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ABSTRACT

Women and Migration*

While scholars have long studied the economics of migration, increasing waves of international and regional migration around the world have placed greater focus on the varied impacts of migration in recent years. Critical to this line of research is an examination of the important role that women play in both sending and destination areas. This chapter addresses various aspects of the relationship between women and migration, including key ways in which non-migrant women are affected by migration, as well as how female migrants affect families and labor markets in both source and destination communities. Selection factors and determinants of female migration, as well as the gendered impacts of migrant networks, are also discussed.

JEL Classification: F22, O15, R23, J16

Keywords: migration, gender, left behind, women, migrant selection, networks

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I. Introduction

While the economic importance of migration has long been acknowledged, in recent years it has gained significant attention due to rising waves of international migration taking place throughout the world (Peri 2016). Early strands of this research were primarily focused on the migration of men and their impact on labor market outcomes of natives in destination areas (Borjas 1994; Dustmann, Schonberg, and Stuhler 2016). However, as data sources in developing countries have improved, increasing numbers of research studies have been focused on the impact of migration and remittances on households “left behind” in source countries (Antman 2013), a matter that has implicit consequences for economic development around the world. A natural offshoot of this literature is the economic impact on women and girls left behind in particular. At the same time, researchers have noted rising waves of migration of women themselves and thus new strands of research have focused on evaluating the determinants and selection patterns of female migration and female-driven remittances, as well as the impact of female migration at destination and on the communities from which they originated.

This chapter reviews the critical ways in which women are affected by migration and are affecting families and labor markets in both source and destination areas with a primary, though not exclusive, focus on international migration out of developing countries.¹ The remainder of this chapter proceeds as follows. Section II discusses the impact of migration on female non-migrants in sending areas, Section III reviews the literature on migrant selection and determinants of female migration, Section IV discusses the nascent literature on the impacts of female migration in sending and receiving areas, and Section V concludes.

¹ While a natural extension would concern the impacts on female migrants themselves, the focus of this paper is primarily on the impacts of migration on others in source and destination areas, as well as the selection factors determining female migration.

II. The Impact of Migration on Female Non-Migrants in Sending Areas

A. Empirical and Theoretical Challenges

An important feature of migration from poorer to richer areas has been the separation of households and families. This is especially true in cases where migration is viewed as a temporary or even circular, recurrent arrangement, where the migrant leaves his or her household for the destination area and the household remains in the source area to avoid the costs or upheaval of moving the entire family. Where migration is undertaken for purely economic reasons, it may also be that only the migrant is granted legal permission to enter the destination area, thus prohibiting him from taking his family.² Similarly, where migration is undertaken without permission, as in the case of undocumented migration to the U.S., it may be that migrating is a dangerous endeavor, and consequently, limited to the migrant, leaving his family behind. This resulting “split-household” migration has thus raised questions about the impact of migration on household members remaining in source communities. To the extent that women are more often left to care for families in households left behind, it also raises important questions regarding the impact of migration on women themselves.

Estimating the impacts of migration on the left behind, however, is complicated by the fact that migration is not exogenous and likely to be correlated with many factors that also influence household outcomes. This is closely related to the issue of migrant selection, and the idea that migrants are not a random sample, but instead are likely to have characteristics that make them different from the overall populations from which they are drawn. For example, migrants may be more skilled on average, as in source areas where returns to skill are relatively low compared with the destination alternative. If the underlying ability levels of migrants and their spouses are

² A similar situation arises when household members cannot legally access services such as schools or health care facilities in destination areas, thus incentivizing them to remain in the home area.

positively correlated, as in a model of assortative mating, we might then expect an estimate of the impact of migration on the employment of spouses left behind that is biased upward. These problems can be mitigated to some extent by including an exhaustive set of controls, but there still remains a concern that there are unobserved variables correlated with migration and the outcome of interest that are not easily measured. For example, migrants and their families may be especially ambitious or resilient, traits that may positively affect migration and outcomes of interest, thus introducing a positive bias on outcomes like children's educational attainment. On the other hand, migrants may instead be negatively selected in terms of skills that are also correlated with outcomes of interest, like children's school performance, thus introducing a negative bias into the effect of interest. Since these traits are not easily captured in surveys, they are very difficult to control for, thus limiting the credibility of this approach to address endogeneity. Moreover, the uncertainty regarding the correlations between migration, unobservables, and outcomes of interest makes it difficult to sign the expected omitted variable bias.³

Empirical solutions to address these problems include employing strategies such as panel data methods that look at outcomes at the household or individual level before and after migration (Antman 2015), however, there still exists some concern that temporary shocks might result in omitted variable bias. Other alternatives have rested on employing instrumental variables to predict migration that do not directly affect the outcome of interest, by way of instruments such as economic conditions in destination areas (Antman 2011b) or historical migration rates (McKenzie and Rapoport 2011). Nevertheless, debate over the relative weakness of the instrumental variables used as well as whether they are correctly excluded from the model (the so-called exclusion restriction) has also generated some controversy surrounding these methods.

³ A more detailed discussion of the endogeneity problem and empirical solutions to address it can be found in Antman (2013).

As an alternative, some researchers have turned to randomized approaches. One formative example is Gibson, McKenzie, and Stillman's (2011) study of a migration lottery program in New Zealand, which allows them to assess the impacts of migration on left-behind household members in Tonga. Another methodological alternative is the natural experiment that allows researchers to take advantage of quasi-random variation, as with Yang's (2008) use of exchange rate fluctuations to explore the impacts of migrant income shocks on left-behind households in the Philippines. While the latter two studies did not focus on the gendered impacts of migration, they do highlight the potential for randomized or natural experiments to overcome endogeneity problems in a more credible way. At the same time, in the context of studying international migration, it is important to recognize that a randomized or even quasi-randomized experiment will not be available in every research setting. Thus, it is important to keep in mind that the results of migration studies will often hinge on the particular identification strategy employed and overall context of the empirical study.

The theoretical impacts of migration on the left-behind also present challenges. This is due to the fact that migration of one household member very often carries multiple impacts. While migrant remittances may relax the household budget constraint and confer positive effects, one must also consider the impact of the loss of a household member which may impart disruptive negative effects. The latter may be particularly acute in cases where the lost household member is a parent head of household on whom children and spouses rely for support. In addition, source household members may also be affected by a process of learning about the returns to migration. This may lead non-migrants to aspire to migrate in the future and result in increased or decreased investments in schooling, for example, depending on the relative returns to education in destination areas. Thus the overall impact of migration, or even remittances, is ambiguous and will likely vary

depending on the context. In short, it is an empirical question whether the positive or negative effects of migration should dominate.

B. Impacts of Household Migration on Labor Supply of Non-Migrant Women

One of the more explored outcomes in this area has been the impact of a household member's migration or the household's remittance income on the labor supply of women left behind. Instrumental variables estimates from Amuedo-Dorantes and Pozo (2006) show that Mexican women in rural areas reduce hours worked in response to increased remittance income, although this is concentrated in the areas of informal and non-paid work. These results are consistent with findings from Hanson (2007) that show women from high-migration sending areas in Mexico are less likely to work outside the home and work fewer hours. That is, a positive income effect from remittances appears to reduce labor supply for women. Evidence from China suggests that indeed women reduce hours of work in income-generating activities as well as household chores (Chen 2006). This is consistent with findings from Mu and van de Walle (2011) that show left-behind women spend less time in wage work and family business activities and more time on agricultural activities in China, a pattern that may persist even after the return of the absent migrant.

Looking at women left behind in Albania, Mendola and Carletto (2012) find that current migration of a household member reduces female labor supply in paid employment, but evidence that it increases women's time spent in unpaid work. Over the longer term, however, these impacts may differ, as their findings suggest that having household members who migrated in the past may increase female labor supply in self-employment and decrease time spent in unpaid work. For women left behind in Egypt, Binzel and Assaad (2011) find a decrease in wage work for urban women in particular, but an increase in unpaid family work by women in rural areas that suggests

women substitute for the missing migrant's labor. Lokshin and Glinskaya (2009) also find a negative impact of predominantly male migration on the market participation of women left behind in Nepal.

Thus, across a broad range of countries, the main findings from the literature point to a negative labor supply response on the part of left-behind women when a household member migrates. The contexts of these studies, though wide-ranging, often rely on similar empirical approaches. When longitudinal data are available authors can leverage individual-level fixed effects models to address time-invariant endogeneity problems (Chen 2006; Mu and de Walle 2011). When only cross-sectional data are obtainable, the main empirical approaches are instrumental variables (Mendola and Carletto 2012; Binzel and Assaad 2011; Lokshin and Glinskaya 2009) or reduced form analyses (Hanson 2007) driven by the notion that migration prevalence in a region is a suitable proxy for migrant networks and thus a good predictor of individual migration. Since individual labor market performance may affect intrahousehold bargaining power and the distribution of resources within the family (Lundberg and Pollak 1996), the overarching results from these studies raise questions about whether migration of a household member imposes long-run penalties on non-migrant women even if they may benefit from remittances in the short-run.

Antman (2015) addresses the relationship between migration and bargaining power directly by using survey questions soliciting answers on who in the household is responsible for household decision-making. Using longitudinal data from Mexico and incorporating household-level fixed effects, she finds that women increase their decision-making power over children's allocations on schooling and clothing expenditures while migrants are away. Interestingly, once migrants return home, however, some evidence suggests a possible decline in decision-making

power for wives and increased power for former migrants, potentially tilting the balance of power even further toward men than before migration occurred.⁴ Chen (2006, 2013) suggests a mechanism by which split-household migration may affect intrahousehold allocations directly, namely imperfect monitoring of household allocations by the absent migrant. Thus, in a non-cooperative model of intrahousehold allocation, the spouse that remains in charge of the home may be better able to steer the household toward her preferred labor allocation of goods that are not so readily verifiable by the absent household member. Empirical evidence using longitudinal data from China supports this model and shows a decline in income-generating activities and household production of women left-behind. Thus, even temporary migration can have impacts on women's decision-making power and empowerment more generally within the household, and these may or may not persist once migrants have returned home.

C. Impacts of Migration on Non-Migrant Girls

Another important impact of migration on women that has received considerable attention is the impact on investments in children, which may also have a gendered element. For instance, Cox-Edwards and Ureta (2003) finds that remittance receipt is strongly positively correlated with the likelihood of children remaining in school in El Salvador. Unpacking the gendered impacts more explicitly and using an instrumental variable strategy to address the endogeneity of remittance receipt, however, Acosta (2011) shows that it is actually girls' school attendance that is positively influenced by the receipt of remittances. Boys see no similar positive impact of remittances on their likelihood of attending school, although both genders reduce their time spent in paid work as a result. These results could be consistent with a story in which girls are more

⁴ Further research suggests that decision-making power within the household may also affect the propensity to migrate. Nobles and McKelvey (2015) find that spouses of women with greater decision-making authority at home are less likely to migrate.

likely to be the marginal family members to attend school, and thus are more likely to benefit from a relaxation of the household budget constraint brought about by migrant remittances. In contrast, Frisancho-Robles and Oropesa (2014) also attempt to address the endogeneity of migration with instrumental variables but find detrimental impacts of migration of household members on children in Peru, with some limited evidence that this effect may be more disruptive for older adolescent girls. The difference between the latter two results may stem in part from the instrumental variables used in the analysis. These include village-level migrant networks and the number of return international migrants in the recent past in Acosta (2011) but are limited to variables describing the distant-past migration of the head of household and his family in Frisancho-Robles and Oropesa (2014). However, the distinct research settings may also explain the varied results. Relying on individual fixed-effects estimation and time-varying controls, Chen (2013) finds essentially no difference in the impact of migration on schooling outcomes for boys and girls in China, although some evidence suggests that girls may engage in more household chores while their fathers are away.

Given the wide-ranging countries and contexts in which this question has been explored, however, the results understandably vary. In Nepal, for example, Vogel and Korinek (2012) show that remittances from family and household members are spent on educational expenditures that disproportionately benefit boys. This finding is echoed in Mansour, Chaaban, and Litchfield (2011) who find larger positive impacts of migrant remittances on schooling outcomes for boys versus girls in Jordan. Giannelli and Mangiavacchi (2010) find negative long-term impacts of paternal migration on the schooling of children left behind in Albania, with a larger negative impact for girls. They argue that this may be driven by cultural norms in which older, more

traditional male family members take responsibility for children in the absence of migrant fathers and are more likely to discriminate against women.

In Mexico, McKenzie and Rapoport (2011) find a negative impact of migration of any household member on school attendance and educational attainment for girls and boys. Focusing instead on the short-run impacts of paternal migration, Antman (2011b) finds evidence that Mexican children reduce study hours and increase work hours when a parent migrates, but this effect is primarily driven by the behavior of 12-15 year-old boys. In the long-run, Antman (2012a) finds that Mexican girls in particular actually benefit from the migration of their fathers, with statistically higher educational attainment, while the same is not true for boys. This raises the question of whether girls in particular may be able to benefit from paternal migration, at least in some contexts, and the reason why. Consistent with an increased benefit for girls following migration, Antman (2011a, 2015) finds that expenditure shares shift toward girls and away from boys while a migrant is away, although this pattern may reverse itself once the migrant has returned. Since this occurs at the same time that spouses are seen to report greater decision-making power in the home (Antman 2015), it may be that migration confers greater power on female spouses who are left-behind and who spend more on girls while fathers are away. This could be consistent with a story in which the relative returns to investing in girls or boys varies across men and women or a stronger parental preference for children of the same gender (Thomas 1994, Duflo 2003). Nevertheless, these findings point to the important impacts of migration on girls and boys, and, given the importance of educational investments on far-reaching outcomes such as employment and earnings, the potentially long-run implications for gender differences that may result.

III. Selection Patterns and Determinants of Female Migration

A. Family Migration and Migrant Selection

Migration research has long recognized the importance of identifying selection patterns into migration and understanding what factors help to determine migration. However, many of the earlier studies which considered female migration focused predominantly on their involvement in family migration, and whether women were more likely to be “tied-movers,” that is, to personally lose financially from migration, even if the family as a whole benefited (Mincer 1978). The classic pattern of migration resulting in better labor market outcomes for husbands but not for wives has since been confirmed in numerous studies (see for example, Cooke 2003; Boman 2011; Zaiceva 2010) and researchers have called for a more nuanced approach to family migration that moves beyond individual income-maximizing decisions (Cooke 2008). With the rise in dual-earner couples driving significant interest on this topic, further research has continued in this area, particularly in cases of domestic migration within developed countries. For instance, factors such as the number of children have been found to reduce the likelihood of family migration as they would result in higher moving costs for the family (Swain and Garasky 2007).

Importantly, these determinants and selection patterns can change over time and should be expected to be influenced by changes in the relative labor market potential of women and men. In analyzing the determinants of joint moves by couples in the Netherlands, Smits, Mulder, and Hooimeijer (2003) find evidence showing a male dominance pattern where male human capital characteristics and a male age advantage are positively related to migration in the late 1970s. They argue that more recent data, however, suggests a more equal power balance within couples. In short, the “tied-mover” phenomenon has become less gendered and a “tied-stayer” phenomenon, in which an individual loses personally from not migrating, has increased for both sexes. These

findings suggest that migration possibilities have become more constrained by the presence of a working partner and greater equality within relationships, at least in some settings.

As rates of female migration have risen around the world (Docquier, Lowell, and Marfouk 2009), researchers have also begun investigating selection patterns for women and how determinants of migration might differ across genders. Looking at rural-urban migration in Kenya, Agesa and Agesa (1999) argue that the disparity in migration rates between men and women may largely be driven by differences in returns to migrating for men and women, which are themselves rooted in relatively favorable observable characteristics for men versus women. Thus, the fact that men are better educated in some areas may also make them more likely to migrate if migrants are positively selected on skill.

Nevertheless, there still exists relatively little research on this topic as it relates to female international migration out of developing countries, and what does exist is still heavily focused on the Mexican experience. In that country, Kanaiaupuni (2000) finds that female migrants are positively selected on education, whereas men are negatively selected. Richter and Taylor (2008) confirm that female but not male international migrants are positively selected on schooling, but add that this effect is only significant for migration to non-agricultural jobs. The fact that these studies are limited to Mexican migrants out of rural areas who tend to concentrate in lower-skill occupations, however, suggest that the results could be entirely different when examined in other source areas.

In particular, Docquier, Lowell, and Marfouk (2009) show that overall the pattern of rising female emigration is particularly high among highly skilled women, whose rates of emigration exceed those of low-skilled women and high-skilled men in the vast majority of source regions. Docquier, et al (2012) confirm this apparent gender gap among high-skilled migrants, but show

that, after accounting for interdependencies between the migration decisions of men and women, there is no gender gap in the migration rates of highly skilled men and women. They argue that this is primarily due to assortative mating patterns and the fact that women are more responsive to migration of men than the other way around. Thus, high-skilled emigration and interrelated migration decisions can aggravate the possibility of a so-called “brain drain” from source countries in the developing world.⁵ Given the importance of human capital for economic development, this brain drain can have important consequences for economic growth, and if it is female-dominated, it may have additional consequences such as higher infant and early childhood mortality rates and lower secondary school enrollment rates (Dumont, Martin, and Spielvogel 2007).

It is also important to note that the gendered pattern of migration can differ significantly across countries, even within similar regions. For example, Mexican emigration continues to be highly dominated by men, and primarily occurs without legal documents (Donato 2010). This is consistent with findings from Cerrutti and Massey (2001), who show that historically, Mexican female out-migration generally followed moves by other family members, while male migrants were more likely to be motivated by employment reasons. In contrast, migration from the Dominican Republic is largely female-led and undertaken legally, while Puerto Rican migration to the U.S., which is by definition legal, does not display a sharply gendered pattern (Donato 2010). Thus, context is important in evaluating how pull, push, and selection processes may affect genders differently depending on the source region, the destination, and the primary mode of crossing which may favor one gender over another.

B. Networks Effects

⁵ See Docquier and Rapoport (2012) for a review of the brain drain literature.

Additional research has focused on the importance of migrant networks and their impacts on migration rates and labor market outcomes at destination. Work by Curran and Rivero-Fuentes (2003) highlight the importance of distinguishing between male and female networks in the determinants of migration decisions. They find that female migrant networks appear to be more important than male migrant networks for women considering whether to migrate internationally to the U.S. from Mexico. Similarly, Davis and Winters (2001) find that the location of female networks play a special role in the destination choice of female migrants. In Albania, Stecklov, et al. (2008) also suggest that female migration is strongly associated with female family networks. These results hint at the possibility that male and female networks may help migrants navigate gender-specific migration hurdles and/or that labor market opportunities at destination are in some way gender-segmented. However, it is important to note that female migration in particular may be correlated with other variables that must be adequately controlled for in order to determine whether differential effects of networks are in fact present. For example, Beine and Salomone (2013) suggest that differences in sensitivities to networks across genders may be driven by educational differences and the heterogeneous effects of networks across skill groups.

In terms of how networks affect labor market outcomes, Livingston (2006) shows that use of a network is correlated with a decrease in the probability of formal sector employment for female Mexican migrants, while the opposite is true for men. Since formal sector employment is correlated with higher wages, this result also suggests that networks may actually hurt the labor market outcomes of women versus men. However, since the types of women and men that self-select into migration are determining both the types of networks and the labor market outcomes for their members, we cannot rule out that these processes are ultimately driven by migrant selection.

Munshi (2003) addresses the endogeneity of migrant networks in estimating the impact of networks on labor market outcomes by using measures of past rainfall in the sending Mexican community as an instrument for the size of the current network in the U.S. He finds that networks have a strong positive effect on the probability of employment and that this effect is larger for female migrants, who he argues have more to gain from the network. His work highlights the larger importance of addressing endogeneity issues in the study of migration.

C. Push and Pull Factors Associated with Female Migration

Another important strand of the literature analyzes the importance of pull and push factors that help determine female migration flows. De Giorgi and Pellizzari (2009) show that the shares of men and women among immigrants are roughly similar in many destination countries, with the share of women averaging just over 50 percent across all the European Union nations in their study. There are some notable exceptions, however, such as Italy, where the share of female migrants is close to two-thirds, and it is argued that migrants may be more concentrated in female-heavy occupations like nursing. This highlights the possibility that pull factors drawing migrants to destination areas may effectively be skewed toward one gender if industry and occupation demand are dominated by one gender.

McKenzie, Theoharides, and Yang (2014) consider the importance of pull factors in determining Filipino migrant flows. They find that the numbers of male and female migrants are strongly positively related to GDP shocks at destination, with slightly higher elasticity estimates for women. Given long-standing concerns that migration may burden destination areas with greater social obligations, the literature has also investigated the extent of so-called “welfare migration” and how the generosity of the state may affect female versus male migration. In Europe, De Giorgi and Pellizzari (2009) find support for the notion that migrants are more likely

to select countries with more generous welfare benefits, but migrant women may actually be less attracted to high-benefit countries than men.

Baudasse and Bazillier (2014) further investigate the push factors which may affect the migration decisions of women. In particular, they focus on gender inequality in source countries' labor markets and whether that might drive female emigration rates. Instead, they find that an improvement in gender inequality is associated with more high-skilled female emigration and argue that this is more likely to be driven by a gender bias in the migration selection process within households and communities. The presence of gender-specific selection processes is consistent with findings from the wider literature, for instance, Holst, Shafer and Schrooten (2012), who find that more women than men migrate to Germany for reasons of family reunification.

Finally, in examining the impact of household responsibilities on migration, DeJong (2000) illustrates how gender norms of caregiving can impact migration decisions for men and women in Thailand. While women's migration intentions were negatively related to having dependent children and elderly adults in the household, the opposite was true for men. This could be due to the relative expectations placed on women and men to provide physical care-giving versus financial support for dependent family members.⁶

IV. Impacts of Female Migration in Sending and Receiving Areas

A. Impacts of Female Migration on Children in Sending Areas

Just as women have increasingly begun to migrate more independently in some parts of the world, more recent research has begun to investigate whether the impact of split-household migration on non-migrant children may differ depending on the gender of the migrant. Female

⁶ Antman (2010, 2012b, 2013) considers the impact of adult child migration on elderly parents in the context of time versus financial responsibilities of adult siblings. Since the source country is Mexico, which is still heavily dominated by male migration, a gendered analysis is effectively limited.

migration may also be expected to have a different impact than male migration on household members left behind for a variety of reasons. First, to the extent that migrants are able to direct remittances toward their preferred allocations, it may move intrahousehold allocations toward those preferred by the female migrant. Second, female migrants may differ in their willingness or capacity to remit relative to male migrants. Third, female migration may impose different demands on children left behind in terms of the pressures to substitute for an absent migrant. For instance, if women are more likely to engage in domestic, unpaid labor at home rather than paid work outside the home, then children may face greater pressure to provide this sort of labor. This may also have gendered impacts if girls left behind are more likely to provide unpaid domestic work. Finally, the disruptive impacts of female migration may be greater than those imposed by male migration if children are more dependent on their mothers for emotional support and day-to-day care. Naturally, these studies are limited to contexts in which female migration rates are relatively high, for instance, countries like the Philippines which is an important sending country for domestic and healthcare workers that are more likely to be female.

Consistent with a greater detrimental impact of female migration on educational outcomes for children, Cortes (2013) finds that Filipino children are more likely to lag behind in school if their mothers migrate compared with cases in which fathers migrate, even after controlling for remittances. She suggests that the results are driven primarily by parental time inputs which are lower with maternal migration and finds a larger detrimental impact of maternal migration on boys than girls. Similarly, Acosta (2011) finds no evidence that female migration increases children's schooling and some evidence that it reduces the likelihood of school attendance for younger children in El Salvador. At the same time, female migration is found to reduce child labor in domestic and non-domestic activities, with some results stronger for girls in particular.

Pfeiffer and Taylor (2008) also find detrimental impacts of female migration out of rural Mexico on source households. Specifically, female migration is found to reduce schooling investments of children left-behind. They raise the possibility that these results are driven by a migration signal that Mexican educational investments are not well-rewarded abroad, however, their findings are also consistent with a female loss of control over schooling decisions at home.

While it is generally difficult for researchers to track the extent of migrant control over remittances (Yang 2011), given the importance of remittance flows to sending areas, several studies have investigated remittance patterns of migrant men and women. For instance, in Germany, Holst, Shafer and Schrooten (2012) find that immigrant women remit a higher percentage of their incomes abroad, but a lower absolute amount, largely due to differences in wages. They also find that women's remittances are more affected by household composition, for instance the number of children in the household.

A related topic concerns differences in female versus male migrants' motivations to remit. On this topic, de la Briere, et al. (2002) weigh the evidence in support of the insurance or risk-coping motivation to remit to left-behind parents as well as the motivation to remit for purposes of investment in assets that might later be inherited. They test both insurance and investment models by identifying the influence of several competing variables on remittance outcomes. For example, the insurance model indicates that migrant remittances should increase with the number of days parents lose due to illness while the investment model indicates that migrant remittances should increase with parental assets. Results suggest that female migrants to the U.S. are generally more likely to behave in line with the insurance motive, whereas both male and female migrants to the U.S. remit for reasons of investment.

Another important aspect highlighted in the remittance literature concerns differences in allocation patterns of families receiving remittances from male versus female migrants. In Ghana, Guzman, Morrison and Sjöblom (2008) find that households that receive remittances from wives devote a smaller budget share to educational expenditures compared with households in which the husband is the remitter. They interpret their findings to be consistent with a model in which the husband is left in charge when the wife migrates, and vice versa, resulting in a shift in intrahousehold resource allocation. However, remittance recipients may not always be the heads of household, and as Pickbourn (2016) points out, it may actually be the gender of the remittance receiver that really influences the impact of remittances on household allocations. In particular, she finds that households in which the primary remittance recipient is female spend significantly more on education than households in which the primary remittance receiver is male.

B. Impacts of Female Migration on Women in Receiving Areas

While the migration literature has long focused on the consequences of migration for the labor market outcomes of natives (Borjas 1994), the recent attention on female migrants in particular has pointed out more nuanced implications of female migration for native labor markets. In areas where female low-skilled immigrants concentrate in care-giving occupations, the most obvious is a possible reduction in natives' household production that can free up native women with young children to participate in the labor market.

In this vein, Cortes and Tessada (2011) find that high-earning women work more and spend less time in household production in cities where low-skilled immigration is higher. Similarly, Furtado and Hock (2010) show that high-skilled native women living in U.S. cities with larger inflows of low-skilled immigrants experience a smaller trade-off between fertility and participation in the labor force. In Hong Kong, Cortes and Pan (2013) show that the availability of affordable

household services provided by foreign domestic workers increases the labor force participation of women with young children. Finally, Farre, Gonzalez and Ortega (2009) show that in Spain, female immigration increases the supply of market-provided household services and reduces their price. They also find that it is associated with an increase in the labor supply of highly-skilled native women with young children or elderly dependents. Thus, high-skilled women may benefit from low-skilled female migration just as low-skilled native women working in the household services sector may experience worse labor market outcomes. This parallels the argument in the wider immigration literature that the impact of immigration on natives will depend on whether native workers are complements or substitutes with immigrant workers (Peri and Sparber 2009) and might also be described as a positive productivity effect of immigration (Peri 2016).

V. Conclusion

This chapter has reviewed the literature on the economics of women and migration, considering the wide literature surrounding the impacts of migration and remittances on non-migrant women and girls, as well as the literature on the determinants and impacts when women themselves migrate. Taking the wide-ranging and sometimes conflicting findings into consideration, one cannot overstate the extent to which context matters and is likely to influence the results. This is particularly true when assessing the research from a wide variety of countries at different stages of development, as well as the changing relationships between source and destination areas. The study's time period should also be taken into account, since the status of women throughout the world continues to evolve as increased opportunities are made available to them. In addition, special consideration should be given to the wide range of methodologies used to address the formidable problem of migrant selection and endogeneity more generally. Even comparing results from studies that all utilize instrumental variables can be difficult, as the

instruments used may vary considerably, calling into question whether the local average treatment effects identified are true only in specific cases or indicative of broader patterns. Thus, any single, or even a handful of studies, should be viewed in context.

Finally, it is important to note that although much progress has been made in the study of gender and migration, many researchers still reduce their analysis to the inclusion of a female indicator as a control in regressions or separate estimation for male and female observations. As exemplified in many of the studies highlighted here, the possibilities for gender to play a role in determining migration and mediating the impact of migration can be far more complicated, and an understanding of the mechanisms at play in those relationships requires a more nuanced approach. Further work is needed in which the gender dimension of migration is considered more fully and thoughtfully if we are to develop a better understanding of the complex relationships between women and migration around the world.

References

- Acosta, Pablo. 2011. "School Attendance, Child Labour, and Remittances from International Migration in El Salvador." *Journal of Development Studies*, 47 (6), 913-936.
- Acosta, Pablo. 2011. "Female Migration and Child Occupation in Rural El Salvador." *Population Research and Policy Review*, 30 (4), 569-589.
- Agesa, Jacqueline and Richard U. Agesa. 1999. "Gender Differences in the Incidence of Rural to Urban Migration: Evidence from Kenya." *The Journal of Development Studies*, 35(6): 36-58.
- Amuedo-Dorantes, Catalina and Susan Pozo. 2006. "Migration, Remittances, and Male and Female Employment Patterns." *American Economic Review* 96(2): 222-26.
- Antman, Francisca M. 2015. "Gender Discrimination in the Allocation of Migrant Household Resources." *Journal of Population Economics*, 28(3): 565-92, July 2015.
- Antman, Francisca M. 2013. "The Impact of Migration on Family Left Behind." In *International Handbook on the Economics of Migration*, A. F. Constant and K. F. Zimmermann eds., Edward Elgar: Northampton, MA.
- Antman, Francisca M. 2012a. "Gender, Educational Attainment and the Impact of Parental Migration on Children Left Behind." *Journal of Population Economics*, 25(4): 1187-1214.
- Antman, Francisca M. 2012b. "Elderly Care and Intrafamily Resource Allocation when Children Migrate." *Journal of Human Resources*, 47(2): 331-63.

- Antman, Francisca M. 2011a. "International Migration and Gender Discrimination among Children Left Behind." *American Economic Review*, 101(3): 645-49.
- Antman, Francisca M. 2011b. "The Intergenerational Effects of Paternal Migration on Schooling and Work: What Can We Learn from Children's Time Allocations?" *Journal of Development Economics*, 96(2): 200-208.
- Antman, Francisca M. 2010. "Adult Child Migration and the Health of Elderly Parents Left Behind in Mexico." *American Economic Review*, 100(2): 205-208.
- Baudasse, Thierry and Remi Bazillier. 2014. Gender Inequality and Emigration: Push Factor or Selection Process? *International Economics*, 139:19-47.
- Beine, Michel and Sara Salomone. 2013. "Network Effects in International Migration: Education versus Gender." *The Scandinavian Journal of Economics*, 115(2): 354-80.
- Binzel, C., Assaad, R. 2011. "Egyptian Men Working Abroad: Labour-Supply Responses by the Women Left Behind." *Labour Economics* 18 (Suppl. 1): 98-114.
- Boman, Anders. 2011. "Does Migration Pay? Earnings Effects of Geographic Mobility Following Job Displacement." *Journal of Population Economics*, 24: 1369-84.
- Borjas, George J. 1994. "The Economics of Immigration" *Journal of Economic Literature*, 32(4): 1667-1717.
- Cerrutti, Marcela and Douglas S. Massey. 2001. "On the Auspices of Female Migration from Mexico to the United States." *Demography*, 38(2): 187-200.
- Chen, Joyce J. 2006. "Migration and Imperfect Monitoring: Implications for Intra-household Allocation." *American Economic Review*, 96(2): 227-231.

- Chen, Joyce J. 2013. "Identifying non-cooperative behavior among spouses – child outcomes in migrant sending households" *Journal of Development Economics*, 100: 1-18.
- Cortes, Patricia. 2015. "The Feminization of International Migration and Its Effects on the Families Left Behind: Evidence from the Philippines." *World Development*, 65: 62-78.
- Cortes, Patricia and Jessica Pan. 2013. "Outsourcing Household Production: Foreign Domestic Workers and Native Labor Supply in Hong Kong." *Journal of Labor Economics*, 31(2): 327-71.
- Cortes, Patricia and Jose Tessada. 2011. "Low-Skilled Immigration and the Labor Supply of Highly Skilled Women." *American Economic Journal: Applied Economics*, 3: 88-123.
- Cooke, Thomas J. 2003. "Family Migration and the Relative Earnings of Husbands and Wives." *Annals of the Association of American Geographers*, 93(2): 338–349.
- Cooke, Thomas J. 2008. "Migration in a Family Way." *Population, Space and Place*, 14: 255-65.
- Cox-Edwards, A., & Ureta, M. 2003. International migration, remittances, and schooling: Evidence from El Salvador. *Journal of Development Economics*, 72, 429–461.
- Curran, Sara R. and Estela Rivero-Fuentes (2003). "Engendering Migrant Networks: The Case of Mexican Migration." *Demography*, 40(2): 289-307.
- Davis, Benjamin and Paul Winters. 2001. "Gender, Networks and Mexico-US Migration." *The Journal of Development Studies*, 38(2): 1-26.
- De Giorgi, Giacomo and Michele Pelizzari. "Welfare Migration in Europe." *Labour Economics*, 16: 353-63.

- de la Briere, Elisabeth Sadoulet, Alain de Janvry, and Sylvie Lambert. 2002. "The Roles of Destination, Gender, and Household Composition in Explaining Remittances: An Analysis for the Dominican Sierra." *Journal of Development Economics*, 68: 309– 328.
- De Jong, Gordon F. 2000. "Expectations, gender, and norms in migration decision-making." *Population Studies*, 54:3, 307-19.
- Docquier, Frédéric and Hillel Rapoport. 2012. "Globalization, Brain Drain, and Development" *Journal of Economic Literature*, 50(3): 681-730.
- Docquier, Frédéric, Abdeslam Marfouk, Sara Salomone, and Khalid Sekkat. 2012. "Are Skilled Women More Migratory than Skilled Men?" *World Development*, 40(2): 251–65.
- Docquier, Frederic, B. Lindsay Lowell, and Abdeslam Marfouk. 2009. "A Gendered Assessment of Highly Skilled Emigration." *Population and Development Review*, 35(2): 297-321.
- Donato, Katharine M. 2010. "U.S. Migration from Latin America: Gendered Patterns and Shifts." *The Annals of the American Academy of Political and Social Science*, 630: 780-92.
- Duflo, Esther. 2003. Grandmothers and Granddaughters: Old-Age Pensions and Intrahousehold Allocation in South Africa. *The World Bank Economic Review*, 17(1): 1-25.
- Dumont, Jean-Christophe, John P. Martin, and Gilles Spielvogel. 2007. "Women on the Move: The Neglected Gender Dimension of the Brain Drain." IZA Discussion Paper No.2920.
- Dustmann, Christian, Uta Schonberg, and Jan Stuhler. 2016. "The Impact of Immigration: Why Do Studies Reach Such Different Results?" *Journal of Economic Perspectives*, 30(4): 31-56.

- Farre, Lidia, Libertad Gonzalez, and Francesc Ortega. 2011. "Immigration, Family Responsibilities and the Labor Supply of Skilled Native Women." *The B.E. Journal of Economic Analysis and Policy*. 11(1): Article 34.
- Frisancho, Veronica and R.S. Oropesa. 2011. "International Migration and the Education of Children: Evidence from Lima, Peru." *Population Research and Policy Review*, 30 (4):591–618.
- Furtado and Hock. 2010. "Low Skilled Immigration and Work-Fertility Tradeoffs among High Skilled US Natives." *American Economic Review*, 100: 224-28.
- Giannelli, Gianna Claudia, and Lucia Mangiavacchi. 2010. "Children's Schooling and Parental Migration: Empirical Evidence on the 'Left-behind' Generation in Albania." *Labour*, 24: 76–92.
- Gibson, John, David McKenzie and Steven Stillman. 2011. "The Impacts of Migration on Remaining Household Members: Omnibus Results from a Migration Lottery Program." *The Review of Economics and Statistics*, 93(4): 1297-1317.
- Guzmán, Juan Carlos, Andrew R.Morrison, and Mirja Sjöblom. 2008. "The Impact of Remittances and Gender on Household Expenditure Patterns: Evidence from Ghana." In *The International Migration of Women, Andrew R. Morrison, Maurice Schiff, and Mirja Sjöblom, Eds.* The World Bank: Washington, D.C., pp.-125-52. Chapter 5.
- Hanson, Gordon H. 2007. "Emigration, Remittances, and Labor Force Participation in Mexico." *Integration and Trade Journal*, 27: 73-103.
- Holst, Elke, Andrea Schäfer and Mechtild Schrooten. 2012. "Gender and Remittances: Evidence from Germany." *Feminist Economics*, Vol.18(2): 201-229.

- Kanaiaupuni, Shawn Malia. 2000. "Reframing the Migration Question: An Analysis of Men, Women, and Gender in Mexico." *Social Forces*, 78(4): 1311-48.
- Livingston, Gretchen. 2006. "Gender, Job Searching and Employment Outcomes among Mexican Immigrants." *Population Research and Policy Review*, 25: 43-66.
- Lokshin, M. and E. Glinskaya. 2009. The effect of male migration on employment patterns of women in Nepal. *World Bank Economic Review* 23 (3), 481–507.
- Lundberg, Shelly and Robert A. Pollak. 1996. "Bargaining and Redistribution in Marriage." *Journal of Economic Perspectives*, 10(4): 139-58.
- Mansour, Wael, Jad Chaaban, and Julie Litchfield. 2011. "The Impact of Migrant Remittances on School Attendance and Education Attainment: Evidence from Jordan." *International Migration Review*, 45(4), 812–851.
- McKenzie, David and Hillel Rapoport. 2011. "Can Migration Reduce Educational Attainment? Evidence from Mexico?" *Journal of Population Economics*, 24:1331-58.
- McKenzie, David, Caroline Theoharides, and Dean Yang. 2014. "Distortions in the International Migrant Labor Market: Evidence from Filipino Migration and Wage Responses to Destination Country Economic Shocks." *American Economic Journal: Applied Economics*, 6(2): 49-75.
- Mendola, Mariapia and Calogero Carletto. "Migration and Gender Differences in the Home Labour Market: Evidence from Albania." *Labour Economics* 19: 870-880.
- Mincer, Jacob. 1978. "Family Migration Decisions." *Journal of Political Economy*, 86(5): pp. 749-773.
- Mu, Ren and Dominique van de Walle. 2011. "Left behind to farm? Women's labor re-allocation in rural China" *Labour Economics*, 18: S83-S97.

- Munshi, Kaivan. 2003. "Networks in the Modern Economy: Mexican Migrants in the U.S. Labor Market." *The Quarterly Journal of Economics*, 118(2): 549-599.
- Nobles, Jenna and Christopher McKelvey. "Gender, Power, and Emigration from Mexico." *Demography*, 52:1573-1600.
- Peri, Giovanni. "Immigrants, Productivity, and Labor Markets." *Journal of Economic Perspectives*, 30(4): 3-30.
- Peri, Giovanni and Chad Sparber. "Task Specialization, Immigration, and Wages." *American Economic Journal: Applied Economics*, 1(3): 135-69.
- Pickbourn, Lynda. 2016. "Remittances and Household Expenditures on Education in Ghana's Northern Region: Why Gender Matters." *Feminist Economics*, 22(3): 74-100.
- Pfeiffer, Lisa and J. Edward Taylor. 2008. "Gender and the Impacts of International Migration: Evidence from Rural Mexico" in *The International Migration of Women*, Andrew R. Morrison, Maurice Schiff, and Mirja Sjöblom, Eds. The World Bank: Washington, D.C., pp.99-123. Chapter 4.
- Rapoport, Hillel, Docquier, Frédéric, 2006. "The Economics of Migrants' Remittances." In: Kolm, S.-C., Ythier, J.M. (Eds.), *Handbook on the Economics of Giving, Reciprocity and Altruism*, Vol. 2. North Holland, Amsterdam, pp. 1135–1198. Chapter 17.
- Richter, Susan and J. Edward Taylor. "Gender and the Determinants of International Migration from Rural Mexico over Time" in *The International Migration of Women*, Andrew R. Morrison, Maurice Schiff, and Mirja Sjöblom, Eds. The World Bank: Washington, D.C., pp. 51-97. Chapter 3.
- Smits, Jeroen, Clara H. Mulder and Pieter Hooimeijer. 2003. "Changing Gender Roles, Shifting Power Balance and Long-distance Migration of Couples." *Urban Studies*, 40(3): 603-13.

- Stecklov, Carletto, Azzarri and Davis. 2008. "Agency, Education and Networks: Gender and International Migration from Albania." World Bank Policy Research Paper No. 4507.
- Swain, Li and Steven Garasky. "Migration Decisions of Dual-Earner Families: An Application of Multilevel Modeling." *Journal of Family and Economic Issues*, 28: 151-70.
- Thomas, Duncan. 1994. "Like Father, Like Son, Like Mother Like Daughter: Parental Resources and Child Height." *Journal of Human Resources*, 29(4): 950-88.
- Vogel, Ann, and Kim Korinek. 2012. "Passing by the Girls? Remittance Allocation for Educational Expenditures and Social Inequality in Nepal's Households 2003—2004." *International Migration Review*, 46(1), 61–100.
- Yang, Dean. 2008. "International Migration, Remittances, and Household Investment: Evidence from Philippine Migrants' Exchange Rate Shocks." *The Economic Journal*, 118: 591-630.
- Yang, Dean. 2011. "Migrant Remittances." *Journal of Economic Perspectives*, 25(3): 129-52.
- Zaiceva, Anzelika. 2010. "East–West Migration and Gender: Is There a Differential Effect for Migrant Women?" *Labour Economics*, 17: 443-54.