The Fiscal Impact of Refugee Resettlement In the Mohawk Valley

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Executive Summary

Since 1975, Oneida county and the city of Utica, New York have welcomed thousands of refugees from around the world. Through 1999, the Mohawk Valley Resource Center for Refugees, had resettled 8,759 refugees in the Utica area, arranging housing, education, employment, and social services for incoming refugees. The refugees have come from 22 countries with about 40% coming from Bosnia, 21% from the former Soviet Union, and 14% from Vietnam.

While the humanitarian benefits are clear, there is less consensus as to whether the refugees are a net benefit or cost to the local economy. Refugees add to the workforce and broaden the local tax base, providing employers with quality low-wage workers. At the same time, refugees use social and educational services, potentially adding to the burden shared by local taxpayers. Yet neither the benefits or costs have been seriously addressed in a comprehensive study of the impact of the refugees on the local economy.

The present study accounts for the fiscal benefits and fiscal costs of refugee resettlement in the Mohawk Valley. A fiscal analysis differs from a benefit-cost analysis and the more common economic impact studies in that a fiscal analysis tracks the flow of public resources used and created from a particular policy. The study is addresses the question of whether refugee resettlement costs area residents more in public costs than is raised through additional tax revenue.

The main findings in the study are listed below.

- **Refugees are a net cost in the early years and then yield benefits for many years to come.** In the long run, evidence suggests that efforts to resettle refugees in Utica, quite apart from any non-fiscal benefits or costs, is a net fiscal benefit to the community.

- **Assuming a typical flow of about 750 refugees per year, simulations show net annual benefits become positive after 15 years while the cumulative benefit becomes positive in year 23.** After 23 years of operation, the total fiscal effect of continual waves of 233 refugee households per year will be and will remain positive.

- **The costs of refugee resettlement are front-loaded.** After 13 years, the cumulative net benefit of a single household becomes positive and remains positive every year after. This does not imply that the costs of such factors as Medicaid and TANF are reduced to zero. These costs remain, although they do diminish somewhat over time. Rather, other positive benefits due to increased participation in labor and real estate markets now outweigh the negatives.

- **The first year net cost of a single refugee household is about $4,413, with**

education costs making up 40%, TANF 34 %, and Medicaid 26% of the total taxpayers costs for refugee households. Over time, the TANF costs drop quickly, children move out of the school systems. Although Medicaid participation does diminish somewhat, it remains high. For refugees households who have been in the area for at least 4 years, 6 percent are reported to be on TANF while 36 percent receive Medicaid. About 18 percent receive Food Stamps, benefits which are fully paid by the federal government.

- **The primary fiscal benefits accruing from refugees stems from their participation in labor markets (and therefore consumption of local goods) and real estate markets.** Direct benefits are derived from sales and property taxes, while indirect benefits accrue through positive effects on local real estate markets.

- **The costs and benefits depend on the composition of the households and on their willingness to stay in the Utica area.** The average refugee household in our study has lived in the area for about 5 years, has 3.22 people, including 1.27 kids and 1.95 adults. The average age of the adults in the household is less than 30 years of age, while the average age of the children in the household is 9.2 years of age. Only 3.7 percent of all refugees who arrive are greater than 65 years of age.

- **Most, but not all, refugees' first jobs are in traditionally low-wage jobs requiring little formal training and relatively low levels of English proficiency.** The average starting wage rate is $7.18 per hour and less than 2 percent of refugees start out in jobs paying $10/hour or more. Small manufacturing assembly work is easily the most common work for refugees, accounting for about 27 percent of all refugee jobs. Another 15 percent went into sewing jobs. The remaining 58 percent of jobs were more evenly distributed with production workers and machine operators being the next most common jobs.

- **There is little evidence that refugees have hurt the employment opportunities of native workers.** Native workers now face the lowest unemployment rates in the last 20 years. To the degree that crowding out is real, that refugees have displaced native workers, it would have to be in the small assembly and sewing jobs and to an even lesser degree in the production and machine operator jobs, jobs which pay generally low wages. A similar argument applies to the question of the impact of refugees on wages. Such impacts, if any, are likely small, likely localized to a small sector of Oneida County, and likely localized to a small sub-sector labor market.

Outline

1: The Need

Since 1975, Utica, through the efforts of the Mohawk Valley Resource Center for Refugees, have been welcoming and resettling refugees from around the world. The Refugee Center was established and is sponsored by the Lutheran Immigration Refugee Service. Through 1999, the Refugee Center has resettled 8,759 refugees in the Utica area, arranging housing, education, employment, and social services for incoming refugees. The refugees have come from 22 countries with about 40% coming from Bosnia, 21% from the former Soviet Union, and 14% from Vietnam.

While the humanitarian benefits are clear, there is less consensus as to whether the refugees are a net benefit or cost to the local economy. The refugees add to the workforce and broaden the local tax base, one that has been declining for many years, providing employers with quality low-wage workers. At the same time, refugees use social services, potentially adding to the burden shared by local taxpayers. Yet neither the benefits or costs have been seriously addressed in a comprehensive study of the impact of the refugees on the local economy.

In 1999, associates of the Arthur Levitt Public Policy Center at Hamilton College became interested in local refugee resettlement and made this a topic for broader study. This report is one product of a larger study funded by the Levitt Center. The findings, judgements, and opinions expressed in the study are the author's and do not represent the opinions of Hamilton College or the Arthur Levitt Public Policy Center.

2. Purpose and Approach

2.1 A Fiscal Analysis

The present study is intended to be a first attempt to account for the fiscal benefits and fiscal costs of refugee resettlement in the Mohawk Valley. A fiscal analysis differs from a benefit-cost analysis and the more common economic impact studies in that a fiscal analysis tracks the flow of public resources used and created from a particular experiment or policy. For this study, we define the policy as the future resettlement of refugees in the Utica area. In contrast, a benefit-cost study attempts to determine the impact of a policy on the overall well being of a community. Economic impact studies tend to estimate the overall changes in spending in an economy, but typically ignore the effect of an event on government spending and revenues. A fiscal analysis may be considered a first step in more comprehensive benefit-cost analysis which must also weigh and account for the change in the well-being of the population due to the policy. Consider the opening of a new restaurant. A fiscal analysis should account for additional public costs of the restaurant such as increased sanitation costs and increased tax revenues. On the other hand, a benefit-cost study would not only account for these fiscal factors but also weigh the value to the community of having a new restaurant, perhaps of a type that adds to the variety of dining options available, and therefore, one that increases the utility of the population apart from its fiscal impact.

Therefore, the present study is not intended to determine whether refugee resettlement in the Mohawk Valley is a worthwhile endeavor. Such a judgment goes far beyond the present study, and requires an accounting of the total impact of the policy on total well-being of the population of the Mohawk Valley. Rather, the study is intended to address the question of whether refugee resettlement costs area residents more in public costs than is raised through additional tax revenue. In other words, do refugees and the economic activity they bring, pay more in taxes than they cost in public services?

2.2 Scope of Study

Because there are several levels of governmental authority, all which have the power to tax and all of which spend money on their citizens, the results of a fiscal study may differ widely depending how one defines the geographic region of analysis. For example, if the policy in question involves the flow of resources from one region (say the state of New York) to another (Utica), whether the flow results in a benefit depends on one's point of view. If the unit of analysis is the state of New York, a $1 million grant from the state of New York to the City of Utica would be defined as a mere transfer of resources from residents in one part of the state to other residents in the same state. Some have more money while others have less, yet the net effect is a zero. We call this a pure transfer. However, if the unit of analysis is the Mohawk Valley, the $1 million dollar grant is a pure benefit (at least the portion not raised from taxes paid by MV residents). So the same policy leads to very different results, depending on the definition of the geographic region of analysis.

The present study chooses the Utica/Rome Metropolitan Statistical Area, which includes Oneida and Herkimer counties, as the region of analysis. While most of the refugees relocated by the Refugee Center settle in Utica, a broader unit of analysis is required for at three reasons. First, due to the ease of transportation and the close proximity of the many towns and villages near Utica, the local labor markets in which the refugees work are not consistent with the City boundaries. Second, the unit of measurement for the cost of social services is at the county level. Third, most federally collected data use the Utica/Rome MSA as the smallest unit of disaggregation. Therefore, much of the required data are available and most reliable at the MSA level.

This local perspective differentiates this study from most others done on the fiscal effects of immigration, some of which are reviewed below. This local unit of analysis requires care be taken to distinguish the local taxes from state and federal taxes and local expenditures from state and federal expenditures. Certainly, not all benefits paid to refugees by the county come from county funding, just as not all taxes paid by refugees benefit the county. An increase in sales tax revenue due to the refugee influx is a clear benefit to the county, while income taxes paid to the state and federal governments do not directly benefit the county budget. Similarly, public assistance programs have differing degrees of county contribution. Some, like food stamps, are funded completely at the federal level. Although local taxpayers pay for federally distributed public assistance benefits through federal taxes, the tax payments would be the same no matter where in the U.S. the refugees settled. Therefore, the local cost of federally funded benefits is virtually zero.

The flow of federal and state money into the Utica-Rome area may provide additional tax revenue at the local level. To the extent that external spending increases non-food and non-housing consumption, local governments may benefit from federal and state government public assistance transfers. The benefits, however, would be much less than the dollar value of the government transfer. It may even be insignificant in magnitude given the small share that leaks into county revenue. It would be tempting to label federal benefits, say $100 in Supplemental Security Income (SSI), as a benefit to the local MSA. Indeed, the typical economic impact study would count the benefit and any additional spending that happens as a result of the transfer. This is commonly referred to as the multiplier effect. However, the benefit of the $100 in SSI goes directly to the recipient, while the county benefits only to the degree that there are leakages, through sales and property taxes, from the all additional spending caused by the initial transfer.

2.3 The time frame for analysis

The fiscal benefits and costs of refugee relocation are likely to accrue at different points in time. Many of the costs, such as the use of medical services and cash transfers, are incurred during the first several months after the refugees arrive. The benefits, such as increased tax revenue, may accrue over the lifetime of the refugee. Because the benefits and costs do not accrue at the same, future benefits and costs must be discounted to their present value, where the present value may be defined as how much an asset or stream of payments received in the future is worth to someone today. Choosing the discount factor by which future benefits and costs are discounted back to their present value is a crucial stage in any benefit cost study. Following other studies, we use a 4 percent discount rate (Lee and Miller, 2000), but given that the results may be sensitive to this choice, the final results are calculated over a range of discount rates. Generally, economists agree that social discount rates from 2.5 to 5.0 percent cover the range of rates that should be used to discount public benefits and costs.

The time frame over which one counts benefits and costs may also impact the outcome of a fiscal analysis. Because the benefits of refugee resettlement accrue over the working life of incoming refugees, a short time span may not appropriately account for future benefits. This study uses a period of 60 years. As such, the study account for benefits throughout the working lives of the current refugees and their children. While some children may work beyond 60 years, benefits that far into the future will be so heavily discounted as to be of insignificant magnitude.

2.4 Unit of Analysis

The primary unit of analysis is the refugee household. Previous studies find different results depending on whether the unit of analysis is the individual immigrant (refugee in this case) or the household, or the household plus children born to immigrants in the United States. Studies of individuals tend to focus on individuals who come during their working years (or older), thereby minimizing the costs of education. We choose the household which includes all refugees born prior to arriving in the area. A study incorporating the benefits and costs of children of refugees born in the U.S. would require assumptions about fertility patterns,

something we know very little about with respect to refugees who settle in the Utica/ Rome area.

The analysis will be done in two ways. The first method is to follow a single cohort of refugees through the time period of analysis, 50 years. This analysis takes into consideration the age, sex, and education composition of arriving refugees using the average characteristics of refugees who arrived over the last ten years. In addition to demographics, I estimate wage profiles and public assistance use profiles. This portion of the analysis seeks to answer the question, do refugees pay in more than they take out of the economy?

Refugee resettlement, however, is not a one-time event. New refugees arrive every year. The second method of analysis estimates the fiscal impact of a continuous flow of refugees. Obviously, the total effect on the economy from refugee resettlement must take into account the cumulative impact of new waves of refugees as they arrive. Therefore, this second method analysis better identifies the time necessary for the fiscal benefits to outweigh the costs of a continual stream of refugees.

3. Background Research and Previous Findings

The economic impact of immigration has been a topic of considerable interest for the last 30 years. While this study concerns refugees, whose impact may be distinct from immigrants in general (Refugees make up about 15 percent of immigrants.), the immigrant literature gives guidance, highlighting the important issues and providing results which may serve as a benchmark. In addition to summarizing some of this literature, this section also draws on the smaller body of research focusing on economic effects of refugees on local and national economies[1].

3.1 Labor Market and Migration Effects

Economists have put a large share of their research efforts into understanding the effects of immigration on labor market, specifically the wages and employment of immigrant and native workers. Despite the size of the literature, the results are mixed. For example, studies using older cohorts of immigrants commonly find that immigrants, although they typically had lower starting wages, had on average greater lifetime earnings than average native workers. Yet more recent studies find that immigrant workers, mostly due to a decline in skills and education, can expect to earn lower wages throughout their working years (Borjas, JEL 1994). It has long been recognized that immigration may impact native workers, although theoretically the direction of the impact is indeterminate. Just as any entrant into a labor market may displace another worker already in that market, immigrants have the potential to displace native workers or drive down wages for those who keep their jobs. In this case immigrants would be considered substitutes for native workers.

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1 There is a growing literature on the well-being of refugees and the process of resettlement. See Potacky (1997) for a review of this literature.

It is also possible that immigration has positive effects on native workers. Those espousing this theory argue that immigrants are entrepreneurial and accumulate productive capital at a higher rate than native workers (Greenwood and Hunt, 1995). Alternatively, immigrants fill less desirable jobs that natives avoid and thereby complement native workers. In this case, immigrants would not tend to decrease either wages or the probability of employment. The effects of such theories depend on the skill levels of immigrant workers. To the degree that immigrants are relatively low-skilled workers, they may have adverse or substitution effects on native low skilled workers and positive or complementary effects for higher skilled workers. Finally, since immigration leads to an increased demand for goods, the demand for labor may increase leading to positive effects for both native and immigrant workers.

The actual impact of immigration on wages and employment is therefore an empirical question, and one which a number of studies have attempted to answer. The findings in the empirical literature, of which Friedberg and Hunt (1995) and Borjas (1994) provide comprehensive reviews, are far from unanimous. Across studies using a wide variety of methodologies and data sources, the most common finding is that immigrants do tend to substitute for native workers, although the magnitudes of the effects on employment and wages are typically quite small. Borjas (1994), for example, finds no studies that increase joblessness or decrease wages among natives by more than two percent. Wilson and Jaynes (1997), a cross industry study which pays particular attention to the concentration of immigrants, report small negative impacts on native employment but positive effects on native wages in industries and geographic regions with higher concentrations of immigrants, other things equal.

Frey (1997) offers one possible explanation for the small magnitude of the negative impacts. He argues that immigration leads to an out-migration of low-skilled native workers. If this is true, empirical studies may understate the full impact of immigration on employment and wages, depending on the composition of leavers. However, a recent study by Card and DiNardo (2000) finds that areas that have had population growth through immigration also tend to see an increase in the flow of low-skilled native workers into the area, a finding in sharp contradiction to Frey's theory and findings.

One conclusion that appears rather robust across studies is that the strongest negative labor market effects seem to fall on other foreign born workers, and most strongly on recent immigrants. Greenwood and Hunt (1995) find that the wage effect of immigration on foreign born workers is roughly two and one-half times the effect on native workers. Economists attribute this finding to the continual flow of new immigrants into industries and regions with high concentrations of foreign born workers.

Unfortunately, a comparable literature does not exist on the labor market impacts of refugees on U.S. labor markets. However, since the effects of immigration are typically measurable only in areas with high concentrations of immigrants, one may conclude that refugees, a small subset of all immigrants, would have even smaller effects. This does not mean there are no effects. If refugees, due to common skills or lack of English proficiency, tend to concentrate in a particular industry or small geographic area, local effects may be noticeable.

Recent years have witnessed a growing literature on the factors contributing to the economic success of refugees. Refugees are by-and-large involuntary immigrants and face greater obstacles than most immigrants. Potacky-Tripodi (1999) reviews several large studies on the economics success of refugees and extends previous studies. She concludes that refugees with more education, greater facility with the English language, greater length of stay in the U.S., and who live in families headed by a married couple tend to have higher levels of employment, greater household income, and a lower probability of public assistance utilization. The presence of children and adults over 65 years of age tends to hamper economic status.

3.2 Fiscal Impacts

A second body of literature relevant for this study addresses the broader fiscal impact of immigration. Again this literature tends not to separate refugees from other immigrants, but the findings are instructive. The key question in this literature is how much do immigrants contribute through taxes of all kinds relative to the costs they impose through the services and benefits they receive? The literature in this area is both younger and smaller than the labor market impact literature, probably due more to the lack of data, lack of consensus on methods, and difficulties in several key definitions than to lack of interest. Some of the difficulties in defining family units and the relevant time frames for such analyses will show up later in this report.

Several studies, notably Borjas (1994), Fix and Passel (1994), Smith and Edmonston (1997), and Moore (1998) attempt to determine the net fiscal impact of immigration. Fix and Passel's results are representative of the common finding that immigrants pay more in taxes that they receive in government services. Moore (1998) concludes that the net present value of benefits less costs is between $20,000 and $80,000 for each immigrant. Borjas (1995) points out, however, that more recent immigrants, due to a deterioration in skills among those admitted, are not likely to present such a positive picture. In calculations he would qualify as rough, he estimates that in 1990, immigrant households in the U.S. cost taxpayers about $16 billion. Such single-year estimates may be not be useful as benefits and costs are incurred at different points in time and the number and composition of immigrants changes over time.

Because the funding for the public services, including cash assistance and in-kind benefits, is not shared equally across federal, state, and local governments, the fiscal impacts of immigrant and refugee resettlement will differ. For example, Social Security is a federal program requiring no local contributions. Medicaid and cash assistance through Temporary Assistance for Needy Families (TANF) requires a state and local contribution. Oneida County pays 25% of the benefit costs for these programs. Lee and Miller (2000), using CPS and Census data, project the fiscal impacts of immigration on federal, state and local governments. They find that immigration is an overall net benefit for the country, but a net loser for state and local governments, at least in the short run. One way to compare the differential impacts is to compare the time it takes to break even. Lee and Miller find that it would take 10 years for a single immigrant to become a net contributor to the U.S. economy, 16 years if we consider the children of immigrants. However, for state and local governments the breakeven time horizon is about 45 years. It should be emphasized that such an exercise requires a number of

assumptions which make generalizing these results to a specific county unreasonable. For example, suppose an immigrant settles in County A, has children, and lives there for 20 years. After 20 years the children move to County B. County B will reap the benefits of the education investment in the children, while County A will not.

3.2.1 Costs

The costs of immigration tend to be easier to identify and measure than the benefits. The primary costs of immigration are incurred through the costs and congestion of the services they use (such as cash transfer programs, health care, and education) and the indirect costs on native workers. While the U.S. has a relatively clear immigration policy, it has few assistance programs targeted at immigrants. Fix and Zimmerman (1995) review the programs available to immigrants. Generally, immigrants use the same programs available to natives. Refugees, however, do benefit from several programs that provide health care, public assistance and job assistance as established in the Refugee Act of 1980. The Act makes economic adaptation of refugees a prime goal, where economic adaptation is unsatisfactorily defined as being employed and not receiving means-tested cash assistance. Funding of the Act has been seriously eroded by inflation since its passing, from over $7,000 per immigrant in 1984 to about $2,000 per immigrant in 1994 (Espenshade, Fix, Zimmerman, and Corbett, 1997). The federal government also provides funding for language training through the elementary and secondary school system and for adults.

The Emergency Immigrant Education Act offers some financial support for local governments that can demonstrate significant economic strain due to immigration. The policy is designed to offset costs. Unfortunately, the name of the Act is somewhat deceiving as the education assistance available through the act is minimal. Most of the emergency assistance is dedicated to offset the costs of incarcerating criminal aliens.

Borjas (1994) finds the probability of welfare assistance among immigrants to have increased since 1970, largely due to a decrease in the average skill and education levels of more recent immigrants. In 1990, immigrants participated in cash assistance programs at a rate 2.5 percentage points above the native population, a finding which is exacerbated when other noncash public assistance programs are also considered (Borjas and Hilton, 1996). Using the March 1995 Current Population Survey, Bean et al (1997) find 10.6 percent of immigrant households receive some sort of cash assistance compared to 8.1 percent for native households. In New York State, the differential increases to 6 percentage points, from 17 percent for immigrants compared to 11 percent for natives (Passell and Clark, 1998).
Removing refugees from the pool of immigrants decreases the proportion of immigrants receiving cash assistance (Fix and Passell, 1994). Of course, this implies that refugees receive benefits at a higher rate than other immigrants. Immigrant participation rates also vary widely depending on country of origin. For example, Asian and Mexican/Central American immigrants receive cash benefits at rates much higher than natives, while European immigrants (not necessarily refugees or even recent immigrants) receive benefits at lower rates than natives (Bean et al., 1997).

Education is a major cost of immigration just as it is for natives. Most immigrants arrive as working age adults, having already completed school in their home country. Immigrants who arrive as adults require relatively little education spending. However, providing education for the children of immigrants is a burden that falls heavily on state and local governments. Refugees and their children are more likely to have had their formal schooling interrupted due to political turmoil in their home country, and may have lower levels of language proficiency upon arrival. Spending on education, whether on children or adults, is costly, but it is also an investment. Educating immigrants pays off if they stay in the country (or county) and are productive taxpayers throughout their working years. While educating immigrant children is more expensive than educating immigrant adults, the children typically have a longer working life. In fact, revenue from the children of immigrants in their working years is the largest fiscal benefit of immigration (Lee and Miller, 2000).

3.2.2 Benefits

The fiscal benefits to immigration have been widely discussed but tend to be harder to quantify than the costs which are typically government expenditures. As stated earlier, immigration increases the national income by more than what it costs to employ them (Borjas, 1995). Immigrants are consumers so they expand market size and provide valuable inputs to production. Expanded markets means some resources that would be unemployed or underemployed are more likely to be put into use. To the degree that these increased activities increase tax payments, they generate fiscal benefits. Also, because new immigrants are typically of working age, some have even discussed using immigration policy as means to finance Social Security for the aging U.S. population.

A larger population of working age households broadens the pool of tax payers. Certainly the most tangible benefits of immigration are the taxes paid by immigrants and their children. Income taxes are levied by the federal government, most state governments, and sometimes by local governments. Even though local governments typically don't levy income taxes, they may still benefit from increased allocations from state budgets. Local governments benefit more directly from taxes placed on consumer goods and on personal and business properties. The benefits of immigration are strongly affected by the age profile of arriving immigrants. To the degree that the arriving immigrants are of working age, they will be able to move more quickly into the workforce, meaning more immediate benefits. This is not to suggest that moving immigrants quickly into the work force is an optimal strategy. Another key factor in determining the benefits of immigration is the skill level of immigrants. Because higher wages leads to increased tax revenues, there is an incentive to admit higher skilled immigrants and to train those who arrive to use the skills they bring.

3.2.3 Implications for Refugees

At a minimum, the preceding literature review suggests that the issues involved in determining the fiscal benefits and costs of refugee resettlement are complex. If refugee resettlement affects the economic activity of others, then simply adding up the taxes paid by refugees and subtracting the local cost of the public services they use will not suffice. Refugees may affect the income (and therefore consumption and tax paying) prospects of native workers.

Past studies suggest that influx of refugees can have both positive and negative effects on local labor markets. To determine the impacts, some assessment must be made as to the effect of refugees on the wages and migration effects on native workers. Are refugees a substitute for local workers, driving down wages and forcing out native workers? Or does the refugee workforce lead to reduced production costs, perhaps attracting specific types of industry? A careful look at the trends in the Utica/Rome labor markets will give some clues to answer these questions.

As for the net fiscal impact, the literature suggests that immigration is beneficial at a national level but costly for states and local governments. If the local economy could be called typical, then we might expect the results of the fiscal analysis to be negative. However, none of the studies cited address the impact of refugees or the impact of immigration on a specific local region. They are, therefore, average results. As we will see below, the economic and demographic circumstances Mohawk Valley are far from typical, and the question as to the net fiscal impacts of refugee resettlement are wide open.

4. An Overview of the Utica/Rome Economy

Before discussing the impact of the flow of refugees, it is necessary to describe, at least in brief, the economy into which they are coming. Once described as a thriving, the economy of Utica and its surrounding communities has struggled in the 1980's and 1990's. The exodus of major employers such as General Electric (later Martin Marietta) and the closing of the Griffiss air base were among the shocks which have had painful and lasting impacts on the local community. While recently there have been improvements which give reason for optimism, the economy into which refugees arrive is vastly different from late 1980s when unemployment rates were falling and the workforce was growing. This section describes those changes deemed most relevant for this study.

4.1 Population Changes and Components of Change

Labor is a crucial resource for any economy. While the population in most U.S. cities, counties, and Metropolitan Statistical Areas (MSAs) has been growing over the last two decades, the Utica-Rome MSA has seen its population decrease. In 1970, the Utica-Rome MSA boasted 340,477 people. The population decreased by nearly twenty thousand people in the 1970s to 320,700 in 1980. The rate of decrease lessened in the 1980s but had reached 316,886 in 1990. By 1998 the MSA population had fallen to 294,677, a drop of more than 13 percent over nearly two decades. A significant share of the drop in the 90s occurred after the announcement and ultimate closing of the Griffiss Airbase in 1994.

Similar population patterns hold for Oneida County and are even more extreme for the city of Utica. For example, the Oneida county population dropped from 253,465 in 1980 to 236,437 in 1998. Population decreased by 5.7 percent from 1990 to 1998. The City of Utica lost 9.2 percent of its population in the 1980s and continued to lose another 10.5 percent from 1990 to 1998. In 1998 the Utica population was estimated to be 61,368, down from 75,632 in 1980.

Because the Utica population decreased at a faster rate than Oneida County, Utica's share of the county's population also fell in the 1980's and 1990's. Whereas Utica made up nearly 30 percent of the Oneida county population in 1980, the share had fallen to roughly 21 percent in 1998.

Without international immigration, not all of which is attributable to refugees, the out-migration numbers would be far more extreme. Estimates from the Bureau of Census show net domestic immigration for the Utica-Rome MSA from 1991 to 1998 of -32,874, 82 percent of which was from Oneida county. However, over the same period international immigration added (on net) 4,282 to the MSA population. In other words, to some extent, the migration out of the MSA is mitigated by international migration into the area. On average, about 4,100 natives were leaving the area while an average of 535 international immigrants arrived in the MSA.

Table 1: Demographics by Geographic Definition

	Utica-Rome MSA	**Oneida County**	**City of Utica**
Population 1980	320,180	253,836	75,632
Population 1990	316,866	251,030	68,637
Population, 1998	294,677	230,628	61,368 (1996)
Average Household size, 1998	2.48	2.50	2.36
Net native immigration, 1991-1998	-32,874	-27,225	NA
Net International immigration 1991-1998	4,282	3,531	NA
Percent White, not Hispanic, 1998	90.6	89.4	80.4
Percent Black, not Hispanic, 1998	5.1	5.8	12.6
Percent Hispanic (1995	3.0	3.3	5.0
Percent without H.S. Diploma, 1995		21.8	22.2
Percent H.S. graduates, 1995		31.8	29.3
People all ages in Poverty, 1995		14.1	
People under age 18 in Poverty,1995		22.4	
Median Age,1980	31.7	31.6	34.0
Median Age, 1990	34.0	33.8	34.4
Median Age, 1998	36.1	35.7	35.4
Median Household Income, 1998	$31,426	$32,424	$23,434
Median Family Income,1998	$40,748	$41,400	$33,026
Sources: U.S. Bureau of Census; Marketview Comparison Report (Clarities, Inc.); Technical Assistance Center, SUNY at Plattsburgh.			

One of the key questions regarding the migration out of the area is who is moving away. The demographics tell part of the story. As we see in Table 1, since 1980 the Utica and Oneida

populations have become older, increasing in all three geographic definitions to approximately 34 years of age with the share of population over 65 increasing significantly. Over the same time period the average household size decreased, suggesting that movers out of the area tend to be larger working age households.

4.2 Changes in Industry and Occupational Structure

Utica's refugees enter into a local economy that has undergone considerable structural change over the last twenty years. Since 1980, the industrial mix in the Mohawk Valley has evolved, and the most significant trend, one not unique to the Mohawk Valley, has been a movement away from manufacturing and toward a greater reliance on the service sector. Using data from the State of New York on those workers covered by unemployment insurance, data on most but not all workers, we can track the change in industry structure over time. These trends are plotted in Figure 2. In 1980, 30.6 thousand workers, or about 26.7 percent of all workers, in the area worked in the manufacturing sector of the economy. The numbers were slightly lower than in 1979 when the manufacturing sector was at its largest. Of course, not all the workers in the manufacturing sector were involved in the manufacturing process itself. Some were accountants or were in sales or management. Yet their livelihood was dependent on the production of a physical product. At the same time, at 20.6 thousand workers the service industries employed roughly two-thirds as many workers as the manufacturing sector.

As it has across the country, employment in the manufacturing sector has diminished in size while the service industries in the Mohawk Valley have grown appreciably since 1980, both in terms of employment and as a share of the entire local economy. From 1980 to 1998, employment in the manufacturing sector decreased by 33 percent and by nearly 15 percent in the1990s alone (Table 3). From 1980 to 1998, the share of workers in manufacturing decreased from nearly 26.7 percent to 15.6 percent. The decrease in manufacturing employment was matched with even larger increases in the service sector. In the 1990s, the service sector saw employment increase by 38 percent, from 18 percent of workers to over 30 percent. In fact, the service and insurance and real estate industries are the only sectors that experienced growth in the 1990s.

Table 2: Employees by Industry, Oneida County

	1980		1990		1998		Change 1990-1998		
Industry	Number of Employees	Percent of Employees	Number of Employees	Percent of Employees	Number of Employees	Share of Employees	Number of Employees	Percent Change in Employees	Percentage Change in Share
Total, Non-agricultural	114.6	100.0	128.5	100.0	129.7	100.0	1.2	0.9	--
Manufacturing	30.6	26.7	23.7	18.4	20.2	15.6	-3.5	-14.8	-2.9
Transportation and Utilities	3.9	3.4	4.4	3.4	3.9	3.0	-0.5	-11.4	-0.4
Trade	22.1	19.3	28.0	21.8	26.3	20.3	-1.7	-6.1	-1.5
Insurance, Real Estate	5.5	4.8	7.5	5.8	8.2	6.3	0.7	9.3	0.5
Services	20.6	18.0	28.8	22.4	39.8	30.7	11.0	38.2	8.3
Total Government	29.0	25.3	31.8	24.7	27.9	21.5	-3.9	-12.3	-3.2
Estimated Population	320.2	--	316.6	--	294.7	--		-6.9	--
Source: U.S. Bureau of Census. *County Business Patterns.*									

Occupations

Because people tend to look for certain types of jobs and train for occupations, not industries, the change in industry structure tells only part of the story. It says little about what the workers are actually doing on the job. Within the manufacturing industry, some are managers or professionals (say an accountant) while others are classified as service providers (such as the janitorial staff).

Table 3 reports that of the roughly 134 thousand workers employed in the Utica/Rome MSA in 1994, 15.8 percent work in service occupations. Another 28 percent work as managers, administrators or in professional and technical occupations, a category that would include such occupations as office managers, engineers, architects, teachers, lawyers, and health technologists. More than another quarter of employees, work in wholesale and retail sales positions or in administrative support. Other than administrative support, all of these occupations are projected

by Department of Labor economists to be growing occupations for upstate New York. Of the growing occupations, the professional, technical and sales occupations are projected to experience the greatest growth.

Unfortunately labor demand is not projected to grow for all occupations. Employment in the precision production and craft occupations, which include mechanics, repairers and the

Table 3: Number of Employees by Occupation

	Utica/ Rome		North Country Region*				
Occupation	**Employ-ment 1994**	**Percent of Total Employ-ment**	**Employ-ment 1995**	**Projected Employ-ment 1998**	**Net Openings 1998**	**Proj Employ. Change 1994-2004**	**Proj. % Change 1994-2004**
Total, All Occupations	134,019	100.0	210,770	213,800	5,830	2,450	1.2
Managers and Administrators	13,158	9.8	11,700	11,900	290	400	3.7
Professional and Technical	24,392	18.2	50,150	51,610	1,390	3,070	6.2
Marketing and Sales	14,389	10.7	25,260	26,230	1,180	1,520	6.5
Administrative Support	23,035	17.2	37,630	37,140	720	-2,910	-7.9
Service	21,138	15.8	38,600	40,110	1,590	1,940	5.0
Agricultural, Forestry, Fishing	3,410	2.5	1,690	1,760	50	30	1.8
Precision Production, Craft	15,363	11.5	18,930	18,990	400	-280	-1.5
Operators, Fabricators, and Laborers	19,134	14.3	26,620	25,900	610	-1,300	-4.8
*** The North Country is defined to include Oneida, Madison, Herkimer, Fulton, Montgomery, and Schoharie counties.** **Source: U.S. Bureau of Census. *County Business Patterns;* Technical Assistance Center, SUNY at Plattsburgh. Technical Assistance Center, SUNY at Plattsburgh.**							

construction trades is expected to decrease by 1.5 percent from 1994-2004, what may be called a modest decrease. However, the bottom row of Table 3 reports a greater projected employment decrease of nearly 5 percent for the operator, fabricator and laborer occupations. This category includes machine operators and assemblers, transportation workers and material moving occupations, handlers, equipment cleaners, and general laborers.

4.3 Change in Wages and Unemployment, and Public Assistance Caseloads

The labor force in Oneida County peaked in 1990. After being relatively stable from 1977 to 1988, the labor force grew rapidly in the late 1980s. Employment also boomed in the late 1980s with unemployment dropping from 9.1 percent in 1983 to 4.7 percent in 1990. Similar to the national trend, the recession of 1991-1992, along with corporate downsizing, led to a rapid increase in unemployment in the Oneida County unemployment with the number of unemployed increasing by 50 percent from 1990 to 1991 from 6.8 thousand to 10.3 thousand people. The result was an increase in the unemployment from 4.7 to 7.1 percent in 1991 and to 7.4 percent in 1992. Perhaps more important, this episode also spurred another decrease in the local labor force.

Table 4: Labor Force and Employment 1977-1998, Oneida County

year	Labor force	Employed	Unemployed	Unemployment Rate	Estimated Population (000's)
1977	134.2	121.3	12.9	9.6	326.9
1978	134.5	125.1	9.4	7.0	325.6
1979	137.4	129.0	8.3	6.1	323.7
1980	136.2	126.2	10.0	7.4	320.2
1981	135.2	124.9	10.3	7.6	319.8
1982	133.2	121.2	12.0	9.0	319.8
1983	133.6	121.5	12.1	9.1	320.4
1984	134.3	124.7	9.6	7.1	320.1
1985	133.7	123.8	9.9	7.4	319.4
1986	134.6	125.1	9.5	7.0	317.0
1987	133.6	126.4	7.2	5.4	316.2
1988	135.7	129.2	6.5	4.8	315.3
1989	138.9	131.4	7.5	5.4	316.1
1990	145.6	138.8	6.8	4.7	316.6
1991	144.3	134.0	10.3	7.1	318.6
1992	143.2	132.6	10.6	7.4	319.0
1993	143.6	134.4	9.2	6.4	317.7
1994	144.0	136.0	8.1	5.6	315.4
1995	143.4	135.4	8.0	5.6	308.3
1996	141.2	133.7	7.5	5.3	302.4
1997	142.8	135.3	7.5	5.2	297.9
1998	142.4	136	6.5	4.5	294.7
1999				4.3	
Source: New York State Department of Labor.					

Since 1992, the economic picture for Oneida County has shown signs of improvement. Although the population continues to fall, the level of employment has actually increased. A good share of the population exodus can be linked to the closing of the Griffiss Airbase. Since military employees are not counted in the labor force statistics, the labor force and employment statistics show little response to the closing of the base, while population decreased by 13 thousand people from 1994 to 1996. In part, the exodus of spouses and family of military personnel may have opened employment possibilities and drawn previously discouraged workers into the labor force. In 1999, the rate of unemployment in Oneida County stood at 4.3 percent, the lowest rate in at least 22 years.

Participation in public assistance programs tends to follow the unemployment rate, but in Oneida County, public assistance participation tells a more mixed story. A combination of falling unemployment rates in the 1990s and the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996 resulted in shrinking caseloads for Temporary Assistance for Need Families (TANF), New York State Safety Net (SN)/Home Relief (HR), and the Food Stamp Program (FS). The Food Stamp Program and Aid to Families with Dependent Children (AFDC), which was replaced by TANF, reached their peak participation in the 1990s in 1994 while SN/HR peaked in 1991. As shown in Table 6, TANF caseloads (measured in households) dropped by 30 percent from 1994 to 1998. Using recently updated data, 1999 average monthly caseloads were 33 percent lower than in 1994[2]. Oneida county residents, who fund 25 percent of TANF and Medicaid benefits, saw their tax burden from TANF drop by 36%. Food stamp usage also declined after 1994, though at a more modest rate. In 1998, food stamp participation was 13 percent lower than in 1994[3]. Home Relief, New York's version of General Assistance, fell throughout the 1990s. From 1990 to 1998, HR participation fell by 56 percent.

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2 National Studies attribute roughly 2/3 of the drop in TANF caseloads since PRWORA to the strong economy and the remaining 1/3 to changes in program changes.

3 Food stamps benefits are federally funded and therefore are not paid for out of local tax revenues. Participation numbers are shown here as an indication of the general economic health of the region, not as a measure of local financial burden.

Table 5: Oneida County Public Assistance Spending and Caseloads, 1987 - 1998 (1997 dollars)

Year	Medicaid*	TANF/ADFC*	Safety Net/Home Relief**	Food Stamps*	Public Assistance Share of O.C. Spending
1987	$14,415,914 (9500)	$5,246,773 (3524)	1707	0 (9440)	0
1988	$14,537,348 (9878)	$5,170,779 (3273)	1551	0 (8821)	0
1989	$14,288,841 (10056)	$4,863,931 (3170)	1754	0 (8421)	0
1990	$16,660,713 (11093)	$5,844,563 (3212)	1803	0 (8544)	0
1991	$19,048,813 (12119)	$6,851,377 (3594)	1905	0 (9299)	0
1992	$20,336,699 (13535)	$6,514,413 (3416)	1638	0 (10165)	0
1993	$22,542,062 (14666)	$6,287,828 (3563)	1812	0 (11035)	0
1994	$23,896,860 (15173)	$6,193,503 (3604)	1658	0 (11316)	0
1995	$24,189,745 (15290)	$5,999,611 (3425)	995	0 (11113)	0
1996	$22,505,857 (15290)	$4,900,031 (3037)	837	0 (11117)	0 7741
1997	$23,616,757 (15830)	$2,686,829 (2637)	831	0 (10481)	0 (7423)
1998	$25,474,854 (15804)	$3,959,402 (2529)	795	0 (9794)	0

*** Participation numbers are correspond to the monthly average number of participants.**
**** The Home Relief participation numbers are for the month of December in each year.**
Source: Oneida County Department of Social Services.

While participation and spending on TANF, HR, and FS all declined after 1994, Medicaid caseloads continued to increase as they have throughout the 1990s. Adjusting for inflation, Oneida County's share of Medicaid benefits was 53% more in 1998 than in 1990. The 15,804 average participants per month in 1998 was up by 4,711 over 1990, an increase of 42%. On the one hand, one should not be surprised at these numbers. The PRWORA of 1996 decoupled TANF and Medicaid making it easier for households not participating in TANF to qualify for Medicaid coverage. The large increase in participation from 1996 to 1997 supports this hypothesis. On the other hand, the other components Oneida County's public assistance appear to be improving at the same time more families are needing and using Medicaid. Total employment is up, unemployment is low, and reliance on TANF and food stamps is falling. In combination, these observations lead to several possible explanations, and there may be some truth to all of them. First, health insurance is becoming harder and harder for the average or low wage worker to afford, leading to higher rates of Medicaid usage. Second, while employment is

high, wages for new jobs are not sufficient to pay for health insurance. Finally, while health insurance used to be automatic, employers may be cutting back on fringe benefits, forcing workers to make the choice between buying health insurance or not. In any case, the Medicaid numbers indicate a significant and growing share of Oneida County residents without private health insurance.

5. The Impact of Refugees on Local Labor Markets

The impact of refugees on the local economy depends largely on how refugees fit into the local labor markets. While data are insufficient to provided precise answers, this section addresses the questions: What types of jobs and wages are refugees getting? Are refugees crowding natives out of the labor market? Does the increase in labor supply appear to be driving wages for native workers down?

5.1 Types of Jobs

Refugees come with a wide range of skills, education, training, and work experience. Yet, moving directly into those occupations is difficult for most refugees, especially in the short term. Insufficient language skills, occupational licensing, and regulations form significant barriers to smooth transition into local labor markets. For example, someone trained as a lawyer in Bosnia cannot simply begin to practice law in Utica, NY. At a minimum it requires taking the state bar exam and probably requires additional schooling because of differences both in the educational requirements and the content of law between U.S. law and law in their country of origin. Such difficulties exist for a wide array of occupations from nursing to plumbing.

When refugees arrive in Utica, they sign contracts agreeing to accept work whenever they are able and whenever jobs are available. While all refugees receive intensive English training, the duration of such education depends, in part, on the availability of employment. When jobs are easy to find, ESL training may be as short as two months, a time period far too short for most refugees to become proficient in the English language. This limited English training has a tremendous impact on the types of jobs that refugees tend to take.

The MVRCR keeps data on every refugee who comes to Utica, including information on the jobs into which they are placed. While preserving worker confidentiality, they were kind enough to provide data on the types of jobs and wages for every refugee in their database, which begins in 1989. Because some refugees were placed in jobs more than once, I use only the most recent job for each individual, resulting in a database of 2986 jobs. Table 6 presents the numbers of jobs, percent of jobs, and hourly wages for the ten most common job titles. The table is sorted from the most common job to the least (among the top ten). All told the top ten job types account for 73 percent of all jobs. The remaining 27 percent are spread among a large number of job titles and employers.

It is important to keep in mind that these jobs are the initial jobs for Utica's refugees. The MVRCR keeps no formal records after the first year, so it is difficult to estimate the share of workers who remain at their initial jobs, the average duration of the initial job, or the types of jobs into which these workers transition. Work by Coughlan and Owens-Manley, which focuses

on refugees who have become citizens or who have purchased houses, suggests considerable labor mobility among these subgroups. However, their research also suggests that there remains a serious mismatching of refugee skills and jobs four and five years after arriving in the area.

The most common initial jobs for refugees are jobs that require little training and relatively low levels of English proficiency. Small manufacturing assembly work is easily the most common work for refugees. Of the nearly 3000 jobs, 26.7 percent of all refugees went into assembly jobs. Another 15 percent went into sewing jobs. The remaining 60 percent of jobs were more evenly distributed with production workers and machine operators being the next most common jobs. The sixth through tenth most common job titles each accounted for roughly three percent of initial jobs.

Table 6: Ten Most Common Refugee Job Titles

Job Title	**Number of Refugee Workers Placed**	**Percent of all Refugee Jobs**	**Average 1999 Wages for Refugee Workers**
Assembler	798	26.7%	$6.50
Sewer	445	14.9%	$6.25
Production worker	206	6.9%	$7.25
Machine Operator	166	5.5%	$7.50
Presser	114	3.8%	$6.82
Nurse Aide	100	3.3%	$7.25
Greenhouse Worker	98	3.3%	$5.54
Folder	96	3.2%	$6.00
Meat Cutter	91	3.0%	$6.50 * 1998 data
Laborer	87	2.9%	$6.80 * 1998 data
Total	2201	73.7%	
2986 jobs recorded. Source: Mohawk Valley Resource Center for Refugees.			

It should come as little surprise that the wage rates for these initial jobs is relatively low, ranging from $5.54 for greenhouse workers to $7.50 for jobs as machine operators. These jobs require little if any experience and the training investment is minimal. It should be emphasized again that these jobs are initial jobs. To the degree that refugee workers are mobile, a topic about which little is known, the table should not be used to imply the total number working in these occupations. Most, but not all, refugees' first jobs are in traditionally low-wage jobs requiring little formal training. Some refugees do find higher paying jobs, although less than 2 percent of refugees start out in jobs paying $10/hour or more. Among those jobs that do pay well, there is no job title paying more than $10/hour in which more than 3 refugees are employed. The top 10 paying job titles for refugees' initial jobs are listed below in Table 7.

Table 7: Top Ten Paying Job Titles

Job Title	Hourly Wage in 1999
Mason	$23.00
Draftsman	$16.00
Construction Worker	$14.45
Laborer	$13.60
Supervisor	$11.80
Teacher, English as a Second Language	$11.45
Insurance Sales	$11.25
Laboratory Technician	$11.0
Loader	$10.65
Maintenance Workers	$10.60
Source: Mohawk Valley Resource Center for Refugees.	

The higher paying jobs generally require previous training and experience and do not tend to be jobs typically classified as professional jobs. In some cases, such as the teachers and supervisors listed above, it is the refugee's relative mastery of the English language that qualifies them for jobs that are high-paying relative to most refugee jobs.

While the MVRCR is contractually obligated to assist refugees for a period of one year after their arrival, the center has recently launched an effort to improve the job matches for refugees. The job placement contracts may not allow refugees to go straight into the work they are trained to do, but the center hopes to assist the refugees in developing strategies for moving into meaningful and fulfilling jobs. The MVRCR has hired an additional staff member whose chief responsibility is to determine each refugee's past experience and education or training and then to assist refugees in reentering jobs similar to those held in their previous country.

Beyond one year, relatively little is known (or at least formally recorded) as to the Utica refugees job mobility and economic success. Coughlan and Owens-Manley interviewed two groups of Bosnian refugees: those who have attained U.S. citizenship and those who have purchased houses in the area[4]. Of the refugees they interview, most are not working for their initial employer or in their initial job. Current jobs include: city planner's assistant ($28,000 per year); teacher ($40,000 per year); Human Resource Clerk ($11,000 per year); computer programmer ($28,000 per year), machine operator ($18,500); molding mechanic ($20,000); receiving clerk ($24,000); truck driver ($30,000); grinder ($19,200). While the Coughlan and Owens-Manley research is difficult to quantify, it does suggest that at some refugees are able to move from their initial jobs into better paying jobs. In addition, most of the families they interview have more than one worker.

4 As will be discussed later in the report, Bosnian households have purchased a large number of houses in the Utica area and seem to be doing so at an increasing rate. Data collected in 1999 showed at least 217 houses purchased and recent estimates suggest a current total of at least 300 houses. There is no data on home purchases for refugees from other countries.

Local newspaper articles and letters to the editor have expressed the obvious concern that refugees may crowd natives out of the local labor market. Others theorize that the availability of refugee labor will attract employers to the area. Such new businesses would not only employ refugees, but also employ natives and may potentially bring new taxpayers into the area. A direct and thorough answer to the question of crowding out would require a level of data not currently available. For example, time series data on population show the area population decreasing over the last 20 years. Some of the population decreases can be traced to major corporate shutdowns and to the closing of the Griffiss Airbase. We know little, however, about the demographics and socioeconomic characteristics of those who leave. Unfortunately, households who leave the area are not questioned as to their reasons for leaving. And those businesses that have moved into the area are reluctant to list the availability of refugee labor as a reason for coming to the Mohawk Valley[5].

To address the question indirectly, I use data from the New York State Department of Labor on job openings in June 1999 and a separate database on registered jobs seekers in the same month. The data represent only a share of the total number of opening and job seekers as not all employers contact the NYS job placement offices and not all job seekers register for employment services with the DOL job placement services. However, the DOL is the largest database available for this purpose and all people receiving unemployment benefits are registered for with the job placement service automatically[6]. Moreover, not all job seekers are unemployed; some are simply looking for better work. Nonetheless the Department of Labor data are instructive. In Table 8 I present the June 1999 job openings and job seekers data by occupation and combine this with the initial jobs data on refugees' first jobs **over the last ten years**. The table attempts to show where the refugees tend to find jobs relative to the rest of the job-seeking pool and to the number of openings in the various occupational classes.

Whereas a large proportion of job seekers are looking for managerial, professional, or technical or sales positions, refugees rarely enter into these positions. Table 8 shows that 46 percent (top three rows) of job seekers are seeking jobs in these three occupational categories. Only 5 percent of refugees find managerial, professional, or technical or sales positions. In fact only 11 refugees have ever been placed directly into managerial or professional jobs. About 40 percent of the job openings are in the service sector. This was the only sector where the number of opening was

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5 Attempts were made to contact Utica businesses. These effort were abandoned when businesses refused to answer.

6 There are many business providing employment services in the Mohawk Valley, but adding the databases together would double count businesses or individuals registered with more than one service.

Table 8: Job Openings, Seekers, and Refugee Workers

Occupation	Current Openings in June 1999	Current Seekers in June 1999	Seekers/ openings, June 1999	Initial Refugee Jobs since 1989	Initial Refugee jobs/Current Openings
Managerial	107	304	2.84	2	0.02
Professional	120	365	3.04	9	0.08
Technical, Sales, Admin Supp	723	1539	2.13	148	0.20
Service	1141	820	0.72	315	0.28
Farming	3	46	15.33	114	38.00
Precision Production	251	501	2.00	490	1.95
Operatives	529	1182	2.23	1901	3.59
	2874	4757	1.66	2979	1.04

Sources: New York State Department of Labor and Mohawk Valley Resource Center for Refugees.

greater than the number of seekers. The final column shows that the total number of refugees who have taken service jobs is less than 30 percent of the number of jobs advertised in a single month. In contrast, refugees appear to take a larger share of the job openings in the agricultural occupations. Most of these agricultural jobs are at local greenhouses, jobs that pay among the lowest of all refugee jobs.

A vast majority of refugees gain jobs in the precision production or operative and laborers categories. In fact 80 percent of refugees have been placed in jobs in one of these two categories. Again, the language requirements for these jobs explains a large share of the reason refugees are taking these jobs. About 35 percent of job seekers, who also include refugees registered through the state employment service, are looking for these production, machine operator, and laborer jobs. While it is impossible to determine if refugees have increased unemployment among natives, if such substitution has taken place, you expect it to be in the precision production or operative and laborer occupations.

There is little evidence that refugees have hurt the employment opportunities of native workers. As shown in Table 4, employment has been relatively stable in the late 1990s while the population has decreased. The result has been declining unemployment rates. Native workers now face the lowest unemployment rates in the last 20 years. Some may counter that the refugees effect is being under counted since many of those pushed out of jobs have left the area. It cannot be said with any certainty, that native population outflows would have been lower had the refugees not been coming. Yet the native outflows have so far outnumbered the inflow of refugees.

To the degree that crowding out is real, that refugees have displaced native workers, it would have to be in the small assembly and sewing jobs and to an even lesser degree in the production and machine operator jobs, jobs which pay generally low wages. A similar argument applies to

the question of the impact of refugees on wages. Such impacts are likely small, likely localized to a small sector of Oneida County, and likely localized to a small sub-sector labor market.

One final piece of information is helpful in sorting out the crowding out puzzle. The MVRCR works hard to place refugees only in jobs that provide health insurance benefits. Given that many smaller employers cannot provide health insurance benefits and that jobs that pay relatively low wages are much less likely to offer health insurance benefits, refugees take a very selective share of the low wage jobs available. This may be viewed in two ways. First, one may conclude that the refugee impact, to the degree that there is one, is on an even smaller sector of the labor market. Or, one may conclude that in that smaller area, the impact must be even stronger. Disentangling this puzzle would require far more data than is currently available.

6. An Accounting of the Fiscal Benefits and Costs

6.1 Composite Household

To predict the costs of future waves of refugees, I use the average characteristics of all refugees households arriving between 1990 and 1999 to define the typical or composite household. Naturally, as refugees come their families or households differ in many ways. Some may have one adult while others have three or 4 adults and several children. Finding the exact cost for each family type would be cumbersome. Because the purpose is to predict future costs, and because

Table 9: Means and Descriptive Statistics for Composite Refugee Household

Variable	Mean	Std.Dev.	Min	Max
Tenure in U.S. (In Years)	4.80	3.07	0.68	11.52
Household Size	3.23	2.22	0	19
Number of Children	1.27	1.67	0	15
Number of Adults	1.95	1.07	0	8
Age of Householder	29.72	14.22	0.09	89.84
Householder > 60 years of Age	0.05	0.21	0	1
Householder Married	0.53	0.50	0	1
From Bosnian	0.47	0.50	0	1
From USSR	0.26	0.44	0	1
From Vietnam	0.22	0.41	0	1
From Eastern Europe	0.02	0.13	0	1
From Africa	0.02	0.13	0	1
From Cuba	0.01	0.09	0	1

N= 1415 households
Source: Calculations based on data from the Mohawk Valley Resource Center for Refugees.

we have no information on the characteristics of future refugees, our best guess is that future households will be, on average, similar to the refugees who arrived from 1990 to 1999.

The data on refugees come from the Mohawk Valley Resource Center for Refugees. The data set includes limited information on most refugees who arrived in Utica between 1989 and 1999, and who did not move out of the area. Altogether there are 1415 households in the sample and 4567 individuals. A household is defined as all people living together at a particular address or

dwelling. The average tenure in the U.S. of those in the data is about 4.8 years. Table 9 displays the mean characteristics of the households in the data.

The composite household has 3.22 people, including 1.27 kids and 1.95 adults. The average age of the adults in the household is less than 30 years of age, while the average age of the children in the household is 9.2 years of age. Only 4 percent of the households are headed by an elderly person and only 3.7 percent of all refugees who arrive are greater than 65 years of age. About one-half of the adult householders are married. Finally, the composite household is 48 percent Bosnian, 26 percent Russian (former Soviet Union), and 21 percent Vietnamese.

6.2 The Refugee Center

The Mohawk Valley Resource Center for Refugees is an affiliate of the Lutheran Immigration and Refugee Service (LIRS). Given its nearly $1.7 million budget (1999), one may ask whether the operation of the refugee center itself is a cost to the community. Certainly newspaper articles in the Observer Dispatch have suggested that County tax dollars help support the refugee center's operations. In fact, the operation of the refugee center, apart from the flow of refugee who come because of it, is more likely to be a benefit than a cost to the community.

The MVRCR operates largely on private donations from outside the Mohawk Valley and from public and private grants. The primary funding comes from two sources, the LIRS and State Grants which transfer competitive state and federal funds to the refugee center. The LIRS administers funding from the Office of Refugee Resettlement (ORR) for all the local resettlement costs of refugees, $270,000 in 1999, and an additional $370,000 for operations. Resettlement costs include the first month's rent on an apartment, furniture, food, hygiene kits, and a small amount of cash intended to get the families through the first couple of weeks in Utica. Money from the LIRS funds 38 percent of the MVRCR expenses.

A majority of the New York State grants, which finance over one-half the expenses of the refugee center, are federal dollars. More than 50% of the state funding comes from the U.S. state department budget. Another $250,000 or 30 percent of the NY funding, comes from federal block grants for targeted assistance. This funding is distributed based on the percentage of refugees in the county population. These federal monies are allocated to the 30 counties in the U.S. with the greatest percent of new refugee arrivals in the last three years. The money is available strictly for employment services.

revenues come originally from state and federal revenues. Roughly 2 percent of the MVRCR budget comes from the Oneida County Health Department to fund translators for the county's tuberculosis clinic. However, this money comes from the State of New York Health Department from monies which they receive from the federal government's Center for Disease Control. Another 2 percent of the center's budget comes from the Utica City School District for the rent and janitorial expenses of the classroom space used by the school district for ESL training. Again, this particular funding come from New York State Employment Preparation Education grants to the Utica School District. In both cases, what appear to be costs to local taxpayers turn out to be dollars flowing into Oneida County from the outside.

Table 10: Overview of the 1999 MVRCR Budget

RECEIPTS	Dollars	Share of MVRCR Budget
Receipts from NYS Grants	$854,000	51.11
LIRS	$642,951	38.48
U.S. DHSS	$54,000	3.23
Oneida County T.B. Clinic (Steve Smith mentioned this is State $)	$34,000	2.03
Utica City School*	$35,000	2.09
Other Private and Miscellaneous	$51,000	3.05
Total Receipts	$1,670,951	100.00
EXPENSES		
Payroll	$936,000	56.02
Employee FICA, Insurances, Retirement	$230,486	13.79
Operations and Supplies	$92,245	5.52
Vocational Training and Conference	$22,400	1.34
Capital Expenses, Rent, Building Maintenance Insurance	$83,600	5.00
Other Miscellaneous	$16,200	0.97
REAP Citizenship Spending	$20,000	1.20
Local Resettlement	$270,000	16.16
Total Expenses	$1,670,951	100.00
* This item is for rent of school space for ESL classes and is part of the Utica School Budget. Source: Mohawk Valley Resource Center for Refugees, Annual Budget, 1999.		

While some money in the MVRCR appears to come from local tax revenues, even these **6.3 Education**

The literature on immigration suggests that the costs of education, little of which is funded by the federal government, play a major role in making immigration a net cost for state and local governments. While the average age of refugees is nearly 30 years of age, many families come with children, and these children typically enter the public school system. Therefore there are two types of education costs that must be factored into the fiscal analysis, the cost of English training for all refugees and the cost of general education for refugee children.

Whether education should be included at all in such a question is a debatable question. One could argue that education is a right, like the right to vote, and should not be included in any type of economic analysis. In fact, education is an investment the community makes for everyone who enters the area, not just for refugees. Education costs must be included in a fiscal analysis because they are real costs, funded in part through local taxation. The future benefits of the education expenditures, namely the taxes from future economic activity of adults and refugee children, are also accounted for in this study.

I assume that all refugees needing education reside in the Utica school district. However, the Utica/Rome community does not bear the full cost of educating refugees and their children. State and federal dollars also fund local education. Because the goal of this study is to determine the local fiscal impact, it is crucial to isolate those costs that are borne by local population. For example, according to data from the U.S. Department of Education, in 1999, 36.3 percent of the Utica City school district expenditures on education were paid through locally raised revenue, well below the national average for local contribution of 45.5 percent.

Typically, studies use the average per-pupil cost of education to estimate the cost of adding additional students. With this method, doubling the number of students would double total education costs, a concept that economists call constant returns to scale. I, however, find strong support for the argument that adding additional refugees to the school district increases costs by less than the per student average. Finding the marginal or additional cost of each student added is also a difficult task because it would vary depending on whether the additional student required the hiring of an additional teacher or the building of an additional classroom.

I use a modified average per-pupil cost that acknowledges that there are some costs which are unlikely to change when an additional student is added. It is unlikely, for example that adding additional students will lead to the hiring of an additional superintendent, additional principals or additional custodial or building maintenance staff. Furthermore, given the decreasing Utica population, the refugee influx has not added significant strain on the number of classrooms or buildings. Therefore, building and maintenance costs would be approximately the same whether the refugees came or not. A close review of the Utica School District 1999-2000 annual budget reveals that only 69.5 percent of the expenditures were likely to be affected by the refugee population. These expenditures included teachers' salaries, transportation, special programs and about 86 percent of employee benefits.

The adjusted per-pupil average cost is calculated by multiplying the 69.5 percent adjustment factor by the local share of total expenditures and dividing this number by the number of students enrolled. Using 1999 number, the total local share of school expenditures was $21.87 million including local taxes receivable, payments in lieu of taxes, and taxes on consumer utility bills. Using the October 1999 enrollment of 8,319 students, the adjusted per-pupil local cost is $1827.

In addition to the per-pupil cost above, the special needs of refugees may require additional expenditures, possibly from local funds. Most if not all refugees require extra language training due to low levels of proficiency with the English language, typically for a three year period[7]. The Utica school district currently provides English as a Second Language (ESL) assistance to approximately 1000 students throughout the district, 90 percent of which are refugees. Such training requires additional teaching staff, space, and materials which would not be purchased if not for the influx of refugees.

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7 A 1999 memo to the Utica School Board by Betsy LaPorte, the ESL coordinator for the Utica school district, reports that 90 percent of Limited English Proficient students complete ESL instruction within three years. The remaining finish in the fourth year.

In the 1998-1999 school year, the Utica School District spent an additional $1,467,648 on instruction for students needing language training. Of this, only a small share is funded from the local tax dollars. After deducting Federal funds given through the Emergency Immigration Education Program and Title 1 and the New York State funding from Part 154, local taxpayers paid an additional $158,239 to provide ESL instruction for 882 students. The per pupil costs come to $179 per student per year above the general education costs described above.

Using our profile of the typical refugee family with 1.27 children and the age distribution of the arriving children, the average cost of one year of education for the composite refugee family is $2,548. Again this is the amount paid out of local taxes for the typical refugee household. The simulation result presented later in this report uses the actual age distribution for refugee children upon arrival in Utica to determine the number of years of schooling required for refugee children. As we will see, education is the single greatest current expense of the influx of refugee into the Mohawk Valley.

6.4 Public Assistance

Newly arriving refugees come with few belongings and no means of support. Therefore, for a while they must depend on public assistance to meet their financial needs. The Refugee Center works with DSS to sign refugees up for TANF, Food stamps, medicaid, and any other aid for which they may qualify.

To the degree that local taxes pay for these programs, local taxpayers are picking up the bill for refugee resettlement. (Of course significant numbers of refugees are also working and paying the taxes supporting public assistance also. This will be accounted for in the discussion of benefits.)
In New York, counties contribute about 25 percent of the benefit costs for TANF and Medicaid. Food stamp benefits and benefits through Supplemental Security Insurance, a program for the elderly and disabled, are paid for by the federal government. To the degree that local residents pay for food stamps and SSI, such costs would be the same for local residents no matter where in the U.S. the refugees were located[8]. In addition to benefits, such programs carry significant administrative costs; again, these costs are shared. Because the public assistance programs would be in place without refugees, the addition to administrative costs are likely to be negligible. This section explains the computation of public assistance costs.

To calculated public assistance costs, I estimated program participation equations using administrative data from the Oneida County Department of Social Services. Three separate probit equations are estimated to predict the probability of participation in TANF, Medicaid, and Food Stamps. I estimate program participation as a function of tenure (time since arrival),

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8 No data are available regarding SSI participation among refugees. Only 4 percent of refugees are elderly and most of these live with families. No data are available on the disability status of refugees. While food stamps and SSI are not locally funded, they may be relevant when discussing the benefits of refugee resettlement. This will be discussed below in section 7.

Table 11: Participation in Public Assistance Programs

	Sample Size	Percent Participating		
		TANF	Medicaid	FS
OVERALL	1415	9.5	35.9	14.4
Bosnia	663	10.4	32.9	8.9
Union	368	12.5	52.4	26.3
Vietnam	311	5.8	27	13.8
Other	73	2.7	19.2	6.8
Less Than 4 Years	736	12.8	35.9	10.7
Bosnia	560	10.7	33.6	9.1
Union	95	30.5	63.1	20
Vietnam	63	7.9	23.8	12.7
Other	18	0	5.5	5.5
More than 4 years	679	6	36.1	18.4
Bosnia	103	8.7	29.1	7.8
Union	273	6.2	48.7	28.6
Vietnam	248	5.2	27.8	14.1
Other	55	3.6	23.6	7.3
Household size				
1 to 2 people	619	6.3	27.9	14.7
2 to 4 people	490	9.6	39	14.1
5 to 6 people	190	12.1	44.7	14.7
Mor people	74	24.3	50	13.5
Source: Oneida County Department of Social Services.				

household size, and age of the householder. The estimated equation is then used to predict the probability of participation for our composite household. The key variable in the equation is tenure. As expected, the probability of participation in TANF and Medicaid decreases with time. Tenure does not have a statistically significant relationship to food stamp participation. The total cost of TANF and Medicaid for the composite refugee household is assumed to be the product of the probability of participation in a year, the average number of months on TANF or Medicaid for those who participate, and average monthly benefit for those who participate. Average monthly benefits were calculated from a small random and anonymous sample provide by the Oneida DSS. Alternative approaches may have been to use the maximum grants available for a particular family size or the average grant size for all participants. However, to the degree that

refugees are employed and earning income, benefits may be significantly less than the maximum grant and may be different from the typical program participant.

Medicaid is clearly the most heavily used of the part-county financed programs. However, for those households receiving Medicaid benefits, one cannot assume that the entire household receives the benefit. Nearly all refugees are placed in jobs providing health insurance for the employee. In most cases, the refugee has the option to pay for family coverage although at a significant cost. Therefore, many of the households receiving Medicaid receive benefits for those not covered by the employer's policy.

Table 12: Probit Estimates of Refugee Program Participation

	TANF	Medicaid	Food Stamps
Log of months in U.S.	-.3624 (-5.278)	-.0895 (-1.809)	-.0361 (-0.685)
Household size	.1119 5.707	.0920 (5.863)	.0623 (3.867)
Age of Householder in Years	-.0049 -1.400	.0138 (5.815)	.0137 (5.545)
Constant	-.2219 (-0.777)	-.7384 (-3.470)	-1.199 (-5.287)
Observations	1415	1415	1415
Log Likelihood Ratio, Chi2(3)	63.98	75.99	47.52
Log likelihood	-413.550	-886.363	-755.324
Pseudo R2	0.0718	0.0411	0.0305

As with education, program benefits are projected over time for the typical household and then multiplied by the typical cohort size to determine the local share of the total public assistance costs. These costs are then discounted back to the present. One obvious problem with this approach is that family composition changes over time. In ten years, many of the refugee children will form their own households (which also have some probability of participating in public assistance programs) making the existing households smaller. At the same time, refugee households may have additional children, increasing household size. To avoid having to make assumptions about fertility, family formation patterns and welfare use among yet to be formed households, I assume that the current composite household stays together for the next 50 years.

I am sure that some will think of other costs, some of which will be real costs to local taxpayers, some of which will not. For example public housing and public health costs such as the TB clinic through the Oneida County Health Department are services which benefit refugees and for which they do not pay. Yet neither involves city or county taxes. The maintenance and subsidies for public housing are federal dollars which come through the Municipal Housing Authority. The TB clinic mentioned above receives money from the state health department which again distributes federal monies. For these and any other perceived costs, it must be shown to use actual local tax revenues to be of significant cost to local taxpayers.

6.5 Fiscal Benefits

To qualify as a fiscal benefit, any perceived benefit must pass the same test as the costs; it must result in an increase in local tax revenues over that which would exist in the absence of the refugees. For example, increased sales (and therefore tax revenues) at one store, say one owned by a refugee, is not a benefit if sales are reduced at another store in the tax jurisdiction. Similarly, employing an individual (who would then pay taxes on local consumption) cannot be counted as a benefit if that individual would be employed somewhere else. In both cases, however, if the spending in the area increases, then they would qualify as true benefits.

Unfortunately, benefits are harder to quantify than costs. We know that children go to school and the rate of participation in public assistance programs. Nonetheless, there are some clear and some potential benefits to resettling the refugee population in Utica. For example, to the degree that the refugees increase total taxable consumption in the area, sales taxes revenues increase, lessening the burden on native taxpayers. Refugees also buy houses and pay property taxes. This section describes the fiscal benefits to the community and lays out the assumptions and rationales for these benefits.

Earnings

Of course, one of the key determinants of the economic contribution of refugees to the local fiscal picture is the degree to which refugees participate in the labor markets. Refugee earnings are not a direct benefit to the community, but assumptions on earnings are necessary to determine the degree to which the refugees benefit the local economy. Ideally, such data would be available from a large cross-section of refugees who have been in Utica for varying periods of time or a panel data which follows the same refugee households over time. With such data we could observe employment rates and average wages as a function of tenure in the U.S. Unfortunately, little direct information is available regarding the employment and wage picture of the refugees.

We know most about the employment situation of refugees when they first begin working. After several months of English as a Second Language training, all working age adults must enter the labor market and must accept any job that comes their way. The employment office at the MVRCR works hard to place the refugees with employers offering health benefits (not necessarily paid by the employer) and in jobs with possibilities of advancement, a tough standard considering the language barriers the refugees must still overcome. Unfortunately, many of the jobs offer little possibility of advancement.

Using data provided by the refugee center, I can identify the first employment situation, including their hourly wage and job title. Typically, refugees retain the first job, at least through the first year during which the refugee center remains in relatively close contact. After the first year, very little is known about the labor supply of refugees. We must, therefore, develop wage profiles based on indirect information such as job titles and public assistance participation. For example, knowing that roughly 35 percent of households participate in Medicaid tells us that the median household income is above the poverty line, the cutoff for Medicaid.

Other recent research about a small subset of local refugees also gives clues. Coughlan and Owens-Manley conducted interviews with two groups of successful refugees, those who have gained citizenship and those who have purchased housing. Although this research samples those who have been most successful, the research demonstrates that some refugees are finding higher paying jobs. For example, they interview refugees who work as a paralegal, a city planner, an accountant, a part-time teacher at SUNY/IT, an educational coordinator, a realtor, and a computer programmer. These positions pay between $21,000 - $40,000 per year.

The Coughlan and Owens-Manley research does not demonstrate the typical earnings path, but it does demonstrate that many refugees do relatively well in local labor markets. Instead, the simulations below use the typical wages from the jobs data provided by the MVRCR. It should be emphasized that the jobs database contains information only on the first job that each refugee takes, or in some instances a second job if people switch jobs during the first year. In 1999, the average starting pays was $6.40, while in 2000 (January through April) starting wages averaged $7.18. Therefore, we assume that the starting wage of our composite individual is $7.18 in year 1 which translates to an annual income of $14,360. Following the previous literature on immigrants, I assume that wages will increase by three percent per year (in real terms).

Household income depends not only on the wage rate but on the number of workers and the number of hours worked. The number of potential workers for this study is1.95, the number of adults in our composite refugee household. Coughlan and Owens-Manley find that a high percentage of families with two adults have both adults working, typically full time. Initially, nearly all adult refugees work full time, and many work more than one job. Long term, less is known.

Given little is known, I make assumptions as to the employment rate and hours worked for the first adult and the remaining .95 adults in the composite household. The simulation assumes an employment rate of 95 percent for the first adult in the household. We know that about nine percent of the refugee households receive TANF and data on a sample of those on TANF suggests that roughly one-half of those on TANF are also employed. The remaining five percent are unemployed. I assume an employment rate of .80 for the remaining adult (actually .95 of an adult). All workers are assumed to work 40 hours per week. At this rate, our composite households are predicted to earn an average of $26,000 per year.

Sales Taxes

The most direct fiscal benefit of refugee resettlement is the tax revenue the county and city collects on taxable consumption. In Oneida county, food, and medications are exempt from local sales taxes. Therefore, refugees pay sales taxes on the portion of their incomes spent on items other than housing, food and health care. Nationally, low-income households spent approximately 20% of their budget on food. In addition, of the 65 percent of households not on medicaid, the typical health insurance contributions are an estimated $1500 per year. In addition, housing expenditures for the typical household of 3.22 people is estimated to be the cost of a two-bedroom apartment in Utica, $335 per month or $4020 annually. Given the local share of sales taxes is 2 percent, sales taxes from a single refugee household are calculated using the following formula: Sales Tax = [80 percent of Earnings - $1500 - $4020] x 2 percent.

Property Taxes

Over the last five years, hundreds of refugees have purchased houses, mostly within Utica. Many of theses houses were off the tax rolls or in danger of falling off. The refugees also improve the houses they buy, raising not only their own property values but also the value of the entire housing stock.

Predicting future benefits depends not only on the number of houses already purchased, but on the future demand. The most accurate data available concerns homes purchased by Bosnian refugees in Utica. As of October 1999, 217 Bosnian refugee households had purchased houses in Utica, roughly one-third of all Bosnian households. Since October, Bosnian families have continued to buy houses at a rapid rate, boosting unofficial estimates to roughly 300 home purchases. If no other refugees had purchased houses, this would mean that 20 percent of the 1415 refugee families in our database had purchased houses. There is plenty of anecdotal evidence that other refugees are buying houses, although the Bosnian refugees may be buying at a higher rate.

The net fiscal benefit simulations for refugee households, including future households from unknown countries of origin, use relatively modest estimates of home ownership. I assume that the probability that a composite refugee buys a house in Utica is zero for the first three years. In year four the probability of owning a house jumps to .20 and increases by .02 annually until it reaches a maximum of .60 in year 24. The probability remains at 0.60 for the rest of the household's lifetime.

The children of refugees may also purchase houses. The stream of children's home purchases is more complex due to the age distribution, years of education, probability of renting and the probability that they leave the area. After all these assumption are made, the simulations assume that it takes 20 years for home ownership among children to reach 40 percent. Given rates of exodus, home ownership among children is maxed at 50 percent rather than the 60 percent for the adults. I assume a typical annual property tax of $2000 per house owned. Given these assumptions, the composite refugee household pays an annual property tax of $650 in year five.

Those not living in owner-occupied housing either live in private apartments or in public housing. It is reasonable to assume that those in privately owned apartments share a portion of the rent paid by the landlords. Certainly, if 1,000 refugee households who rent were to leave Utica tomorrow, tax collections on these properties would be affected, particularly because the native population is also leaving the area. The simulations attribute a 20 percent share of the property taxes on rental units to the refugee renters.

The total property tax paid by the composite household is the sum of the owner-occupied and renter's share of property tax. Total property tax revenues from the original family unit start at $340 per household in year one and reach $1000 per household in year 14. The children's property tax in year 14 adds another $156 to the original household's annual property tax contributions.

Increased Property Values

Whereas adding one refugee household to the pool of home buyers may not affect housing prices in Utica, adding a large number of households each year will. Refugees represent the fastest (and perhaps, only) growing segment of the local population of home buying age. Not only do refugees buy houses, they affect the property values of other home owners. Utica's housing market has suffered many years of population decline, migration to the suburbs, and increasing inner city poverty rates. Combined, these factors have had adverse effects on property values in the city. Anecdotes abound as to the positive effect that refugees home purchases are having on the community. Dilapidated homes are being renovated, and once failing neighborhoods are being beautified. Yet, placing a value on the impact of such changes on property values is an imprecise exercise.

Using the Utica City School Board budget, I estimate the total value of taxable property to be $1.13 billion. The estimate is based on collections of $19.1 million with a school tax rate of 16.37 per thousand. I speculate that property values are 1 percent higher in Utica due to the flow of refugees into the area. In some neighborhoods the impact may be much higher while in others the refugee effect may be negligible. The willingness of refugees to buy inner city homes may increase demand for houses outside of the Utica City School District. The simulations assume there is no effect on housing values outside of Utica.

Tax Leakages on Public Assistance

Refugees bring with them an array of outside monies from sources such as food stamps, SSI, and On-the-Job Training grants. While spending on these programs cannot be counted as benefits to the community (they are consumed by the refugees), there may be local tax leakages from the additional spending. The simulation adds up the estimated benefits from the primary transfer programs and assumes that 80 percent is spent on taxable consumption which is taxed at a 2 percent rate. The result is a small annual benefit in the range of $10-15 per household.

The Refugee Center

The refugee center itself contributes to the fiscal health of the community. It employs approximately 40 people, adding to total employment in the area. The simulation counts tax leakages from MVRCR payroll spending as benefit to the community.

How Many Would Have Left?

The million dollar question, perhaps literally, is what would have happened if the refugees had not come to Utica. Would more or fewer people have left? Would wages be higher or lower? Would there be fewer business? These are central, not peripheral questions. Yet answering any of these questions precisely would be impossible. I simply point out that the simulations presented below are intended to add information to the decision-maker's pool of knowledge. It is always the reader's prerogative to add information where crucial items have been omitted.

For example, perhaps the flow of refugees has encouraged one employer of 100 people to remain in the area. Holding on to that one employer saves local taxpayers money that would have gone to TANF, Home Relief, or making up for lost property taxes. A firm of 100 people paying an average of $25,000 per year would add nearly $1.6 million in spending on taxable items resulting in sales taxes of $31,168. In addition, property taxes on the business and perhaps lost property taxes on other real estate would add to the loss. Adding in this type of savings, say $65,000 per year for this one business establishment, would result in greater benefits than the simulations show.

7. Simulation Results

he ultimate question concerns whether refugees are a net fiscal benefit or net fiscal cost to the natives of the Mohawk Valley. This study finds the resettlement of refugees in Utica to be similar to any major investment; refugees are a net cost in the early years and then yield benefits for many years to come. In the long run, the MVRCR's efforts to resettle refugees in Utica, quite apart from any non-fiscal benefits, is a net fiscal benefit to the community. To reach this conclusion, I simulate the benefits and costs over time for the composite household. Because the refugees come in large numbers each year, I also simulate what I would call a typical year, a year in which 750 refugees arrive. Using our composite household of 3.22 people, this equates to 233 households. Finally, because such cohorts arrive each year, I simulate overlapping waves of 233 households per year. The results are presented below in Table 13.

Table 13 presents results for each of the three simulations. For each, I present a stream of 50 years of predicted net benefit. Benefits are adjusted for inflation and expressed in discounted or present value terms. The discounting reflects the reality that any money invested in refugee resettlement could have been invested otherwise. For example, given the choice and assuming zero inflation, most people would rather have $10,000 today than $10,000 ten years from now. If given $10,000 today, it could be invested and be worth far more than $10,000 in ten years. Therefore, I discount all future benefits and costs to present value terms.

The single household results simulate the net benefits for the composite household. The household is assumed to stay in Oneida County and results are projected out 50 years. In the early years, the household is a net cost to the community, although the net cost diminishes each year. The cost diminishes over time for a number of reasons. First, public assistance participation declines slightly over time. Second, the number of refugee children in school declines as the older children graduate. This becomes stronger over time as initially younger refugees enter school as the older children leave school. Rising wages and increased probability of home ownership also lead to smaller net costs over time. Annual net benefits become positive for the individual household in the thirteenth year. The cumulative discounted benefits remain negative for the first 30 years.

Table 13: Simulated Annual and Cumulative Discounted Net Benefits

	Single Household		233 Households		Overlapping Waves	
Year	Annual	Cumulative	Annual	Cumulative	Annual	Cumulative
1	-4413	-4413	-590207	-590207	-590207	-590207
2	-3403	-7816	-364129	-954336	-954336	-1544543
3	-2984	-10800	-180328	-1134664	-1231236	-2775779
4	-2330	-13129	-63263	-1197927	-1369185	-4144964
5	-2111	-15240	-31831	-1229758	-1468045	-5613009
6	-1926	-17167	-7048	-1236806	-1535657	-7148666
7	-1524	-18691	58469	-1178337	-1524656	-8673322
8	-1224	-19915	103988	-1074349	-1458429	-10131751
9	-937	-20852	146652	-927696	-1340386	-11472137
10	-659	-21511	186901	-740796	-1173422	-12645559
11	-399	-21910	223409	-517387	-961974	-13607533
12	-147	-22057	258122	-259265	-708208	-14315741
13	99	-21958	291182	31916.68	-414121	-14729861
14	338	-21620	322698	354614.9	-81580.7	-14811442
15	571	-21048	352757	707372	287647.3	-14523795
16	799	-20250	381429	1088801	691883.4	-13831911
17	971	-19279	400232	1489033	1119568	-12712343
18	1135	-18144	417390	1906423	1568726	-11143617
19	1290	-16854	433032	2339455	2037533	-9106084
20	1368	-15486	435687	2775142	2510806	-6595278
21	1444	-14042	437942	3213083	2988025	-3607253
22	1458	-12584	430238	3643321	3457537	-149716
23	1471	-11113	422662	4065983	3919444	3769729
24	1483	-9630	415225	4481208	4373860	8143588
25	1479	-8151	405437	4886645	4817999	12961588
26	1475	-6676	395991	5282637	5252220	18213807
27	1471	-5204	386882	5669519	5676871	23890678
28	1468	-3736	378102	6047621	6092295	29982973
29	1465	-2271	369644	6417265	6498830	36481803
30	1463	-809	361498	6778763	6896801	43378604
31	1461	652	353658	7132420	7286530	50665134
32	1459	2111	346114	7478534	7668327	58333462
33	1458	3569	338858	7817392	8042496	66375958
34	1457	5026	331883	8149275	8409330	74785288
35	1457	6482	325179	8474453	8769117	83554405
36	1457	7939	318739	8793192	9122133	92676538
37	1457	9396	312554	9105746	10058855	102735393
38	1458	10854	306616	9412362	10763259	113498652
39	1460	12314	300919	9713281	11374448	124873100
40	1462	13776	295453	10008734	11840946	136714046
41	1464	15240	290213	10298947	12262850	148976896
42	1467	16708	285189	10584136	12648233	161625128

43	1471	18178	280376	10864512	12949953	174575081
44	1475	19653	275767	11140279	13191612	187766693
45	1479	21132	271354	11411632	13376829	201143522
46	1484	22616	267131	11678764	13508701	214652223
47	1489	24105	263093	11941856	13591859	228244081
48	1495	25601	259232	12201089	13628659	241872740
49	1502	27102	255544	12456632	13621281	255494021
50	1509	28611	252021	12708653	13571769	269065790
Source: Author's calculations.						

The single household simulations do not take into account the fiscal benefit of the MVRCR or the effect of the refugee influx on property tax collections. These two effects require large numbers to come into play. If I convert property tax revenue increases and increased sales taxes due to the refugee center into per household terms, then an individual household becomes an annual net contributor to the fiscal picture in year 7 and becomes a cumulative contributor in the twelfth year in the Utica area.

The second set of simulations accounts for the fact that in a typical year we can expect upwards of 750 refugees to arrive. Using 750 people, there are 233 composite households in the typical year. These full cohort simulations now incorporate the property value effects and factor in the benefits of the refugee center itself. Furthermore, the assumption that the household stays in Utica is now relaxed by allowing 15 percent of refugees to leave the area after the first two years. As with the single household simulations, 80 percent of the children are expected to stay in the area.

The annual net benefit for a full cohort is negative for the first six years and positive every year afterwards. Again, the education and public assistance costs overwhelm benefits in the early years. After six years, the annual benefits become stronger than the annual costs. This does not imply that the costs of such factors as Medicaid and TANF are reduced to zero. These costs remain, although they do diminish somewhat over time. Rather, other positive benefits due to increased participation in labor and real estate markets now become stronger than the negatives. After 13 years, the cumulative net benefit becomes positive and continues to increase for every year after.

The final two columns of Table 13 report simulation results for overlapping waves of refugees, such that 233 households arrive every year. These simulations probably best depict Utica's reality. In this case, the period of negative net annual benefits is longer than for the single cohort because the largest costs come in the early years. In this simulation the cumulative benefit is negative for 22 years and becomes positive in year 23. This suggests that after 23 of operation, the total effect of a continual flow of 233 refugee households per year will be and will remain positive.

8. Sensitivity Analysis

The results in any analysis are based on a combination of observed data and a set assumptions made by the researcher. Some assumptions must be made to capture the best guess as to present and future conditions and simplify analysis. For example, I assume that future cohorts of refugees will be similar to the composite household, the average of all past waves of refugees. Of course, not a single cohort will look exactly like the composite, but it is my best guess as to the typical characteristics of future refugees.

Given that the simulations make use of a long list of assumptions, the results are likely to be affected by the reasonableness of such assumptions. If it is more reasonable to assume that future waves of refugees will look more like the refugees of the past 5 years rather than those arriving more than five years ago, then the assumption is open to criticism. One way of determining the degree to which assumptions affect the final results is to run the analysis under various assumptions. If the final results don't change when we change an assumption, say by using the characteristics of recent arrivals, then we have determine that the results not sensitive to that particular assumption.

The major assumptions for this study are listed in Appendix 1, and some may be more contentious than others. Some of the major assumptions concern the rate of wage increases, the degree of labor market participation, the stability of patterns of public assistance usage, the propensity to move outside the area, the impact on local real estate prices, and the appropriate rate of discounting of future benefits and costs.
I conduct sensitivity analyses on three types of assumptions: the social discount rate, the rate of future wage increases, and the impact of refugees on local real estate markets.

The discount rate is a key parameter in any analysis. Determining the discount rate is akin to asking how much society values receiving a sum of money, say $100, at some time in the future. If the current value is less than the $100, then some mechanism must be put in place to discount future benefits and costs. I run the simulations at three alternative values (three, four, and five percent) that roughly define the range considered reasonable in the benefit-cost literature. The results are relatively robust to a change in the discount rate. Lowering discount rate to three percent shifts the first year of positive net benefits to year 15 rather than year 13. Increasing the discount rate to five percent has no effect on the break-even year, but reduces the estimated long-term benefits.

Results are quite sensitive to the effect on local housing prices. I assume a 1 percent increase in housing prices after the 3rd year of residence. This is a cumulative effect and is assumed to be fixed over time. Removing the price effect reduces the most significant benefit of the refugee influx. As opposed to a single cohort breaking even in 7 years, with no real estate effect it takes 13 years to break even. When I apply this to a model overlapping cohort it takes 35 years to reach the first positive net-benefit year. Cumulatively it would take much longer to break even. In a market with higher housing prices or a smaller share of low-priced housing we would be unlikely to see the positive effects of refugee immigration.

Finally, I reran the model with a variety of assumptions on wage growth and labor force participation. Given the "best guess" model assumes real (above inflation) wage growth rates of 4 percent for the main earner and 3 percent for the second (partial) earner. To determine the sensitivity of the results to the wage growth assumptions, I also try wage growth rates of zero and six percent. As expected, slowing the wage growth rate to zero increases the break-even year, extending it from 13 to 15 years. Increasing the wage growth rate steepens the net-benefit profile, but does not change the break-even year. The relatively small effect of these changes suggest that small changes in the wage growth rate will have little effect on the overall results presented in the report.

9. Concluding Remarks

For 25 years, the Mohawk Valley Resource Center for Refugees has been welcoming refugees to Utica. The refugees come with few possessions and with little, if any, preparation for the life that awaits them in central New York. Yet this humanitarian effort also involves the entire community as these refugees become users of publicly funded services and contributors to the payment of those services. This report attempts to do what no previous research has done, determine whether refugees ultimately contribute more than they take out of local tax payments.

While the returns are slow and modest in magnitude, this research finds refugees to be net contributors. The initial costs which local taxpayers fund are significant and include costs for education and public assistance. In the first year in Utica, education costs make up 40%, Medicaid 26%, and TANF 34 % of the total taxpayers costs for refugee households. Over time, the TANF costs drop quickly, children move out of the school systems, and Medicaid usage drops although not as quickly as some might hope. At the same time, their participation in labor markets (and therefore consumption of local goods) and real estate markets leads to growing benefits for the community. Simulations which add together all the identified and quantifiable fiscal costs and benefits finds that refugees ultimately give more to the community than they take away.

If the simulations are accurate, the fact that the refugee center has been operating for 25 years suggests that we have recently reached the point where cumulative fiscal benefit of the influx of refugees positive. While new waves of refugees bring new costs, the net annual and cumulative benefits will remain positive from now on.

Figure 1: Component of Population Change, Utica-Rome MSA

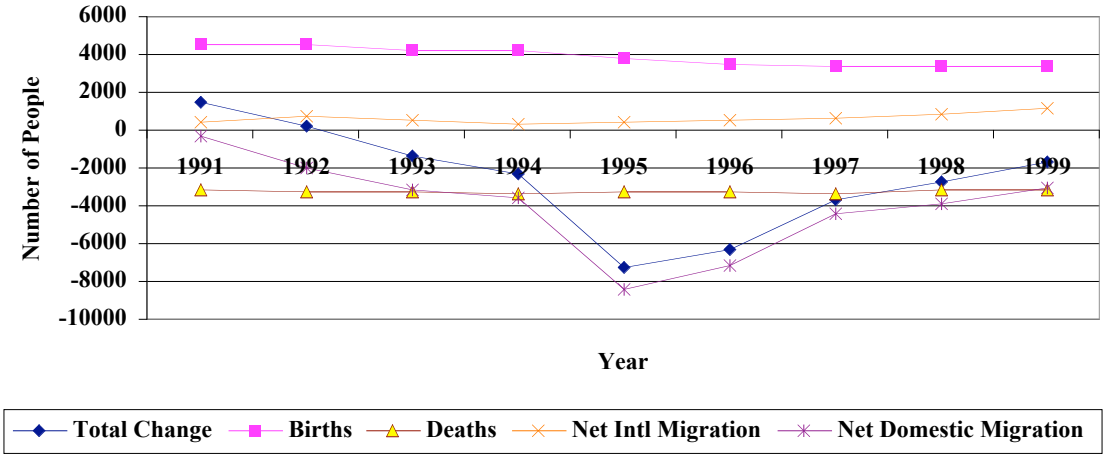


Figure 2: Number of Employees by Indust

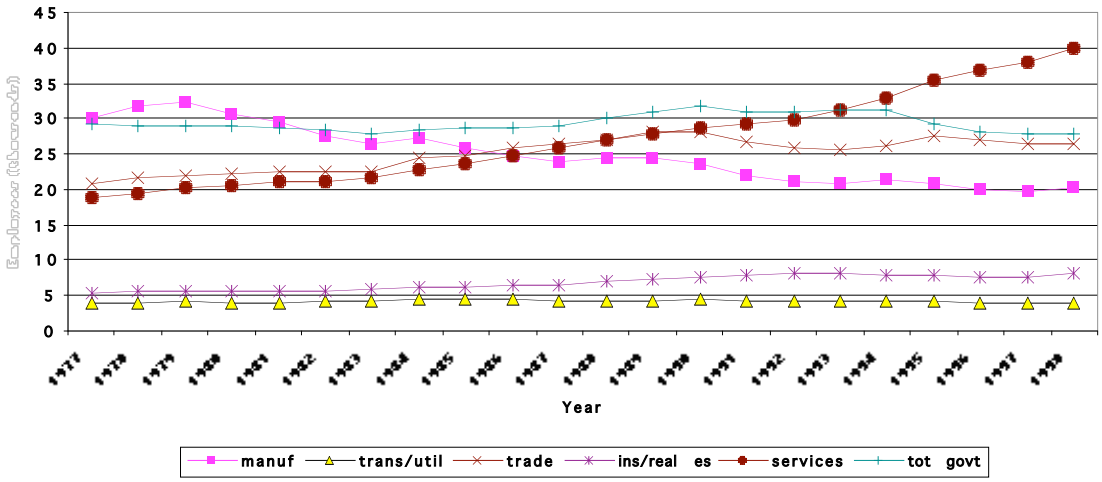


Figure 3: Unemployment and Unemployment Rate: Utica-Ror

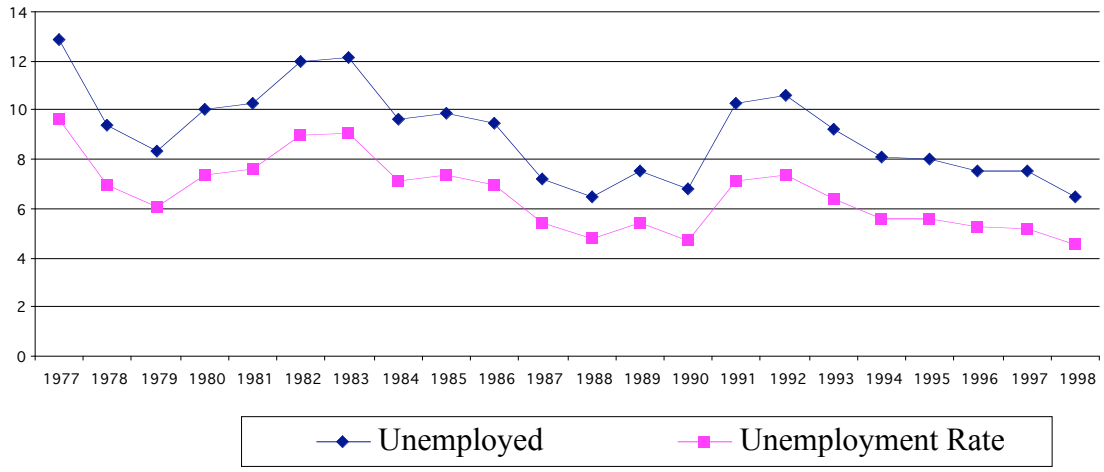


Figure 4: Annual Net Cost For a Single Household that St

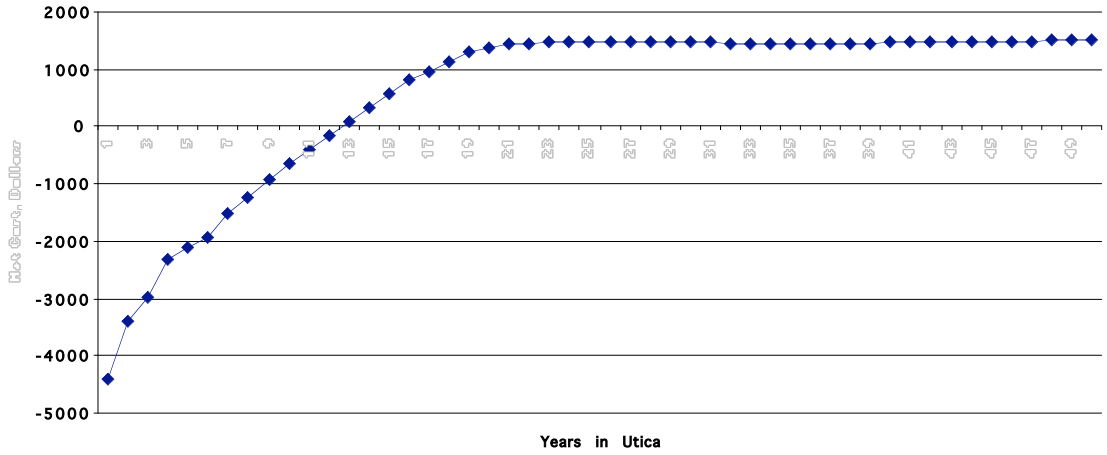
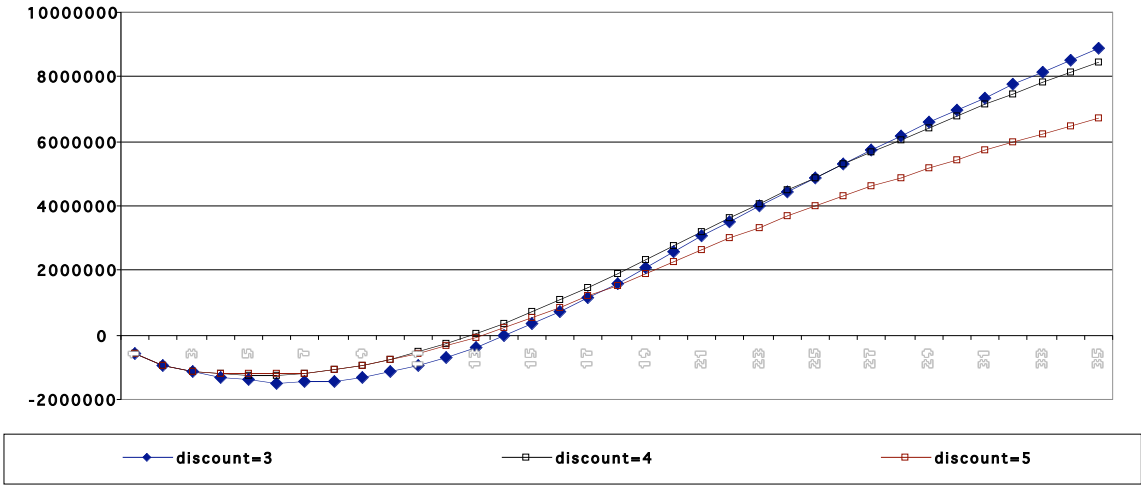


Figure 5: Discounted Annual Benefits for Overlapping Cohort
Alternative Discount Rates



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