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# Trends in New Jersey Migration:

*Housing, Employment, and Taxation*

POLICY RESEARCH INSTITUTE  
F O R T H E R E G I O N

*POLICY SOLUTIONS ACROSS BOUNDARIES*

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*September 2008*



## Acknowledgements

Funding for this research was provided by Princeton University and by the New Jersey Office of Economic Growth. The New Jersey Division of Taxation generously provided special-run data.

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## Executive Summary

This study provides an empirical analysis of recent migration into and out of New Jersey. We focus on the social and demographic characteristics of migrants in order to inform public policy. While New Jersey has much to do to ensure the future vitality of the state and its residents, the state's ability to attract and retain a highly educated and highly compensated workforce remains strong.

## Methodology

The study draws upon three main data sets. The U.S. Census Bureau's population program provides official estimates of aggregate migration trends. To gain insight into the social and demographic characteristics of migrants, we use the Census Bureau's American Community Survey, which provides a random sample of migrants for the years 2000-2006. Finally, we analyze New Jersey state income tax data to assess the migration patterns of New Jersey households earning more than \$500,000 in annual income.

## Study Findings

### ***The High Cost of Living and New Jersey's "Brain Gain"***

In broad terms, the data indicate, first, that out-migration from New Jersey to other states is driven by low-income individuals; and second, that the state is seeing a modest net "brain gain" of highly educated people moving into New Jersey. The data also indicate that the high cost of living (and especially the high cost of housing) is the main factor that leads to the state's net out-migration. The impact of the "half-millionaire tax" on the migration of New Jersey's wealthiest households is small.

### ***New Jersey's Domestic Migration Patterns: Out-flow of Lower-Income Residents; In-flow of Higher-Income Residents***

The U.S. Census Bureau's migration estimates show that New Jersey has experienced net domestic out-migration since at least 1991. This has closely

paralleled the overall migration trends in the northeastern United States. On average, New Jersey loses 5.5 residents per 1000 population each year.

New Jersey sees both inflows and outflows of residents. To look at the balance of these population flows, we calculate the net gain or loss per 100 out-migrants. We compute this statistic for a wide range of socio-demographic groups.

New Jersey's net domestic out-migration is primarily occurring at the bottom end of the income distribution level. Below the state's median family income, there is a net loss of 26 people for every 100 out-migrants. However, above New Jersey's median income, there is a net gain of 5 people per 100 out-migrants.

Among working people, net out-migration is essentially zero (a net loss of 1.8 per 100 out-migrants). Net out-flows consist of people who are either unemployed (33.6 per 100 out-migrants) or out of the labor force (30.3 per 100 out-migrants). These net outflows have helped raise the employment to population ratio in New Jersey.

Most New Jersey out-migrants move to states that impose higher state income taxes. This is because, first, New Jersey's income tax rates for lower-income individuals (1.4% to 1.75%) are well below that of most other states. Second, most of the net out-migrants have low incomes. State income tax policy does not explain why people are moving out of New Jersey.

New Jersey out-migrants tend to move to states that have much lower property values (35% lower), property taxes (41% lower) and overall costs of living (17% lower). Destination states also have notably lower average incomes, substantially higher crime rates, higher infant and child mortality; slightly lower school quality, but somewhat warmer winters. Overall, it appears that net out-migration is due to the high cost of living (especially the high cost of housing and property tax) in New Jersey.

The states with migration patterns most similar to New Jersey are California, New York, and Massachusetts. These states, like New Jersey, are experiencing net out-migration driven by lower-income individuals. All of these states have a high cost of living and high housing prices. Factors such as tax rates, climate, and crime rates do not appear to explain the migration patterns in these states.

While New Jersey has, for a long time, experienced net domestic out-migration, this is not a symptom of economic decline in the state. On the contrary, out-migration is largely a consequence of regional inflation in the cost of living that makes New Jersey difficult to afford for lower-income residents. Out-migration from New Jersey is a byproduct of prosperity, not decline.

***Domestic Migration Patterns of New Jersey's "Half-Millionaires" and Income Growth among the State's Top Earners***

As a result of the new 8.97% New Jersey tax rate on annual income above \$500,000, a key issue in the policy debate concerns whether the state's "half-millionaires" are fleeing the state after the imposition of the tax in 2004. In other words, some analysts have suggested that the new bracket makes New Jersey a less desirable residential choice for half-millionaires, causing some of them to seek greener tax pastures.

We note that in spite of net out-migration, the number of half-millionaires in New Jersey has increased sharply in recent years, from 26,000 in 2002 to 44,000 in 2006 (a 70% increase). Income growth among high earners has led to a tremendous increase in the number of people who fall into the half-millionaire tax bracket. Using New Jersey tax records, we estimate that the new half-millionaire tax rate has generated an average of \$895 million per year in tax revenues, rising from \$739 million in 2004 to over \$1 billion in 2006.

The data suggest that there was an increase in net out-migration of half-millionaire households after the new tax rate went into effect in 2004. However, the effect is small. We estimate that New Jersey loses, at most, an

additional 67 half-millionaire households per year to other states. In addition, we estimate that up to 287 half-millionaire households per year may choose not to move to New Jersey as a consequence of the new tax bracket. This suggests a total loss of about 350 half-millionaire households per year relative to the current New Jersey population of 44,000 half-millionaire households. The foregone tax revenue associated with the “missing” households amounts to approximately \$38 million per year. In our view, this is a small side effect of a tax policy that generated more than \$1 billion in 2006.

### ***Migration’s Fiscal Impact on New Jersey***

It is not clear that net out-migration has a negative fiscal impact for the state government. Understanding the fiscal impact requires a full cost-benefit analysis. For example, adding one million people to New Jersey would greatly strain government services and public resources and amenities. However, adding one million people would presumably bring in enough additional tax revenue to cover these costs. We suspect that in a very high density state such as New Jersey, population growth is more costly and difficult to manage than out-migration.

We note that “income losses” to the New Jersey economy from out-migration are in large part illusory. An out-migration of employers and jobs *would* lead to a reduction of per-capita GDP in the state. However, an outflow of *labor supply* does not: it either creates new job vacancies or reduces the number of unemployed. This is beneficial for workers and job seekers in New Jersey. Indeed, the data show that unemployment is, in part, being exported to other states.

### ***Conclusions and Policy Recommendations***

The economic impact of migration, in our view, is ambiguous, but we contend that what matters is productivity (per capita income). Out-migration can be alarming as a possible symptom of economic decline or deteriorating



productivity. However, New Jersey's out-migration is characterized by a state economy with high and rising incomes and below-average unemployment; an extremely expensive and rapidly appreciating housing stock; and net in-flows of people with advanced education. All of the latter are signs that the growing affluence of New Jersey is pushing out low-income individuals who are simply unable to afford the high cost of living.

New Jersey's experience is in contrast to areas like Detroit, Michigan, where out-migration is characterized by falling wages, high unemployment, falling housing prices and modest in-flows of residents with low education and low labor force participation. It is under these circumstances that out-migration is a symptom of economic decline.

New Jersey has held its position as an extremely high income state, despite almost two decades of continuous net domestic out-migration. The state has the second-highest average income in the union.

As such, our report highlights the need for policy analysts to better understand the migration process. To study income or tax losses due to migration, one must look at the migration of employers and jobs (income-earning positions), not the migration of workers and job-seekers. While this would require further research and different types of data, we see little evidence of an out-migration of jobs or employers.

In summary, migration out of New Jersey is almost entirely due to low income individuals moving to areas with lower living costs. The most important step to reducing out-migration would be to improve the affordability of housing in the state, particularly for low-income residents.

## Data Sources

This study draws upon three main data sets: (1) the Census Bureau population and migration estimates, (2) the Census Bureau's American Community Survey, and (3) New Jersey individual income tax data.

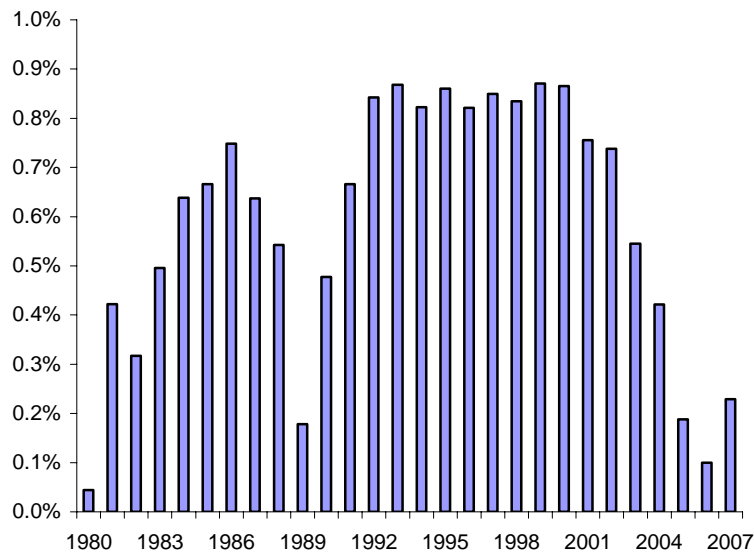
The Census Bureau's population program provides official estimates of migration. The drawback of these data is that they only provide information about aggregate trends. To gain insight into the socio-demographic characteristics of migrants, one requires more detailed, micro-level data. For this, we draw on the American Community Survey, which offers an extensive random sample of migrants for the years 2000-2006. Finally, because we are particularly interested in the effect of the "half-millionaire tax" on migration patterns, we analyze New Jersey state income tax records. These records were provided to us by the New Jersey Division of Taxation, after removing all identifying information. The tax records provide detailed data on high-income earners.

In this study, we approach each data set with a set of key questions. For the Census migration estimates, what are the general patterns of migration into and out of New Jersey? How have these patterns changed over time? Turning to the American Community Survey, what are the socio-demographic characteristics of those who move in and out of New Jersey? For example, is New Jersey losing highly-educated, high-income individuals? Moreover, when people leave New Jersey, to what states do they move? Do they tend to move to states with lower taxes? Finally, using the New Jersey tax records, has the out-migration of very high-earners increased since the new 8.97% tax bracket (the "half-millionaire tax") was established?

## Part I. Census Bureau Population and Migration Estimates

The current (2007) population of New Jersey is estimated at 8.68 million. Graph 1 shows the annual population growth rate between 1980 and 2007. Population growth was 0.2 percent in 2007, down from 0.9 percent in 2000.

**Graph 1. New Jersey Population Growth Rate, 1980-2007**

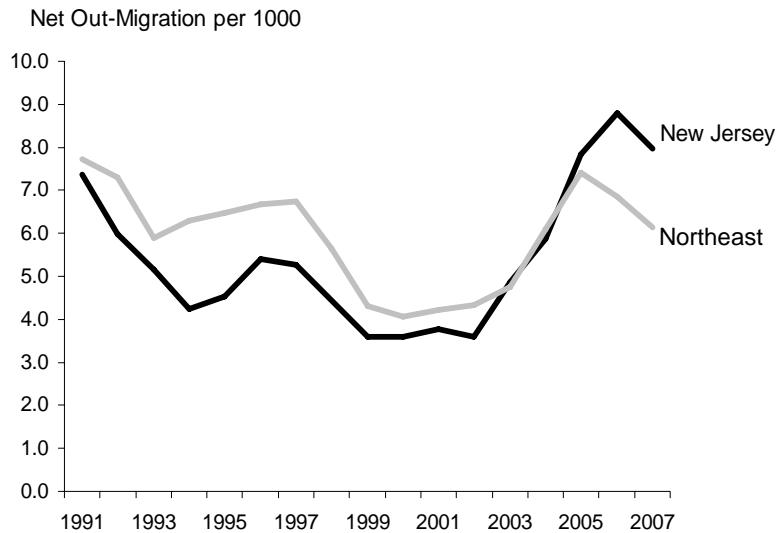


This recent slowdown in population growth is largely attributable to net out-migration from New Jersey to other states of the union.<sup>1</sup> Two other sources of population growth, natural increase (more births than deaths) and net international in-migration, have changed little in recent years.

As shown in Graph 2, there has been a continuous flow of net domestic out-migration from New Jersey since at least 1991, averaging about 5.4 net out-migrants per 1000 New Jersey residents. The net out-migration rate increased sharply from 2002 to 2006, rising from 3.6 per 1000 to 8.8 per 1000. The net domestic out-flow slowed somewhat in 2007 to 8.0 per 1000. In absolute terms, New Jersey's net out-migration was 69,160 people in 2007.

<sup>1</sup> This report primarily addresses this type of migration. Unless otherwise noted, references to "migration" mean domestic migration—i.e., migration between the states of the United States of America.

**Graph 2. Net Out-Migration from New Jersey and the Northeast, 1991-2007**



In many ways, migration is more region-specific than state-specific. State trends are part of larger regional trends, notably the general migration of people from the Northeast to the South. And within New Jersey, migration patterns also follow a basic national trend: movement away from the high-density cities and inner suburbs to the low-density suburban, exurban, and rural areas.

Net migration patterns in New Jersey have closely paralleled those of the Northeast region in general. Indeed, there has been a broad trend of population movement from the Northeast (-5.9 per 1000) to the South (+4.2 per 1000).<sup>2</sup> Since 1991, the share of the US population in the Northeast has fallen from 20% to 18%, while the population share of the South has risen from 34% to 36%.

Nevertheless, New Jersey’s net out-migration has increased relative to the Northeast region. Between 1991 and 2003, New Jersey’s out-migration rate averaged 1.0 per 1000 *lower* than the Northeast regional rate. Since 2004, New Jersey’s rate has averaged 1.0 per 1000 *higher* than the Northeast regional rate (see Graph 2).

<sup>2</sup> The West has seen slight inflows over the 1991-2007 period (+0.5 per 1000), while the Midwest has seen moderate outflows (-1.9 per 1000).

The average annual net migration rates for each state in the Northeast region are shown in Table 1. New York (-10.7) faces far higher net out-migration than the rest of the Northeast; New Jersey ranks second in this respect, but the out-migration rates for Connecticut, Rhode Island, and Massachusetts are much the same. New Hampshire stands out for its strong net in-migration (+3.5), though Maine and Vermont also experience net inflows.

**Table 1. Average Annual Net Migration per 1000 residents in Northeastern States, 1991-2007**

State	Net Migration
New York	-10.7
New Jersey	-5.5
Connecticut	-5.3
Rhode Island	-5.3
Massachusetts	-5.2
Pennsylvania	-1.6
Vermont	0.6
Maine	1.2
New Hampshire	3.5

Within New Jersey, out-migration has primarily occurred in the northern counties that are closely tied in with the New York metropolitan area: Hudson, Essex, Passaic, and Union counties. In contrast, other counties are seeing significant in-migration: e.g., Ocean, Gloucester, Warren, and Burlington counties. As shown in Table 2 below, there are 12 counties with net out-migration in New Jersey. On average, these counties have a population density of almost 3400 people per square mile, and an average property value of \$395,000. In contrast, in the 9 counties with net in-migration, population density is about 430 per square mile (about *one-eighth* the average density of the net out-migration counties), and an average property value of about \$280,000 (roughly \$115,000 lower than the average in the out-migration counties). In short, congestion and housing costs—whether compared across New Jersey’s counties or, as we show below, across states—are key factors in explaining recent migration trends.

**Table 2. Average Annual Net Migration Rates, Population Density, and Average Property Values, by New Jersey County, 2001-2007**

Counties with Net Out-Migration				Counties with Net In-Migration			
	Migration Per 1000 population	Population Density	Median home value		Migration Per 1000 population	Population Density	Median home value
Hudson County	-25.9	12,957	\$387,100	Ocean County	12.7	803	\$310,800
Essex County	-17.7	6,288	\$409,300	Gloucester County	12.0	787	\$226,900
Passaic County	-16.6	2,651	\$406,300	Warren County	4.3	286	\$309,100
Union County	-14.0	5,073	\$419,000	Burlington County	3.4	526	\$259,300
Middlesex County	-10.0	2,420	\$365,000	Salem County	2.8	190	\$184,000
Bergen County	-9.1	3,778	\$493,400	Hunterdon County	2.6	284	\$475,300
Morris County	-5.6	1,003	\$488,900	Atlantic County	2.4	450	\$264,200
Mercer County	-4.8	1,552	\$314,300	Sussex County	2.0	277	\$332,400
Cape May County	-4.8	401	\$348,000	Cumberland County	1.3	299	\$161,800
Camden County	-4.5	2,288	\$208,600				
Monmouth County	-3.3	925	\$444,800				
Somerset County	-1.8	975	\$457,000				
Average	-9.8	3,359	\$395,142	Average	4.8	434	\$280,422

Note: Median home values are from Tax Foundation (2008).

These patterns are not unique to New Jersey or the New York metropolitan area. A recent study found that between 2000-2004, 19 out of the largest 20 metropolitan areas in the US have seen net domestic out-migration – part of a continuing “exodus to the suburbs and beyond” (Demographia 2006).

In summary, the Census Bureau’s migration estimates show that New Jersey has experienced net domestic out-migration since at least 1991. This trend has closely paralleled the overall migration trends in the Northeast. New Jersey is currently losing about 70,000 people a year to domestic migration, or about 8 people per 1000 New Jersey residents. The net out-migration is happening in the high-density areas of northern New Jersey, partially compensated by net in-migration in the less expensive and less populated parts of the state. While New Jersey’s population has continued to grow—due to natural increase and international in-migration—the rise in net domestic out-migration from 2002 to 2006 reduced population growth rates below the rates experienced during the mid- to late-1990s.

## **Part II. American Community Survey Data**

This section of the report examines data from the American Community Survey (ACS). The ACS is a large-scale project of the US Census Bureau, surveying roughly 3% of the US population every year. Sample sizes are far larger than other major survey data sources, permitting a detailed analysis of rare events like migration. Historically, the best available data on migration has come from the census “long form” – a 17% sample of the population added on to the census and providing much more detailed socio-demographic information. The ACS is the ‘new long-form census’: the best source of data on migrant demographics (Koerber 2007; Franklin and Plane 2006). Prior to 2000—when ACS went online for the entire U.S.—demographers could examine the migration demographics only over longer time periods. With the ACS, we can analyze migration behavior on an annual basis.

### **Determinants of Migration in New Jersey**

Why do people move away from New Jersey? This is a hard question to answer, but we can gain insight into the migration process by looking at the socio-demographic predictors of moving. For example, is it young people or retirees who are more likely to move away? Wealthy people or poor people? Working people or the unemployed? What are the features of other states that attract New Jerseyans? Are out-migrants drawn to states that have better climates? Lower unemployment rates? Higher wages? Better schools? Less crime? Lower taxes? By looking at the predictors of moving, as well as the state attributes that attract New Jersey residents who move away, we can get a good sense of why people move.

How is domestic migration changing the socio-demographic makeup of New Jersey? To what extent does in-migration compensate for out-migration? To examine this, we look at the balance of in-flows and out-flows for different segments of the population.

Finally, how does *international* migration affect the balance of flows? How do in-migrants from abroad compare with in-migrants from other American states (in terms of income, employment, etc.)? We use ACS data to determine the extent to which international in-migrants are able to effectively “make up for” the net domestic out-migration.

### **Why Do New Jersey Residents Move Out of State?**

In this section we use a logistic regression model to see what individual characteristics predict out-migration. Table 3 gives the odds ratios of migration for characteristics like age, education, employment status, and the like. An odds ratio of 1 is the baseline; higher than 1 indicates greater odds of moving, while lower than 1 indicates lesser odds of moving. For example, the first two rows of Table 3 show that men have 5% greater odds of out-migration than women.

The overall regression results fit well with the idea that migration is driven by job-matching, and constrained by social attachments. Those with more advanced education, who often work in more specialized markets, are more likely to migrate. Someone with a Ph.D. has 3.38 times the odds of moving out of state as someone who never completed high school. Further, a person with low earnings (given their level of education, age, etc.) is more likely to move. These findings suggest that out-migrants are looking for a better match between their skills and the available job openings.

People are more likely to move early in life, while they are still choosing a career path and before they have many attachments and obligations. People aged 65 and older are the least likely to move, having only one-fifth the odds of migrating as New Jerseyans aged 18-24. This fits with the idea that people accumulate ties and connections to ‘place’ as they get older. Having some retirement income makes no significant difference. Blacks are more likely to migrate out of state. In addition to the substantial (and fairly continuous) effect of age, having children also sharply lowers the odds of moving. Interestingly, people are more likely to



move out of state when they are married than when they are single. The mixture of effects here is interesting: married people are more likely to move, but those with children are less likely to move. This suggests that people move in anticipation of having children.

Compared to the those currently employed, those without a job have more than 2.5 times the odds of migrating, regardless of whether they are looking for work (“unemployed”) or not (“out of labor force”). Employment is one of the strongest deterrents to out-migration.

### **Why Do People Move to New Jersey?**

The foregoing only looked at out-migration. Of course, while some people are moving away from New Jersey, others are moving in. The determinants of in-migration are shown on the right side of Table 3. Generally, the same factors that predict out-migration also predict in-migration. There are several differences, however, that are worth emphasizing. First, employment status influences both types of migration, but the effect is much stronger for out-migration. In other words, the unemployed are much more likely to *leave* New Jersey than to move into the state. There is a similar pattern with respect to education. Those with more advanced education are more mobile in general: they have higher rates of both in-migration and out-migration. Nevertheless, those with more education are notably more likely to move *into* New Jersey than to move away. These results suggest that New Jersey is relatively less attractive for those who are not working, and relatively more attractive for those with advanced education. This suggests that cost of living is an important factor in New Jersey’s migration patterns.

**Table 3. Determinants of New Jersey Migration. 2000-2006.  
American Community Survey Micro-Data. Ages 18+.  
Logistic Regression Models.**

Determinants of Migration	Out-Migration		In-Migration	
	Odds Ratio	z	Odds Ratio	z
<i>Gender</i>				
Female	1.00		1.00	
Male	1.05	1.78	1.11	3.32
<i>Labor Force Status</i>				
Working	1.00		1.00	
Unemployed	2.25	15.12	1.58	6.96
Out of the Labor Force	1.84	16.97	1.51	9.83
Wage Income (\$ '000)	0.99	-2.66	0.99	-2.66
<i>Attending School?</i>				
Yes	1.00		1.00	
No	0.92	-1.81	0.78	-4.60
<i>Education Level</i>				
Less than HS	1.00		1.00	
Graduated HS	1.13	2.21	1.06	0.81
Some college	1.57	8.19	1.30	3.89
Graduated College	2.03	12.32	2.48	13.71
Masters or Prof. Degree	2.23	12.23	3.13	15.65
PhD	3.38	10.68	4.64	13.15
<i>Marital Status</i>				
Single	1.00		1.00	
Married	1.16	3.37	0.97	-0.63
Separated, Divorced, or Widowed	1.45	7.16	1.49	7.05
<i>Speaks English Well?</i>				
Yes	1.00		1.00	
No	1.03	0.39	1.03	0.35
<i>Age</i>				
18 - 24	1.00		1.00	
25 - 44	0.65	-8.73	0.70	-6.58
45 - 64	0.30	-20.56	0.21	-23.59
65 +	0.16	-24.76	0.15	-22.21
<i>Any Retirement Income?</i>				
No	1.00		1.00	
Yes	1.08	1.33	0.94	-0.78
<i>Race</i>				
White	1.00		1.00	
Black	1.11	2.29	0.89	-1.94
Asian	1.21	3.26	1.42	5.91
Other	1.21	2.72	1.30	3.47
<i>Ethnicity</i>				
Non-Hispanic	1.00		1.00	
Hispanic	0.98	-0.38	0.99	-0.12
Number of Children at Home	0.67	-20.30	0.67	-18.23
Number of Observations	230,881		229,770	
Pseudo R-sqr	0.048		0.068	

## Net Migration Flows

The comparison above of in-migration to out-migration leads directly into an examination of net migration. Suppose that US states were all equally desirable and accessible places to live and work; in this situation, any out-migration would tend to be balanced out by in-migration. Similarly, states may be more desirable or accessible for some parts of the population than others.

Between 2000 and 2006, ACS estimates that 1.05 million people (aged 18+) migrated out of New Jersey, while 0.90 million moved into the state. Stated differently, for every 100 out-migrants, there is a net loss of 14.2 people. In this section, we examine which segments of the population account for net out-migration.

The main source of net out-migration in New Jersey is lower-income individuals. The bottom 20 percent of income earners alone account for most of the net out-migration. Net migration remains negative up to the median family income. Middle- and upper-income individuals, on the other hand, are more likely to move to New Jersey than they are to leave the state. Among people in the 51st to 90th percentiles of family income (between \$65,855 and \$168,408), about 112 people move into New Jersey for every 100 who leave. At the very top—individuals with family income greater than \$168,408—there has been a net out-migration since 2000. About 113 very high earners leave the state for every 100 who arrive. Nevertheless, the rate (-13.3) is only about one-third of that among the bottom 10% (-35.9).

In fact, among those with very high employment earnings (\$200,000+), there is a small net in-flow of individuals. For every 100 highly salaried individuals who leave the state, about 110 move into the state. In contrast, among those with very high non-labor earnings (such as capital gains or interest income), there is a large net out-migration: for every 100 who leave, only about 45 move into the state. This emphasizes that NJ is a location of highly paid professional

occupations. It is not, however, a destination for people whose incomes are more independent of an employer. Similarly, for those with retirement income, there is a large net out-flow of people (-41.2 per 100).

**Table 4. New Jersey Net Migration Flows. 2000-2006.  
American Community Survey Micro-Data. Ages 18+**

		In-migrants	Out-migrants	Gain / Loss per 100 out-migrants
	All Migrants (aged 18+)	901,329	1,050,799	-14.2
Education Level				
	Less than HS	93,069	100,359	-7.3
	High School Grad	174,745	250,866	-30.3
	Some college / AA	188,186	270,855	-30.5
	BA	289,157	282,186	2.5
	MA / Prof.	135,044	127,611	5.8
	PhD	21,128	18,922	11.7
Employment Status				
	Working	592,355	603,334	-1.8
	Out of Labor Force	249,119	357,303	-30.3
	Unemployed	59,855	90,162	-33.6
Income	Decile 1 (Bottom 10%)	112,947	176,159	-35.9
Deciles	Decile 2	87,728	153,437	-42.8
	Decile 3	107,752	115,514	-6.7
	Decile 4	94,201	104,159	-9.6
	Decile 5	72,028	94,986	-24.2
	Decile 6	84,488	83,971	0.6
	Decile 7	78,137	70,169	11.4
	Decile 8	77,826	73,521	5.9
	Decile 9	86,447	63,744	35.6
	Decile 10 (top 10%)	99,775	115,139	-13.3
	Very high labor earnings (\$200,000+)	13,798	12,553	9.9
	High non-labor income (\$50,000+)	12,661	27,874	-54.6
	Some Retirement Income	45,622	77,562	-41.2
Age	65+	65,264	100,412	-35.0
	45-64	154,062	220,779	-30.2
	25-44	495,596	514,747	-3.7
	18-24	186,407	214,861	-13.2
Race	White	618,011	735,660	-16.0
	Black	102,856	132,792	-22.5
	Asian	51,999	51,747	0.5
	Other	77,701	84,082	-7.6
	Hispanic	132,366	121,865	8.6

By education, net out-migration is due to persons with less than a college degree. Among those with Ph.D.s, there is a modest net inflow of individuals

(+11.7 per 100). This suggests that, rather than a “brain drain” problem, New Jersey enjoys a net “brain gain”.

Among working people, the net flow is essentially zero (-1.8 per 100). Again, net out-flows are accounted for by people who are either unemployed (-33.6 per 100) or out of the labor force (-30.3 per 100). Clearly, these net flows help to keep New Jersey’s unemployment rate low.

### **Which Features of Other States Attract New Jerseyans?**

When New Jerseyans move, what kind of places do they move to? The places that out-migrants move to say something important about what out-migrants dislike about New Jersey. Do they move to places with better job prospects? Lower Taxes? Lower cost of living? Less crime? Better schools? Are out-migrants looking for a nice place to retire, or a good place to raise a family?

Table 5 lists the top 20 destination states for New Jersey out-migrants.<sup>3</sup> Florida – the income-tax-free retirement Mecca – tops the list. Neighboring states Pennsylvania and New York round out the top three. California and North Carolina fill out the top five. These top five account for about 60% of New Jersey’s out-migrants. The full top 20 list accounts for 90% of out-migrants.

It is hard to draw conclusions from the top 20 list. Certainly, southern states are prominent – not only Florida, but North Carolina, Virginia, Texas, and Georgia rank in the top 10. But what is it, specifically, that draws New Jersey out-migrants to these states?

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<sup>3</sup> For interested readers, a list of the top 20 origin states of New Jersey in-migrants is provided in Appendix B.

**Table 5. Top 20 Destinations for New Jersey Out-Migrants, Ages 18+**

State	Share of out-migrants
Florida	18.7%
Pennsylvania	16.2%
New York	13.6%
California	6.5%
North Carolina	4.1%
Virginia	3.7%
Texas	3.6%
Maryland	3.5%
Massachusetts	2.8%
Georgia	2.7%
Illinois	2.5%
South Carolina	2.0%
Connecticut	1.9%
Delaware	1.8%
Ohio	1.4%
Arizona	1.3%
Alabama	0.9%
Tennessee	0.9%
Michigan	0.8%
Nevada	0.8%

In Table 6 below, we examine 13 state-level attributes for both New Jersey and the average destination of out-migrants. Some of the most striking patterns are related to the geography of living costs. New Jerseyans tend to move to states with substantially lower property values (35% lower), property taxes (41% lower), sales taxes (1 percentage point lower), and overall costs of living (17% lower). New Jersey, compared to the states to which out-migrants move, is a very expensive place to live. In terms of the other quality of life variables, destinations tend to have somewhat better climates (+5 degrees winter temperature), marginally lower school quality (-2%), and markedly higher rates of both violent crime (+47%) and property crime (+39%). In destination states the rate of child death is notably higher (+42%), as is the rate of infant mortality (+27%). In terms of the labor market, unemployment rates are negligibly higher in destination states (+0.05 percentage points); both median annual incomes

(22% lower) and usual weekly earnings (15% lower) are substantially lower in destination states.

All of this emphasizes the link between the labor market and the housing market. As noted earlier, it is primarily lower-income individuals who, on balance, are moving away from New Jersey. These are the people who cannot afford the high cost of living – particularly the high price of housing and property tax in New Jersey. As a tradeoff, however, they move to areas with substantially higher rates of crime, slightly lower school quality, and notably higher infant and child mortality. It is also notable that for people earning \$20,000 per year, New Jersey imposes a significantly lower income tax rate (1.75%, vs. 3.86% for the average out-migrant state). And as noted above, it is primarily low-income earners in this tax bracket that account for the net out-migration from New Jersey. This suggests that most of the net out-migrants pay higher state income taxes than they would if they stayed in New Jersey.

**Table 6. Attributes of Destination States, Compared to New Jersey**

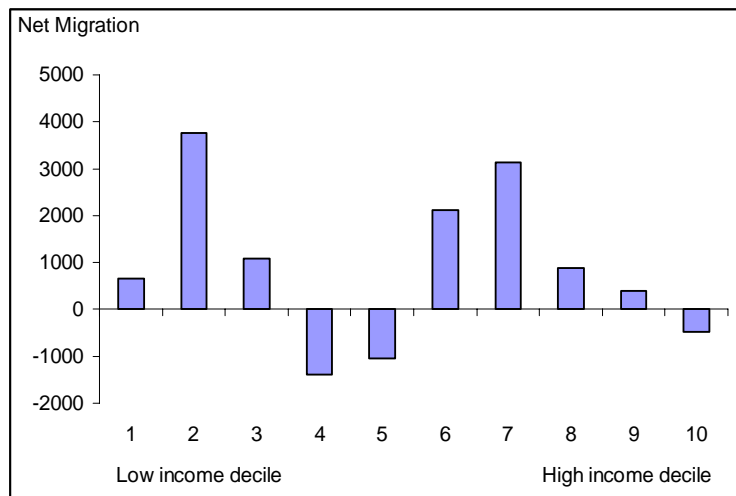
State Attributes	Out-migrant Destination States	New Jersey	Difference	% Difference
Cost of Living Index	1.06	1.28	-0.22	-17%
Avg. Property Value	\$ 236,802	\$ 366,600	-129,798	-35%
Property tax rate	0.0093	0.0157	-0.0064	-41%
Avg Sales Tax	0.05	0.06	-0.009	-16%
Income Tax rate (\$20,000)	3.86%	1.75%	2.11%	120%
Income Tax rate (\$100,000)	4.39%	6.37%	-1.98%	-31%
Income Tax rate (Top Rate)	4.52%	8.97%	-4.45%	-50%
Median Incomes	\$ 48,405	\$ 61,868	-13,463	-22%
Weekly Earnings	654	772	-118	-15%
Winter Temperature	38.1	33.0	5.12	16%
Violent Crime Rate	516	352	165	47%
Property Crime Rate	3,197	2,292	905	39%
Child Death	19.9	14.0	6	42%
Infant Mortality	7.1	5.6	2	27%
School Quality	538	549	-11.30	-2%
Unemployment Rate	4.7	4.6	0.05	1%

Note: Data on property values, property tax rates, and sales tax data are from the Tax Foundation (2008); Child Death, and Infant Mortality and Cost of Living Index: Kaiser Family Foundation (2008); School Quality: NCES (2008); Winter Temperature: NOAA (2002); crime rates: FBI (2008). Income tax rates are for single filers.

## Income and Migration

In most states, net migration is *not* related to the incomes of migrants. In general, the poor, the middle class, and the wealthy are all equally likely to move into (or move out of) a state. For example, in Iowa, there is no obvious relationship between income decile and net migration (see Graph 3). The correlation between net migration and income decile is basically zero (-0.008). This is fairly typical for most US states.

**Graph 3. Iowa: Net Migration by income decile (no correlation)**

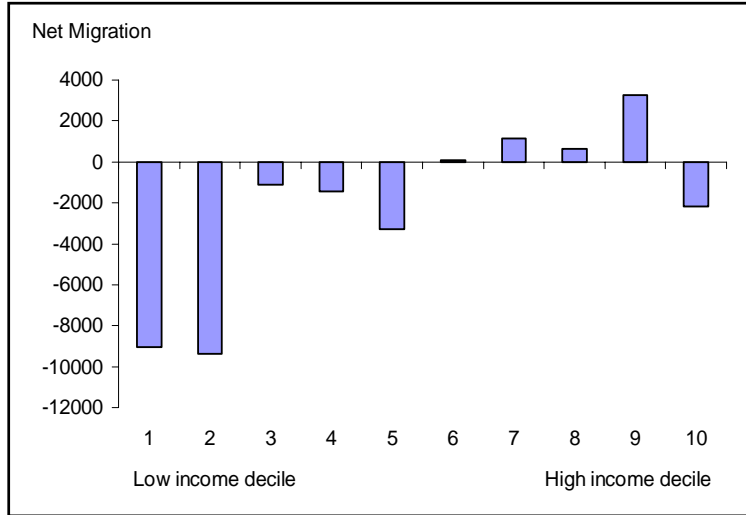


However, there are a handful of states where things are quite different – where income is strongly related to net migration patterns. In New Jersey, there is net out-migration of about 70,000 people per year (according to the Census Bureau estimates). However, all of this net out-migration is due to an exodus of lower-income individuals (see Graph 4). The correlation between income decile and net migration is 0.377. This positive correlation indicates that there tends to be out-migration (negative net migration) at low income levels but in-migration (zero or positive net-migration) at high income levels. A positive correlation means that wealthy people have a stronger preference for a state than poor people. Alternatively, one might say that poor people have a greater dislike of the state than do rich people. In New Jersey, the positive correlation between income and



migration shows that richer people are more attracted (or attached) to the state than poorer people.

**Graph 4. New Jersey: Net Migration by income decile (positive correlation)**

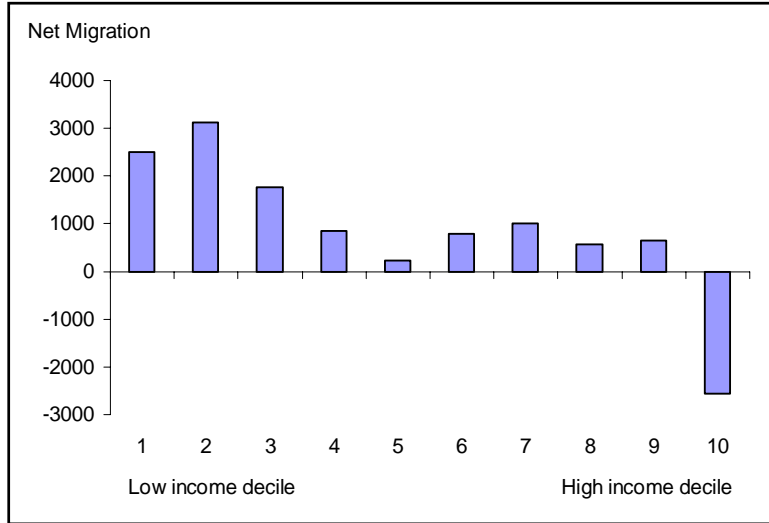


The states that have the highest correlation between income and net migration are California (.63), New York (.51), Alaska (.43), New Jersey (.38), and Massachusetts (.34). All of these states are experiencing a large net outflow of poor people, but a much smaller or zero net outflow of high-income earners. These are the states where migration patterns are *most like New Jersey*.

On the other hand, there are states that tend to attract low-income individuals, while seeing a relative outflow (or much smaller inflow) of wealthy individuals. Wisconsin is a good example, shown in Graph 5 below. At low income levels, there is strong net in-migration into Wisconsin; however, at higher income levels, in-migration is small or negative. Hence, one can say that Wisconsin is more attractive to low-income individuals than high-income earners. The states that show this pattern the strongest (have the most negative correlation between income and net migration) are Arizona (-.40), Delaware (-.35), North Dakota (-.34), Wisconsin (-.34), and Arkansas (-.30). These states are experiencing a large net inflow of poor people, but a much smaller or zero net

inflow of high-income earners. These are the states where migration patterns are the *least like New Jersey*.

**Graph 5. Wisconsin: Net Migration by income decile (negative correlation)**



In summary, most states (such as Iowa) are more or less equally attractive as places to live for both the wealthy and the poor. In some states, however, income is a major factor in migration. New Jersey is part of a group of states with similar patterns: California, New York, Alaska, and Massachusetts. On average, poor people leave, but rich people do not. On the opposite end are the five states that have migration patterns least similar to New Jersey: Arizona, Delaware, North Dakota, Wisconsin, and Arkansas. These states primarily attract low-income individuals. On average, poor people move into these states, but rich people do not.

Comparing the five states that are *most like New Jersey* to the five states that are *least like New Jersey* is a way of understanding what is causing the migration patterns seen in New Jersey. As shown in Table 7, the states most like New Jersey have a much higher cost of living (+30%), much higher property values (+118%), and have seen much greater rises in housing prices since 2000 (+83%). The states most like New Jersey have the same school quality, almost identical sales taxes, and only modestly higher property taxes compared to the states

least like New Jersey. In states most like New Jersey, violent crime is higher but property crime is lower, so there seems little overall difference in crime. State income tax is an interesting factor. States most like New Jersey have more progressive tax systems: the poor pay a lower tax rate, and the rich pay a higher tax rate than they do in states least like New Jersey. Yet these are states where poor people are more likely to leave, and rich people are more likely to stay.

**Table 7. Comparison of States with Migration Patterns “Most Like New Jersey” and “Least Like New Jersey”**

	"Most Like New Jersey"	"Least Like New Jersey"	Difference	% Difference
Correlation	0.45	-0.35	0.80	
Cost of Living	1.27	0.98	0.29	30%
Avg. Property Value	357,860	164,140	193,720	118%
Property Tax	0.0101	0.0091	0.001	10%
Rise in Housing Prices	273%	149%	1.24	83%
Income Tax (\$20,000)	3.6%	4.6%	-0.01	-22%
Income Tax (\$100,000)	5.6%	5.7%	0.00	-2%
Income Tax (Top Rate)	6.3%	6.0%	0.00	5%
Sales Tax	4.2%	4.0%	0.2%	5%
School Quality	541	540	1.60	0%
Winter Temperatures	26.50	30.12	-3.62	-12%
Violent Crime	491	429	61.50	14%
Property Crime	2702	3366	-664.00	-20%

Note: Data on property values, property tax rates, and sales tax data are from the Tax Foundation (2008); Child Death, and Infant Mortality and Cost of Living Index: Kaiser Family Foundation (2008); School Quality: NCES (2008); Winter Temperature: NOAA (2002); crime rates: FBI (2008). Income tax rates are for single filers.

When one compares migration patterns that are most and least like those of New Jersey, one finds that the key difference is cost of living and specifically the cost of housing. Taxation, either of property, sales, or income, does not seem to play a role; nor do quality of life factors including school quality, climate, or overall crime rates.

In summary, this examination of how income interacts with migration patterns again suggests the overarching importance of living costs and housing prices. There are a number of states other than New Jersey that face the same pattern of out-migration led by low-income earners: where poor people leave and rich people do not. These states share one major thing in common: high cost of living

(especially housing). On the other side, there are a handful of states where migration patterns are the complete opposite of New Jersey: poor people move in, but rich people do not. These states also share one major thing in common: low cost of living (especially housing).<sup>4</sup>

### **Domestic vs. International In-Migrants**

Over the last seven years, there has been a net domestic out-flow of 330,000 residents. However, New Jersey has also received a large net inflow of *international* immigrants (353,000) which more than compensates for the domestic out-flow. In other words, for every New Jersey resident lost to domestic migration, the state gains about 1.1 residents from net international migration.

International in-migrants may arrive with significant deficiencies in language and human capital that create problems for their integration into New Jersey communities. Table 8 compares international and domestic in-migrants. International immigrants have substantially less education than domestic in-migrants. For example, internationals are more than twice as likely not to have graduated from high school (23% compared to 10%), only about half as likely to have a Ph.D. (1.3% v. 2.3%). However, the proportion with a Masters or professional degree is roughly the same in both groups (14% v. 15%). Another notable – though not too surprising – difference is English language skills. Some 40% of internationals do not speak English, compared to 6% of domestic in-migrants. Internationals are also much less likely to be employed (45% v. 66%). This is partly because they face a higher unemployment rate (8.2% v. 6.6%), but mostly because many internationals are simply not in the labor force – neither working nor looking for work (47% v. 28%). This is probably because many women in international immigrant families are homemakers rather than paid

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<sup>4</sup> For readers particularly interested in how New Jersey compares with its closest neighbors, in terms of migration by income decile, these data are graphed in Appendix A.

workers. Finally, internationals are much less likely to be white (46% v. 69%), and more likely to be Asian (31% v. 6%) or an “other” race (15% v. 9%). In terms of ethnicity, 28% of internationals are Hispanic, compared to 15% of domestic in-migrants. With less human capital, poorer English skills, greater risk of facing discrimination, and lower labor force participation, it should be no surprise that international in-migrants earn about half the incomes as domestic in-migrants (\$17,500 v. \$35,000).

From the perspective of a state budget planner, international in-migrants do not compensate very well for the net domestic out-migration. They face a number of deficiencies in the labor market, meaning that they contribute much less in tax revenues.

**Table 8. Domestic vs. International In-migrants. 2000-2006. American Community Survey Micro-Data. Ages 18+**

	International	Domestic	Difference
Working	45.0%	65.7%	-20.8%
Out of Labor Force	46.8%	27.6%	19.2%
Unemployed	8.2%	6.6%	1.6%
<b>Education Levels</b>			
Less than HS	23.1%	10.3%	12.8%
High School Grad	25.2%	19.4%	5.8%
Some college / AA	12.9%	20.9%	-8.0%
BA	23.5%	32.1%	-8.6%
MA / Professional	14.0%	15.0%	-1.0%
PhD	1.3%	2.3%	-1.1%
Mean total income	\$17,447	\$34,923	-\$17,475
Mean wage income	\$15,563	\$30,861	-\$15,298
Male	51.0%	50.5%	0.5%
Female	49.0%	49.5%	-0.5%
<b>Race / Ethnicity</b>			
White	46.2%	68.6%	-22.4%
Black	8.0%	11.4%	-3.4%
Asian	30.7%	5.8%	25.0%
Other	15.0%	8.6%	6.4%
Hispanic	27.7%	14.7%	13.0%
No English	39.6%	6.4%	33.2%
Age	37.6	37.1	0.47
Number of Children	0.53	0.52	0.01

## Part III. New Jersey Income Tax Data

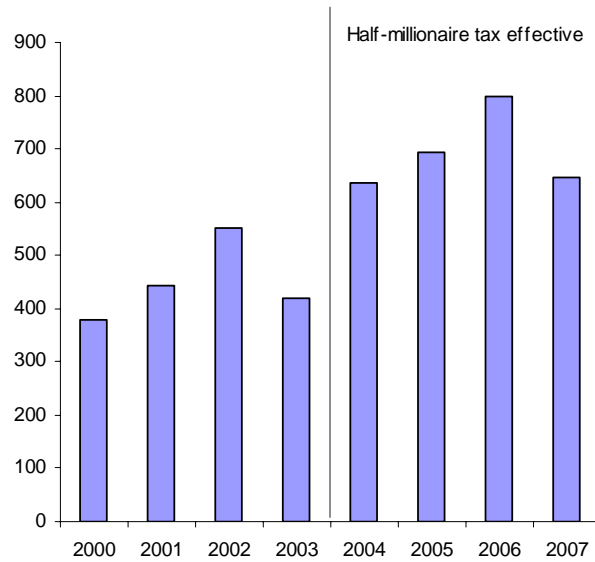
### Migration among New Jersey's Half-Millionaires

As a result of the new 8.97% New Jersey tax rate on annual income above \$500,000, one focal point of recent policy debate in New Jersey concerns the migration behavior of “half-millionaires.” Some have suggested that the new bracket makes New Jersey a less desirable residential choice for half-millionaires, causing some of them to seek greener tax pastures. We use a new data source to address this question, which has previously provoked much speculation but no answer.

We find that the new bracket has marginally increased the out-migration of half-millionaires presently residing in New Jersey. We also find that, under a very conservative estimation procedure, the new bracket may have reduced potential half-millionaire in-migration from other states. In the end, the new tax bracket has generated an average of \$895 million in state tax revenues per year. We find that the opportunity costs of the tax rate increase—whether estimated in terms of half-millionaire households or tax base—are small.

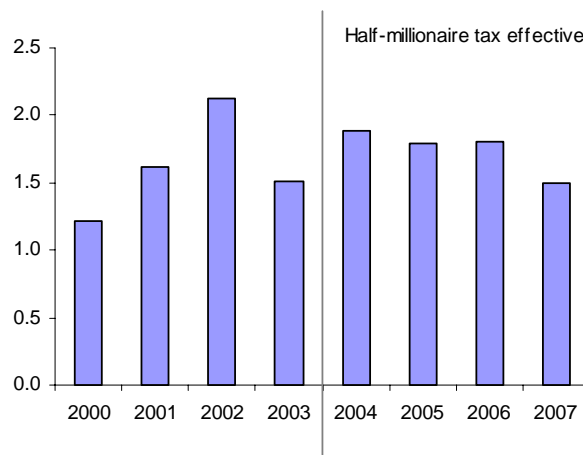
How does one estimate the impact of the new tax bracket on migration patterns? Basically, we want to see whether, and by how much, the tax appears to have changed the migration patterns of households earning more than \$500,000. Net out-migration among half-millionaire households has certainly increased since the new tax bracket was introduced in 2004. Graph 6 shows that, from 2000 and 2003, net half-millionaire out-migration averaged about 450 households. From 2004 to 2007, net out-migration has averaged almost 700 households. This would seem to suggest that the tax has had a substantial impact: a loss of about 350 half-millionaire households per year. The average half-millionaire household generates about \$120,000 in income tax revenues, so this net outflow represents more than \$40 million in lost income tax revenue.

**Graph 6. Net Out-Migration of Half-Millionaire Households**



However, the total number of New Jersey half-millionaires also increased sharply, from about 26,000 in 2002 to 44,000 in 2006 – and increase of 70%. Overall, net out-migration *rates* – the number of net out-migrants per half-millionaire households – have not changed much. As shown in Graph 7, the net out-migration rate peaked in 2002 at 2.1 per 100.

**Graph 7. Net Out-Migration per 100 Half-Millionaire Households**



Since 2004, the out-migration rate has been slightly higher than the average rate between 2000 and 2003, but the difference (about 0.13 per 100) is negligible.

This implies a net loss of about 50 half-millionaire households per year, or about \$6 million in tax revenues. In short, a quick look at Graph 6 suggested a notable increase in out-migration by half-millionaire households since the tax rate increase in 2004. However, as shown in Graph 7, the propensity of half-millionaires to move out of New Jersey has changed very little. What has happened is a large increase in the number of New Jerseyans earning \$500,000 or more, and they are leaving the state at very similar (marginally higher) rates.

These estimates indicate the opportunity cost of introducing the higher tax rate for incomes over \$500,000. As we estimate below, the higher tax rate raises about \$895 million per year. An opportunity cost may arise if people leave the state to avoid the tax. Using the estimates above, the state missed out on additional \$6 million (or \$40 million if the first estimate is preferred) due to tax avoidance via out-migration. In other words, the state would have raised \$901 million (or \$935 million if the first estimate is preferred) if there were no additional net out-migration due to the tax rate change.

Both of these are simple estimates, however, and below we undertake more sophisticated calculations. In particular, we account for the fact that the pool of half-millionaire households in other states (and thus the number of potential in-migrants to New Jersey) has increased. Just as we emphasized the rate of out-migration (rather than absolute number of out-migrants), we also need to develop an appropriate baseline (i.e., the number of half-millionaire households in the rest of the United States) for in-migration.<sup>5</sup>

### **Estimating the State Income Tax Revenue Impact of the Half-Millionaire Tax**

Previous research has relied on aggregate federal and state tax return data to estimate domestic migration and income growth trends in New Jersey (Hughes

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<sup>5</sup> The potential out-migrants are the half-millionaire households in New Jersey. The potential in-migrants are the half-millionaire households in the rest of the United States.



et al. 2007; Forsberg 2007). However, aggregate data do not provide the information necessary to understand the migration patterns of half-millionaires. They do not link household income data with migration data.<sup>6</sup> Fortunately, the New Jersey Division of Taxation's (NJDT) individual income tax master file ("NJ-1040 data") provides the necessary link. Every year, Form NJ-1040 collects data on all taxpaying households in New Jersey. For the very top of the income distribution, coverage is nearly perfect. The reasonable assumption is that the NJ-1040 data include nearly every half-millionaire household legally resident in New Jersey for at least one day during the tax year.

To identify the migration trends among half-millionaire households, we use the reported dates of New Jersey residency on each NJ-1040 filed.<sup>7</sup> Half-millionaire households that move into or out of New Jersey between January 2 and December 30 must file a part-year resident return for the tax year in which they moved. Non-migrant half-millionaire households, on the other hand, must file full-year resident returns. This distinction in the filing process allows us to distinguish in- and out-migrant from non-migrant half-millionaires.<sup>8</sup>

With the NJ-1040 data, we can estimate the number of New Jersey half-millionaires for each tax year and the annual magnitudes and rates of half-millionaire out-migration, in-migration, and net out-migration. From 2000 to 2007, the average annual number of tax returns reporting annualized New Jersey taxable income greater than \$500,000—our measure of "half-millionaire

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<sup>6</sup> While the ACS, which we use above, does link income and migration information on an individual basis, income values are blinded above \$300,000 to maintain individual anonymity. Therefore, it is not possible, using ACS, to gather a complete sample of half-millionaires.

<sup>7</sup> We thank James Moore and Yustina Saleh of the New Jersey Department of Labor and Workforce Development for noting this very useful administrative feature of the NJ-1040 data.

<sup>8</sup> The one exception is that we are not able to identify half-millionaire households who changed their legal residency status at the turn of the year. These January 1 in-migrants and December 31 out-migrants cannot be distinguished from non-migrants in the NJ-1040 data, and we must treat them as non-migrants in our analysis. While this treatment will generate small underestimates of both out-migration and in-migration, our estimates of net-migration should be accurate to the extent that January 1 in-migrants and December 31 out-migrants make up roughly equal proportions of total annual in-migrants and out-migrants, respectively.

households” or “HMHs”—was 34,001, less than 1 percent of all tax returns.<sup>9</sup> The final column of Table 9 shows that the number of New Jersey HMHs declined from 2000 until 2002 before rising in every year from 2003 to 2006. Projections based on returns received before May 7, 2008, indicate that a 2 percent decline in New Jersey HMHs occurred in Tax Year 2007.<sup>10</sup>

**Table 9. New Jersey Half-Millionaire Population and Migration, 2000-2007**

Tax year	Number of households reporting more than 500,000 in annualized NJ taxable income by migration behavior during tax year					
	Non-migrant	Out-migrant	In-migrant	In-and-out migrant	Net out-migration	Average households
2000	30,542	1,204	825	62	379	31,310
2001	26,862	1,073	629	39	444	27,488
2002	25,369	1,132	580	42	552	25,957
2003	26,953	1,013	595	57	418	27,562
2004	32,780	1,408	772	35	636	33,622
2005	37,571	1,499	807	58	692	38,497
2006	43,311	1,616	818	62	798	44,231
2007	42,594	1,271	623	67	647	43,337
Average	33,248	1,277	706	53	571	34,001

The year-on-year change in half-millionaire households is the result of four factors: (1) upwardly mobile New Jersey households becoming HMHs, (2) downwardly mobile New Jersey households losing their HMH status, (3) in-migrant HMHs moving into New Jersey, and (4) out-migrants HMHs moving out of New Jersey. In this report, we are interested in the economic impacts of

<sup>9</sup> Part-year residents (i.e., migrants) report only that portion of total annual income that is earned during their period of New Jersey residency. However, the half-millionaire tax bracket is based on annual income. To estimate the annual income of migrants we use a simple extrapolation based on the assumption that income is earned at a constant rate throughout the year. This method of identifying half-millionaire migrants is used throughout the report. We have also analyzed net out-migration trends by treating as half-millionaires only those households actually reporting more than \$500,000 for whatever portion of the year they were resident in New Jersey. Of course, this method identifies fewer half-millionaire migrants. However, the ratio of HM out-migrants to in-migrants was essentially the same.

<sup>10</sup> This projection is based on the assumption that the ratio of pre-5/7/2008 half-millionaire returns to all half-millionaire returns that will ultimately be filed for Tax Year 2007 is the same as the ratio of pre-5/7/2007 half-millionaire returns to all half-millionaire returns that were ultimately filed for Tax Year 2006. We use the same projection method for all Tax Year 2007 values in this report. To estimate the total Tax Year 2007 value, we divide pre-5/7/2008 values by the ratio, for each variable, of the pre-5/7/2007 value to the total Tax Year 2006 value.

recent trends in in-migration and out-migration, categories 3 and 4. The NJ-1040 data allow us to observe these trends directly. With these two trends in hand, we are also able to estimate the sum of entries and exits into and out of the half-millionaire club.

From 2000 to 2007, there were a little less than 2 HMH out-migrants for every 1 HMH in-migrant (1277:706 to be exact). But, how do these numbers compare to the overall growth in the number of half-millionaires, both in New Jersey and in the rest of the United States? As shown in Table 10 below, the increase in HMH out-migrants observed in Table 9 is almost entirely attributable to growth in HMHs from within New Jersey. In 2003, the year before the new tax bracket became effective, the *rate* of out-migration among HMHs was 388 per 10,000. The rate increased slightly in 2004 and 2005, but was actually lower in 2006.

**Table 10. Estimates of Migration Response to Half-Millionaire Tax**

Tax year	New Jersey half-millionaire households	Out-migration rate per 10,000 NJ HMHs	Out-migrants potentially caused by 8.97% tax bracket	US half-millionaire households not in NJ	In-migration rate per 10,000 non-NJ HMHs	In-migrants potentially lost due to 8.97% tax bracket
2000	31,310	404		603,154	14.7	
2001	27,488	405		519,236	12.9	
2002	25,957	452		478,253	13.0	
2003	27,562	388		508,675	12.8	
2004	33,622	429	138	638,483	12.6	132
2005	38,497	404	63	787,118	11.0	293
2006	44,231	379	0	896,153	9.8	438
Average	32,667	409	67	633,010	12.4	287

Turning to in-migrants, their absolute number has increased in every year since 2002. However, when compared to the growth in HMHs throughout the United States, we see that the rate of HMH in-migration actually declined throughout the entire period. In 2000, 14.7 HMH households per 10,000 moved to New Jersey. By 2006, the rate was only 9.8 per 10,000.

What happens if we attribute all of the change in out-migration and all of the change in in-migration to the tax rate increase? In Tax Year 2003, the last year before the tax rate increase, Table 10 shows that out-migrant HMHs moved out of the state at a rate of 388 per 10,000 New Jersey HMHs.<sup>11</sup> The out-migration rate was marginally higher in 2004 and 2005. If we attribute the entire out-migration increase to the tax rate increase and assume that no other migration-related factors changed, then we can estimate that an average of 67 HMHs per year moved out of New Jersey due to the tax rate increase. As shown in column 5 of Table 11, this outflow is equivalent to an average of \$10.6 million in tax revenues per year.<sup>12</sup> Based on all returns received through May 2008, we also estimate that the HMH out-migration rate was even lower (309 per 10,000) in 2007. However, to be conservative in our estimates, we do not include this decline when estimating the effect of the tax rate increase. If we had included it, then the estimated effect of the half-millionaire tax on out-migration would be essentially 0.

The tax rate increase may also have prevented potential in-migrant HMHs from moving to New Jersey. Following the same logic as we did for out-migrants, we compare HMH in-migration rates after 2003 to the highest prior HMH in-migration rate (14.7 per 10,000 U.S. HMHs in 2000). Again, by attributing the entire difference between Tax Year 2000 in-migration rates and post-2003 in-migration rates to the new bracket, we can estimate a maximum effect of the half-millionaire tax. It is not obvious that this trend (declining in-migration of half-millionaires) is necessarily caused by the tax rate increase. Nevertheless, we estimate that the maximum effect on these potential half-millionaire in-migrants

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<sup>11</sup> In order to estimate the maximum migration effect of the half-millionaire tax, we choose the 2003 out-migration rate as the baseline. It is the lowest out-migration rate for any single year prior to the tax rate increase.

<sup>12</sup> This calculation assumes that all half-millionaires are equally likely to migrate based on the new tax bracket. The estimated tax revenue loss would be somewhat higher if the extremely rich (e.g., those earning more than \$3 million annually) are more sensitive to the tax rate change than are the very rich.

is equivalent to 287 households, or \$27 million in income tax revenues, per year, 2004-2006.

**Table 11. Estimates of Tax Revenues Generated**

Tax year	Balance of New Jersey income tax actually assessed (\$ billions)	Balance of tax under pre-2004 tax bracket (\$ billions)	Tax revenue gain due to new 8.97% rate (\$ billions)	Opportunity cost of out-migrants (\$ millions)	Opportunity cost of in-migrants (\$ millions)	Estimated tax revenue gain but for tax-related migration
2004	2.779	2.040	0.739	22.6	11.7	34.2
2005	3.222	2.356	0.867	9.3	28.1	37.4
2006	3.873	2.795	1.078	0.0	41.5	41.5
Average	3.292	2.397	0.895	10.6	27.1	37.7

Column 4 of Table 11 shows that New Jersey gained an average of \$895 million per year in tax revenues as a result of the half-millionaire tax. The foregone revenue associated with the “missing” out-migrant and potential in-migrant households discussed above amounts to \$37.7 million per year. In other words, if there had been no “additional net out-migration” due to the increased tax rate, the state would have raised an additional \$37.7 million per year. In our view, this is a small opportunity cost of a tax policy that generated more than \$1 billion for Tax Year 2006.

## Part IV. Conclusion: The Economic Impact of Migration for New Jersey

The economic impact of migration, in our view, is ambiguous. Some have argued that declining population growth in New Jersey is bad for the economy (Hughes et al. 2007). We are doubtful of this. Adding more people to New Jersey will lead to a larger economy, but this does not imply that anyone is economically better off. For example, China has a much larger economy than New Jersey, but this does not make the Chinese more prosperous than New Jerseyans. What matters is productivity (per capita income).

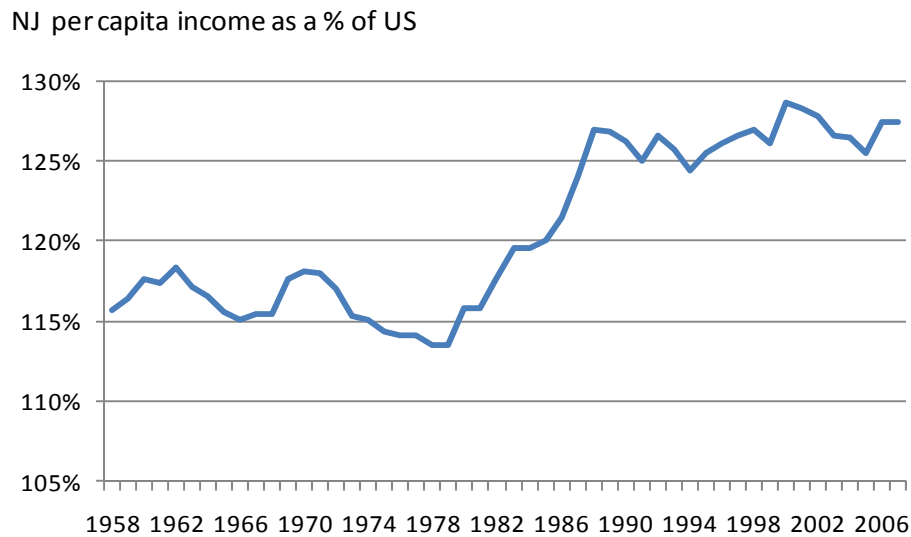
Out-migration might be worrisome as a *symptom* of economic deterioration and declining productivity. For example, the decline of heavy industry and the disappearance of jobs in Detroit led to a very long period of population decline that continues today. In the wake of this population outflow lie sprawling tracts of crumbling housing stock. Out-migration can be alarming as a possible *symptom* of economic decline. However, net out-migration of labor supply does not *cause* economic decline or deteriorating productivity.

As we detail below, the kinds of problems seen in Detroit are clearly not happening in New Jersey. In fact, out-migration is of a completely opposite nature in New Jersey: it is more a symptom of economic prosperity than decline. Indeed, the long-term economic position of New Jersey remains very strong. Per-capita incomes in the state rose dramatically, relative to the country as a whole, during the 1980s, from 113% in 1979 to 127% in 1989 (see Graph 8). New Jersey has since then held its position as an extremely high income state, despite almost two decades of continuous net domestic out-migration. The state has the second-highest average income in the union.<sup>13</sup>

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<sup>13</sup> Connecticut is first with \$54,117 in personal per capita income in 2007. New Jersey follows with \$49,194.

**Graph 8. New Jersey Per-Capita Income, as a Percentage of US Per-Capita Income. 1958-2007.**



Source: Bureau of Economic Analysis, US Dept. of Commerce. Regional Economic Accounts.  
<http://www.bea.gov/regional/spi><sup>14</sup>

With economic decline and the disappearance of jobs (as seen in Detroit), regions experience three basic problems: high unemployment, falling property values, and out-migration led by high-skilled workers. The pattern unfolds in the following way. As the economy declines, wages fall and people lose their jobs. Skilled workers leave the region in search of better work opportunities. This leaves an abundant supply of cheap housing. Low-cost housing, in turn, tends to draw in lower-income migrants—low-skilled workers and those less attached to the labor market. In short, the Detroit model of out-migration is characterized by 1) falling wages and high unemployment, 2) declining property values and lower rents, and 3) net *in-flows* of people with less education and / or low labor force participation (Glaser and Gyourko 2005).

In contrast, New Jersey's out-migration is characterized by 1) a state economy with high and rising incomes and below-average unemployment, 2) an extremely

<sup>14</sup> BEA has not yet released 2007 employment estimates. The denominator for this ratio is total population.

expensive and rapidly appreciating housing stock<sup>15</sup>, and 3) net in-flows of people with advanced education. All these are signs that the growing affluence of New Jersey is pushing out low-income individuals who are simply unable to afford the high cost of living.

### Costs and Benefits

One recent report suggested out-migration “has sizable and growing economic and fiscal implications” (Hughes et al. 2007:21). The report estimated the total loss of state income and sales taxes due to net out-flows at \$539 million in 2005, and the loss of income at nearly \$2 billion.

This approach of looking at “outflows of income” is incorrect and misleading. When people move away from New Jersey and earn income elsewhere, this might appear as an “outflow of income” or a “loss” to New Jersey. However, out-migration also produces new *job vacancies*, and fewer people competing for local employment. The existing residents of New Jersey, who are not part of the migration numbers, benefit from these new vacancies and from the decline in competition for jobs. The apparent “loss” is received as a benefit to the non-migrating residents of the state.

In general, out-migrants leave their job to find new employment elsewhere. They do not take their jobs with them. This also means that migrants do not take their flow of income with them when they leave; rather, they find *new* sources of income in other states. This becomes a vacancy that is now available for someone else in New Jersey.<sup>16</sup> Out-migration of workers or job-seekers does not mean losses of jobs or income.

To look at actual income losses, one needs to examine the *migration of employers and jobs* rather than the migration of workers and job-seekers. We

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<sup>15</sup> Between 2000 and 2007, housing prices in New Jersey rose a striking 294% - one of the highest rates in the country.

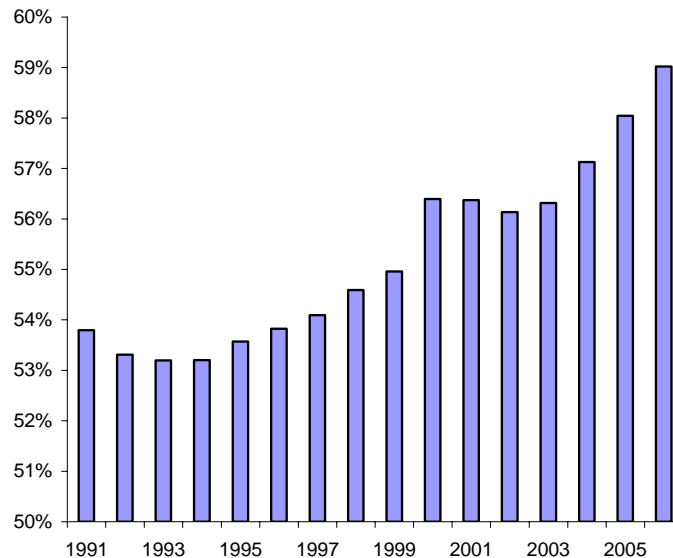
<sup>16</sup> Job vacancies are only problematic if they cannot be filled. Since there are few signs of a serious labor shortage in New Jersey, this is not likely to be an issue.



do not have data on the migration patterns of employers or job positions. There is, however, virtually no net out-migration among employed people (-1.8 per 100 out-migrants), but a large net outflow of unemployed workers (-33.6 per 100 out-migrants). This shows that unemployment is, in part, being exported to other states.

Indeed, the employment-to-population ratio – the share of New Jersey’s population that is working – has been rising alongside net out-migration. In 2000, roughly 56% of state residents were working. By 2006, 59% of the population was employed – the highest level on record (see Graph 9). Most of this rise was due to net job creation; however, the migration patterns – net outflows of non-working people – have surely helped.

**Graph 9. New Jersey Employment to Population Ratio, 1991-2006.**



Source: Bureau of Economic Analysis, US Dept. of Commerce. Regional Economic Accounts.  
<http://www.bea.gov/regional/spi><sup>17</sup>

<sup>17</sup> BEA has not yet released 2007 employment estimates. The denominator for this ratio is total population.

In short, there is little evidence to suggest that New Jersey is seeing a net outflow of jobs. What New Jersey is seeing is an outflow of labor supply (unemployed job seekers). When earning opportunities (job positions) remain in the state while some labor supply leaves the state, this improves the labor market conditions for workers. Employers, however, may feel the pinch of upward wage pressure.

A similar assessment holds true for housing and living costs. When people move away, they do not simply leave their jobs behind – they also leave their houses and rental apartments. This is a bad sign in places like Detroit. But in New Jersey, where housing costs are some of the highest in the country, out-migration is a small step towards making New Jersey more affordable. Out-migration creates vacancies, which ultimately help bring down (or ease the upward pressure on) the cost of housing in this state. In a state where housing prices have risen 294% this decade alone, some out-migration is not surprising, and indeed helpful from the perspective of affordability.

In short, the \$2 billion income loss reported by Hughes et al (2007) largely reflects a misunderstanding of the migration process. To look at actual income losses to New Jersey, one must look at the migration of employers and jobs (income-earning positions), not the migration of workers and job seekers.

It is better to understand New Jersey's net out-migration as (1) removing labor supply (creating job vacancies and reducing the number of unemployed), as well as (2) increasing the supply of available housing, helping to bring down the high price of houses and rents. The fact that out-migrants continue earning income in other states is not a loss for New Jersey – if their jobs did not migrate, the positions they vacated can be filled by someone else. In fact, out-migrants are helping to raise wages, lower unemployment, and reduce the cost of housing for those who work (or look for work) in New Jersey.

## Fiscal Impact

The fiscal impact for the state government is similarly complicated by the fact that most of the “income losses” from migration are illusory. An out-migration of employers and jobs *would* create significant tax losses for the state government. However, an outflow of *labor supply* does not – assuming that the new job vacancies get filled reasonably quickly. If unemployed New Jersey residents ultimately fill the positions vacated by out-migrants, there is no outflow of tax revenues.

Moreover, it is not clear that simple population growth is beneficial to state finances. People not only pay taxes, but also use government services and public resources. To count out-migration as a fiscal loss, one must assume that New Jersey yields a large “surplus revenue” or “profit” on additional residents. Whether additional residents contribute more tax dollars than they “consume” in terms of government administration, services, and resources is an open question, and beyond the scope of this study. However, with a very high population density and an aging public infrastructure, it is quite possible that the state government is facing diseconomies of scale. In other words, a population surge might create more challenges for the state government than net out-migration. Given that New Jersey is “exporting” some of its unemployment problem, it is also likely exporting some of its fiscal problems. This is of no clear benefit to the country overall, but it does likely benefit New Jersey state finances.

If there had been no net out-migration since 2001, New Jersey’s population would be over 9 million today (instead of 8.7 million). Indeed, if there had been no net out-migration *since 1991*, the population would be almost 9.5 million. Whether any additional tax revenues generated would cover the costs and

strains of having 750,000 more people in the state is an open question.<sup>18</sup> In general, to the extent that New Jersey has been exporting labor supply but not jobs, out-migration has *improved* state finances on a per capita basis.

### **The Disproportionate Impact of the Wealthy**

The simple demographics of migration, however, only begin to shed light on state finances. The bulk of state tax revenues are paid by the top 10% of income earners. The migration patterns of the “bottom” 90% of the New Jersey population have relatively less impact on state finances. This is especially true for the poorest 20% of income earners, who account for almost all of the net out-migration. A person earning \$20,000 per year pays about \$280 in state income tax. A person earning \$1 million pays almost \$75,000 in tax. In short, when one millionaire moves away, the tax impact is equivalent to about 266 poor people moving away.

Thus, this report has paid detailed attention to the migration patterns of very high income earners. New Jersey recently introduced a new tax on incomes above \$500,000. This tax could not possibly have a significant impact on overall migration patterns because only about 1% of the state population has incomes this high. However, if the tax leads to an exodus of millionaires seeking better tax environments, it could seriously undermine the revenue position of the state government. For this reason, we have undertaken a careful analysis of the migration patterns of “half-millionaires”. This is the one area where we believe net out-migration might possibly create real tax losses for the state.

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<sup>18</sup> A formal cost-benefit analysis of New Jersey’s fiscal position would resolve this question. To estimate the costs of additional population, one could look at how real government spending per-capita changes with increases in population. (One might also want to factor in capital depreciation – the deterioration of highways, government-owned buildings, water systems, and the like – during the course of population growth.)

## The “Half-Millionaire Tax”

The trend in net out-migration among those earning more than \$500,000 per year appears to be consistent with a small causal effect of the new tax bracket. We estimated that net out-migration in this income bracket rose by about 350 people (or by about 0.8% of New Jersey’s half-millionaires) after the tax was introduced. This is a small, but noticeable, effect. If net out-migration had stayed the same for this group, state income tax revenues would be about \$38 million higher each year. This is an *upper-bound* estimate of foregone revenues. As we have noted, however, the new tax bracket has generated an average of \$895 million per year in revenues. In short, the “half-millionaire tax,” at least in New Jersey, appears to be an effective and efficient revenue-generation mechanism, having little effect on migration patterns among half-millionaire households.

Maryland recently introduced a true “millionaire tax” – imposing a rate of 6.25% on incomes above \$1 million. Critics have called it the “Get Out of Maryland Tax Act.” If the New Jersey experience is any guide, the policy is likely to generate substantial revenues and very little out-migration. Still, states like Maryland – further from the socio-economic epicenter of New York City – may have less ability to tax high income earners without provoking out-migration. A detailed evaluation of the Maryland policy could help shed much light on the ability of states to tax high-income individuals.

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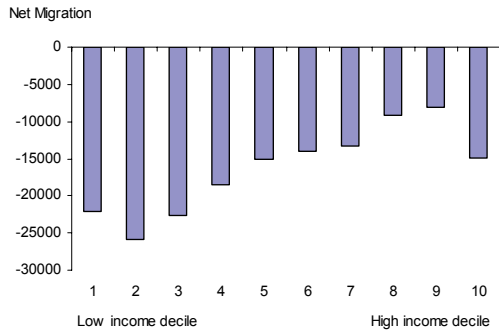
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## Appendix A.

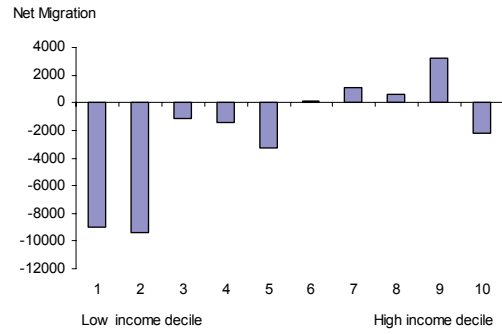
### Net Migration by Income Decile. Annual Averages. 2000-2006. New Jersey and Its Neighbors. American Community Survey Micro-Data.

(Correlation between net migration and income decile in brackets.)

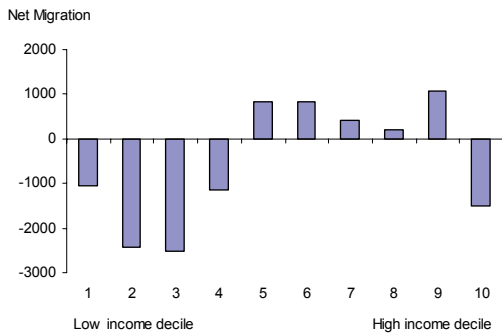
#### New York (.510)



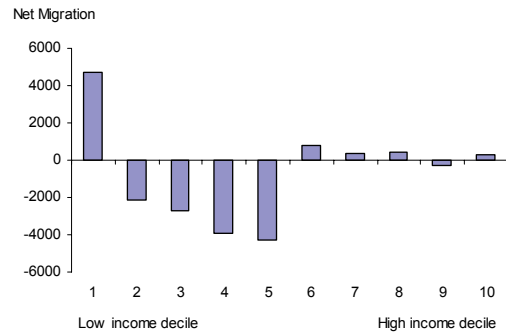
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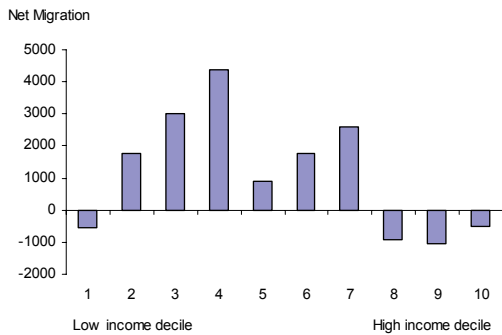
#### Connecticut (.169)



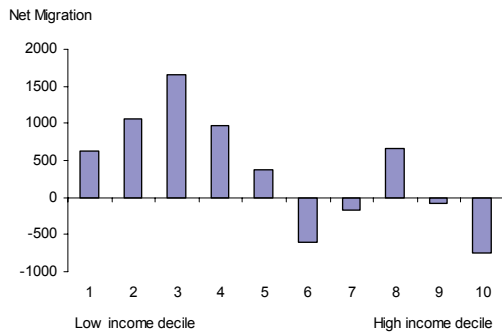
#### Pennsylvania (.037)



#### Maryland (-.219)



#### Delaware (-.350)





## Appendix B.

### Top 20 Origin States of New Jersey In-Migrants, Ages 18+ 2000-2006. American Community Survey Micro-Data.

State	Share of in-migrants
New York	34.4%
Pennsylvania	17.9%
Florida	6.8%
California	4.3%
Massachusetts	3.5%
Texas	3.5%
Virginia	2.7%
Maryland	2.6%
Connecticut	2.2%
North Carolina	2.2%
Georgia	2.1%
Illinois	1.9%
South Carolina	1.5%
Arizona	1.1%
Ohio	1.0%
Michigan	0.9%
Delaware	0.9%
Colorado	0.9%
Rhode Island	0.6%
Tennessee	0.6%





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