

HOW MIGRATION FLOWS SHAPE THE ELDERLY POPULATION OF  
METROPOLITAN PITTSBURGH<sup>1</sup>

by

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ABSTRACT

The Pittsburgh region is an aging-in-place laboratory that presents an emerging natural experiment in the study of an older population undergoing migratory exchange. We examine how gross migration flows are shaping the region's elderly population. Using PUMS data, we compare the characteristics of older persons moving away from the area with those of their counterparts moving to Pittsburgh in their later years, joining the resident elderly who themselves are aging in place there. We posit that migration of the elderly may act as a sorting mechanism insofar as it selects particular types of persons. The data show out-migration from Pittsburgh of younger, more educated elderly persons, fewer of whom have any disability, along with in-migration to Pittsburgh of older less educated elderly, more of whom are disabled. This latter influx, we speculate, may consist of subsequent return migration by a subset of former out-migrants who have reached a later and less independent stage of life. Our data highlight two common challenges that would account for some return moves: loss of a spouse and onset of disability. More generally, our results draw attention to the potential interplay of migrant selectivity and family transformations in the later adult years.

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## I. INTRODUCTION

In this paper, we examine how gross migration flows shape the current and future elderly population of metropolitan Pittsburgh. Using PUMS data, we document the magnitudes of influx and outflow and the major origins and destinations of migrants; and we compare the characteristics of older persons moving away from the area with those of their counterparts moving to Pittsburgh in their later years, joining the resident elderly who themselves are aging in place there.

Our focus is on a single metropolitan region where the aging of population has reached an advanced stage. Large cohorts of future elderly—notably persons 85 or older—figure prominently in Pittsburgh’s future. Presently, 18 percent of the metropolitan area’s residents are 65 or older (compared with 12 percent nationally); and 30 percent of all area households have at least one member who is 65 or older (compared with 23 percent nationally). One distinctive aspect of this region’s population aging is the way older persons in Pittsburgh have come to be concentrated in neighborhoods over time. Most of Pittsburgh’s elderly persons have *grown old* here, not *moved* here in old age (as in, say, Phoenix). Within this context of aging in place, though, migratory flux is substantial: elderly persons move to or away from the region even as most stay put. How do the characteristics and circumstances of these segments of the elderly compare? What implications flow from differences among them?

These and other broad questions engaged our colleague, Bill Serow, whose memory we honor with this session. Bill was ahead of his time in posing such questions, and his pursuit of the answers continues to inform and inspire our own inquiries.

### BACKGROUND

Seniors are not a single shade of gray. The elderly encompass a broad spectrum of economic circumstances, health statuses, and prospective longevity. Furthermore, the diverse purposes at work when seniors migrate may select particular types of persons, whose decisions to move are colored by a spectrum of motives, personal capabilities, and family resources (Morrison and DaVanzo, 1986). Under some circumstances, migration becomes a sorting mechanism: It filters and sifts the population as its more deliberate members migrate or, following a move, return to where they originated. This filtering model informs our conceptualization of how this prism of migration may gradually reshape the elderly population in Pittsburgh and other comparable regions.

Past research fills in certain pieces of this complex jigsaw puzzle. Interregional migration, as we know, tends to select the healthier, better educated, and more affluent elderly persons at origin ( ). The existence of such differentials makes it important to distinguish communities of elderly residents that materialize through a process of subtraction—that is, where younger people move away and older ones increase as a share of remaining residents--from retirement magnets in Florida or Arizona, where elderly migrants congregate at destinations.

Research on families and households documents changes in their makeup, internal division of labor, and living arrangements in recent decades ( ). In the course of one generation, married women shifted from mostly unpaid work to paid employment,

transforming families' division of labor and permanently altering traditional support structures within families. Partly as a consequence, people increasingly live alone in old age.

The missing piece of the puzzle here is how migration selectivity and family transformations may interact and with what consequences. For example, does the availability of family support in a former community of residence induce former out-migrants to return in their later years or upon the loss of a spouse?

### DEMOGRAPHIC SETTING

The Pittsburgh region presents an emerging natural experiment in the study of an older population undergoing migratory exchange. It is an aging-in-place laboratory that can furnish insights applicable to other areas where similar demographic settings exist—Cleveland and Buffalo, for example.

A distinctive combination of demographic influences operating over several decades has left an enduring imprint on the population of the Pittsburgh region. For decades, the population of the city has been getting smaller and older. The closing of the steel mills and loss of jobs led more young people to leave Pittsburgh in search of jobs and made the city less of a magnet for new residents. The older workers and retirees left behind thus became a larger part of the population.

Pittsburgh's population declined nearly 10 percent during the 1990s, in sharp contrast to the 13 percent nationwide population increase (see Fig. 1). Since 2000, the city's population loss has continued unabated. Census Bureau estimates released in late June peg the loss at about 1 percent annually through 2003.

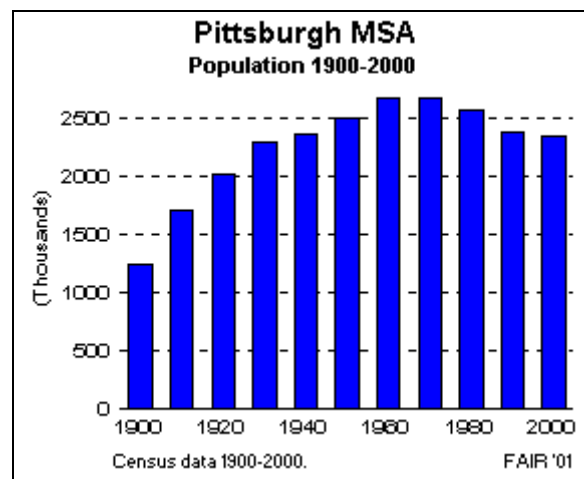


Figure 1—Historical Trend in Metropolitan Pittsburgh's Population

Across the metropolitan area, the aging of the population is more advanced than in most other regions. Presently, 18 percent of the area's residents are 65 or older (compared with 12 percent nationally); and 30 percent of all area households have at least one member 65 and older (compared with 23 percent nationally).

Migration flows to and from the region are dynamic and responsive to the changing landscape of local opportunities. For decades, greater Pittsburgh has nearly always been on the sending end of this process: The number of native-born young adults who pursue their fortunes elsewhere far exceeds the number of newcomers to the region. The Pittsburgh region suffered its most severe net out-migration during the 1980s, when population losses peaked at upwards of 50,000 annually in the aftermath of large-scale economic restructuring and rising labor force productivity in steel production. In those years, the region was losing 3 to 4 percent of its prime working-age population (people in their 20s and 30s) each year. This large exodus of people in the prime working ages amounted to a permanent loss of the region's human capital. More recently, though, the exodus has moderated (see Figure 2). In the 1990s, people moving away from greater Pittsburgh have outnumbered newcomers to the region by only a narrow margin (Briem, 2001).

Ongoing regional out-migration has narrowed the region's internal demographic capacity for future population growth. The demographic crosscurrents of births and deaths have reversed, giving rise to natural decrease on a regionwide basis (see Pittsburgh Economic Quarterly, 2001). Deaths now outnumber births, and there is no immediate prospect that natural *increase* will resume, owing to the relatively few people of reproductive age who remain, compared with the considerable number of elderly in the population.

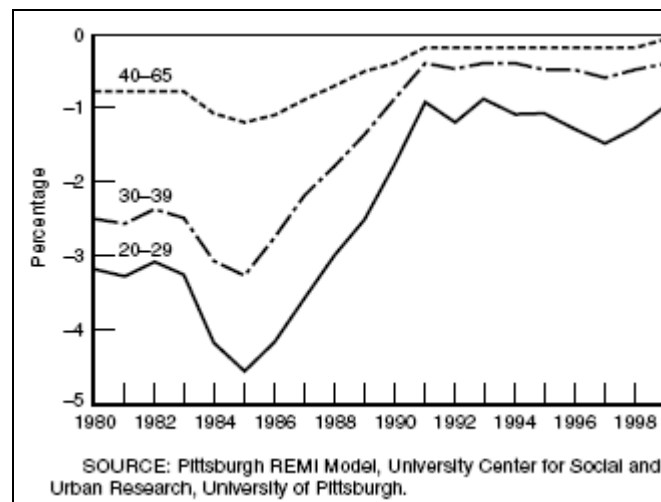


Figure 2—Estimated Annual Percentage Loss through Net Migration for Selected Age Groups, Pittsburgh MSA, 1980-2000

## II. PROFILE OF THE ELDERLY MIGRATING TO AND FROM THE REGION

We use Census 2000 PUMS data to classify persons according where they resided in 1995 and in 2000 and, on that basis, distinguish three population segments: (1) persons who resided in the Pittsburgh MSA at both time points (“stayers”), (2) those who resided in metropolitan Pittsburgh in 1995 but elsewhere in 2000 (“out-migrants”), and (3) those who resided elsewhere in 1995 but in Pittsburgh in 2000. Our necessary reliance here on a five-year migration interval has important known limitations (see Morrison, Bryan, and Swanson 2003).

Since our interest is in the elderly (and future elderly), we focus on PUMS records for persons 65 + and also those ages 55-64. In the following sections, we profile the stayers and flows of migrants to and from the Pittsburgh MSA.

### ORIGINS AND DESTINATIONS OF MIGRANTS

Metropolitan Pittsburgh exchanges many elderly migrants with the rest of the U. S. but with a numerically small net effect. Table 1 show the migratory exchange of persons 65 and older between Pittsburgh and selected other locations. Overall, metropolitan Pittsburgh gained 70,249 elderly in-migrants; over the same five-year period, 66,325 elderly residents moved away, for a slight (+3,924) net in-migration that registers efficiency near zero.<sup>2</sup> Most of this migratory exchange involved the rest of Pennsylvania.

Table 1. Gross Flows of Elderly Migrants between Pittsburgh MSA and Elsewhere, 1995-2000

| Elderly migration between Pittsburgh MSA and:  | In-migrants to MSA | Out-migrants from MSA | Net migration | Efficiency |
|--|--------------------|-----------------------|---------------|------------|
| Florida  | 1,463              | 2,544                 | -1,081        | 27%        |
| Rest of Pennsylvania   | 64,531             | 56,468                | 8,063         | 7%         |
| NY, NJ, and W. VA  | 1,253              | 621                   | 632           | 34%        |
| GA, NC, and SC   | 367                | 1,425                 | -1,058        | 59%        |
| Total, all states  | 70,249             | 66,325                | 3,924         | 3%         |
| Notes: Efficiency = (Net migration*100) / (In-migrants+Out-migrants). Elderly refers to persons 65+ in 2000. |                    |                       |               |            |
| Source: Census 2000 PUMS. Persons 65 and older in 2000.  |                    |                       |               |            |

<sup>2</sup> The concept of migration efficiency (net migration as a percentage of total gross in- and out-migration) is useful here. The larger the *total* number of migrants relative to the *net* number, the less efficient is the migration stream.

A sharply different pattern is evident for the selected retirement magnet states shown in Table 1. Migration streams between Pittsburgh and Florida register a weakly efficient net outflow (-1,081). Those between Pittsburgh and Georgia, North Carolina, and South Carolina combined register a moderately efficient net outflow (-1,058). For other states, the PUMS data are too thin to support reliable measurement.

The noteworthy point here—that the number of elderly migrants Pittsburgh exchanges with other places is largely self-canceling—invites a further question: How does the composition of the cross-flows compare? How do the elderly who leave compare with those drawn to Pittsburgh? It is here that our filtering model pertains, given the various facets of selectivity we detect. The following sections document this selectivity by educational attainment, age, marital status, and disability.

Table 2. Educational Attainment of Elderly Migrants between Pittsburgh MSA and Florida, 1995-2000

| Educational attainment of elderly migrants between Pittsburgh MSA and Florida                                | In-migrants to MSA | Out-migrants from MSA | Net migration | Efficiency |
|--|--------------------|-----------------------|---------------|------------|
| <b>Men</b>   |                    |                       |               |            |
| All educational levels   | 577                | 1263                  | -686          | 37%        |
| Less than high school  | 225                | 180                   | 45            | 11%        |
| High school only   | 123                | 320                   | -197          | 44%        |
| More than high school  | 229                | 763                   | -534          | 54%        |
| <b>Women</b>   |                    |                       |               |            |
| All educational levels   | 886                | 1281                  | -395          | 18%        |
| Less than high school  | 309                | 233                   | 76            | 14%        |
| High school only   | 393                | 540                   | -147          | 16%        |
| More than high school  | 184                | 508                   | -324          | 47%        |
| Notes: Efficiency = (Net migration*100) / (In-migrants+Out-migrants). Elderly refers to persons 65+ in 2000. |                    |                       |               |            |
| Source: Census 2000 PUMS.  |                    |                       |               |            |

### EDUCATIONAL SELECTIVITY

Table 2 focuses on the streams of elderly migration between metropolitan Pittsburgh and Florida. Although the magnitudes of flow are small, the pattern of exchange is noteworthy. Pittsburgh trades its more educated residents for less educated Floridians. In effect, Florida gains human capital from Pittsburgh through migration, and the efficiency of that exchange peaks among the more highly educated. We plan to extend our examination of this pattern to additional states.

Table 3. Ages of Elderly Migrants between Pittsburgh MSA and Florida, 1995-2000

| Ages of elderly migrants to and from Pittsburgh MSA  | In-migrants to MSA | Out-migrants from MSA | Net migration | Efficiency |
|--|--------------------|-----------------------|---------------|------------|
| <b>Total population</b>  |                    |                       |               |            |
| Ages 65+   | 1,463              | 2,544                 | -1,081        | 27%        |
| 65-78  | 665                | 1,971                 | -1,306        | 50%        |
| 79 and older   | 798                | 573                   | 225           | 16%        |
| <b>Men</b>   |                    |                       |               |            |
| Ages 65+   | 577                | 1,263                 | -686          | 37%        |
| 65-78  | 338                | 998                   | -660          | 49%        |
| 79 and older   | 239                | 265                   | -26           | 5%         |
| <b>Women</b>   |                    |                       |               |            |
| Ages 65+   | 886                | 1,281                 | -395          | 18%        |
| 65-78  | 327                | 973                   | -646          | 50%        |
| 79 and older   | 559                | 308                   | 251           | 29%        |
| Notes: Efficiency = (Net migration*100) / (In-migrants+Out-migrants). Elderly refers to persons 65+ in 2000. |                    |                       |               |            |
| Source: Census 2000 PUMS.  |                    |                       |               |            |

### AGE SELECTIVITY

Table 3 documents the age selectivity of elderly migration between Pittsburgh and Florida. Again, we discern a noteworthy pattern of exchange: Pittsburgh trades its less elderly residents for Floridians of more advanced age.

The pattern is clearest for persons above or below age 79 (the distinction used in Table 3). As seen there, Pittsburgh exports (with 50% efficiency) persons aged 65 to 78 and imports (with weaker efficiency) persons aged 79 and older. We regard this pattern as a telltale sign of return migration, perhaps impelled by family circumstances. There are anecdotal accounts of active retirees moving away, followed by dependency-dominated return migration of frail elderly back to Pittsburgh. Consistent with this hunch, both the magnitude and efficiency of this exchange are greater among the women 79 and older than among their male counterparts.

Table 4. Marital Status of Elderly Stayers and Migrants between Pittsburgh MSA and Elsewhere, 1995-2000

| Marital status, 2000   | Stayers | In-migrants to MSA | Out-migrants from MSA | Net migration |
|--|---------|--------------------|-----------------------|---------------|
| <b>Women 65 and older</b>  |         |                    |                       |               |
| Currently married  | 85,185  | 15,303             | 13,605                | 1,698         |
| Widowed  | 89,740  | 25,307             | 23,755                | 1,552         |
| Divorced or separated  | 10,374  | 3,322              | 2,984                 | 338           |
| Never married  | 11,547  | 3,105              | 2,991                 | 114           |
| <b>Men 65 and older</b>  |         |                    |                       |               |
| Currently married  | 103,618 | 15,026             | 14,923                | 103           |
| Widowed  | 20,176  | 4,779              | 4,328                 | 451           |
| Divorced or separated  | 7,031   | 2,530              | 2,170                 | 360           |
| Never married  | 8,062   | 1,801              | 1,569                 | 232           |
| Notes: Efficiency = (Net migration*100) / (In-migrants+Out-migrants). Elderly refers to persons 65+ in 2000. |         |                    |                       |               |
| Source: Census 2000 PUMS.  |         |                    |                       |               |

### MARITAL STATUS SELECTIVITY

Table 4 offers a further shred of evidence consistent with the “frail elderly returnee” hypothesis. These data enable us to compare the marital status profiles of the elderly migrants to and from Pittsburgh (regardless of destination or origin) and their elderly counterparts classified as “stayers” (i.e., persons residing in metropolitan Pittsburgh both in 1995 and in 2000).<sup>3</sup> In-migrants and out-migrants exhibit similar gender-specific profiles. Among women, influx and outflow are heavily weighted with those who were widowed as of 2000. Among men, by contrast, the currently married predominate. Combining genders, it appears that roughly 14 to 15 thousand married couples moved to or from Pittsburgh, for whatever reasons; and that another 24 to 25 thousand widows and 4 to 5 thousand widowers did so as well, for whatever reasons.

Comparing just the magnitudes of these crossflows relative to the “stayer” population reveals considerably greater flux overall among the population that is not currently married. For example, gross migratory turnover among the 49,062 widows

<sup>3</sup> Several important cautionary notes are in order here. Persons residing in metropolitan Pittsburgh in 1995 and 2000 are not (strictly speaking) “stayers.” During that period, they may have migrated across county boundaries within the Pittsburgh MSA (possibly induced by the very family status changes of interest here). More important, such persons may have moved away, but then returned within five years, which defines an especially significant (but here invisible) sequence of moves. Such persons correspond to our broad filtering notion, whereby the more elderly migrants to Pittsburgh may be returnees adapting to a change in health or family situation.



(25,307 plus 23,755) is 35% of the entire female widowed population (migrants and stayers combined). Likewise, gross migratory turnover among the 4,700 divorced or separated men (2,530 plus 2,170) is 40% of all divorced or separated men (migrants and stayers combined). Changes in family situations may well lie behind many of these moves, since the corresponding percentages are noticeably lower for persons currently married (women: 25%; men: 22%).

### DISABILITY SELECTIVITY

At any particular time point, a population aging in place is distributed across the functional stages through which its members eventually pass as individuals. At one extreme is the stage of being fully functional (defined, say, with reference to the gerontologists' "activities of daily living"). Subsequent stages would correspond to the progressive deterioration of that status, ending up in total dependence. From this perspective, a population merely aging in place would generate a distribution of needs that would change over time as a function of its changing distribution across functional stages. Where the net effect of migration was to add person with disabilities, the distribution across functional stages would change more quickly.

Census 2000 provides four disability status measures that are potentially useful as proxies for this distribution of needs. Each refers to the existence of a separate long-lasting condition: (1) blindness, deafness, or a severe vision or hearing impairment (*sensory disability*), (2) a condition that substantially limits one or more basic physical activities, such as walking, climbing stairs, reaching, lifting, or carrying (*physical disability*), (3) a condition lasting 6 months or more that made it difficult to dress, bath, or get around inside the home (*self-care disability*), and (4) a condition lasting 6 months or more that made it difficult to go outside the home alone to shop or visit a doctor's office (*mobility disability*).

Table 5 offers further evidence consistent with the "frail elderly returnee" hypothesis. These data show the disability status of the elderly migrants to and from Pittsburgh (regardless of destination or origin). The profiles of in-migrants and out-migrants differ only slightly, but always in the same direction: Disabilities are slightly more common among Pittsburgh's in-migrating elderly than among those moving away. For example, persons with any disability compose 58% of in-migrants but 56.1% of out-migrants. Persons with a mobility disability comprise 37.5% of in-migrants and 34.9% of out-migrants. In each instance, the absolute magnitudes of gross migration are largely self-canceling, but direction of change is apparent: The net effect of migration is to add disproportionate numbers of disabled elderly persons to the population of metropolitan Pittsburgh. Thus, the 4,848 net immigration adds 3,544 (73.1%) with a mobility disability, even though fewer than 38% of the migrants themselves have a mobility disability.

Table 5. Migratory Exchange of Disabled Elderly between  
Pittsburgh MSA and Elsewhere, 1995-2000

| Migratory exchange of<br>disabled elderly   | In-migrants to MSA |        | Out-migrants from MSA |        | Net migration |        |
|---|--------------------|--------|-----------------------|--------|---------------|--------|
|   | N                  | %      | N                     | %      | N             | %      |
| <b><i>Population 65 and older,<br/>Pittsburgh MSA</i></b>   | 71,173             | 100.0% | 66,325                | 100.0% | 4,848         | 100.0% |
| Persons with any disability   | 41,381             | 58.1%  | 37,224                | 56.1%  | 4,157         | 85.7%  |
| Sensory   | 12,773             | 17.9%  | 11,309                | 17.1%  | 1,464         | 30.2%  |
| Physical  | 29,971             | 42.1%  | 27,539                | 41.5%  | 2,432         | 50.2%  |
| Mental  | 14,968             | 21.0%  | 13,487                | 20.3%  | 1,481         | 30.5%  |
| Self care   | 17,469             | 24.5%  | 15,207                | 22.9%  | 2,262         | 46.7%  |
| Mobility  | 26,659             | 37.5%  | 23,115                | 34.9%  | 3,544         | 73.1%  |
| Notes: Age and disability status are as of 2000 (i.e., post-migration). "Any disability" includes "Not able to work." |                    |        |                       |        |               |        |
| Source: Census 2000 PUMS.   |                    |        |                       |        |               |        |

### III. CONCLUSIONS AND IMPLICATIONS

We posit that migration of the elderly may act as a sorting mechanism insofar as it selects particular types of persons with distinctive motives, personal capabilities, and family resources. From the data we have analyzed thus far, migration appears to be operating that way and, in so doing, gradually reshaping the elderly population in metropolitan Pittsburgh. The data show out-migration from Pittsburgh of younger elderly persons, fewer of whom have any disability, along with in-migration to Pittsburgh of older elderly, more of whom are disabled. This latter influx, we speculate, may consist of subsequent return migration by a subset of former out-migrants who have reached a later and less independent stage of life. Our data highlight two common challenges that would account for some return moves: loss of a spouse and onset of disability. More generally, our results draw attention to the potential interplay of migrant selectivity and family transformations in the later adult years.

If our interpretation is accurate, the implications are noteworthy, not only for Pittsburgh but for other comparable regions undergoing migratory exchange of elderly persons. Two such implications are:

- Magnification of regional health care needs. The large and increasing proportion of extreme elderly among the region's residents in and of itself will intensify local service and assistance needs. Gross migration flows are gradually recomposing the region's elderly population, replacing persons under age 79 with persons over 79; and replacing non-disabled persons with disabled ones. The cumulative effect will be an intensification of particular needs for health care and assistance for those who live independently.
- Political Implications. Patterns of electoral participation foreshadow the gradual emergence of an "elderocracy," composed of older registered voters who consistently voice their preferences in local elections. For example, in Allegheny County, persons 60 and older comprised 45% of all registrants who voted in the most recent local primary election but 58% of those registrants who had voted in four of the previous five primary elections.

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