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Senior Shedding: Mortality and Migration of Seniors Create Vacancies for Gentrifying Neighborhoods

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Citation Details

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Mortality and Migration of Seniors
Create Vacancies for Gentrifying Neighborhoods

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Paper follows from demographic work for Portland Public Schools

- The Population Research Center at Portland State University has provided demographic services to Portland Public Schools for over ten years, mainly school enrollment forecasts.

- We are paid for the forecasts, but are interested in the "back story" of the ups and downs of school enrollment at the neighborhood level.

  o In an earlier paper we examined some of the impacts of changes in age specific fertility: *"Older Moms Deliver: How increased births to older mothers have impacted enrollment in Portland's schools"*.

  o This lead to questions about whether we were looking at housing turnover or gentrification.

  o The present paper follows up by looking at how the vacancies created by deaths and out-migration of seniors, baby boomers, facilitated housing turnover, or gentrification referred to here as: *Senior Shedding*.

  o Read the full papers at: www.pdx.edu/prc/news-and-presentations-from-the-population-research-center
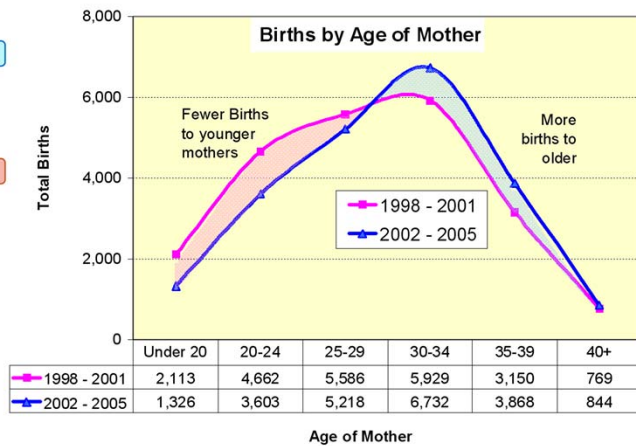
This paper was written in collaboration with my colleague Charles Rynerson who is the "School Demographer" for our center and who has done the enrollment forecasting work for the Portland District for a number of years.

The paper grows out of the applied research that we provide to Portland Public Schools as their demographic consultant. The growth that we observed in school enrollment lead us to think about what the underlying forces were. Gentrification – turnover – filtering was one of the mechanisms. But we also observed that most of the housing opportunities were generated by the deaths or out-migration of the baby boomer population.

There was a crossover in births by age of mother for the Portland School District

- In 2001 the number of births to older mothers (age 30+)

- About equaled those to younger mothers (under age 30).

- The total number of births was about the same:
  - 22,208 from 1998-2001
  - 21,591 from 2002-2005.

Births by Age of Mother

Total Births

Fewer Births to younger mothers

More births to older

1998 - 2001
2002 - 2005

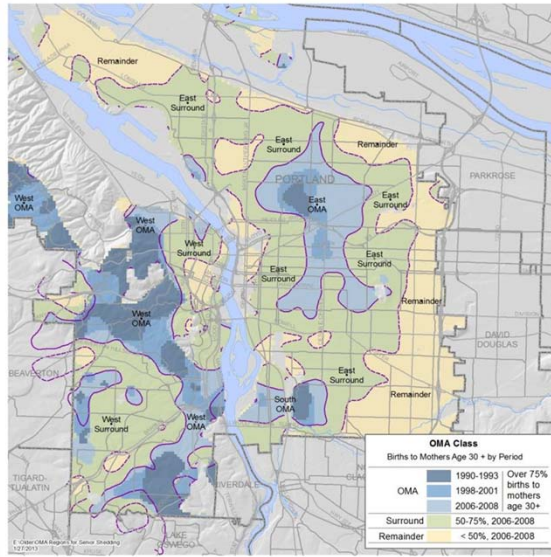|	Under 20	20-24	25-29	30-34	35-39	40+
1998 - 2001	2,113	4,662	5,586	5,929	3,150	769
2002 - 2005	1,326	3,603	5,218	6,732	3,868	844

Age of Mother

In the short period of a few years the District saw a changeover from births mainly to younger mothers to those to older. This is part of a national trend, but has been enhanced by local geographical shifts in the locations where the thirty somethings are choosing to live.

Using geo-coded birth record data we mapped the proportion of births to older moms –
age 30 plus – and used grid mapping techniques to show the proportions.

In the blue areas on this map 75% of the births in the 1990-1993 period were to older
moms. The blue areas are shaded darker where this transition occurred earlier as shown by
the 1990-1993 and 1998-2001 birth data. We refer to these blue areas as the *East, South*,
and *West OMA* areas.

The green areas show where 50-75 percent of the births were to older moms in the later,
2006-2008 data. We refer to these as the *East* and *West Surround* areas.

Finally, in the remainder of the District, shown in yellow, the proportion of births to moms
age 30 plus remained below 50% for all periods. These areas contain a large share of the
Districts Hispanic population. We refer to these as the *Remainder*.

What particularly caught our attention was the recent growth in births to older mothers in
the East OMA area in the. By contrast in the West OMA area most births have been to older
moms beginning with the earliest period from 1990-1993.

- The main focus of our interest is on the **East OMA**. The trend to births to older moms births began in the Irvington, Alameda, Grant Park, and Laurelhurst neighborhoods.

- The "older moms" area grew more in the east side neighborhoods than in the west side.

- A smaller area "older moms" area developed to the south in the Sellwood Moreland neighborhood.

- The growth in share of births to older moms spread out from the blue into the green areas.

- In the yellow areas, births are predominately to younger mothers. This area includes much of the District's Hispanic population.
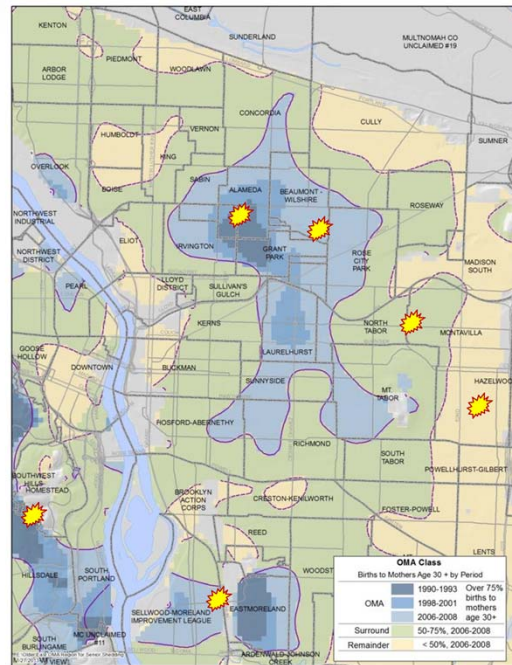
What particularly caught our attention was the grown in the East OMA area in the latter time period. By contrast in the West OMA area births most births have been to older moms beginning with the earliest

5

A brief tour of the locale

- The type of housing most sought were bungalow style homes built in the 1920's. The house on the right last sold for $69,000 in 1988 and peaked in value at $392,000 in 2008.

- Houses such as these colonial style homes also were built in the 1920's. The house on the right last sold in 1985 for $68,000 and peaked in value in 2010 at $470,000.

- The housing gentrification was accompanied by commercial gentrification along the arterials.

- Other upscale retailers, such as Whole Foods have moved into the area. This location previously housed a gas station and discount grocery store.

- As one moves outward from the East OMA to the East Surround the houses become variable in quality and size.

- Housing in the West OMA was largely in the years after WWII with a few areas of recent high value housing construction.


Photos from Google Earth, personal photos

Enrollment in the Older Moms Areas (OMAs)

- The following series of maps shows the annual rate of enrollment growth and decline for KG-02 enrollment in the school 2011 *attendance areas*.

- From 1990-1996 grade KG-02 enrollment in the attendance areas for the **OMA** areas showed slight declines (green dots).

- From 1996-2000 later the losses of KG-02 student deepened for most schools in the **East OMA** areas.

- Then from 2000-2005 these same attendance areas began to show modest increases in KG-02 enrollment.

- In the 2005-2010 period these increases accelerated in the **East OMA** areas and also popped up in other **OMA** areas.
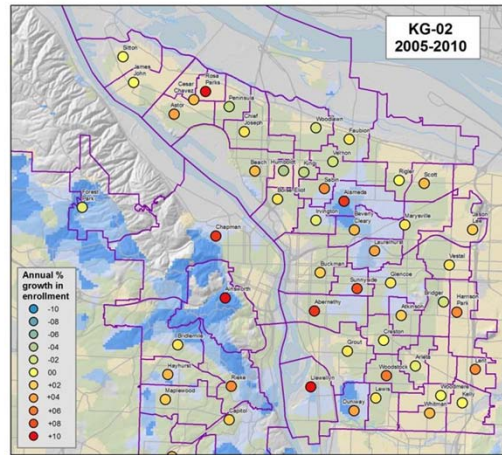
The combination of the shift in births to older mothers and the enrollment growth in the schools in the OMA areas lead us to look further into the underlying processes.

Note the data are for students residing in the 2011 elementary school attendance areas as school boundaries have changed over the 21 year period.

Since our main task was school enrollment forecasting we observed that our forecasts, and later actual enrollment, were trending upwards in the older moms areas, particularly the East OMA. This sequence of slides shows the decline in enrollment in the elementary school attendance areas in the early 1990's which turned sharply downward in the second half of the decade. This was due mainly to an aging baby boomer population and declining growth of minority black and Hispanic enrollment. In the 2000-2005 period enrollment in the lower elementary grades (KG-02) began to turn around in the East OMA. Then in the 2005-2009 period it grew at a more rapid place. Not shown here, enrollment growth also began to grow in the upper elementary grades (03-05) and the middle school grades (06-08).
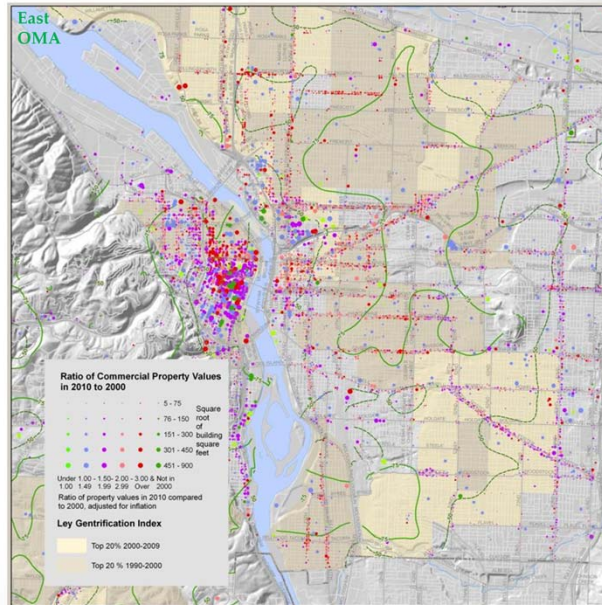
Who were the older moms?

- **Highly educated**. The largest number of mothers had post graduate education (birth records)
- **Affluent**. Median household Income in the **East OMA** was over $100,000 (ACS) and single family housing values over $350,000 (tax-lot data), nearly all in owner occupied housing (ACS, tax-lot data).
- **Married**. Most of the households in the **East OMA** were married couples (Census, ACS).
- **Not all recent**. Many of the mothers moved into the **OMA** areas a number of years ago (linked birth and tax-lot data)
- **Local and from away**. Twenty years ago most of the households in the **OMA** areas would have moved locally, but in the past two decades many have in-migrated from outside of Oregon (Census, ACS).
- **Gentrification?** Those households who out-migrated to create the vacancies for the older moms were mainly older and less affluent (ACS, Census)

The older moms in the East OMA were a remarkable group. The birth record data shows them to be highly educated and the ACS shows them to be affluent. Most of the households were married couple households. In an earlier study for the City of Portland we noted that most of the in-movers to the East OMA were from Portland, in the last twenty years a substantial portion were in-migrants to the Portland area. They were attracted by the combination of older quality housing, good schools, growing urban amenities and the probably by ability of the real estate industry to market to a broader audience.

Work by Neil Smith and David Ley beginning in the 1980's attempted theoretical explanations of the gentrification process. Some contemporary writers such as Ehrenhalt in his book *The Great Inversion* take a more eclectic view describing a wide variety of contexts in which households have shown a preference for the central city. We applied Ley's model to Portland and analyzed the growing share of employment in MTP occupations and in persons with college educations. It does appear that in the 1990's the East OMA area was coincided with Ley's measure of gentrification and that post 2000 it spread outwards into the East Surround area. Ehrenhart pays special heed to the importance of street life and commercial gentrification. Mapping same parcel commercial property value changes for Portland does show the more rapid growth of commercial property values in and around the East OMA and East Surround areas.

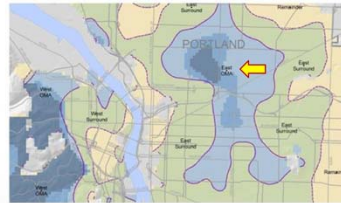**What was the source of the housing vacancies that facilitated the turnover/gentrification process?**

- **Assume:** We are looking at normal housing turnover accelerated by gentrification.

- **Hypothesis:**
  Most of the vacancies in the gentrifying areas resulted from deaths and out-migration of older households.

- **In the areas:**
  - East OMA
  - West OMA
  - South OMA
  - East Surround
  - Remainder of district
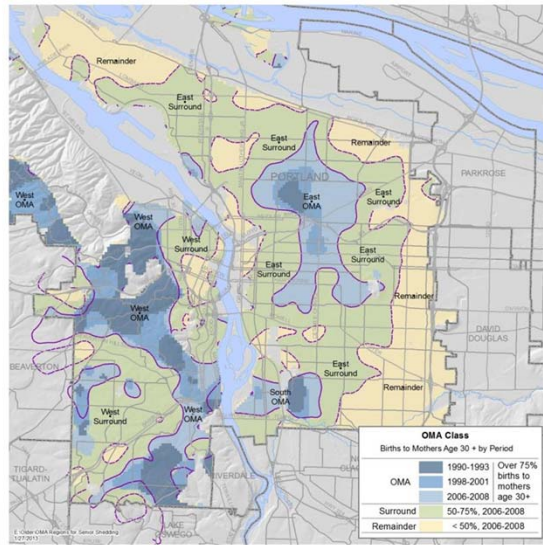
At this point we turn our attention to the major purpose of the paper: to examine the contribution of older households and the elderly to the gentrification process and the turnaround in school enrollment.

We used block level data from the 2000 and 2010 Census along with mortality rates for 2000 and 2007 to estimate deaths and net migration for the East, South, and West OMA areas and for the Surround and Remainder areas, with a particular focus on the East OMA. What we find for the East OMA area is that the age 30-34 cohort was the modal age group, with most of the in-migrants in the 25-29 through 44-44 age cohorts, along with their children. There was some net out-migration of post school age population, but most of the vacancies were created by the out-migration of persons age 50-64 and the deaths of persons age 55 and older.
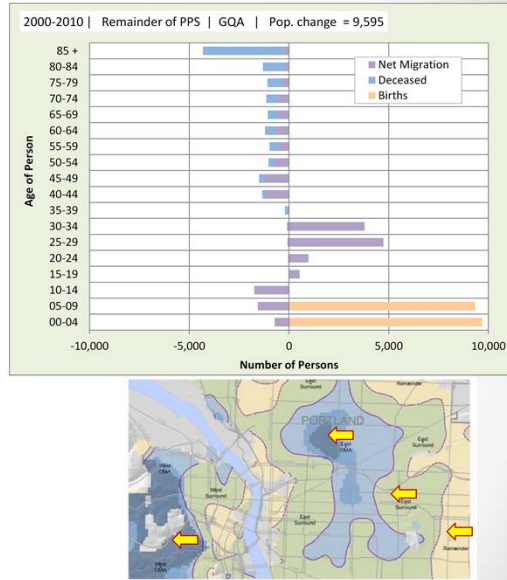
The in-migrating persons in the West OMA were older and were mainly accommodated by the deaths of older person, not out-migration. (toggle back and forth). In-migrants to the East Surround were considerably younger and were accommodated by mainly by the outmigration of the 40 and older population, who may have moved upscale in housing to one of the OMA areas or to suburban housing.

The graphs an tables previously shown included an adjustment for group quarters population, attempting to focus on households. For the East OMA it made little difference since there were few group quarters residences there, but it made a big difference for other areas such as the East Surround which includes college, senior, and prison populations.

Population, Households, and Housing Units

- The net migration calculations were for number of persons.

- But migration choices are made by households thus

- Population by age was converted to population by age of head using a PUMS derived table, separately for owner and renter occupied units.

- Households also were converted to housing units, but the results were generally unreliable.

2000-2010 | East OMA | GQA | Hou. change = -387

Age of Head of Household	Number of Households
85 +	-1,047
80-84	-320
75-79	-231
70-74	-216
65-69	-242
60-64	-392
55-59	-308
50-54	-205
45-49	-1
40-44	390
35-39	714
30-34	886
25-29	569
20-24	19
15-19	-2
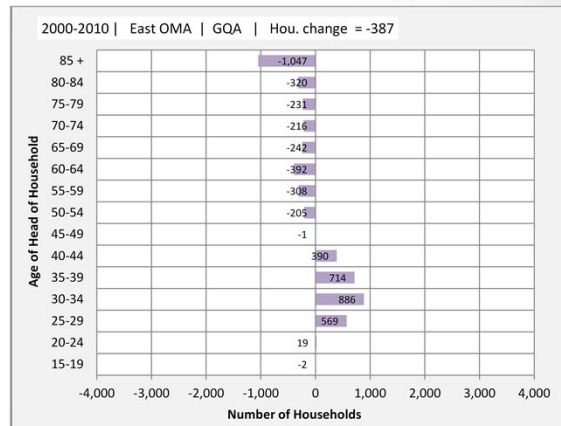
An attempt was made to convert numbers of persons to households using a table from PUM of households by age of head to age of populations residing. We wanted to do this so that we could better compare changes in population to changes in housing units. We also attempted to convert the household figures into numbers of housing units occupied by age of household, but this generally was not successful for those areas where there was a major change in housing unit inventory. For the East OMA area the housing unit change estimated by this method compared closely to the housing unit change from the Census long form data.

Maps showing density for deaths and migration

- The maps on this page show the spatial distribution of vacancies created by deaths and net out-migration.

- In these maps the survived 55-64 population is compared with actual number 10 years later.

- The maps on the left show deaths and those on the right show net migration

- The two maps at the top are for the 1990-2000 period and those at the bottom are for 2000-2010.

- The next slide will show these same maps as an animation.

Another way to view the effects of mortality an net migration is to map the data. These maps were created from block level census data for the 55-64 and 65-74 cohorts, mortality rates, using kernel density grid mapping.

Across the top you see the effects of deaths and migration.

From top to bottom the 1990-2000 and 2000-2010 periods.

All maps are scaled and color coded to the same classes. The blue areas on the net migration maps show concentrated areas to which seniors are in-migrating. Rose colored areas on all maps show loss of seniors.
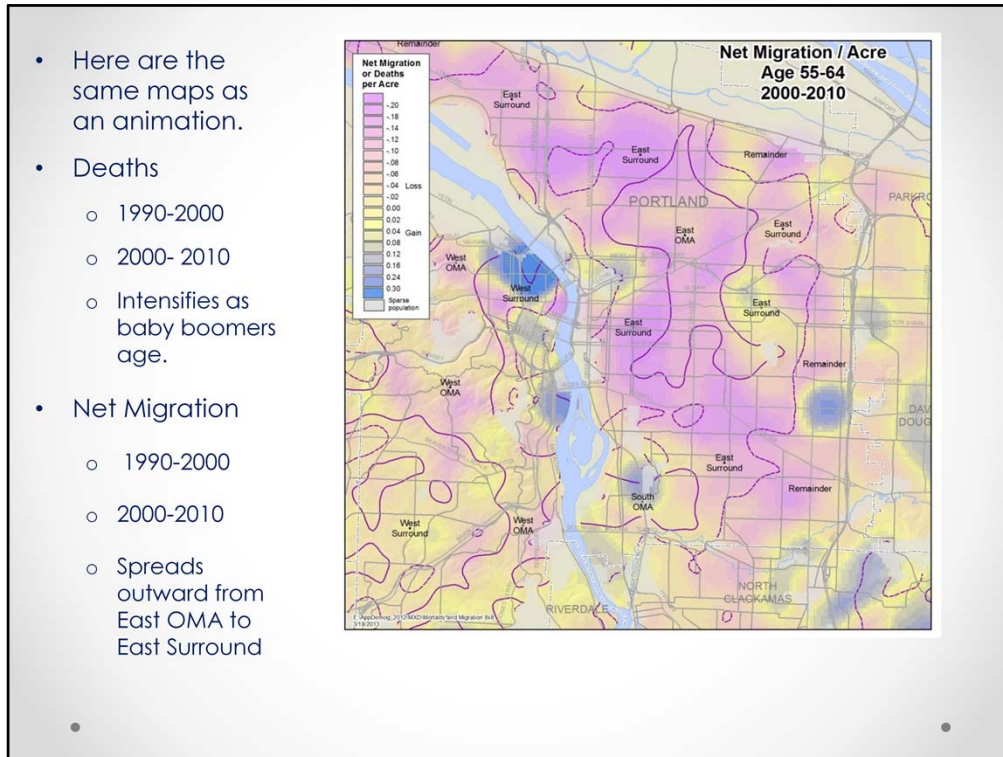
It is easier to see the change when the maps are overlaid.

For the maps showing deaths one sees an increasing concentration in the East OMA and East Surround areas that increases over the decade and mortality takes more of the baby boomer population.

The maps of net migration show a different pattern. In the 1990-2000 period the highest peaks of losses are in and around the East OMA area but by the 2000-2010 period it appears to have spread outward into the East Surround area.

At this time we do not have a good explanation of the mechanism of this change, at least not one that we can build into our forecasting models.
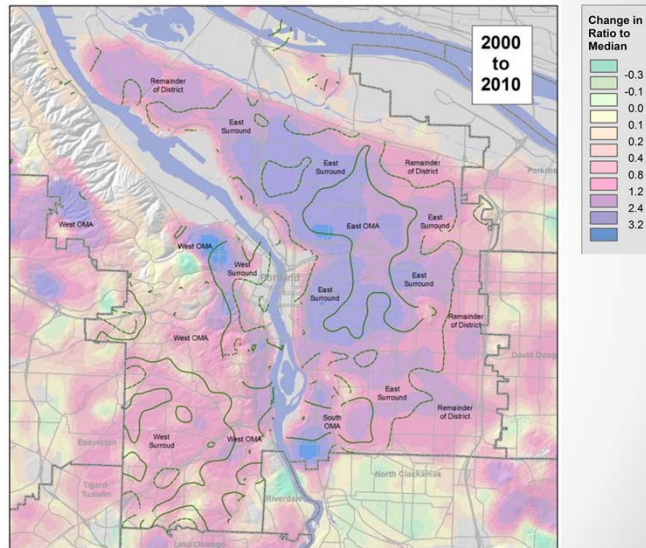
On factor that we think contributed to the outward shift in loss of seniors due to net migration was the effect of escalating housing prices. The East OMA experienced a rapid growth in housing prices. Through most of the OMA areas housing prices were considerably higher than the metro area median price and the difference grew over time.

Income of older households lower

- From ACS data the income of the age 25-44 households in the census tracts in the **East OMA** is high compared to the rest of the District, generally over $100,000.

- Incomes in the **East OMA** are slightly lower for households age 45-65.

- And they are much lower for the households age 65 plus, generally under $50,000.

- Incomes of the age 65 plus households in the **East OMA** generally are about 35 to 75 percent of those age 25-44.

- This suggests that the out-migrating older households may have been eased out by the more affluent younger households.
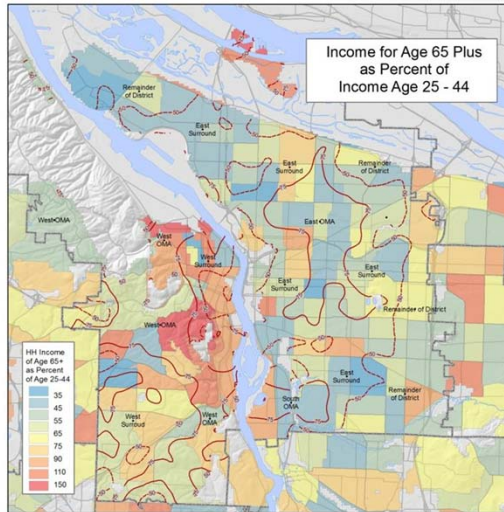
The incomes of seniors living in the East OMA, under $50,000 were considerably lower that those for the in-migrating thirty somethings, over $100,000. The combination of the income differentials between the two groups and the rapidly rising housing values may well have accelerated the turnover of housing units owned by seniors. Caps on the rate at which property taxes could be increased protected owners of increasingly valuable homes from large increases in their property tax bills and so they probably were not driven out by growing tax bills.

Were the lower income long term residents replaced by more affluent thirty somethings?

- The HH income level of movers and non movers was calculated using the ACS 2007-2011 PUMS data
  - for householders in single family owner occupied housing
  - for the three county Portland metro area.

- Age 65+
  - For mid-income households stayers were more numerous as share of all households.
  - For the lowest and highest income households movers were more numerous as share of all households.

- For other broad age groups the pattern was less clear
  - Age 25-44
  - Age 45-64

- The larger proportion of movers in the lowest income households may suggest displacement of low income older persons by more affluent younger households.

HH Income by Mobility Status — PDX 3CO . REF . 65-99 . SFR-OWN

Chart: Percent of All Households (y-axis, 0–40) by Household Income ($1,000) (x-axis: Loss to 24, 25-49, 50-74, 75-99, 100-149, 150-199, 200-249, 250-299, 300-349, 350-399, 400+), showing Stayer and Mover series.
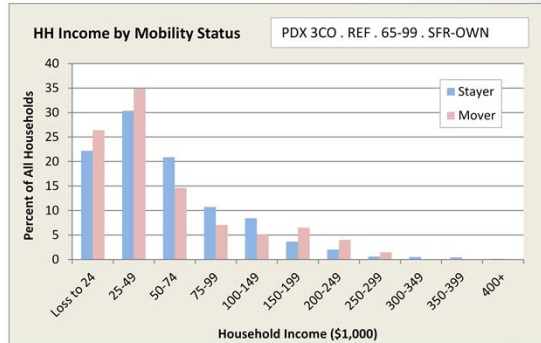
We used data from the PUMS from the 2007-2011 ACS to examine the incomes of older movers and non-movers in the three counties on which the Portland School District impinges. We could not use smaller geographies such as PUMAs as the sample was too small. For mid income households, $50,000 to $150,00 movers were more numerous as a share of all households. For lower and higher income households the relationship was less clear. For the lowest income and highest income households movers were more numerous as a share of all households. The large proportion of movers among low income older persons may suggest displacement.

Sales of Older Single Family Homes

- The several OMA areas experienced relatively low turnover of older housing from 1995 – 2010.
- The turnover was greatest from 1995 to 2000 and greatest around the margins of the East OMA area.
- From 2000 to 2005 sales of homes decreased in the East OMA area but increased in the East Surround area, due in part to the exodus of the areas black population.
- From 2005-2010 the sales of older homes dropped significantly due to the recession and financial difficulties of securing loans.

Single Family Properties Selling in Previous Five Years as Percent of all Single Family Properties Built Before 1940 — 2010

Percent Properties Selling in Previous Five years
25.0
27.5
30.0
32.5
35.0
37.5
40.0
42.5
100.0
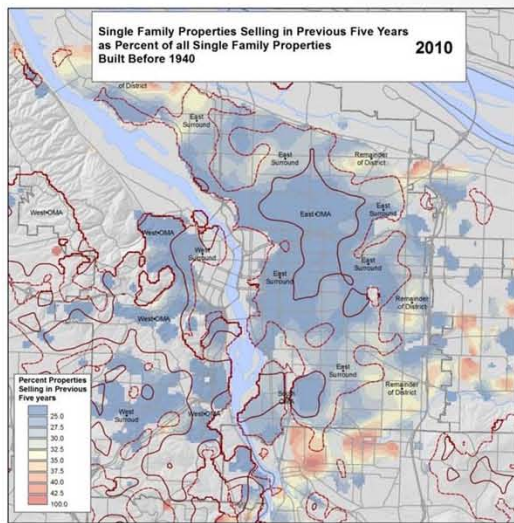
Did the increase in housing values encourage older residents to leave?

- A large proportion of the pre WWII high value housing that sold from 2006-2011 was in the **East OMA** area.

- Did the large increase in prices encourage long term (older) owners to cash out and leave?

- Querying the tax-lot data shows that most of the large increases in value in these homes that were sold were in the East OMA.

- However from a percentage standpoint the largest increases in housing values were in the **East Surround** area.

Value in 2010
Value in 2000

- 0.8
- 0.9
- 1.0
- 1.1
- 1.2
- 1.4
- 1.6
- 2.0

=====================
Query
o Single family housing
o built before 1940 and,
o that sold 2006-2011 and last sold > 10 years prior,
o with housing value known in 2000 and 2008
=====================
For 478 of 2,271 units that met the above criteria housing prices grew by over 50%. Of these 111, 23%, were in the OMA areas and 279, 50%, were in the East Surround area
=====================
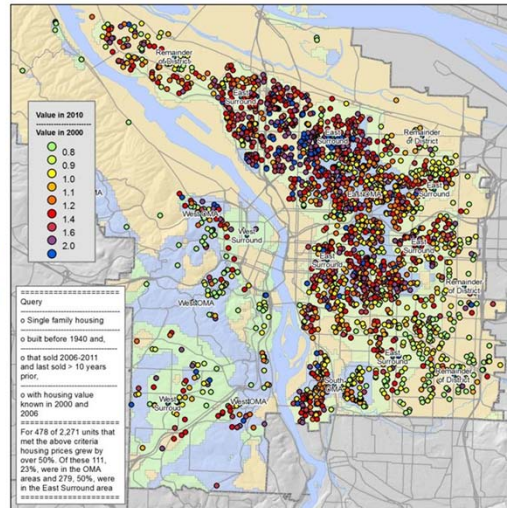
We looked at the growth in housing values of long term residents to see if large increases in housing values may have cause some of them to "cash in" and leave. We did not have data for homes owned by seniors so we used tax-lots that sold in the 2006-2011 period and which previously had not sold for 10 years or more assuming that most of the long term residents also were older households. As this map shows many of the homes of long term residents that sold (blue and purple dots) were located in the East OMA area.

Change in value for SF homes sold and not sold

- The data considered are for:
  - single family homes built before 1940
  - that remained with the same owner for at least 10 years
  - and were sold, or not sold from 2006-2011.

- For the **East OMA** area the modal increase in value was in the $150K-$175K range.

- In the mid range from $250K to $275K the increase was greater for homes not sold ,but above $275K those homes that sold showed a slightly greater increase in value.

- For the East Surround area the modal increase was less but the same patterns prevailed for mid and higher increase values.

- Since most of the older homes were in these two areas the analysis is not shown for the other OMA areas.
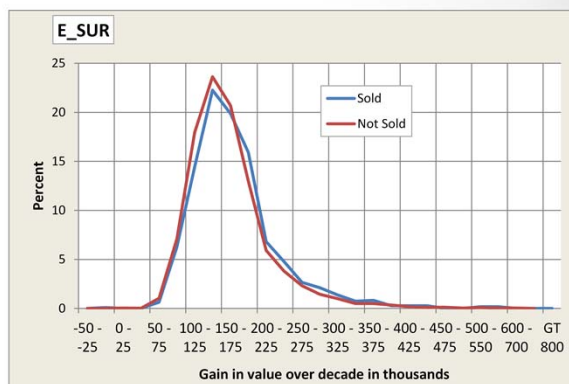
A tabular examination of the same data shows that for the East OMA area homes valued over $250,000 that were sold experienced a greater increase in housing values than homes valued at less than than amount. Thus it may be fair to say that where there were large increases in housing values, the long term home owners were more likely to see. The same trend can be seen for the East Surround area, but the differences appear to be smaller. However, given the large disparity between the incomes of seniors (long term residents) and in-migrating thirty somethings, the difference in propensity to sell their properties seems small.

Conclusions

- **School enrollment – Gentrification – Senior shedding.** We think that we have made the connection between the departure of seniors, gentrification, and the turnaround in school enrollment. It is important to know the causal forces that lie behind forecasts and to have a good narrative for public meetings.

- **The role of the "older moms".** The mix of housing turnover, gentrification, and school enrollment changes may be unique to this particular place, but the impact of the affluent "older moms households" moving to the central city likely occurs in most large U.S. cities, shaped by local real estate markets.

- **Gentrification, turnover, filtering.** In his 1990 book on housing demography Myers referred to the "scholarly disarray" related to the study of housing turnover. The current literature on gentrification, inversion, and other descriptors of the return of residents to the central city appears to be equally disjoint.

- **Housing choices of seniors.**
  - The study of gentrification and turnover tends to focus more on the in-migrants as the active force, but the choices made by seniors create many of the housing opportunities. Displacement of the disadvantaged has received considerable attention; the decision to leave by those not disadvantaged, not so much.
  - The complex decisions that older households need to make about residence as they age and their needs change was not thoroughly investigated and further consideration of these issues might help to quantify the rate of turnover of senior housing.
  - Myers argues in a 2008 article that the supply of housing vacated by aging baby boomers may depress the housing market in some locations. That appears not to be the case for the East OMA where the combination of housing quality, central location, and nearby urban amenities likely will sustain interest in this area.

- **A patchwork of data.** We are fortunate to have access to student record, tax-lot, and birth data and the GIS tools to work at a fine geographical resolution, but marrying these data with relationships derived from the ACS and PUMS is a challenge and has it its limits. We miss the SF1 housing detail lost since the 1990 census.

Senior Shedding

Mortality and Migration of Seniors
Creates Vacancies for Gentrifying
Neighborhoods

www.pdx.edu/prc/news-and-presentations-from-the-population-research-center

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