienced by emigrants from the state of Durango in 2000.

The described weighted U.S. unemployment and unemployment volatility series are used as instruments for the remittance flows received by households in various Mexican states and survey years.