

# MAINE DEPARTMENT OF LABOR

## Special Report

*September 2006*



## Employment and Earnings Outcomes for Recently Arrived Refugees in Portland, Maine

*By: Ryan Allen*

## **Acknowledgements**

The author gratefully acknowledges the support of the Maine Department of Labor and the assistance of Catholic Charities Maine Refugee and Immigration Services, without which this report would not have been possible.

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## **Employment and Earnings Outcomes for Recently Arrived Refugees in Portland, Maine**

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July 2006

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This study was performed under a contract with the Maine Department of Labor, Division of Labor Market Information Services, using administrative funds provided under the Maine Employment Security Law.

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## Preface

Maine's population is growing slowly and is among the least diverse of all 50 states. Our workforce is dominated by "baby boomers", the generation born between 1946 and 1964. These two important facts have very significant implications for the future of the Maine economy. As the current workforce moves toward retirement, a growing need for replacement workers will emerge across the spectrum of industries and occupations. In addition, for the Maine economy to continue to grow, new workers with diverse skills sets will be needed. An available and qualified labor supply remains a key driver for Maine's future.

Foreign-born workers have become a major source of labor supply throughout the United States and New England over the last ten years. While there have been some efforts to resettle refugees in the Portland area and a growing immigrant population has settled in the Lewiston-Auburn region, Maine overall has not experienced the influx of foreign born groups consistent with national trends. Refugees and immigrants however represent an increasingly important source of labor supply for the State of Maine. We must become more adept therefore at effectively integrating these groups into the labor market. Cultural differences, language barriers and limited work experience all contribute formidable challenges as these workers seek to make their place in the Maine economy.

This study has been funded so that we can learn more about how refugees and immigrants who come to Maine enter the world of work and make their place in it. While the data for this study specifically comes from refugees who were resettled in the Portland area, the findings have broader implications for immigrant groups and foreign born workers throughout Maine. It is our hope that policymakers, program planners and developers and the many staff who work directly with these groups will find this study of use.

This study is part of a longer term research strategy initiated by the Maine Department of Labor and Governor's Workforce Cabinet to learn more about labor market experiences of Maine workers including those looking for their first job. Other studies in this series are focusing on the labor market experiences of laid off manufacturing workers, rural residents, college students and young high school graduates. We are most appreciative of all the Maine workers and employers who contribute information and insight about the workings of the labor market.

For more information about the work of the Division of Labor Market Information Services, please contact John Dorrer, Director (207) 287-2271 or email [John.Dorrer@maine.gov](mailto:John.Dorrer@maine.gov)

## Executive Summary

Maine faces the problem of an aging labor force. An aging labor force is cause for concern because economic growth for the state depends in part upon the size and capacity of the labor force. An expanding labor force and a healthy economy is usually linked to a young and diverse population that participates in the labor force at a very high rate. It is likely that this relationship will continue in the future: in the next 10 years, a significant proportion of the growth in the U.S. labor force will occur because of the presence of workers who arrived in the U.S. as immigrants or the children of immigrants.

The presence of an aging labor force is particularly problematic for the State of Maine, because there is not a diverse labor force present in the state to help balance the looming retirement of workers currently in the labor force. However, in contrast to most of the rest of Maine, the City of Portland has a relatively high percentage of foreign-born residents, many of whom arrived in the city as refugees, or individuals who fled conflicts in their countries of origin and found safety in the U.S. Until now there has been little systematic knowledge about how these individuals have fared in Portland's economy.

Using a unique database comprised of demographic data from Catholic Charities Maine Refugee and Immigration Services and employment and earnings data from the Maine Department of Labor, this report describes the demographic characteristics, employment patterns, and earnings of adult refugees who arrived in Portland, Maine between 1998 and 2004. This information indicates the extent to which refugees have succeeded in Portland's economy.

This report has five major findings:

1. **Refugees in Portland have increased Portland's diversity and injected a substantial number of working-aged adults into the labor force.** In fact, over 90 percent of recently arrived refugees came from a country in Africa or Eastern Europe; about 75 percent were between the ages of 18 and 44; and 85 percent have found work since they arrived in Maine.
2. **The Administrative and support services industry emerged as the most important source of employment for refugees.** Almost all of the refugees who worked in this industry

worked for a temporary help services business. Nearly half of the refugees who worked in Maine found their first job at a temporary help services business. The industry remained an important source of employment for refugees: about one-fifth of the refugees who worked in Maine worked at a temporary help services business in their most recent job. However, employment in this industry is correlated with low earnings.

3. **The average earnings of recently arrived refugees increased over time, but they still earned significantly less than typical workers in Portland.** On average, recently arrived refugees had about three and one half years of employment activity in Portland and over this period their inflation adjusted earnings increased by about 15 percent. However, the average earnings of recently arrived refugees in their most recent year of work was just over half of the amount earned by a typical worker in Portland.
4. **Refugees who worked consistently and stably earned substantially more and experienced greater economic mobility than those who worked inconsistently and unstably.** These disparate outcomes are due, at least in part, to the large amounts of work experience in Maine gained by refugees who worked consistently and stably.
5. **Economic success for recently arrived refugees was concentrated among those who were well educated and spoke English when they arrived in the U.S.** Experience in an industrial economy resembling Portland's economy also seemed to give a refugee an advantage. Refugees from Eastern Europe, who probably had work experience in an industrial economy that was most similar to Portland's, fared best: their inflation adjusted earnings increased over 25 percent during their time in Portland. On the other hand, the earnings of refugees from Africa were nearly stagnant and the earnings of refugees from the Middle East decreased during their time in Portland.

With these findings in mind, it is important to consider the creation or conversion of programs and resources to meet the needs of the highly diverse refugee population in Portland. The intensity of assistance offered to refugees should match the intensity of need: with appropriate programs and re-

sources, refugees in Portland will become self-sufficient more quickly and help to improve Portland's economy at the same time. This report includes three recommendations.

1. **Maine state government, in partnership with employers and refugees, should fund workplace English education courses.** This kind of investment could ease a relatively common dilemma faced by refugees: how is it possible to meet the federal mandate that refugees find employment as soon as possible without limiting their education in the English language that will eventually help with economic mobility? An expansion or replication of an existing state program, the Governor's Training Initiative (GTI), could be the vehicle to implement this recommendation.
2. **Service providers should focus more intensely on refugees who are illiterate in their native languages when providing English language instruction and an introduction to working in Maine.** These individuals may face the most challenges as they look for employment in Maine and work towards self-sufficiency.
3. **The state government, local governments, and the Maine University System should take a more active role in helping refugees translate or adapt their existing skills to the context of the Maine labor market.** A large proportion of refugees arrived in Portland with existing skills that could be valuable in Maine's labor market if they are appropriately translated.

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## Introduction

It is now well established that the labor force of the U.S. is aging. In fact, members of the “baby-boom” generation, which have formed an important part of the U.S. labor force, are poised to retire over the next 20 years.<sup>1</sup> Because baby boomers had fewer children than their parents, the next generation is not large enough to compensate for the loss of these workers. As a result, the labor force participation rate, or the percentage of working aged individuals either working or unemployed and looking for work, in the U.S. has begun to decline and will probably continue to do so for the foreseeable future. In other words, while the population and labor force of the U.S. will continue to grow in the coming years, a shrinking percentage of the population will actually be a part of the labor force.

The declining labor force participation rate has occurred at a time when the labor force in the U.S. is becoming more diverse. Largely because of recent immigration trends, the share of workers with Hispanic and Asian backgrounds in the U.S. labor force has increased dramatically since the mid-1960s. Because of higher fertility and labor force participation rates compared to whites, Hispanic and Asian immigrants continue to increase the size and diversity of the U.S. labor force today.<sup>2</sup> In fact many metropolitan areas in the U.S. have found that without the arrival of large numbers of recent immigrants their labor forces would have been shrinking instead of expanding.<sup>3</sup>

There appears to be a positive relationship between the presence of a diverse work force and the economic health of an area. It is likely that this relationship between a diverse labor force and economic health will continue in the future: in the next 10 years, a

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<sup>1</sup> “Baby boomers” are individuals in the U.S. who were born between 1946 and 1964 – 78 million Americans were born during this period. In 2005, baby boomer ages ranged from 41 to 59 years old.

<sup>2</sup> See Sum, Andrew et al. “Immigrant Workers and the Great American Job Machine: The Contributions of New Foreign Immigration to National and Regional Labor Force Growth in the 1990s,” Boston, MA: Center for Labor Market Studies, Northeastern University, 2002. Accessed on June 16, 2006 ([http://www.nupr.neu.edu/12-02/immigration\\_BRT.PDF](http://www.nupr.neu.edu/12-02/immigration_BRT.PDF)).

<sup>3</sup> See Sum, Andrew et al. “Foreign Immigration and Its Contributions to Population and Labor Force Growth in Massachusetts and the U.S.: A Recent Assessment of 2000 Census and CPS Survey Findings.” Boston, MA: Center for Labor Market Studies, Northeastern University, December 2001 or Paral, Rob and Michael Norkewicz, “The Metro Chicago Immigration Fact Book.” Chicago, IL: Roosevelt University, Institute for Metropolitan Affairs, June 2003.

significant proportion of the growth in the U.S. labor force will occur because of the presence of workers who arrived in the U.S. as immigrants or the children of immigrants. This has not gone unnoticed by many states and localities that now encourage immigrants to settle within their boundaries.

The presence of an aging labor force is particularly problematic for the State of Maine, because there is not a diverse labor force present in the state to help balance the looming departure of these workers from the labor force. According to the 2000 Census, Maine is now the fourth oldest state in the U.S. In addition to being old, Maine is also the least ethnically diverse state in the U.S. – almost 97 percent of the state is white. Despite a recent report by the Census Bureau indicating that Maine has been a destination of in-migrants in the U.S., concerns about the age of Maine’s labor force persist.<sup>4</sup> The combination of an aging labor force and lack of diversity in Maine are two of the major reasons that analysts predict future labor shortages for the state.

However, there are pockets of relative youth and ethnic diversity in Maine that provide a contrast to most of the state. One of these pockets of youth and diversity is Portland, Maine’s largest city. Portland’s population is younger than Maine’s population overall: in 2000 the median age in Portland was 35.7 years compared to 38.6 years in Maine. About 66 percent of Portland’s population is under the age of 45, compared to 61 percent of Maine’s population. Portland’s population is also more diverse than Maine’s overall population. In Portland, about 91 percent of the population is white, still the overwhelming majority, but almost eight percent of the population is foreign born (compared to about three percent in Maine overall). These factors, among many others, have helped to make Portland’s economy among the healthiest of any city in Maine.

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<sup>4</sup> For more information on the net migration in the U.S. see Perry, Marc J. “Domestic Net Migration in the United States: 2000 to 2004,” Current Population Reports, April 2006. Accessed on May 23, 2006 (<http://www.census.gov/prod/2006pubs/p25-1135.pdf>).

The large presence of foreign-born residents in Portland is due primarily to deliberate refugee resettlement that has brought thousands of refugees to the city.<sup>5</sup> In fact, between 1982 and 2000, over four thousand refugees from countries all over the world were resettled in Maine, with the majority resettling in Portland. Almost all of these refugees came to Maine under the auspices of Catholic Charities Maine, a non-profit organization that resettles refugees. More recently, Maine has become a destination for refugees who originally resettled in a different state and subsequently decided to move to Maine (secondary migrants). It is not certain how many secondary migrants have moved to Maine, but unofficial estimates suggest that the number may be as high as 8,000 in the last 10 years (split primarily between Portland and Lewiston, Maine).<sup>6</sup> While there is little doubt that resettled refugees and secondary migrants have enhanced Portland's diversity, there is little systematic knowledge about how these individuals have fared in the economy.

There may be good reasons to question how easily refugees will find success in the economy. In contrast to other immigrants who come to the U.S. explicitly for work, refugees come to the U.S. seeking safety from conflicts and persecution in their countries of origin. Since refugees are not necessarily a self-selected population that comes to the U.S. for the purpose of working, they may face extraordinary challenges as they seek employment in the U.S.

- Because of the circumstances of their departure from their countries of origin – by definition refugees are forced to flee from their homelands – refugees usually arrive in the U.S. with very few financial resources that could make their transitions easier.

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<sup>5</sup> Refugees are individuals who immigrate to the U.S. because they have experienced persecution in their country of origin. The U.S. finances the resettlement of refugees through a public-private partnership with a group of non-profit organizations that place and support refugees in different cities in the U.S. One of the primary goals of refugee resettlement is self-sufficiency for refugees through employment.

<sup>6</sup> This estimate comes from officials at Catholic Charities Maine. The 2010 U.S. Census should provide the best data on how many total foreign-born residents have moved to Maine recently.

- The abrupt exodus from their countries of origin usually means that refugees have planned little for life in a new country, where different skills may be necessary in order to succeed.
- As a result, some refugees may possess few skills that are marketable in the U.S. economy.
- Other refugees may lack the English literacy that could make the skills that they have transferable to a new context.
- Still other refugees may possess credentials and training that are not recognized in the U.S., hampering their usefulness.
- On the other hand, unlike immigrants who come to the U.S. to explicitly look for work, refugees rarely have the option of returning to their countries of origin. With this in mind, refugees may have significant motivation to invest in valuable skills, work hard and “make it” in their new homes.

Self-sufficiency through employment is the number one goal of the refugee resettlement program in the U.S., but faced with these challenges, to what extent have refugees in Portland been able to realize this goal?

This report documents the demographic characteristics, and employment and earnings outcomes for adult refugees who arrived in Portland, Maine between 1998 and 2004. Using a unique database comprised of demographic data from Catholic Charities Maine Refugee and Immigration Services (CCMRIS) and employment and earnings data from the Maine Department of Labor (MDOL), this report describes the demographic characteristics, employment patterns, and earnings of some of Maine’s newest residents. This information indicates the extent to which refugees have worked in Maine’s economy and how much economic mobility they have experienced since arriving in Portland. This kind of information is invaluable for state and local government policymakers, nonprofit organizations, and refugee communities so that, together, these entities can make informed decisions about policies, programs and resources that should be available to help

resettled refugees and secondary migrants on their path toward self-sufficiency in Portland.

## **Data Sources**

The sample of refugees for this analysis comes from one source: the administrative files of CCMRIS in Portland, Maine. Those included in the sample are all refugee clients who used the services at CCMRIS in Portland, Maine between January 1, 1998 and December 31, 2004, and were at least 18 years old as of September 1, 2005. There were 1,106 refugees who met these selection criteria.

The administrative files of CCMRIS are rich in demographic data, but sparser on data regarding employment and earnings. Therefore, employment and earnings data came from the MDOL. On a quarterly basis, MDOL collects employment and earnings information from most employers in Maine. Each quarter, most employers in Maine submit a list of their employees along with the quarterly earnings of each employee to the Bureau of Unemployment Compensation's tax division. These individual-level data on employment and earnings provide a unique insight into the employment experiences of recently arrived refugees in Maine.

Employment and earnings data included in the database span a time period between the first quarter of 1998 and the third quarter of 2005 (the last quarter of data available at the time of this analysis). These data indicate, for each quarter in this time period, whether a refugee worked in Maine (an employment occurrence), how many employment occurrences a refugee had in each quarter, the corresponding industry of each employment occurrence, and how much a refugee earned at each employment occurrence. Connecting the data from CCMRIS and MDOL using the social security numbers of those in the sample yielded a database with rich demographic information on the adult refugee population in Portland, as well as a comprehensive work history in Maine for each adult refugee who worked in the state. After matching the demographic characteristics of each refugee in the sample with employment and earnings data, the social security numbers were deleted from the database to ensure confidentiality. No identifying information, such as name or address, was included in the database. For more information about the steps taken during the research to ensure the privacy of refugees included in the analysis, please see Appendix 1.

## **Limitations of the Report**

This report has a number of limitations. Only those refugees resettled or served by CCMRIS are included in the sample used in this analysis. While CCMRIS is currently the only organization that resettles newly arrived refugees in Maine, a variety of additional organizations, including the City of Portland's Refugee Services Program, help to serve refugees designated as "secondary migrants." A significant number of secondary migrants arrive in Maine each year, primarily relocating to Portland and Lewiston. CCMRIS and the City of Portland each serve secondary migrants that relocate to Portland, but in recent years the City of Portland has served the majority of these individuals. **Any secondary migrant served by the City instead of CCMRIS is not included in the sample upon which this analysis is based.**

Only refugees 18 years or older were included in this sample and the subsequent analysis. **In other words, the analysis focuses on recently arrived adult refugees – those refugees who are most likely to be included in Portland's current labor force.** The children of these adult refugees may be an important part of Portland's labor force in the future, but this report does not attempt to speculate on what their experiences will be.

Employment and earnings data only cover jobs worked in Maine for "covered employers." Maine covered employers are required to report employment and earnings information to the state as required by the Maine Employment Security Law. This law excludes a number of different groups of workers, such as the self-employed, federal or military employees, and individuals working in other states. These individuals are classified as "not employed" within the wage record data, along with any workers who were continuing to search locally for a suitable job or chose to retire or otherwise leave the labor force. Therefore, no further employment information is available for these individuals.

Similarly, informal employment that is not reported to the government is not covered in this analysis. This could be problematic if a large number of refugees are drawn to and earn significant amounts of money from the informal labor market. Should this be the

case, the findings of this report might understate the extent to which refugees are working in Maine and how much they are earning. Currently, no data exist that could shed light on how significant work in the informal labor market is for refugees living in Portland.

The data on employment and earnings do not reveal hourly wages, number of hours worked per week, or occupation. Instead, the data describe gross quarterly earnings that an individual receives for each job held in Maine and the industrial classification of each of those jobs. Therefore, it is impossible to use these data to determine whether a refugee worked full-time or part-time, or what his or her occupation was. However, the data on employment and earnings are very accurate – we can be certain that the employment occurrences and earnings reported to the state by employers describe in a comprehensive manner the jobs where refugees worked in Maine’s formal economy and the income that they earned in return for their labor.

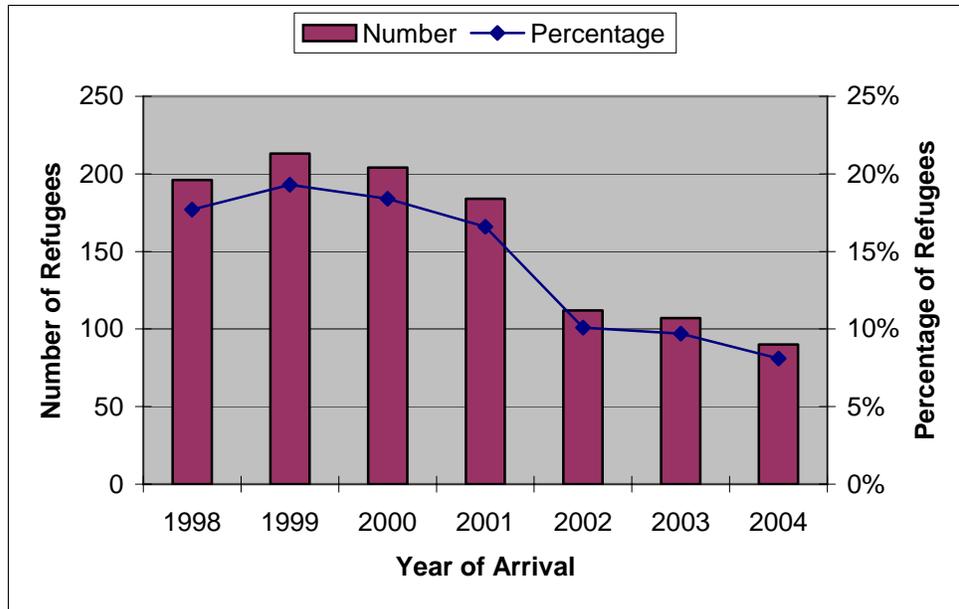
Finally, the data used in this report cannot be used to determine why a refugee did not work. The data reveal whether or not a refugee had a job in the formal economy in a given quarter. If a refugee does not have a job in a given quarter, it is unclear from these data why he or she was not working, or possibly working in the informal economy.

The remainder of this report is divided into five major sections. The first section describes the demographic portrait of recently arrived refugees in Portland. The second section focuses on employment and earnings patterns for recently arrived refugees as a group. The third section divides recently arrived refugees into four groups according to differences in work patterns and examines demographic, employment and earnings differences between them. The fourth section highlights employment and earnings differences among recently arrived refugees according to six important demographic characteristics: age, gender, region of origin, educational attainment, level of English fluency, and time spent in Maine. The report concludes with a fifth section that discusses policy recommendations based on findings from the report.

## I. Demographic Analysis of the Sample

The 1,106 adult refugees in this sample arrived in Portland between 1998 and 2004, but starting in 2002 the number of adult refugees who arrived declined dramatically (**Chart 1**). For example, 186 adult refugees arrived in Portland in 2001, compared to only 112 in 2002. This pattern was driven by a similar pattern at the national level, as the U.S. admitted fewer refugees in response to heightened security concerns in the wake of the September 11<sup>th</sup> terrorist attacks. For example, according to the U.S. Office of Refugee Resettlement, the U.S. admitted a total of 69,304 refugees in 2001, but only 27,110 refugees in 2002.

**Chart 1: Adult refugee arrivals in Portland, ME between 1998 and 2004, by year of arrival**



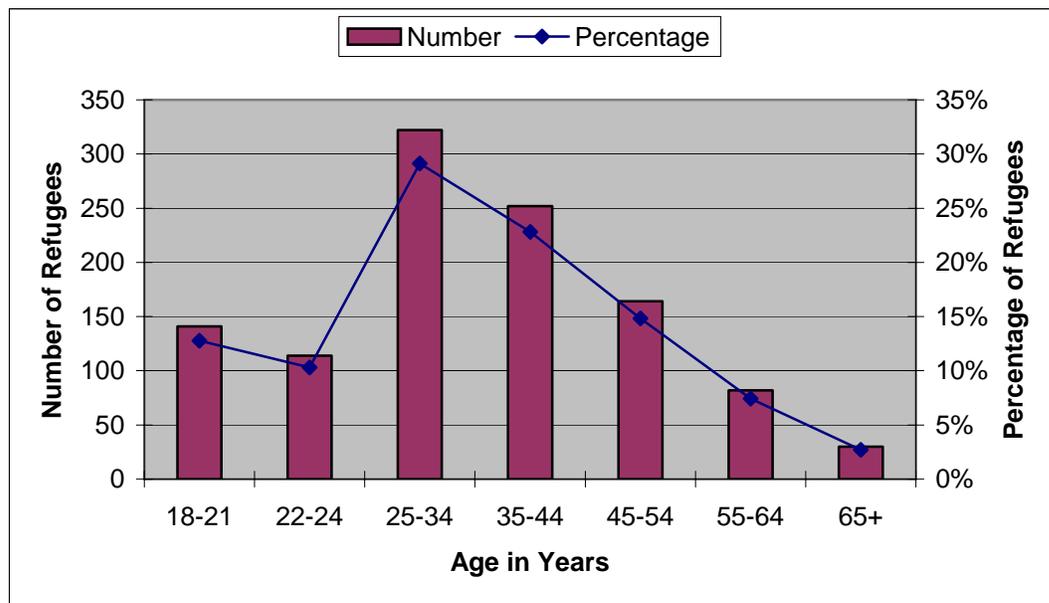
Refugees who arrived in Portland between 1998 and 2004 represented a variety of backgrounds, differing significantly in age, gender, region of origin, educational attainment, and level of English fluency (**Table 1**).

**Table 1: Key demographic differences among refugees who arrived in Portland, ME between 1998 and 2004**

<b>Refugees in Portland (N=1,106)</b>	
Age (mean/median)	35.7 / 33
Age at arrival in ME (mean/median)	31.0 / 29
Number (%) younger than 18 at arrival in ME	151 (14%)
<b>Gender</b>	
Male	622 (56%)
Female	482 (44%)
Not Available	2
<b>Region of origin</b>	
Africa	630 (57%)
Eastern Europe	389 (35%)
Middle East	71 (6%)
Other	15 (1%)
Not Available	1
Visible minority	716 (65%)
<b>Educational attainment</b>	
Higher	155 (16%)
Secondary	418 (44%)
Primary	225 (24%)
None	146 (15%)
Not Available	162
<b>English fluency</b>	
Good	167 (20%)
Fair	186 (22%)
Poor	52 (6%)
None	443 (52%)
Not Available	258
<b>Refugee type</b>	
Reunification	772 (70%)
Free	333 (30%)
Not Available	1
<b>Refugee status</b>	
General	863 (78%)
Secondary migrant	220 (20%)
Asylee	22 (2%)
Not Available	1
Months in US (mean/median)	59 / 61
Months in ME (mean/median)	56.1 / 59
Quarters in ME (mean/median)	18.7 / 20

The sample had more men (622, 56 percent) than women (482, 44 percent) and had a mean age of 35.7 years (median = 33 years).<sup>7</sup> As **Chart 2** indicates, about 75 percent of the refugees in the sample were concentrated between the prime working ages of 18 and 44 years old. It is worth noting that 151 individuals (14 percent of the sample) arrived in Portland when they were minors (under the age of 18 years old).

**Chart 2: Current ages of adult refugees who arrived in Portland, ME between 1998 and 2004**



Refugees in the sample came from countries from around the world, but over 80 percent of the sample came from Somalia, the Sudan, and the former Yugoslavia. For the sake of simplicity, the sample was divided by region of origin into refugees from Africa, Eastern Europe, the Middle East, and Other countries.<sup>8</sup> About 65 percent of the refugees

<sup>7</sup> The age of refugees was calculated by subtracting their date of birth from September 1, 2005, an arbitrarily chosen date.

<sup>8</sup> Africa includes Sudan, Somalia, Congo, Liberia, Rwanda, Nigeria, Togo, Ethiopia, and Burundi. Eastern Europe includes the former Yugoslavia and the former Soviet Union. The Middle East includes Iran, Iraq, and Afghanistan. Other regions include countries in Asia, Central America, and South America.

in the sample could be classified as a visible minority, meaning that their physical features likely make them identifiable as an ethnic minority in Maine.

Educational data available for those in the sample suggest varied educational experiences for refugees in Portland. Educational attainment prior to arrival in the U.S. was reported for 944 individuals (85 percent of the sample). Among those in the sample for whom educational attainment was known, the vast majority (798, 85 percent) had attended at least some school prior to their arrival in the U.S. Since refugees came to Portland from a variety of countries, each with a unique education system, grouping refugees from different countries according to “common” educational attainment levels may be problematic. In other words, a secondary education in an Eastern European country may not be comparable to a secondary education in an African country. It is useful to keep this point in mind when focusing on outcomes between refugees with different educational attainment levels.

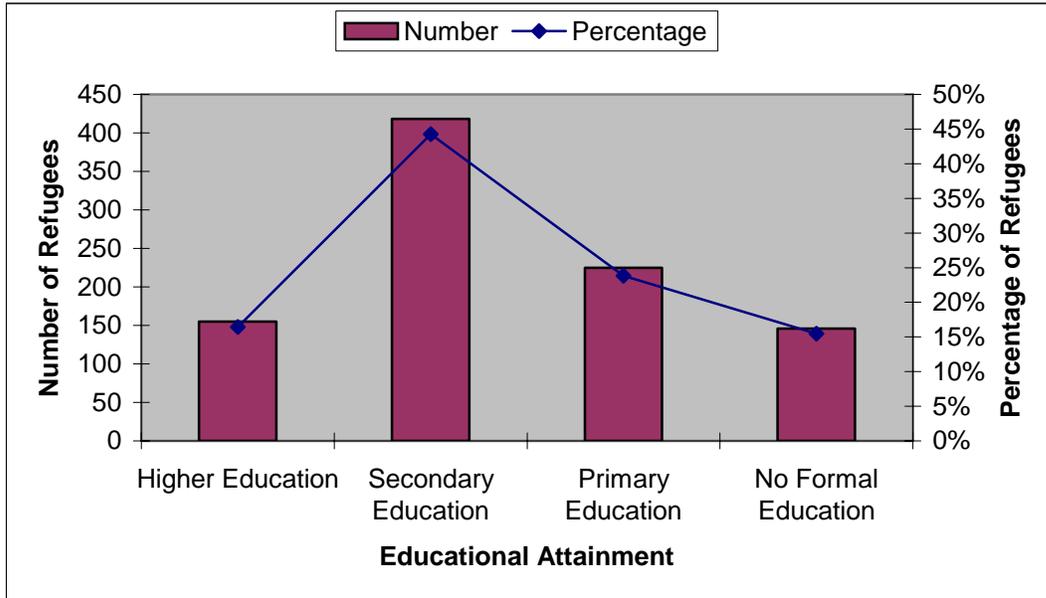
Refugees in Portland were less educated relative to Portland’s population overall. According to the 2000 Census, about 62 percent of Portland’s population had some form of higher education.<sup>9</sup> In contrast, about 16 percent of refugees in Portland were similarly educated. It is worth noting that the individuals in the sample who arrived in Portland when they were under the age of 18 most likely received at least some formal education in Portland’s school system, and that many refugees of all ages receive additional education after arriving in Portland (e.g., English classes, GED, and college). **Chart 3** illustrates the educational attainment for adult refugees who arrived in Portland between 1998 and 2004.<sup>10</sup>

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<sup>9</sup> This proportion includes individuals aged 25 or above who had attended at least some college, graduated from a two-year degree program, graduated from a four-year degree program, or graduated from an advanced degree program.

<sup>10</sup> Higher education includes a technical school, college, or graduate school; secondary school includes attendance at a high school or the attainment of a high school degree; and primary school includes those with eight or fewer years of formal education.

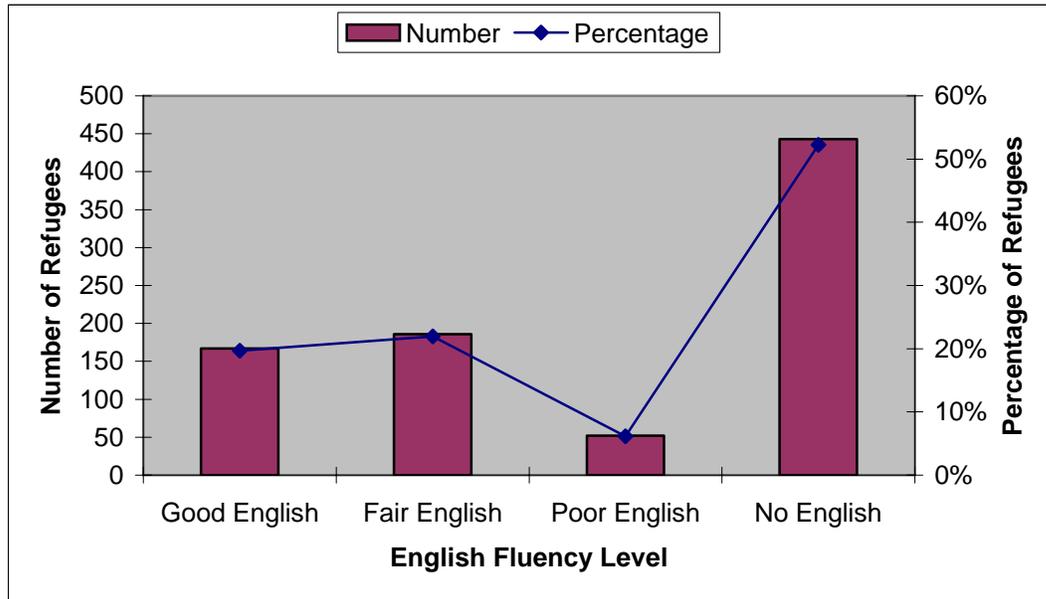
**Chart 3: Educational attainment prior to arrival in the U.S. for adult refugees who arrived in Portland, ME between 1998 and 2004**



Level of English fluency varied widely in the sample, though a slight majority of adult refugees spoke no English when they arrived to Portland. Level of English fluency was known for 848 individuals (77 percent of the sample). Among those for whom level of English fluency was known, about 40 percent spoke “Good” or “Fair” English when they arrived in Portland (**Chart 4**).<sup>11</sup>

<sup>11</sup> English fluency is usually based on the subjective assessment of a refugee’s spoken English during processing in a country of first asylum. In the case of a secondary migrant, English fluency is based on a subjective assessment of spoken English by staff at Catholic Charities Maine Refugee and Immigration Services.

**Chart 4: Level of English fluency for refugees who arrived in Portland, ME between 1998 and 2004**



The majority of refugees in the sample (772, 70 percent) came to Portland as a reunification case, or a refugee who had a family-member or close friend sponsor them. The remaining refugees (333, 30 percent) came as free cases, or a refugee who arrives without a family-member or close friend as a sponsor. This may be an important distinction, since, at least initially, reunification cases may rely on case managers at CCMRIS and the individuals sponsoring them for resettlement assistance, while free cases may be mostly dependent on case managers at CCMRIS for resettlement assistance.

Refugees are also classified into one of three status determinations: general refugee, secondary migrant, or asylee.<sup>12</sup> For the purposes of this report, unless stated otherwise, the term refugee will be used to refer to all three of these statuses. Refugees in each of these statuses can be either a reunification case or a free case. In this sample, the ma-

<sup>12</sup> A general refugee is an individual gaining refugee status before he/she enters the U.S., who is assigned to a particular resettlement city and elects to stay in this city. A secondary migrant is an individual gaining refugee status before he/she enters the U.S., who is assigned to a particular resettlement city and elects to move from this city to another city in the U.S. An asylee is an individual who arrives in the US on a visa other than a refugee visa and then applies for asylum in the U.S. It can take several years before a pending asylum application is processed in the U.S.

majority of refugees were general refugees (863, 78 percent), followed by a significant number of secondary migrants (220, 20 percent) and a relatively small number of asylees (22, 2 percent).

Refugees in this sample spent a substantial amount of time in the U.S. and in Maine, based on their date of arrival and an arbitrary cut off date of September 1, 2005. Those in the sample were in the U.S. for an average of 59 months, or just under five years. Those in the sample were in Maine for an average of 56.1 months, or just over four and a half years. Because data regarding employment in Maine is available only on a quarterly basis, it is useful to calculate time spent in Maine in quarters as well. Those in the sample lived in Maine for an average of 18.7 quarters. The amount of time spent in the U.S. and Maine differed because of the presence of secondary migrants in the sample.

The amount of time spent in the U.S. and Maine is an estimate, because data on those refugees who may have chosen to leave Maine are unavailable. Therefore, the assumption was made that refugees who came to Maine have remained in Maine. Once refugees come to the U.S., very few permanently resettle in a different country or repatriate to their country of origin. Therefore, the calculation of the time spent in the U.S. is probably very accurate. However, it is well established that secondary migration is a significant issue for refugees in the U.S. While some of the refugees in this sample have probably left Maine, it is nearly impossible to determine which of these refugees have left.

Fortunately, data from the Office of Refugee Resettlement (ORR) do not indicate that Maine is a state particularly known for its out-migration of refugees. If anything, Maine seems to be a destination state for secondary migrants. Between fiscal years 1999 and 2004, the ratio of secondary migrants arriving in Maine to those leaving Maine was approximately 11 to 1.<sup>13</sup> In other words, for every 11 secondary migrants arriving in

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<sup>13</sup> For example, ORR data indicate that Maine received 480 secondary migrants between FY1999 and FY2001, compared to losing 45 refugees to other states during the same time period. The trend was similar between FY2002 and FY2004: Maine received 525 secondary migrants and lost 47 refugees to other states during this time period. These data were obtained from the Office of Refugee Resettlement by the author. It

Maine, one refugee left Maine. If this trend is accurate, the vast majority of refugees included in this sample still live in Maine, making the estimates of the amount of time spent in Maine accurate as well.

The difficulty in tracking secondary migrants who have left Maine may be alleviated in the future because of a data source known as the Wage Records Interchange System (WRIS). This system allows states to share wage records with each other for Unemployment Insurance purposes. In addition, the system has occasionally been used to track employment and earnings outcomes for individuals who have moved from one state to another. Access to this system would allow the tracking of refugees that originally resettled in Maine, but subsequently decided to move to another state.

This sample indicates recently arrived adult refugees in Portland are exceedingly diverse. The good news for Maine's economy is that the vast majority of these adult refugees arrived in Portland during their peak working years. Additionally, most arrived with at least some education and almost half spoke at least some English. What effect did these demographic characteristics have on the employment and earnings outcomes of recently arrived adult refugees? The next section explores how these adult refugees fared in Maine's economy.

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is important to note that these data regarding secondary migration are imperfect. The Office of Refugee Resettlement knows about a secondary migrant's presence in another state only if that secondary migrant applies to a government human service department or a voluntary resettlement organization for some kind of assistance. Secondary migrants who do not apply for any assistance or do not supply a Social Security Number to an agency that provides a service are not captured in these data. Therefore, the data indicated here may significantly underestimate the size of the secondary migrant population in Maine.

## II. Employment and Earnings

Refugees in the sample were matched to every employment occurrence they had in Maine between the first quarter of 1998 and the third quarter of 2005 in the employment and earnings records. Of those included in the sample, 943 (85 percent) worked at least once in Maine. The remaining individuals in the sample (163, 15 percent) did not appear in the employment and wage records.

What differences were there between those in the sample who worked in Maine and those who did not? As **Table 2** indicates:

- Those who worked in Maine were about five years younger than those who did not work in Maine.
- A higher proportion of those who did not work in Maine were female and from Africa.
- Those who worked in Maine tended to be better educated and speak better English compared to those who did not work in Maine.
- Those who worked in Maine tended to live in the state an average of one year longer than those who did not work in Maine.

**Table 2: Key demographic differences between adult refugees in Portland who worked and those who did not work in Maine**

	Work in Maine (N=943)	No work in Maine (N=163)
Age (mean/median)	34.9 years / 33 years	39.7 years / 35 years
Gender		
Males	550 (58%)	72 (45%)
Females	393 (42%)	89 (55%)
Not Available	0	1
Origin		
Africa	524 (56%)	106 (65%)
Eastern Europe	347 (37%)	42 (26%)
Middle East	57 (6%)	15 (9%) <sup>a</sup>
Other	14 (1%)	--
Not Available	1	0
Educational Attainment		
Higher	138 (17%)	17 (13%)
Secondary	384 (47%)	34 (26%)
Primary	191 (23%)	34 (26%)
None	102 (13%)	44 (34%)
Not Available	128	34
English fluency		
Good	155 (21%)	12 (11%)
Fair	166 (23%)	21 (19%) <sup>b</sup>
Poor	51 (7%)	--
None	364 (49%)	79 (71%)
Not Available	207	51
Months in US (mean/median)	60.9 / 63	50.4 / 54
Months in ME (mean/median)	57.7 / 60	46.9 / 48

a = Middle East + Other, b = Fair + Poor

## Employment Trends

As **Table 3** indicates, those in the sample who worked in Maine found employment relatively quickly: the median number of quarters between arriving in Maine and finding employment was one quarter. In fact, 75 percent of those working in Maine had found employment within two quarters after arriving in Maine. Not all of those in the sample found work so quickly. The mean number of quarters between arriving in Maine and finding employment was 2.3 quarters and the maximum number of quarters between arriving in Maine and finding employment was 25 quarters.

Working at a job in Maine signaled that a refugee was “employable.” The number of employable quarters for each refugee who worked in Maine was calculated by counting the number of quarters between his or her first and most recent employment occurrences. On average, 14.6 quarters elapsed between a refugee’s first and most recent employment occurrences. However, a refugee may not have worked in every one of his or her employable quarters. Refugees who worked in Maine actually worked in an average of 13.2 quarters. In other words, individuals in the sample who worked in Maine actually worked in about 90 percent of their employable quarters (work consistency).

Work consistency indicates the extent to which a refugee who theoretically could work in Maine did work in Maine, but other measures are needed to assess their work stability. For example, how many employers did a refugee have over a given period of time and how long did he or she work for each employer? Individuals in the sample who worked in Maine worked for an average of 4.7 employers between their first and last employment occurrences. They worked an average of 3.5 quarters for each of their employers. However, there was significant variation in the average number of quarters worked for each employer: 25 percent of the refugees averaged less than two quarters of work for each of their employers, while another 25 percent averaged over one year of work for each of their employers.

**Table 3: Employment data for working refugees who arrived in Portland, ME between 1998 and 2004**

<b>Refugees working in Maine (N=943)</b>	
Quarters until 1 <sup>st</sup> employment occurrence (mean/median)	2.3 / 1
Quarters between 1 <sup>st</sup> and most recent employment occurrences (mean/median)	14.6 / 13
# quarters with at least one employment occurrence (mean/median)	13.2 / 13
% of employable quarters with at least one employment occurrence	90%
Number of employers (mean/median)	4.7 / 4
Number of quarters worked per employer (mean/median)	3.5 / 2.7

In which industries did refugees in Portland work? Evidence from the sample indicates that, for their first employment occurrences in Maine, refugees concentrated in relatively few industries (**Table 4**).<sup>14</sup> In fact, in their first employment occurrence, 43 percent of refugees who worked in Maine found a job in the Administrative and support services industry, making it the most likely “entry” industry for refugees who worked in Maine. Almost all of the refugees who worked in this industry worked for a temporary help services business that places workers in other businesses on a temporary basis. Since the refugees were technically employed by a temporary help services business, it is not clear in which industries they actually performed their labor. The temporary help services businesses in Portland place workers in businesses in industries ranging from light manufacturing to retail. Therefore, the employment experiences and earnings of workers employed by a temporary help services business are likely to differ substantially. Accommodation, and Food services and eating and drinking places were also prominent industries where refugees found their first jobs, employing 14 percent and seven percent of refugees respectively in their first employment occurrence. No other industry employed more than five percent of working refugees in the sample in their first employment occurrence in Maine.

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<sup>14</sup> In some cases, refugees had multiple employment occurrences in different industries in the same quarter. In this case, the industry of the employment occurrence where the refugee earned the most money was considered the “primary” industry where he or she worked that quarter and is reported here.

**Table 4: Industry concentrations of first employment occurrences for working refugees who arrived in Portland, ME between 1998 and 2004**

Industry	Number	Percentage
Administrative and Support Services	404	43%
Accommodation	130	14%
Food Services and Eating and Drinking Places	64	7%
Social assistance	47	5%
Food Manufacturing	24	3%
Textile mills	20	2%
Food and Beverage stores	18	2%
Printing and related support	17	2%
Professional and technical services	17	2%
General Merchandise Stores	14	1%
Merchant wholesalers, durable	12	1%
Personal and laundry services	12	1%
Other industries	123	13%
Unknown industry	41	4%
Total	943	100%

As refugees lived in Portland longer, evidence from the sample suggests that they diversified their employment options (**Table 5**). In fact, only 20 percent of recently arrived refugees worked in Administrative and support services at their most recent employment occurrence (compared to 43 percent in their first employment occurrence). While this industry still employed one-fifth of all working refugees in their most recent employment occurrence, it no longer dominated the employment situation for recently arrived refugees as it had for their first employment occurrence. Instead, in their most recent employment occurrence refugees worked in a variety of industries, including Food manufacturing (13 percent); Accommodation (eight percent); Merchant wholesalers, durable (six percent); Social assistance (six percent); and Hospitals (six percent). No other industry employed more than three percent of refugees in their most recent employment occurrence in Maine.

**Table 5: Industry concentration of most recent employment occurrences for working refugees who arrived in Portland, ME between 1998 and 2004**

Industry	Number	Percentage
Administrative and Support Services	191	20%
Food Manufacturing	122	13%
Accommodation	72	8%
Merchant wholesalers, durable	59	6%
Social assistance	58	6%
Hospitals	54	6%
Food Services and Eating and Drinking Places	32	3%
Personal and laundry services	27	3%
Educational services	22	2%
Fabricated metal product manufacturing	20	2%
General Merchandise Stores	19	2%
Machinery manufacturing	19	2%
Food and Beverage stores	17	2%
Printing and related support	16	2%
Nursing and residential care	15	2%
Nonstore retailers	14	1%
Merchant wholesalers, nondurable	12	1%
Professional and technical services	11	1%
Specialty trade contractors	10	1%
Other industries	119	13%
Unknown industry	34	4%
Total	943	100%

## Earnings Trends

Data on earnings for those refugees who worked in Maine tell a story of a rapid increase in nominal earnings over their employable time period in Maine (**Table 6**). To measure how much a refugee's earnings increased, the earnings in their first year of working in Maine were compared to how much they earned in their most recent year working in Maine.<sup>15</sup> Refugees in the sample who worked in Maine earned an average of

<sup>15</sup> To calculate first year earnings, the quarter of the first employment occurrence for each refugee in the sample who worked in Maine was located. Then, that refugee's earnings for the next four quarters were added to calculate his/her first year earnings, lagged one quarter. First year earnings were lagged by one

\$16,534 in their first year of working and \$20,806 in their most recent year of working. Therefore, the nominal earnings of refugees increased by an average of 26 percent between the first and most recent years of working in Maine.<sup>16</sup>

Since in some cases these data represent almost eight years of earnings, it is important to adjust for the effects of inflation. After converting the earnings to constant 2005 dollars, earnings between the first and most recent years of work still increased.<sup>17</sup> Refugees in the sample who worked in Maine earned an average of \$18,489 (2005 dollars) in their first year of work and \$21,223 (2005 dollars) in their most recent year of work. After adjusting for inflation, the average earnings of refugees increased by almost 15 percent between their first and most recent years of employment in Maine. After adjusting for inflation, refugees who worked in Maine earned an average of \$4,762 (2005 dollars) per quarter, or average annual earnings of \$19,048 (2005 dollars). In comparison, individuals working in the Portland metropolitan area had average annual earnings of \$36,948 in 2005.<sup>18</sup>

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quarter to ensure the comparison of individuals who had the opportunity to spend the same amount of time working. Because earnings were presented on a quarterly basis, there is no way to verify whether an individual worked an entire quarter or only one day of a quarter for the first employment occurrence. Lagging this calculation by one quarter ensures a comparison of equal periods of earnings. To calculate the most recent year earnings, the quarter of the last employment occurrence for each refugee who worked in Maine was located. Then, the earnings from this quarter were added to the earnings from the three previous quarters to create the most recent year of earnings.

<sup>16</sup> In order to be included in the first year earnings calculation, the refugee had to have at least five quarters elapsed between their first employment occurrence and their last employment occurrence. In order to be included in the most recent year earnings calculation, the refugee had to have at least nine quarters elapsed between their first employment occurrence and their last employment occurrence.

<sup>17</sup> Earnings were converted into constant 2005 dollars using the Northeast Urban Consumer Price Index.

<sup>18</sup> Average quarterly earnings (2005 dollars) were calculated by dividing total inflation adjusted earnings for each refugee from the first quarter of 1998 until the third quarter of 2005, and then dividing by the number of quarters where the refugee had at least one employment occurrence. Average inflation adjusted annual earnings were calculated by multiplying the inflation adjusted quarterly earnings for each refugee by four. According to the Local Employment Dynamics data maintained by the Maine Department of Labor, average monthly earnings for workers in the Portland metropolitan area for the second quarter of 2005 was \$3,079. Multiplying this figure by 12 yields average annual earnings of \$36,948.

**Table 6: Earnings for refugees who arrived in Portland, ME between 1998 and 2004**

<b>Refugees working in Maine (N=943)</b>	
First year earnings (mean/median)	\$16,534 / \$15,863
Most recent year earnings (mean/median)	\$20,806 / \$19,284
% increase in earnings (mean/median)	26% / 22%
Average quarterly earnings (2005 dollars)	\$4,762
First year earnings (2005 dollars) (mean/median)	\$18,489 / \$18,000
Most recent year earnings (2005 dollars) (mean/median)	\$21,223 / \$19,807
% increase in earnings (2005 dollars) (mean/median)	15% / 10%

Since the Administrative and support services industry was such an important source of employment for refugees, it is important to examine earnings outcomes for refugees who worked in this industry at their most recent employment occurrence. About 20 percent of refugees who worked in Maine were employed in this industry at their most recent employment occurrence. In their first year of work in Maine, these individuals earned an average of \$15,651 (2005 dollars) after adjusting for inflation. In their most recent year of work, these individuals earned \$14,840 (2005 dollars) after adjusting for inflation (about five percent less than they earned in their first year). Compared to all refugees who worked in Maine, refugees who worked in this industry earned about six percent less in their first year of work and about 40 percent less in their most recent year of work. This suggests that while the Administrative and support services industry was an important source of employment for refugees, those refugees who relied on the Administrative and support services industry for employment in their most recent employment occurrence were substantially less successful in Maine's economy than refugees in Portland as a whole.

As a group, recently arrived, adult refugees in Portland fared reasonably well in Maine's economy. Evidence from the sample suggests that refugees initially concentrated their employment in relatively few industries. Temporary help services businesses in particular were a prominent entry point for refugees working in their first job in Maine. As refugees lived in Portland longer, they diversified the industries where they worked. Refugees also experienced reasonably high economic mobility: a typical refugee's infla-

tion-adjusted earnings increased by about 15 percent over a three and a half year period. One significant exception is the group of refugees who relied on employment in the Administrative and support services industry for their most recent employment occurrence. These refugees experienced earnings stagnation. Overall, refugee's earnings were considerably lower than typical workers in the Portland metropolitan area.<sup>19</sup> **In all fairness, comparing refugee workers, who usually start working in low-wage, entry-level jobs, to typical workers in Portland is bound to reveal a substantial disparity.**

In addition to a comparison between refugee workers and typical workers in Portland, it is important to understand differences in employment and earnings outcomes that occurred among refugees living in Portland. This is important because the successes of some refugees may mask the lack of success of other refugees. The next section begins this analysis by examining demographic characteristics, and employment and earnings outcomes of refugees who conformed to different work patterns.

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<sup>19</sup> The Local Employment Dynamics (LED) database maintained by MDOL makes this comparison particularly relevant and meaningful.

### III. Work Patterns for Refugees

For those refugees in Portland who worked, *how* they worked may help to explain variations in earnings. The consistency and stability of a refugee's work history in Maine indicates the amount of time they were engaged in work that earned them wages, the amount of overall work experience they accumulated, and the amount of work experience they accumulated with each individual employer. In general, one would expect consistent and stable refugee workers to earn more and experience higher rates of economic mobility compared to refugee workers who work less consistently or with less stability.

Obviously, defining work consistency and work stability in order to make this comparison is very important. For the purposes of this analysis:

- **Consistent** refugee workers were those who had at least one employment occurrence in each of their employable quarters.
- **Inconsistent** refugee workers were those who had no employment occurrences in one or more of their employable quarters.
- **Stable** refugee workers were those who worked an average of four or more quarters for each of their employers in Maine.
- **Unstable** refugee workers were those who worked an average of less than four quarters for each of their employers in Maine.

These definitions of work consistency and stability are based on what is usually recommended to refugees by refugee resettlement service providers. Most service providers who help refugees with resettlement urge refugees to work as consistently as possible and stay at a job for at least one year before moving to a different job. While this is not a hard and fast rule, service providers tend to agree that this recommendation gives a refugee sufficient work experience and stability to indicate to other employers that he is a good worker.

Just because these are the recommended work patterns does not mean that refugees conform to them. **It is important to note that refugees may face a constrained set of choices when they approach working in Maine.** For example, a refugee who is chronically ill, disabled or responsible for childcare may be able to work only when their health or children's school schedule allows it. Therefore, in many cases a refugee may have worked inconsistently or unstably out of necessity rather than choice. Some refugees who lack important skills, such as English language fluency or a high school equivalency degree, may feel that they should sacrifice work consistency in order to invest in learning new skills. Similarly, a stable work pattern may appeal to resettlement workers and employers, but an unstable work pattern may be more appealing to refugees who arrived in Portland with few resources, but enormous pressure to support family members living in the U.S. and abroad. These individuals may have been tempted to switch jobs whenever they found a job that paid even slightly better wages. Therefore, ideal work patterns and the actual work patterns of refugees may differ.

In order to test the idea that refugees who conformed to different work patterns experienced different employment and earnings outcomes, it is important to focus on refugees who have had a reasonable work history in which to observe patterns. Therefore, this part of the analysis focuses on refugees in the sample who had more than two years between their first and most recent employment occurrences. This portion of the sample (658 individuals, or about 70 percent of the refugees who worked in Maine) was divided according to whether a refugee fit a consistent or inconsistent work pattern. It was divided again according to whether a refugee fit a stable or an unstable work pattern. Based upon these divisions, each refugee in this portion of the sample was placed into one of four groups: consistent-stable workers; consistent-unstable workers; inconsistent-stable workers; or inconsistent-unstable workers (**Table 7**).

**Table 7: Refugees who arrived in Portland, ME between 1998 and 2004, by work pattern**

	Stable	Unstable
Consistent	187 (28%)	176 (27%)
Inconsistent	57 (9%)	238 (36%)

It may be useful to describe the general characteristics of each of these work patterns. **Figure 1** describes the work patterns that refugees conformed to during their time working in Maine.

**Figure 1: Descriptions of work patterns for refugees who arrived in Portland, ME between 1998 and 2004**

Work Consistency	Work Stability	
	Stable	Unstable
Consistent	<b>Consistent-stable</b> workers worked in Maine in each of their employable quarters without interruption. They tended to work for long periods of time for each of their employers.	<b>Consistent-unstable</b> workers worked in Maine in each of their employable quarters without interruption, but they tended to work for short periods of time for each of their employers.
Inconsistent	<b>Inconsistent-stable</b> workers had interruptions that lasted one quarter or longer during their employable time in Maine. When they did work they tended to work for long periods of time for each of their employers.	<b>Inconsistent-unstable</b> workers had interruptions that lasted one quarter or longer during their employable time in Maine. When they did work they tended to work for short periods of time for each of their employers.

The remainder of this section examines the demographic characteristics of the refugees who conformed to each of these work patterns and then compares the employment and earnings outcomes of refugees from each work pattern.

Refugees from each work pattern did in fact vary by age, gender, and region of origin (**Table 8**). On average, consistent-stable workers were the oldest (40.7 years), while inconsistent-unstable workers were the youngest (32.1 years). Very few consistent-stable workers arrived in Maine as minors compared to almost one-quarter of inconsistent-unstable workers. Close to half of consistent-stable and inconsistent-stable workers were male. In contrast, about two-thirds of consistent-unstable and inconsistent-unstable workers were male. This suggests that, regardless of work consistency, male refugees were over represented among unstable workers. Finally, Eastern European refugees were over represented among consistent-stable workers, while African refugees were over represented among inconsistent-unstable workers.

**Table 8: Key demographic differences among refugees who arrived in Portland, ME between 1998 and 2004, by work pattern**

	Consistent-Stable N=187	Consistent-Unstable N=176	Inconsistent-Stable N=57	Inconsistent-Unstable N=238
Age (mean/median)	40.7 / 40	35.8 / 35	37.5 / 37	32.1 / 29
Age at arrival in ME (mean/median)	35.3 / 35	30.6 / 30	31.7 / 32	26.7 / 24.5
Number (%) younger than 18 at arrival in ME	9 (5%)	18 (10%)	11 (19%)	56 (24%)
Gender				
Male	98 (52%)	119 (68%)	27 (47%)	153 (64%)
Female	89 (48%)	57 (32%)	30 (53%)	85 (36%)
Region of origin				
Africa	67 (36%)	97 (55%)	22 (39%)	149 (63%)
Eastern Europe	113 (60%)	75 (43%)	32 (56%)	70 (29%)
Middle East + Other	7 (4%)	4 (3%)	3 (5%)	19 (8%)
Visible minority	74 (40%)	101 (58%)	25 (44%)	168 (71%)

Refugees who conformed to different work patterns also varied according to educational attainment and English fluency (**Table 9**). In general, better-educated refugees tended to work with more consistency than less educated refugees. On the other hand, refugees with higher educations and refugees who spoke “good” English when they arrived in Portland tended to follow an unstable work pattern. Interestingly, the largest number of refugees who spoke no English upon arrival in Portland was categorized as

consistent-stable. This analysis suggests that refugees who may have had more opportunities in the labor market, by virtue of their higher education or ability to speak English well, followed unstable work patterns.

**Table 9: Differences in educational attainment and English fluency among refugees who arrived in Portland, ME between 1998 and 2004, by work pattern**

	Consistent-Stable N=187	Consistent-Unstable N=176	Inconsistent-Stable N=57	Inconsistent-Unstable N=238
<b>Educational attainment</b>				
Higher	25 (14%)	32 (20%)	11 (20%)	28 (14%)
Secondary	94 (54%)	88 (56%)	22 (40%)	97 (47%)
Primary	37 (21%)	22 (14%)	16 (29%)	49 (24%)
None	19 (11%)	15 (10%)	6 (11%)	32 (16%)
Not available	12	19	2	32
<b>English fluency</b>				
Good	15 (9%)	42 (30%)	7 (14%)	41 (22%)
Fair	36 (22%)	32 (23%)	9 (17%)	45 (24%)
Poor	8 (5%)	8 (6%)	6 (12%)	19 (10%)
None	103 (64%)	59 (42%)	30 (58%)	85 (45%)
Not available	25	35	5	48

For the most part, there were few differences in the work patterns of reunification and free refugee types, but significant variation in the work patterns between general and secondary refugees (**Table 10**). Secondary migrants, in general, were more likely to be unstable workers than stable workers. In fact, the largest proportion of secondary migrants in this portion of the sample was categorized as inconsistent-unstable workers.<sup>20</sup>

<sup>20</sup> This also included a small number of asylees.

**Table 10: Differences in refugee type and status among refugees who arrived in Portland, ME between 1998 and 2004, by work pattern**

	Consistent-Stable N=187	Consistent-Unstable N=176	Inconsistent-Stable N=57	Inconsistent-Unstable N=238
Refugee type				
Reunification	120 (65%)	103 (59%)	37 (65%)	151 (63%)
Free	66 (36%)	73 (42%)	20 (35%)	87 (37%)
Not available	1	0	0	0
Refugee status				
General	165 (89%)	131 (74%)	49 (86%)	162 (68%)
Secondary Migrant + Asylee	21 (11%)	45 (25%)	8 (14%)	76 (32%)
Not available	1	0	0	0

As **Table 11** shows, inconsistent workers spent more time in the U.S. and Maine compared to consistent workers. Perhaps because of the high proportion of refugees who arrived in Maine as minors, inconsistent workers also took longer to find their first job in Maine. By definition, stable workers had fewer employers and longer average time periods spent working for each employer compared to unstable workers. Among inconsistent workers, those who worked stably worked more consistently than those who worked unstably. This may reflect more time spent looking for work between jobs for those inconsistent workers who worked unstably.

**Table 11: Differences in length of time spent in the U.S. and Maine, and work consistency and stability among refugees who arrived in Portland, ME between 1998 and 2004, by work pattern**

	Consistent-Stable N=187	Consistent-Unstable N=176	Inconsistent-Stable N=57	Inconsistent-Unstable N=238
Months in US (mean/median)	66.3 / 66	65.0 / 65	80.2 / 72	68.9 / 71
Quarters in ME (mean/median)	21.7 / 21	20.9 / 21	23.5 / 24	21.8 / 22
Quarters until 1 <sup>st</sup> employment occurrence (mean/median)	1.9 / 1	1.6 / 1	2.0 / 1	2.4 / 1
Quarters between 1 <sup>st</sup> and most recent employment occurrences (mean/median)	19.7 / 20	18.0 / 17	21.3 / 21	18.6 / 19
# quarters with at least one employment occurrence (mean/median)	19.7 / 20	18.0 / 17	18.4 / 19	14.0 / 14
% of employable quarters with at least one employment occurrence	100%	100%	86%	74%
Number of employers (mean/median)	3.1 / 3	7.5 / 7	3.4 / 3	7.1 / 6.5
Number of quarters worked per employer (mean/median)	7.3 / 6.3	2.6 / 2.6	6.1 / 5	2.2 / 2.1

Refugees in these different work patterns tended to work in similar industries initially, but worked in varied industries over time. Regardless of work pattern, the temporary help services industry was the dominant industry for refugees for the first employment occurrence. It was most dominant for refugees classified as consistent-unstable, with 96 (56 percent) working in temporary help services at their first employment occurrence. It was least dominant for refugees classified as inconsistent-stable, with 18 (32 percent) working in temporary help services at their first employment occurrence. Similarly, the Accommodation industry was another important industry of employment for refugees regardless of work pattern at their first employment occurrence. **Table 12** indicates the industries in which refugees with different work patterns had the largest presence in their first employment occurrence.

**Table 12: The three most popular industries for refugee's first employment occurrence, by work pattern**

<b>Consistent-Stable (N=187)</b>		<b>Consistent-Unstable (N=176)</b>	
Administrative and support services	100 (53%)	Administrative and support services	96 (56%)
Accommodation	28 (14%)	Accommodation	28 (16%)
Social assistance	15 (8%)	Eating and drinking places	7 (4%)

<b>Inconsistent-Stable (N=57)</b>		<b>Inconsistent-Unstable (N=238)</b>	
Administrative and support services	18 (32%)	Administrative and support services	97 (42%)
Accommodation	11 (19%)	Eating and drinking places	27 (12%)
Social assistance	6 (10%)	Accommodation	25 (11%)

In their most recent employment occurrence, refugees from each work pattern had reduced their presence in the temporary help services industry and concentrated their employment in different industries. For example, only 12 (six percent) of consistent-stable refugee workers worked in the temporary help services industry at their most recent employment occurrence, but 58 (31 percent) worked in the Food manufacturing industry at

their most recent employment occurrence. Inconsistent refugee workers reduced their presence in the temporary help services industry at their most recent employment occurrence, but that industry still employed the largest percentage of inconsistent workers. **Table 13** indicates the most popular industries in which refugees with different work patterns worked in their most recent employment occurrence.

**Table 13: The three most popular industries for refugee's most recent employment occurrence, by work pattern**

<b>Consistent-Stable (N=187)</b>		<b>Consistent-Unstable (N=176)</b>	
Food manufacturing	58 (31%)	Food manufacturing	29 (17%)
Hospitals	16 (9%)	Administrative and support services	25 (14%)
Social assistance	16 (9%)	Merchant wholesalers, durable	16 (9%)

<b>Inconsistent-Stable (N=57)</b>		<b>Inconsistent-Unstable (N=238)</b>	
Administrative and support services	7 (12%)	Administrative and support services	66 (28%)
Accommodation	7 (12%)	Accommodation	14 (6%)
Food manufacturing	5 (9%)	Eating and drinking places	14 (6%)

Refugees who conformed to different work patterns differed most in terms of earnings. Not surprisingly, refugees who worked consistently earned more than refugees who worked inconsistently, and refugees who worked stably earned more than refugees who worked unstably (**Table 14**). Comparing first year and most recent year earnings for refugees in each work pattern indicates that only inconsistent-unstable workers failed to increase their earnings over time.

**Table 14: Differences in earnings among refugees who arrived in Portland, ME between 1998 and 2004 by work pattern**

	Consistent-Stable N=187	Consistent-Unstable N=176	Inconsistent-Stable N=57	Inconsistent-Unstable N=238
Average quarterly earnings (2005)	\$6,620	\$5,975	\$4,454	\$3,783
First year earnings (2005) (mean/median)	\$24,238 / \$22,255	\$22,617 / \$20,815	\$12,479 / \$10,774	\$13,049 / \$11,526
Most recent year earnings (2005) (mean/median)	\$28,780 / \$26,172	\$25,634 / \$24,202	\$18,047 / \$17,947	\$13,084 / \$9,527
% increase in earnings (2005)	19% / 18%	13% / 16%	45% / 67%	0% / (17%)

Work consistency may have made a bigger difference than work stability in the earnings of refugees. For example, comparing the average quarterly earnings (2005 dollars) of consistent-stable and consistent-unstable workers indicated that consistent-unstable workers earned about 90 percent of the amount earned by consistent-stable workers. In contrast, inconsistent-stable workers earned only 67 percent of the amount earned by consistent-stable workers when comparing average quarterly earnings (2005 dollars). Comparing earnings in the first year of work in Maine and then in the most recent year of work in Maine between refugees with different work patterns indicated that over time those who worked consistently continued to earn more than those who worked inconsistently. However, the disparity between these two groups of workers decreased over time. For example, consistent-stable workers earned 94 percent more than inconsistent-stable workers in the first year of work in Maine. By the most recent year of work in Maine, consistent-stable workers earned 59 percent more than inconsistent-stable workers.

### **Work Patterns Over Time**

It is possible that work patterns of refugees in Portland changed over time. For example, refugees may have worked inconsistently initially, as they took English classes or made other investments in important skills, only to increase their work consistency later. To measure changes in work consistency over time, a refugee's work consistency in

the first half of their employable time in Maine was compared to their work consistency in the second half of their employable time in Maine.<sup>21</sup>

Focusing on how work consistency changed over time for refugee workers classified as either inconsistent-stable or inconsistent-unstable workers (N=295) revealed some interesting, but subtle differences in how the work patterns of refugees changed. **Table 15** shows how work consistency changed over time according to age, gender, region of origin, educational attainment, and level of English fluency.

**Table 15: Work consistency over time for inconsistent refugee workers who arrived in Portland, ME between 1998 and 2004 (N=295)**

	First Half	Second Half
All inconsistent refugee workers (mean/median)	77% / 85%	76% / 82%
Age (mean/median)		
18-21	64% / 64%	77% / 80%
22-24	80% / 86%	72% / 78%
25-34	79% / 87%	75% / 86%
35-44	84% / 90%	75% / 82%
45-54	75% / 83%	85% / 92%
55-64	89% / 93%	70% / 77%
65+	36% / 33%	71% / 90%
Gender (mean/median)		
Male	78% / 86%	75% / 82%
Female	77% / 84%	77% / 83%
Region of origin (mean/median)		
Africa	77% / 85%	75% / 80%
Eastern Europe	78% / 86%	80% / 90%
Middle East	72% / 77%	60% / 62%
Other	79% / 77%	70% / 80%
Educational Attainment (mean/median)		
Higher	80% / 90%	73% / 89%
Secondary	80% / 89%	79% / 86%
Primary	73% / 78%	77% / 81%
None	72% / 79%	73% / 83%
English fluency (mean/median)		
Good	78% / 91%	75% / 83%
Fair	80% / 88%	75% / 80%
Poor	74% / 81%	76% / 81%
None	75% / 80%	78% / 88%

<sup>21</sup> Work consistency is expressed as a percentage and was measured by the number of quarters when a refugee worked divided by the number of quarters that a refugee was “employable.” A refugee was considered employable after they experienced their first employment occurrence.

Overall, there was a slight decline in work consistency over time for inconsistent refugee workers. However, examining the sample of inconsistent refugee workers in more depth revealed some disparities in how work consistency changed over time. For example, the youngest and oldest refugees in the sample (aged 18-21 and over 65, respectively) increased their work consistency substantially over time. On the other hand, some middle aged workers (those aged 35 – 44 and 55 – 64) worked less consistently over time. There was not much of a difference in work consistency over time between male and female refugee workers, though male workers did work slightly less consistently over time.

The only other notable difference in work consistency over time occurred between refugees with different levels of English fluency. Inconsistent refugee workers who arrived in Portland speaking “Good” English worked less consistently as time went on, while inconsistent refugee workers who arrived in Portland speaking no English worked more consistently over time. It is uncertain how to explain this difference, though one possible explanation is that refugees who did not speak English when they arrived were more likely to take English classes early in their time in Portland, making their initial work less consistent than their later work.

Similar to how work consistency changed over time for refugee workers, unstable workers may have worked more stably over time as they gained more work experience and found jobs that fit their preferences better. To measure changes in work stability over time, the average number of employers for each cohort of refugees was calculated for each year after the cohort’s arrival in Maine.<sup>22</sup>

Evidence from the sample suggests that work stability increased as refugees spent more time in Maine. As **Table 16** shows, over time, refugees who worked in Maine worked for progressively fewer employers. Analyzing the sample according to year of

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<sup>22</sup> The average number of employers per year provides a different but complimentary measurement of work stability compared to the average number of quarters worked for each employer. This portion of the analysis includes all refugees in the sample who worked instead of only those refugees who had an employable period over two years long.

arrival showed that each arrival year cohort essentially followed the same pattern: a relatively low number of average employers in the year of arrival, followed by a spike in the average number of employers and a gradual decline in the average number of employers. The low average number of employers during the year of arrival was probably due to the fact that refugees arriving in a given year come at various times during the year and, as a result, had different ranges of time in which to find employers. In other words, those who arrived late in the year may have found only one employer, while those who arrived early in the year may have found multiple employers.

**Table 16: Average number of employers for working refugees who arrived in Portland, ME between 1998 and 2004, by year of arrival**

Year of arrival in Maine	Average Number of Employers							
	1998	1999	2000	2001	2002	2003	2004	2005*
1998	1.7	2.5	1.8	1.8	1.5	1.4	1.5	1.5
1999	N/A	1.8	2.3	2.0	1.7	1.9	1.7	1.5
2000	N/A	N/A	1.7	2.3	1.8	1.8	1.6	1.6
2001	N/A	N/A	N/A	1.8	2.4	2.0	1.9	1.7
2002	N/A	N/A	N/A	N/A	1.9	1.9	1.7	1.5
2003	N/A	N/A	N/A	N/A	N/A	1.5	1.9	1.7
2004	N/A	N/A	N/A	N/A	N/A	N/A	1.3	1.9

\* Data reflect the first three quarters of 2005.

The work pattern followed by refugees in Portland seems to have made a difference in their earnings.

- Consistent-stable refugee workers earned the most and achieved substantial earnings mobility.
- Consistent-unstable refugee workers also experienced earnings mobility, but failed to match the impressive earnings of consistent-stable refugee workers.

- Inconsistent-stable refugee workers had impressive earnings mobility, but still earned substantially less than either consistent-stable or consistent-unstable refugee workers.
- Inconsistent-unstable refugee workers fared the worst. These workers experienced earnings stagnation and failed to earn even half of the amount earned by consistent-stable refugee workers.

As a whole, refugees in the sample who worked inconsistently did not change their work consistency over time. On the other hand, refugees in the entire sample increased their work stability the longer they lived and worked in Maine. These findings suggest that refugees who followed the advice of refugee resettlement experts and worked both consistently and stably experienced substantially better earnings outcomes compared to those who did not.

## IV. Refugee Demographic Characteristics, Earnings and Employment

Despite the tendency for most refugees to arrive in Portland in the same poor economic state, some refugees succeeded at a greater rate than others in terms of finding jobs and earning money in Maine. Theory suggests many differences among refugees in key demographic characteristics that could make a difference in how easy or difficult it was for refugees to adjust to and thrive in the Maine economy.

- First, **age** might make a big difference in the employment and earnings outcomes of refugees. Young workers, who lack work experience, and old workers, who are near the end of their working lives, probably experienced worse employment and earnings outcomes compared to middle-aged workers.
- Second, **gender** can play an important role in the economic success of a refugee. Similar to the gender division among native-born Americans, female refugees frequently assume family and household responsibilities, including childcare, to a greater extent than male refugees. This may result in limitations on the capacity of female refugees to work outside of the home.
- Third, **region of origin** might play an important role in the employment and earnings outcomes experienced by a refugee in Maine. Region of origin can act as a proxy measure of some intangible and difficult to measure characteristics, such as experience working in an industrial economy. One would expect that a refugee coming from such a context would experience better employment and earnings outcomes in Maine compared to a refugee whose experience was limited to an agricultural or pastoral-based economy.
- Fourth, **educational attainment** prior to arrival in the U.S. could play a major role in how successful refugees are at finding employment and the wages they receive when they do find employment. All things equal, one would expect that more highly educated refugees have an easier time finding jobs and find jobs that pay better wages than refugees with lower levels of education.

- Fifth, **level of English fluency** might be an important determinant of the economic success of a refugee. In Maine, where speaking English is generally expected in the workplace, refugees who speak English fluently may have an easier time finding jobs and finding jobs that pay well compared to refugees who speak English poorly.
- Sixth, **length of time in Maine** might make a difference in the employment and earnings outcomes of refugees in Portland. Generally speaking, the longer a refugee lives in Portland, the better their English skills become and the more job experience they acquire. For these reasons, refugees who have lived in Portland for a long time may find jobs more easily and find jobs that pay better than refugees who have lived in Portland for only a short time.

The remainder of this section focuses on how the employment and earnings outcomes of refugees who arrived in Portland between 1998 and 2004 differed according to these important characteristics.

### **Age**

Young, middle aged and old refugees probably arrived in Portland with different levels of educational attainment, abilities to speak English, expectations regarding continuing education, and family responsibilities. These differences may have contributed to different employment and earning's outcomes for refugees in these age groups.

Dividing the sample of refugees into groups according to age shows some interesting trends (**Table 17**). Virtually all of the refugees who arrived in Portland as minors were between the ages of 18 and 24 by September 1, 2005. Africans were over represented among younger refugees, while Eastern Europeans were over represented among older refugees.

**Table 17: Demographic characteristics among refugees who arrived in Portland, ME between 1998 and 2004, by age range**

	18-21 (N=141)	22-24 (N=114)	25-34 (N=323)	35-44 (N=252)
Age at arrival in ME (mean/median)	15.4 / 15	18.3 / 18	24.6 / 25	34.1 / 34
Number (%) younger than 18 at arrival in ME	111 (78%)	39 (34%)	a	0 (0%)
Gender				
Male	89 (63%)	64 (56%)	167 (52%)	154 (61%)
Female	52 (37%)	50 (44%)	155 (48%)	98 (39%)
Not Available	0	0	1	0
Region of origin				
Africa	95 (67%)	78 (68%)	194 (60%)	145 (58%)
Eastern Europe	33 (23%)	28 (25%)	99 (31%)	84 (34%)
Middle East + Other	13 (9%)	8 (7%)	30 (9%)	22 (9%)
Not Available	0	0	0	1
Visible minority	108 (77%)	86 (75%)	224 (70%)	167 (66%)

	45-54 (N=164)	55-64 (N=82)	65+ (N=30)
Age at arrival in ME (mean/median)	43.6 / 43.5	53.9 / 53	63.5 / 62.5
Number (%) younger than 18 at arrival in ME	0 (0%)	0 (0%)	0 (0%)
Gender			
Male	87 (53%)	45 (55%)	16 (55%)
Female	77 (47%)	37 (45%)	13 (45%)
Not Available	0	0	1
Region of origin			
Africa	56 (34%)	40 (49%)	22 (73%)
Eastern Europe	96 (59%)	42 (50%) <sup>b</sup>	8 (27%)
Middle East + Other	11 (8%)	--	0 (0%)
Visible minority	68 (41%)	41 (49%)	22 (73%)

a = excluded from the table to ensure confidentiality, b =Eastern Europe + Middle East + Other

As **Table 18** indicates, with the exception of refugees aged 65 and older, older refugees were better educated than younger refugees. For example, about 75 percent of refugees aged between 35 and 54 had received either secondary or higher education, while only about 40 percent of refugees aged between 22 and 24 were similarly educated. English fluency seemed to improve as the age of refugees increased until the age range between 45 and 54, when it sharply declined. For example, 48 percent of refugees aged between 35 and 44 arrived in Portland speaking either “Good” or “Fair” English, while less than 30 percent of refugees aged between 45 and 54 were similarly proficient at English.

**Table 18: Differences in educational attainment and English fluency among refugees who arrived in Portland, ME between 1998 and 2004, by age range**

	18-21 (N=141)	22-24 (N=114)	25-34 (N=323)	35-44 (N=252)
<b>Educational attainment</b>				
Higher	0 (0%)	4 (4%)	48 (18%)	48 (23%)
Secondary	24 (20%)	37 (37%)	148 (54%)	109 (52%)
Primary	69 (59%)	31 (31%)	50 (18%)	35 (17%)
None	25 (21%)	27 (27%)	29 (11%)	17 (8%)
Not Available	23	15	48	43
<b>English fluency</b>				
Good	15 (15%)	17 (20%)	61 (25%)	45 (24%)
Fair	23 (23%)	17 (20%)	72 (29%)	45 (24%)
Poor	8 (8%)	5 (6%)	13 (5%)	12 (6%)
None	55 (55%)	47 (55%)	99 (40%)	88 (46%)
Not Available	40	28	78	62

	45-54 (N=164)	55-64 (N=82)	65+ (N=30)
<b>Educational attainment</b>			
Higher	31 (21%)	17 (26%)	7 (23%)
Secondary	79 (53%)	18 (28%)	3 (10%)
Primary	25 (17%)	11 (17%)	4 (13%)
None	13 (9%)	19 (29%)	16 (53%)
Not Available	16	17	0
<b>English fluency</b>			
Good	21 (15%)	6 (10%)	--
Fair	20 (14%)	6 (10%)	5 (18%) <sup>a</sup>
Poor	10 (7%)	--	--
None	90 (64%)	46 (79%) <sup>b</sup>	22 (81%) <sup>b</sup>
Not Available	23	24	3

a = Fair + Good, b = None + Poor

Differences in demographic characteristics, educational attainment, and English fluency between refugees of different ages may have contributed to varied employment and earnings outcomes (**Table 19**). The oldest refugees were less likely to have experienced an employment occurrence compared to all other refugees. For example, about 70 percent of refugees aged between 55 and 64 experienced an employment occurrence, while less than half of refugees aged 65 and older experienced an employment occurrence. Between 85 and 91 percent of refugees from younger age groups experienced an employment occurrence. The youngest and oldest refugees in the sample worked with the least amount of consistency and worked for the fewest number of employers. Work sta-

bility increased in each age range of refugees with the exception of refugees aged 65 and older.

In almost every age group, the largest percentage of refugees worked in the Administrative and support services industry in their first employment occurrence.<sup>23</sup> The percentage of refugees working in this industry for their first employment occurrence increased gradually among older age ranges, until the 55 to 64 age range when it declined. Accommodation and Social assistance were the two other industries where large percentages of refugees worked in their first employment occurrence. The reliance of refugees from all ages on the Administrative and support services industry for employment decreased with time, but it still employed the largest percentage of refugees from each age range at the time of their most recent employment occurrence.

**Table 19: Employment and earnings outcomes for refugees who arrived in Portland, ME between 1998 and 2004, by age range**

	18-21 (N=141)	22-24 (N=114)	25-34 (N=323)	35-44 (N=252)
Experienced employment	122 (87%)	103 (90%)	275 (85%)	226 (89%)
% of employable quarters with at least one employment occurrence	81%	81%	90%	93%
Number of employers (mean/median)	3.7 / 3	5.8 / 5	5.0 / 4	5.0 / 4
Number of quarters worked per employer (mean/median)	2.6 / 2.1	2.3 / 2	3.3 / 2.5	3.8 / 2.8
Average quarterly earnings (2005)	\$2,125	\$3,668	\$5,012	\$5,664
First year earnings (2005) (mean/median)	\$6,533 / \$4,977	\$12,748 / \$10,412	\$19,884 / \$18,986	\$22,414 / \$19,867
Most recent year earnings (2005) (mean/median)	\$9,005 / \$6,844	\$16,871 / \$13,494	\$21,567 / \$20,386	\$24,947 / \$22,946
% increase in earnings (2005)	38% / 38%	32% / 30%	8% / 7%	11% / 15%

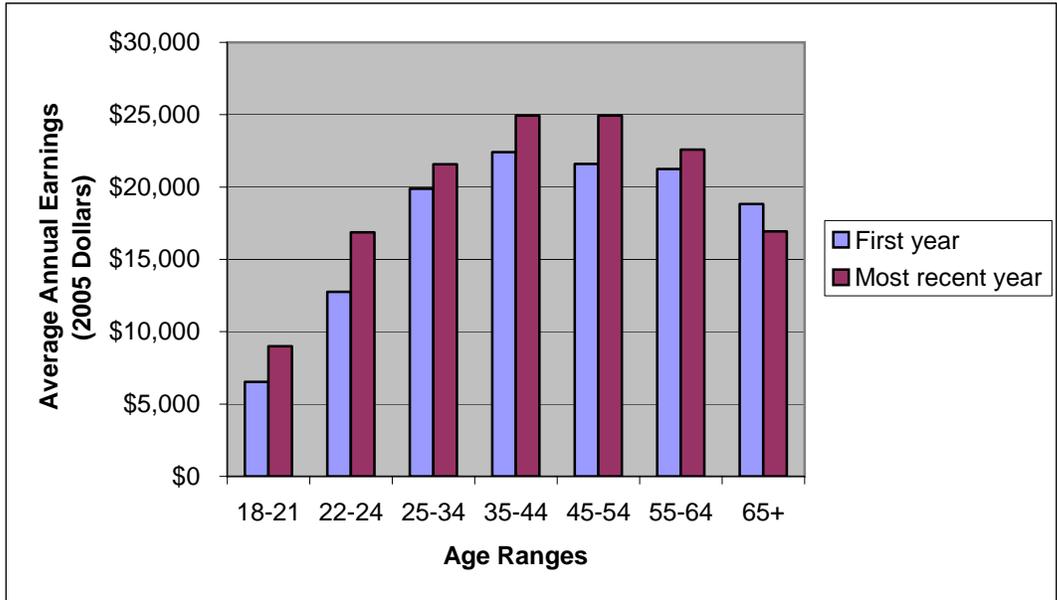
<sup>23</sup> The exception was refugees aged between 18 and 21, who worked most frequently in the Food services and drinking places industry.

**Table 19 (continued)**

	45-54 (N=164)	55-64 (N=82)	65+ (N=30)
Experienced employment	149 (91%)	57 (70%)	13 (43%)
% of employable quarters with at least one employment occurrence	92%	91%	82%
Number of employers (mean/median)	4.1 / 4	3.9 / 3	3 / 3
Number of quarters worked per employer (mean/median)	4.6 / 4	4.6 / 3.25	3.5 / 3.8
Average quarterly earnings (2005)	\$5,522	\$5,403	\$4,402
First year earnings (2005) (mean/median)	\$21,597 / \$21,548	\$21,249 / \$20,811	\$18,828 / \$14,171
Most recent year earnings (2005) (mean/median)	\$24,950 / \$23,723	\$22,598 / \$20,420	\$16,938 / \$17,151
% increase in earnings (2005)	16% / 10%	6% / (2%)	(10%) / 21%

Earnings for refugees had a positive relationship with age, as older refugees tended to earn more than younger refugees. With only one exception, average annual earnings (2005 dollars) between the first and most recent years of work in Maine increased for individuals in each age range (**Chart 5**). Average first and most recent year earnings (2005 dollars) increased for each age range until the 55 to 64 age range. At that point, average earnings decreased and continued to decrease for refugees aged 65 and older. This finding is not surprising since earnings usually increase with age until an individual nears the age of retirement, when earnings tend to decrease.

**Chart 5: Average earnings for the first and most recent years of work for refugees who arrived in Portland, ME between 1998 and 2004, by age range**

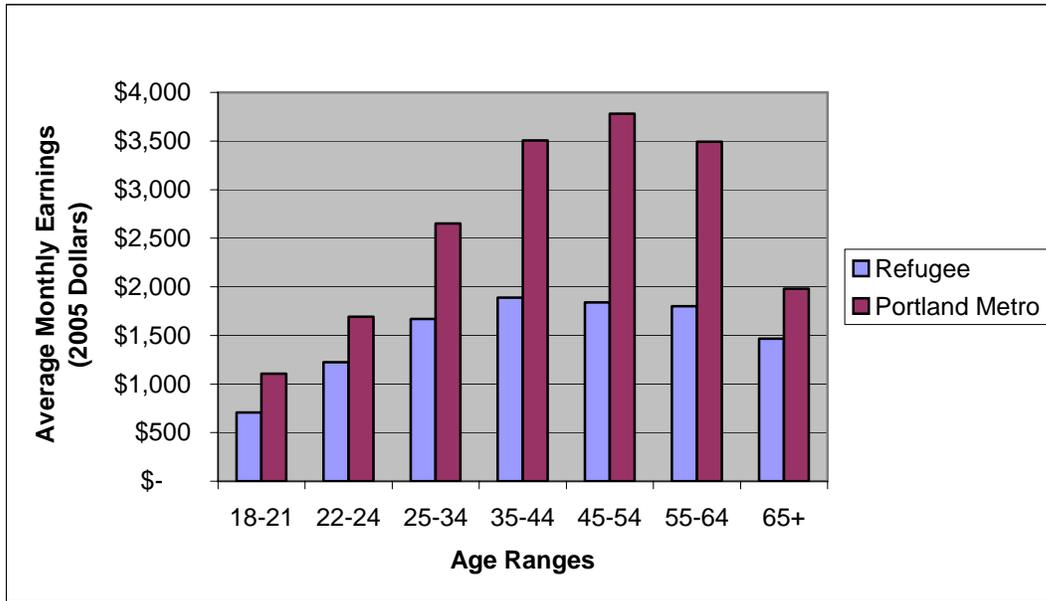


A similar pattern emerged for refugees of different ages when looking at average quarterly earnings (2005 dollars). Average quarterly earnings (2005 dollars) increased for each age range of refugees except for refugees aged 65 and older. Still, refugees in each age range earned considerably less than workers from the same age ranges in the Portland metropolitan area overall. Converting the average quarterly earnings of refugees into average monthly earnings allowed a comparison between the earnings of refugees and the Portland metropolitan area overall. **Chart 6** illustrates the earnings disparity between refugee workers and workers in the overall Portland metropolitan area.<sup>24</sup> The largest disparity between refugee workers and overall workers in the Portland metropolitan area was for the 45 to 54 age range, where refugee workers earned less than half of the earnings for the Portland metropolitan area overall. The smallest disparity was for the 65 and

<sup>24</sup> Earnings for individuals in the Portland metropolitan area were taken from the Maine Department of Labor's Local Employment Dynamics (LED) database and represent monthly earnings for individuals working in the Portland metropolitan area during the second quarter of 2005. Instead of the age range 18-21 used in this analysis, LED uses the age range 19-21. Therefore, for this particular age range there is not a perfect comparison on this chart.

older age range, where refugee workers earned almost three-quarters of the earnings of the Portland metropolitan area overall.

**Chart 6: Average monthly earnings (2005 dollars) for refugees who arrived in Portland, ME between 1998 and 2004 and workers in the Portland metropolitan area, by age range**



Refugees of different ages arrived in Portland at different stages of their working lives. Young refugees probably arrived in Portland without much work experience. Depending upon the circumstances in their country of origin, young refugees may have had less access to education prior to their arrival to Portland. The need to gain work experience and complete educational goals for these young refugees may help to explain their relatively low earnings. On the other hand, middle-aged refugees probably arrived in Portland in the prime of their working lives. These refugees were likely finished with their educations, had family responsibilities, and had accumulated a variety of work experiences and skills that needed to be retooled to fit the economy in Maine. It is likely that the time investment necessary to retool these skills was well worth it for middle-aged refugees who needed to earn money to support families. As a result, they tended to earn

more than young refugees. Finally, older refugees arrived in Portland towards the end of their working lives. Similar to older native-born Americans, these refugees may have started to work less or decided that the time necessary to retool their skills for the economy in Maine was too much of an investment. As a result, older refugees tended to earn less than middle-aged refugees, but more than younger refugees.

## Gender

On some demographic characteristics, such as age, male and female refugees who arrived in Portland, Maine between 1998 and 2004 were strikingly similar. As **Table 20** shows, a slightly larger proportion of male refugees came from Africa and a slightly larger proportion of female refugees came from Eastern Europe, but the regions of origin for male and female refugees in Portland were also quite similar.

**Table 20: Demographic characteristics of male and female refugees who arrived in Portland, ME between 1998 and 2004**

	Males (N=622)	Females (N=482)
Age (mean/median)	35.4 / 34	36.0 / 33
Age at arrival in ME (mean/median)	30.8 / 29	31.3 / 28
Number (%) younger than 18 at arrival in ME	95 (15%)	56 (12%)
Region of origin		
Africa	366 (59%)	262 (55%)
Eastern Europe	208 (33%)	181 (38%)
Middle East	39 (6%)	32 (7%)
Other	9 (1%)	6 (1%)
Not Available	0	1

However, male and female refugees differed by educational attainment prior to arrival in the U.S. and level of English fluency (**Table 21**). Male refugees were more likely to have received a higher education or a secondary education compared to female refu-

gees. In fact, for refugees with known educational attainment, about 20 percent of male refugees had received a higher education prior to their arrival in the U.S., compared to 11 percent of female refugees. A slightly smaller disparity characterized the percentage of male refugees who received a secondary education compared to female refugees (47 percent versus 41 percent). Finally, 10 percent of male refugees had no formal education prior to arrival in the U.S. compared to 23 percent of female refugees. Similar disparities existed in the level of English fluency for male and female refugees. For refugees with level of English fluency reported, 25 percent of males spoke “Good” English upon arrival to Portland and about 45 percent of males spoke no English. In contrast, only 13 percent of females spoke “Good” English and 62 percent spoke no English. Overall, male refugees were better educated and arrived in the U.S. speaking better English than female refugees.

**Table 21: Educational attainment and English fluency of refugees who arrived in Portland, ME between 1998 and 2004, by gender**

	Males (N=622)	Females (N=482)
Educational Attainment		
Higher	108 (20%)	47 (11%)
Secondary	246 (47%)	172 (41%)
Primary	122 (23%)	103 (25%)
None	51 (10%)	94 (23%)
Not Available	95	66
English fluency		
Good	119 (25%)	48 (13%)
Fair	114 (24%)	72 (20%)
Poor	35 (7%)	17 (5%)
None	218 (45%)	224 (62%)
Not Available	136	121

Male and female refugees also differed according to refugee type and refugee status (**Table 22**). A higher proportion of male refugees arrived in Portland as free cases compared to female refugees, suggesting the male refugees were more likely than female

refugees to arrive in Portland without the immediate support of a sponsor relative or close friend. A higher proportion of male refugees came to Portland as secondary migrants compared to female refugees. About 23 percent of male refugees came as secondary migrants, while only 15 percent of females arrived as a secondary migrant.

**Table 22: Refugee type and status for refugees who arrived in Portland, ME between 1998 and 2004, by gender**

	Males (N=622)	Females (N=482)
Refugee type		
Reunification	418 (67%)	352 (73%)
Free	203 (33%)	130 (27%)
Not Available	1	0
Refugee status		
General	460 (74%)	402 (83%)
Secondary Migrant	145 (23%)	74 (15%)
Asylee	16 (3%)	6 (1%)
Not Available	1	0

Male and female refugees who arrived in Portland between 1998 and 2004 differed on some important employment outcomes (**Table 23**).

- A higher proportion of male refugees worked in Maine compared to female refugees.
- Male refugees found their first job in Maine one quarter faster, on average, than female refugees (1.9 quarters versus 2.9 quarters). Similar periods of time elapsed between male and female refugee’s first and last employment occurrences.
- Male and female refugees who worked in Maine did so with virtually the same consistency, with refugees from each gender working in an average of almost 90 percent of employable quarters.
- On average, male refugees worked for one more employer overall in Maine than female refugees.

- Female refugees worked more quarters per employer compared to male refugees. In fact, female refugees averaged one-half of a quarter longer per employer than male refugees.

**Table 23: Employment outcomes for male and female refugees who arrived in Portland, ME between 1998 and 2004**

	<b>Males (N=622)</b>	<b>Females (N=482)</b>
Experienced employment	547 (88%)	395 (82%)
Quarters until 1 <sup>st</sup> employment occurrence (mean/median)	1.9 / 1	2.9 / 1
Quarters between 1 <sup>st</sup> and most recent employment occurrences (mean/median)	14.9 / 15	14.2 / 15
# quarters with at least one employment occurrence (mean/median)	13.4 / 13	12.9 / 13
% of employable quarters with at least one employment occurrence (mean)	89%	88%
Number of employers (mean/median)	5.1 / 4	4.0 / 3
Average quarters worked per employer (mean/median)	3.3 / 2.5	3.8 / 3

There is some evidence that gender influenced the industries where refugees worked. About 52 percent of male refugees found their first job in the Administrative and support services industry, with almost all working for a temporary help services business, compared to 35 percent of female refugees. On the other hand, 28 percent of female refugees worked in the Accommodation industry in their first employment occurrence, compared to only five percent of male refugees. This difference suggests that at least some industries mostly attracted refugees of one gender. **Table 24** shows the three most popular industries for refugees working in their first employment occurrence, by gender.

**Table 24: The three most popular industries for the first employment occurrence of refugees, by gender**

Male (N=547)		Female (N=395)	
Administrative and support services	274 (52%)	Administrative and support services	130 (35%)
Eating and drinking places	30 (8%)	Accommodation	105 (28%)
Accommodation	25 (5%)	Eating and drinking places	19 (5%)

**Table 25** indicates that, over time, the industries where refugees worked first continued to be an important source of employment for refugees, though other industries also became prominent employers of refugees. In their most recent employment occurrence, the Administrative and support services industry continued to be the most dominant employer of refugees, though the proportion of male and female refugees working in this industry at their more recent employment occurrence was about half that of the first employment occurrence. The Accommodation industry continued to be an important employer of female refugees and the Food manufacturing industry became a newly important employer of male and female refugees in their most recent employment occurrence.

**Table 25: The three most popular industries for the most recent employment occurrence of refugees, by gender**

Male (N=547)		Female (N=395)	
Administrative and support services	128 (24%)	Administrative and support services	63 (17%)
Food manufacturing	73 (14%)	Accommodation	61 (16%)
Merchant wholesalers, durable	44 (8%)	Food manufacturing	49 (13%)

As **Table 26** shows, the earnings of male and female refugees increased between their first and most recent years of working in Maine. Male refugees earned an average of \$19,647 (2005 dollars) in their first year of working in Maine and \$22,325 (2005 dollars) in their most recent year of working in Maine, for a 14 percent increase. Female refugees earned an average of \$16,768 (2005 dollars) in their first year of working in Maine and \$19,557 (2005 dollars) in their most recent year of working in Maine, for a 17 percent increase. Higher educational attainment and better English fluency for male refugees compared to female refugees helps to explain this earnings disparity. The reliance of female refugees on employment in the Accommodation industry, an industry characterized by low wage work in most non-management positions, may be another contributing factor in this earnings disparity. However, it is worth noting that the percentage increase in earnings for female refugees was slightly higher than the percentage increase in earnings for male refugees.

**Table 26: Earnings outcomes for refugees who arrived in Portland, ME between 1998 and 2004, by gender**

	Males (N=547)	Females (N=395)
Average quarterly earnings (2005)	\$5,118	\$4,254
First year earnings (2005) (mean/median)	\$19,647 / \$19,574	\$16,768 / \$16,054
Most recent year earnings (2005) (mean/median)	\$22,325 / \$20,568	\$19,557 / \$17,966
% increase in earnings (2005) (mean/median)	14% / 5%	17% / 12%

The earnings disparity between working male and female refugees who lived in Portland is smaller than the earnings disparity between working males and females in the Portland metropolitan area overall. In fact, comparing the earnings of male and female refugees in their most recent year of working in Maine, female refugees earned 88 percent of the amount earned by male refugees. Comparing the average monthly earnings of males and females living in the Portland metropolitan area indicated that women earned

only 66 percent of the amount earned by men.<sup>25</sup> This comparison suggests that there is actually more parity between working male and female refugees in Portland than there is between working males and females overall in the Portland metropolitan area. The earnings disparity that does exist between male and female refugees might reflect better education and English fluency on the part of male refugees and more family responsibilities on the part of female refugees.

### **Region of Origin**

The regions contributing large numbers of refugees to Portland, including Africa, Eastern Europe and the Middle East, differ from each other substantially.<sup>26</sup> Therefore, it is not too surprising that demographic characteristics, including educational attainment and English language fluency, differed according to region of origin for refugees who arrived in Portland, Maine between 1998 and 2004. A majority of refugees from Africa, Eastern Europe, and the Middle East were women. As **Table 27** shows, on average, refugees from the Middle East were youngest (32.2 years old), while refugees from Eastern Europe were oldest (39 years old). Despite these average age differences, about the same proportion of refugees from each region arrived in Portland as a minor.

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<sup>25</sup> According to MDOL data from the Local Employment Dynamics Program, females earned an average of \$2,463 per month, while males earned an average of \$3,706 per month in the second quarter of 2005.

<sup>26</sup> Refugees who were from a country in the “Other” category are excluded from this portion of the analysis due to their small numbers.

**Table 27: Key demographic differences among refugees who arrived in Portland, ME between 1998 and 2004, by region of origin**

	Africa (N=630)	E. Europe (N=389)	Middle East (N=71)
Age (mean/median)	33.9 / 31	39.0 / 39	32.2 / 32
Age at arrival in ME (mean/median)	29.9 / 27	33.2 / 33	28.2 / 27
Number (%) younger than 18 at arrival in ME	88 (14%)	51 (13%)	10 (14%)
Gender			
Male	366 (58%)	208 (54%)	39 (55%)
Female	262 (42%)	181 (47%)	32 (45%)
Not Available	2	0	0

Refugees in Portland from these regions of the world differed in educational attainment, English fluency, and refugee status. Overall, refugees from Eastern Europe were better educated than refugees from the other two regions (**Table 28**). In fact, over three-quarters of Eastern Europeans arrived in Portland with either a higher education or a secondary education. In contrast, about two-thirds of the refugees from the Middle East and less than half of the refugees from Africa were similarly educated. Over one-quarter of African refugees had no education upon arrival in Portland compared to virtually none from the Middle East and Eastern Europe.

Despite the difference in educational attainment, refugees from Africa were relatively better English speakers than refugees from either Eastern Europe or the Middle East. Fifty-three percent of refugees from Africa spoke either “Good” or “Fair” English when they arrived in Portland compared to 32 percent of refugees from the Middle East and 32 percent of refugees from Eastern Europe.<sup>27</sup> In contrast to refugees from Eastern Europe and the Middle East, a large proportion of refugees from Africa arrived in Portland as secondary migrants. Almost 30 percent of refugees from Africa arrived in Portland as a secondary migrant compared to 10 percent of refugees from the Middle East and six percent of refugees from Eastern Europe.<sup>28</sup>

<sup>27</sup> For refugees from Eastern Europe, this also reflects a small number who arrived speaking English poorly.

<sup>28</sup> For refugees from Eastern Europe, this also reflects a small number who arrived as asylees.

**Table 28: Differences in educational attainment, English fluency, and refugee status among refugees who arrived in Portland, ME between 1998 and 2004, by region of origin**

	Africa (N=630)	E. Europe (N=389)	Middle East (N=71)
<b>Educational attainment</b>			
Higher	70 (14%)	72 (20%)	11 (19%)
Secondary	174 (34%)	212 (58%)	28 (48%)
Primary	132 (26%)	76 (21%)	19 (32%) <sup>a</sup>
None	136 (27%)	7 (2%)	--
Not Available	118	22	13
<b>English fluency</b>			
Good	139 (29%)	25 (8%)	3 (9%)
Fair	115 (24%)	63 (19%)	8 (23%) <sup>b</sup>
Poor	39 (8%)	10 (3%)	--
None	186 (39%)	231 (70%)	24 (69%)
Not Available	151	60	36
<b>Refugee status</b>			
General	430 (68%)	362 (93%)	64 (90%)
Secondary Migrant	183 (29%)	26 (7%) <sup>c</sup>	7 (10%)
Asylee	17 (3%)	--	0 (0%)
Not Available	0	1	0

a = Primary + None, b = Fair + Poor, c = Secondary migrant + Asylee

Refugees arrived in Portland at varied times, largely driven by differences in the timing of the conflicts they escaped from and the bureaucratic processes involved in their becoming refugees. Refugees from Eastern Europe had been in the U.S. for the longest, followed by African refugees and refugees from the Middle East. This pattern held true for length of time in Maine, as refugees from Eastern Europe averaged almost six years in Maine, compared to an average of just over four years for African refugees and just under four years for refugees from the Middle East.

In addition to different demographic characteristics, refugees from different regions in the world also had different employment outcomes. Refugees from Eastern Europe were the most likely to have worked in Maine (89 percent), while refugees from Africa and the Middle East were less likely to have worked in Maine (83 percent and 80 percent, respectively). As **Table 29** shows, refugees from Eastern Europe who worked were employed faster and had more employable quarters than refugees from Africa or the Middle East who worked. Working refugees from Eastern Europe and Africa worked for about the same number of employers in Maine, while refugees from the Middle East

worked for fewer. Finally, working refugees from Eastern Europe had the most stable work pattern, followed by working refugees from the Middle East and Africa.

**Table 29: Differences in employment outcomes among refugees who arrived in Portland, ME between 1998 and 2004, by region of origin**

	Africa (N=630)	E. Europe (N=389)	Middle East (N=71)
Experienced employment	522 (83%)	347 (89%)	57 (80%)
Quarters until 1 <sup>st</sup> employment occurrence (mean/median)	2.4 / 1	1.9 / 1	3.6 / 2
Quarters between 1 <sup>st</sup> and most recent employment occurrences (mean/median)	12.5 / 13	18.6 / 21	10.6 / 8
# quarters with at least one employment occurrence (mean/median)	11.1 / 10.5	17.3 / 18	8.5 / 7
% of employable quarters with at least one employment occurrence	87%	92%	83%
Number of employers (mean/median)	4.7 / 4	4.8 / 4	3.5 / 2
Average number of quarters worked per employer	2.9 / 2.3	4.5 / 3.5	3.4 / 3

For the most part, refugees in Portland from different regions of the world worked in the same industries for their first employment occurrences. The Administrative and support services and Social assistance industries were major employers of refugees from all three regions in their first employment occurrence. A large proportion of refugees from the Middle East found employment in the Food services and drinking places industry, while refugees from Africa and Eastern Europe frequently found employment in the Accommodation industry for their first employment occurrence. **Table 30** shows the industries that employed substantial percentages of refugees in their first employment occurrence.

**Table 30: The three most popular industries for the first employment occurrence of refugees, by region of origin**

<b>Africa (N=522)</b>		<b>E. Europe (N=347)</b>	
Administrative and support services	217 (44%)	Administrative and support services	174 (51%)
Accommodation	76 (15%)	Accommodation	48 (14%)
Social assistance	27 (6%)	Social assistance	17 (5%)

<b>Middle East (N=57)</b>	
Food services and drinking places	16 (29%)
Administrative and support services	10 (18%)
Social assistance	3 (5%)

For the most recent employment occurrence, refugees from different regions of the world diversified into industries other than the ones represented in their first employment occurrences. For refugees from each region of the world, the Administrative and support services industry continued to play a role as a major employer. However, for refugees from Africa and Eastern Europe, food manufacturing became a significant employer in the most recent employment occurrence. **Table 31** shows industries that employed substantial percentages of refugees in their most recent employment occurrence.

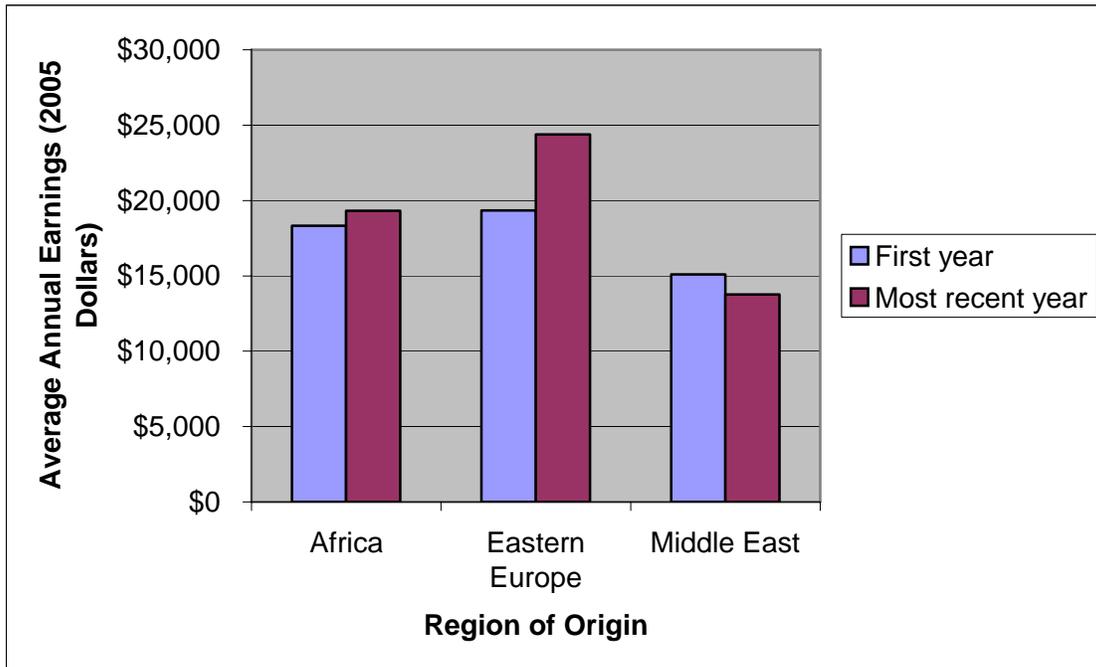
**Table 31: The three most popular industries for the most recent employment occurrence of refugees, by region of origin**

<b>Africa (N=522)</b>		<b>E. Europe (N=347)</b>	
Administrative and support services	133 (27%)	Food manufacturing	76 (22%)
Accommodation	52 (10%)	Administrative and support services	46 (14%)
Food manufacturing	42 (8%)	Merchant wholesalers, durable	27 (8%)

<b>Middle East (N=57)</b>	
Food services and drinking places	10 (18%)
Administrative and support services	10 (18%)
Personal and laundry services	6 (11%)

Earnings outcomes for refugees varied substantially, with refugees from Eastern Europe earning more than refugees from Africa or the Middle East. Working Eastern European refugees had average quarterly earnings of \$5,337 (2005 dollars), while refugees from Africa and the Middle East had average quarterly earnings of \$4,519 and \$3,664, respectively. The average earnings (2005 dollars) of Eastern European refugees increased by 26 percent between their first and most recent years of work, compared to five percent for African refugees, and negative nine percent for refugees from the Middle East. **Chart 7** illustrates the earnings of refugees from different regions of origin.

**Chart 7: Average annual earnings (2005 dollars) in the first and most recent years of work for refugees who arrived in Portland, ME between 1998 and 2004, by region of origin**



Clearly, refugees who came to Portland from different regions of the world had different employment and earnings outcomes. Eastern Europeans fared the best: they worked more consistently and stably, and earned more than refugees from any other region of the world. More access to secondary and higher education probably explains some of the differences between Eastern European refugees and refugees from other regions of the world. In other words, despite the generally low level of English fluency among refugees from Eastern Europe, their relatively high education levels and exposure to an industrial economy seem to have helped them succeed in the Portland economy. The data under consideration for this analysis could not shed any light on the extent to which ethnic or religious discrimination may have played a role in the different employment and earnings outcomes experienced by refugees in Portland. However, this is a point that should be the focus of future research, as a significant amount of anecdotal evidence suggests that these types of discrimination are a problem for some refugees in Portland.

## Educational Attainment

Refugees who arrived in Portland between 1998 and 2004 came from varied educational backgrounds, suggesting that they may have experienced different employment and earnings outcomes in Maine. However, in thinking about the low-skill jobs that refugees often work when they arrive in the U.S., it may be useful to distinguish between education and skills. Educational attainment is the amount of formal education that a refugee received prior to arrival in the U.S. Skills are the knowledge possessed by an individual that allow him/her to complete tasks in the work place. Skills might include work experience in a factory production line or the ability to use a computer. Since education and professional credentials are frequently discounted for refugees in the U.S., skills may be more important than educational attainment for explaining employment and earnings outcomes. Unfortunately, the data available for this analysis do not reveal any information about skills possessed by refugees in Portland. On the other hand, it is often the case that educational attainment and skills are positively correlated, such that refugees with higher and secondary educations have more marketable skills than refugees with primary or no educations.

Educational attainment upon arrival in the U.S. differed by age, gender, region of origin and level of English fluency. For those refugees with reported educational attainment:<sup>29</sup>

- 155 (16 percent) attended some form of higher education
- 418 (44 percent) attended a secondary school
- 225 (24 percent) attended a primary school
- 146 (15 percent) had no formal education

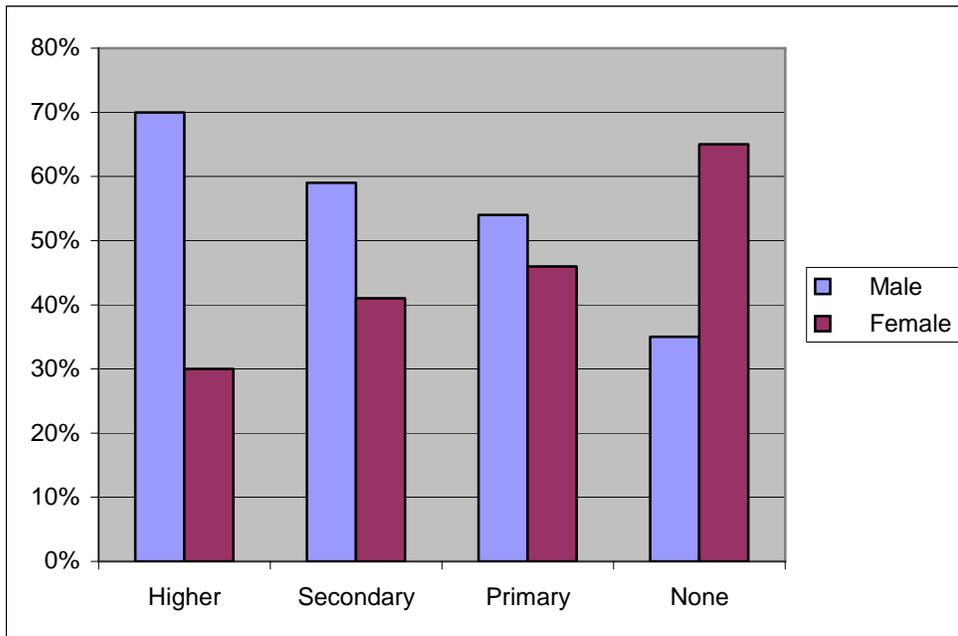
Refugees with higher education tended to be older than those with secondary, primary, or no education, probably reflecting the fact that it takes longer to advance to higher education. Generally, male refugees arrived in the U.S. with more education than female refugees. As **Chart 8** shows, the vast majority of refugees who arrived in Portland between

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<sup>29</sup> No educational attainment data were available for 162 refugees.

1998 and 2004 with higher education were male. The proportion of male refugees who arrived in Portland between 1998 and 2004 with no formal education was almost half that of female refugees.

**Chart 8: Educational attainment prior to arrival in the U.S. for refugees who arrived in Portland, ME between 1998 and 2004, by gender**



Refugees from Eastern Europe were disproportionately represented among those refugees who had attained higher or secondary education. In contrast, refugees from Africa were disproportionately represented among those refugees with only a primary education or no education at all. In fact, 93 percent of refugees in Portland with no education upon arrival in the U.S. came from Africa. These differences in educational attainment by region of origin likely reflect the disparate educational opportunities open to refugees in

their regions of origin.<sup>30</sup> A high correlation exists between level of English fluency and educational attainment prior to arrival in the U.S.: refugees with more education tended to speak better English than those with less education.<sup>31</sup> Since very few of the refugees who arrived in Portland between 1998 and 2004 came from a country where English was the official language, access to educational opportunities was probably one of the few avenues toward learning English available to them. **Table 32** highlights demographic differences in the sample by educational attainment.

**Table 32: Demographic differences among refugees who arrived in Portland, ME between 1998 and 2004, by educational attainment**

	Higher (N=155)	Secondary (N=418)	Primary (N=225)	None (N=146)
Age	40.9 / 38	35.9 / 34.5	31.2 / 27	37.2 / 30
Number (%) younger than 18 at arrival in ME	a	30 (7%)	76 (34%)	27 (19%)
Gender				
Male	108 (70%)	246 (59%)	122 (54%)	51 (35%)
Female	47 (30%)	172 (41%)	103 (46%)	94 (65%)
Not Available	0	0	0	1
Region of origin				
Africa	70 (45%)	174 (42%)	132 (59%)	136 (93%)
Eastern Europe	72 (46%)	212 (51%)	76 (34%)	7 (5%)
Middle East + Other	13 (8%)	32 (8%)	17 (8%)	3 (2%)
English fluency				
Good	60 (46%)	77 (21%)	24 (12%)	0 (0%)
Fair	24 (18%)	103 (27%)	46 (24%)	6 (5%) <sup>b</sup>
Poor	3 (2%)	32 (9%)	14 (7%)	--
None	44 (34%)	164 (44%)	110 (57%)	118 (95%)
Not Available	24	42	31	22

a = excluded from the table to ensure confidentiality, b = Fair + Poor

<sup>30</sup> This difference could also be exacerbated by the amount of unproductive time that refugees spent awaiting resettlement in the U.S. Anecdotal evidence suggests that Eastern Europeans spent relatively short periods of time awaiting resettlement, while Africans frequently spent long periods of time awaiting resettlement.

<sup>31</sup> Later analysis shows that the positive relationship between educational attainment and English fluency does not hold for refugees from Eastern Europe, who had high education levels and low levels of English fluency.

Educational attainment also varied by refugee type and status (**Table 33**). The proportion of refugees who arrived in Portland as a free case gradually decreased as educational attainment declined. For example, 35 percent of refugees with higher education were free cases compared to only 15 percent of refugees with no education. This trend could have been caused by a number of factors. One of these factors might have been that refugees with higher levels of education were more likely to become a free case than refugees with lower levels of education. In other words, those with higher levels of education may have been more adept at navigating the process required to become a free case refugee while those with lower levels of education may have found getting through this process more difficult and were more likely to come to Portland as a sponsor case instead.

Similarly, there was a positive relationship between educational attainment and secondary migration status. For example, 15 percent of refugees with higher education were secondary migrants, while only seven percent of refugees with no education were secondary migrants or asylees. At least two factors could account for this trend. First, refugees with higher levels of education may be more likely to move to a different state in the U.S. compared to those with lower levels of education. Second, secondary migrants with higher education levels may feel more empowered or more comfortable seeking services from CCMRIS than secondary migrants with lower education levels. Therefore, it is possible that better-educated secondary migrants were included in this analysis to a greater extent than less-educated secondary migrants.

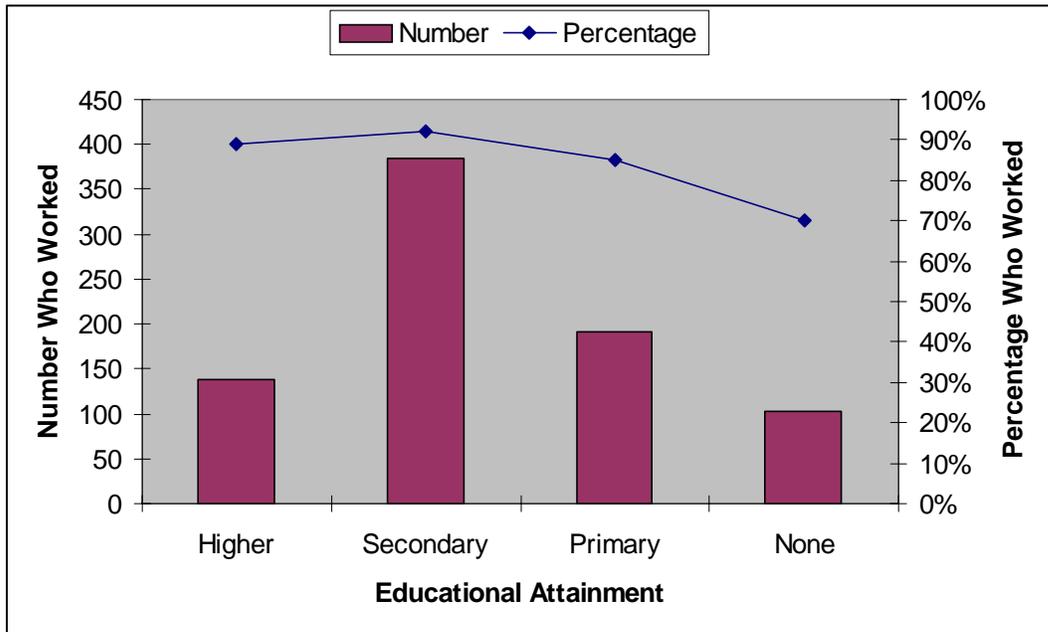
**Table 33: Refugee type and status for refugees who arrived in Portland, ME between 1998 and 2004, by educational attainment**

	Higher (N=155)	Secondary (N=418)	Primary (N=225)	None (N=146)
<b>Refugee type</b>				
Reunification	101 (65%)	263 (63%)	168 (75%)	124 (85%)
Free	54 (35%)	155 (37%)	57 (25%)	22 (15%)
<b>Refugee status</b>				
General	128 (83%)	336 (80%)	207 (92%)	137 (94%)
Secondary Migrant + Asylee	27 (18%)	82 (20%)	18 (8%)	9 (7%)

There was some variation in time spent by refugees with different educational backgrounds in the U.S. and Maine. Time spent in the U.S. ranged from an average of 52.7 months for refugees with no education to an average of 64 months for those with a secondary education. Time spent in Maine ranged from an average of 17.4 quarters for refugees with no education to an average of 20.1 quarters for refugees with a secondary education.

Refugees with different educational backgrounds had a range of employment experiences. **Chart 9** illustrates the percentage of refugees with different educational backgrounds who worked in Maine. Refugees with a secondary education worked at the highest rate (92 percent experienced at least one employment occurrence in Maine), while refugees with no education worked at the lowest rate (70 percent experienced at least one employment occurrence in Maine).

**Chart 9: Refugees who arrived in Portland, ME between 1998 and 2004 who worked, by educational attainment**



Refugees with a higher education or a secondary education found a job more quickly than refugees with a primary education or no education (**Table 34**). Refugees with a higher education experienced their first employment occurrence an average of 1.3 quarters after their arrival in Portland, while refugees with a primary education experienced their first employment occurrence an average of 3.7 quarters after their arrival. For those refugees who worked in Maine, well-educated refugees worked more consistently than less well-educated refugees. In fact, refugees with a higher and a secondary education had at least one employment occurrence in an average of 90 and 92 percent of their employable quarters, respectively. In contrast, refugees with a primary education and no education had at least one employment occurrence in an average of 86 and 82 percent of their employable quarters, respectively. Well-educated refugees found jobs quicker and worked more consistently than less well-educated refugees, giving them more work experience and helping them get ahead in the economy.

**Table 34: Employment outcomes for refugees who arrived in Portland, ME between 1998 and 2004, by educational attainment**

	Higher (N=155)	Secondary (N=418)	Primary (N=225)	None (N=146)
Experienced employment	138 (89%)	384 (92%)	191 (85%)	102 (70%)
Quarters until 1 <sup>st</sup> employment occurrence (mean/median)	1.3 / 1	1.6 / 1	3.7 / 2	3.5 / 2
Quarters between 1 <sup>st</sup> and most recent employment occurrences (mean/median)	15.1 / 15.5	16.6 / 18	13.6 / 15	13.0 / 14
# quarters with at least one employment occurrence (mean/median)	12.2 / 12	14.1 / 14	10.1 / 8	7.8 / 7
% of employable quarters with at least one employment occurrence	90%	92%	86%	82%
Number of employers (mean/median)	4.8 / 4	5.0 / 4	4.0 / 3	4.5 / 4
Number of quarters worked per employer (mean/median)	3.3 / 3	3.9 / 3	3.7 / 2.4	3.3 / 2.4

In addition to variations in work consistency, refugees with different educational backgrounds also differed in their work stability. Refugees with a higher education and refugees with no education worked an average of 3.3 quarters for each of their employers. Refugees with a secondary education worked an average of 3.9 quarters for each of their employers, while refugees with a primary education worked an average of 3.7 quarters for each of their employers. It is unclear why refugees with a higher education and no education were equally unstable in their jobs. Refugees with a higher education may have been relatively unstable in their jobs because they could easily find jobs with better pay or better working conditions, so they changed jobs relatively quickly. In contrast, refugees with no education may have been relatively unstable in their jobs because they were forced to rely on seasonal work or were terminated from employment more frequently than better-educated refugees. In the case of refugees with no education, it could also be the case that there is more opportunity to find extremely low wage employment that is characterized by high turnover and low selectivity. Additional research is necessary to determine why some refugees worked with less stability than others.

Educational attainment prior to arrival in the U.S. seemed to make little difference in the types of industries where refugees found their first jobs in Maine. In fact, for refugees from each level of educational attainment, the Administrative and support services and Accommodation industries provided the largest percentage of refugees a job in their first employment occurrence. Again, it is important to point out that the temporary help services businesses in the Administrative and support services industry place workers in businesses from a wide variety of industries, making it difficult to talk about a “typical” employment experience in this industry. Compared to refugees with some education prior to arrival in the U.S., a slightly smaller percentage of refugees with no formal education worked in the Administrative and support services industry, while a slightly larger percentage worked in the Accommodation industry. **Table 35** indicates the most popular industries for the first employment occurrence of refugees, by educational attainment.

**Table 35: The three most popular industries for the first employment occurrence of refugees, by educational attainment**

<b>Higher (N=138)</b>		<b>Secondary (N=384)</b>	
Administrative and support services	61 (45%)	Administrative and support services	190 (51%)
Accommodation	10 (7%)	Accommodation	48 (13%)
Social assistance	10 (7%)	Social assistance	17 (5%)

<b>Primary (N=191)</b>		<b>None (N=102)</b>	
Administrative and support services	72 (40%)	Administrative and support services	33 (35%)
Accommodation	32 (18%)	Accommodation	23 (25%)
Food services and drinking places	23 (13%)	Social assistance	8 (9%)

As **Table 36** shows, the Administrative and support services industry remained the largest employer of refugees in their most recent employment occurrence, regardless of educational attainment. Food manufacturing became an important source of employment in the most recent employment occurrence for refugees with at least some education, while Accommodation remained an important industry of employment for refugees with a primary education or no formal education.

**Table 36: The three most popular industries for the most recent employment occurrence of refugees, by educational attainment**

<b>Higher (N=138)</b>		<b>Secondary (N=384)</b>	
Administrative and support services	25 (19%)	Administrative and support services	70 (18%)
Food manufacturing	14 (10%)	Food manufacturing	69 (18%)
Merchant wholesalers, durable	12 (9%)	Merchant wholesalers, durable	28 (7%)

**Table 36 (continued)**

Primary (N=191)		None (N=102)	
Administrative and support services	41 (22%)	Administrative and support services	21 (23%)
Food manufacturing	22 (12%)	Accommodation	21 (23%)
Accommodation	15 (10%)	Social assistance	8 (9%)

Not surprisingly, among those refugees in Portland who worked, well-educated refugees tended to earn more than less well-educated refugees (**Table 37**). In fact, comparing average quarterly earnings (2005 dollars) for refugees who had a higher or secondary education revealed no significance difference. On the other hand, refugees with either a primary education or no education had average quarterly earnings (2005 dollars) that were approximately 75 percent of the earnings of refugees with higher or secondary educations.

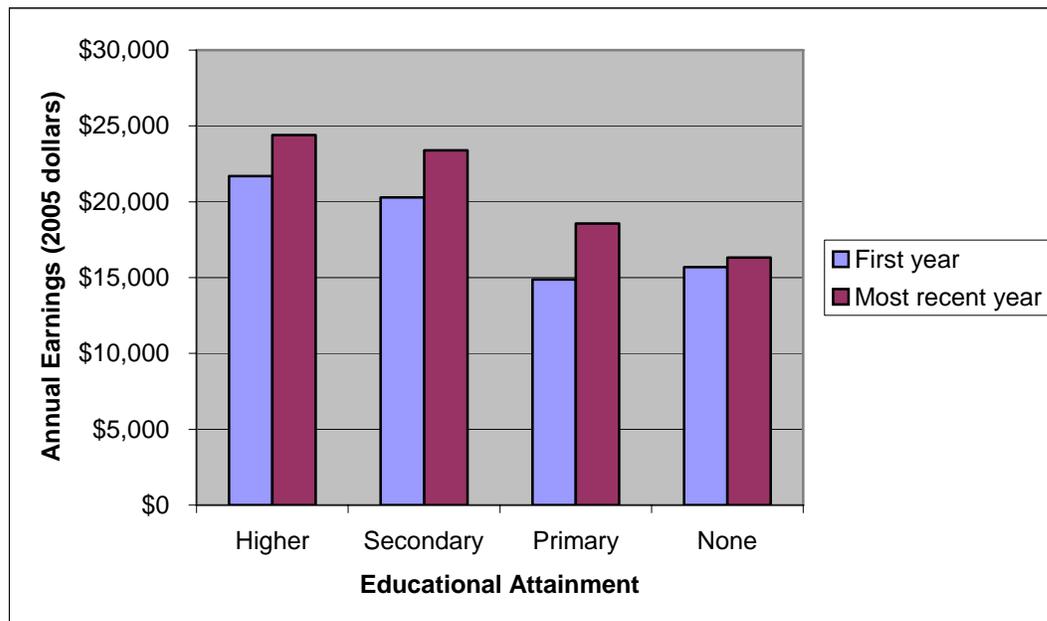
**Table 37: Earnings outcomes for refugees who arrived in Portland, ME between 1998 and 2004, by educational attainment**

	Higher (N=138)	Secondary (N=384)	Primary (N=191)	None (N=102)
Average quarterly earnings (2005)	\$5,352	\$5,359	\$3,933	\$4,078
First year earnings (2005) (mean/median)	\$21,687 / \$20,626	\$20,280 / \$19,905	\$14,879 / \$12,874	\$15,684 / \$13,619
Most recent year earnings (2005) (mean/median)	\$24,392 / \$23,922	\$23,399 / \$22,392	\$18,569 / \$15,757	\$16,325 / \$14,894
% increase in earnings (2005) (mean/median)	12% / 16%	15% / 12%	25% / 22%	4% / 9%

**Chart 10** illustrates, by educational attainment, the average annual earnings (2005 dollars) for refugees in their first and most recent years of work in Maine. On average, refugees from each level of educational attainment earned more in their most recent year

than their first year of work in Maine. Refugees with a primary education experienced the greatest percentage increase in earnings between their first and most recent years of work (25 percent). In contrast, refugees with no education experienced the smallest percentage increase in earnings (four percent).

**Chart 10: Average annual earnings (2005 dollars) in the first and most recent years of work for refugees who arrived in Portland, ME between 1998 and 2004, by educational attainment**



As mentioned previously in this report, educational systems differ in different countries. For example, some countries may have more advanced educational systems, or educational systems less affected by ongoing civil conflicts. Therefore, refugees from different countries may have had unequal opportunities to go to school. At the same time, in most countries where refugees originated, educational access was not equal: men were more likely than women to be able to go to school for longer periods of time. Therefore, demographic differences among refugees in Portland probably had a large effect on edu-

cational attainment. Well-educated refugees who arrived in Portland usually had more success finding employment and earned more money compared to less well-educated refugees, making access to education prior to arrival in Portland an important determinant of the economic success of refugees.

### **Level of English Fluency**

Demographic differences between refugees with different levels of English fluency mirrored the differences between refugees with different levels of educational attainment (**Table 38**). Male refugees were significantly more likely to speak at least some English than female refugees. In fact, 71 percent of refugees with “Good” English skills and 61 percent of refugees with “Fair” English skills were men. The majority of “Good” English-speakers (83 percent) and “Fair” English-speakers (61 percent) were from Africa. In contrast, among refugees with no English, 42 percent were from Africa compared to 52 percent from Eastern Europe. This is somewhat surprising since, on average, Eastern European refugees were better educated than African refugees, suggesting that Eastern Europeans would have more of an opportunity to learn English and would be overrepresented among “Good” and “Fair” English-speakers. Possibly, Eastern Europeans were educated primarily in an Eastern European language, while Africans were more likely to receive their educations in English. This potential difference in educational systems in the region of origin could help to explain this finding.

**Table 38: Demographic characteristics of refugees who arrived in Portland, ME between 1998 and 2004, by level of English fluency**

	Good (N=167)	Fair (N=186)	Poor (N=52)	None (N=443)
Age	33.9 / 33	33.7 / 32	35.3 / 34.5	38.1 / 36
Age at arrival in ME	29.5 / 28	29.1 / 27	30.6 / 30.5	33.0 / 31
Number (%) younger than 18 at arrival in ME	15 (9%)	26 (14%)	9 (17%)	68 (15%)
Gender				
Male	119 (71%)	114 (61%)	35 (67%)	218 (49%)
Female	48 (29%)	72 (39%)	17 (33%)	224 (51%)
Not Available	0	0	0	1
Region of origin				
Africa	139 (83%)	115 (62%)	39 (75%)	186 (42%)
Eastern Europe	25 (15%)	63 (34%)	10 (19%)	231 (52%)
Middle East + Other	3 (2%)	8 (5%)	3 (6%)	26 (6%)
Visible minority	85%	66%	81%	48%

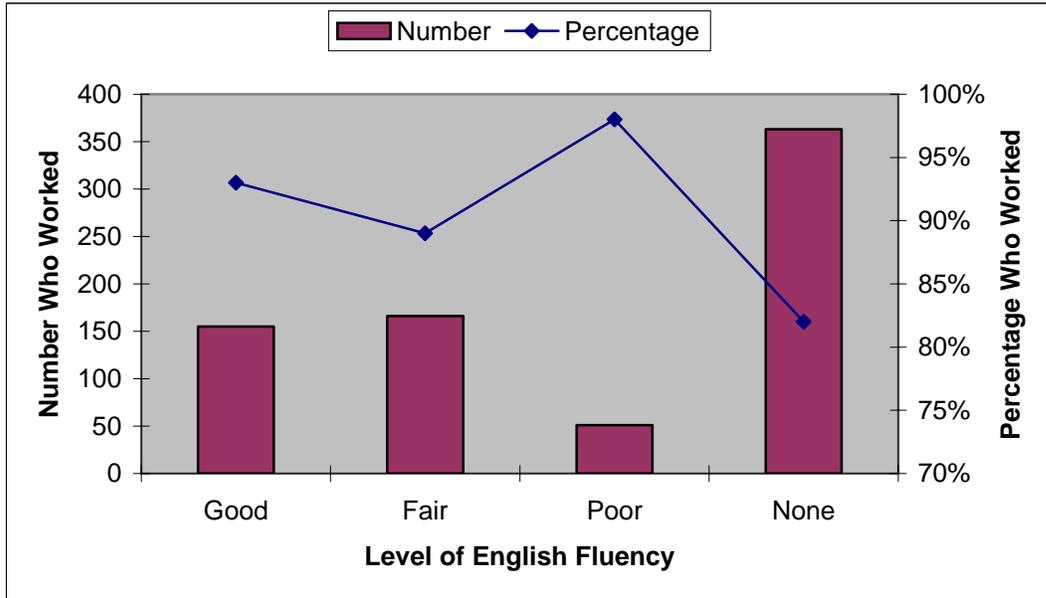
An examination of differences in refugee type and status by level of English fluency revealed virtually the same trends found by level of educational attainment (**Table 39**). For example, the proportion of refugees who arrived in Portland as a free case decreased as level of English fluency declined. Similarly, the proportion of secondary migrants who arrived in Portland decreased as level of English fluency declined (with the notable exception of refugees who spoke “Poor” English). These trends may be explained by the same reasons mentioned to explain similar trends for refugee type and status by educational attainment. Namely, it may be easier for refugees who speak better English to complete the necessary process to become a free case. Also, refugees who speak better English may be more likely to move to another state or seek services once they have moved compared to refugees who do not speak English well.

**Table 39: Refugee type and status for refugees who arrived in Portland, ME between 1998 and 2004, by level of English fluency**

	Good (N=167)	Fair (N=186)	Poor (N=52)	None (N=443)
Refugee type				
Reunification	102 (61%)	119 (64%)	37 (71%)	322 (73%)
Free	65 (39%)	67 (36%)	15 (29%)	121 (27%)
Refugee status				
General	106 (64%)	147 (79%)	28 (54%)	428 (97%)
Secondary Migrant + Asylee	61 (36%)	39 (21%)	24 (46%)	15 (3%)

Most existing research indicates that level of English fluency is an important determinant of employment and earnings outcomes for refugees resettling in the U.S. Evidence from this sample paints a more complicated picture of the role of English fluency in employment and earnings outcomes. As expected, refugees who spoke English worked in Maine at a greater rate than refugees who did not speak English. **Chart 11** shows that refugees who spoke English poorly were the most likely to have experienced at least one employment occurrence in Maine (98 percent). In contrast, refugees who did not speak English were the least likely to have experienced at least one employment occurrence in Maine (82 percent).

**Chart 11: Refugees who arrived in Portland, ME between 1998 and 2004 and worked, by level of English fluency**



**Table 40** shows employment outcomes for refugees in Portland. Less time elapsed between arrival in Portland and the first employment occurrence for refugees who spoke “Good” or “Fair” English instead of “Poor” English or no English. Despite this fact, refugees who spoke “Poor” English or no English had more employable quarters in Portland than refugees who spoke “Good” English. “Good” English-speakers averaged 13.8 employable quarters, while “Poor” English-speakers averaged 14.9 quarters and refugees who did not speak English averaged 16.2 quarters. With the exception of “Poor” English speakers, refugees with other levels of English fluency had at least one employment occurrence in about 90 percent of their employable quarters. “Poor” English-speakers had at least one employment occurrence in an average of 83 percent of their employable quarters.

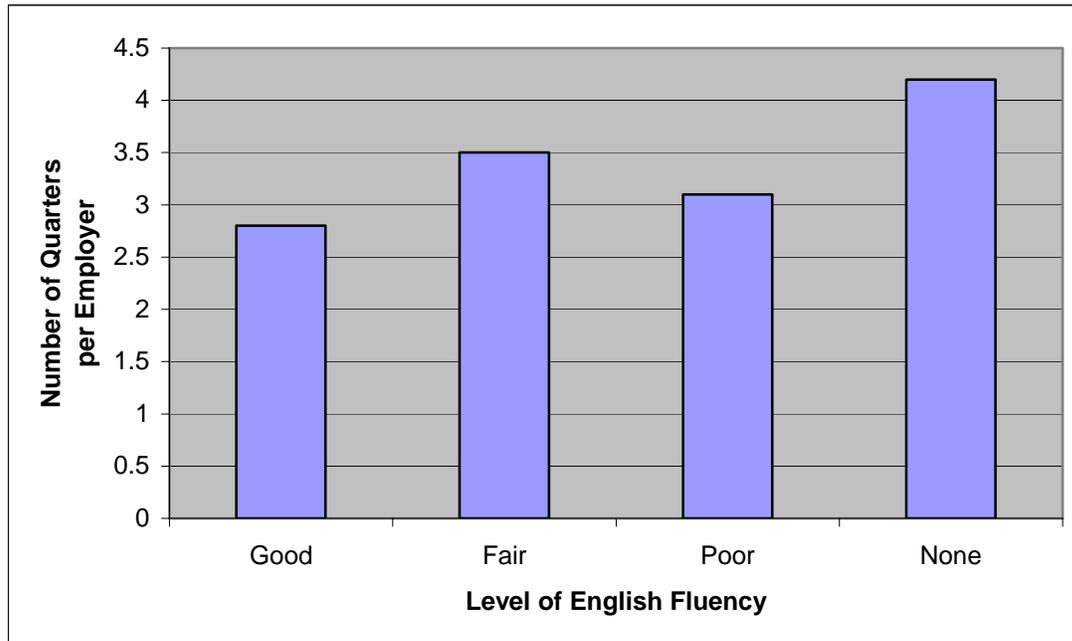
**Table 40: Employment outcomes for refugees who arrived in Portland, ME between 1998 and 2004, by level of English fluency**

	<b>Good (N=167)</b>	<b>Fair (N=186)</b>	<b>Poor (N=52)</b>	<b>None (N=443)</b>
Experienced employment	155 (93%)	166 (89%)	51 (98%)	363 (82%)
Quarters until 1 <sup>st</sup> employment occurrence (mean/median)	1.8 / 1	2.0 / 1	2.6 / 1	2.4 / 1
Quarters between 1 <sup>st</sup> and most recent employment occurrences (mean/median)	13.8 / 15	15.4 / 16	14.9 / 16	16.2 / 17
# quarters with at least one employment occurrence (mean/median)	11.6 / 12	12.5 / 12	12.7 / 12	12.1 / 12
% of employable quarters with at least one employment occurrence	90%	91%	83%	89%
Number of employers (mean/median)	5.5 / 4	4.9 / 4	4.6 / 4	4.4 / 4
Number of quarters worked per employer (mean/median)	2.8 / 2.3	3.5 / 2.8	3.1 / 2.4	4.2 / 3.2

Refugees who spoke better English upon arrival in Portland had more employers in Maine than refugees who spoke English less well upon arrival. “Good” English-speakers worked for an average of 5.5 employers, and “Fair” English-speakers worked for an average of 4.9 employers in Maine. In contrast, “Poor” English-speakers and those with no English worked for an average of 4.6 and 4.4 employers, respectively.

**Chart 12** shows the average number of quarters worked per employer for refugees by level of English fluency. “Good” English-speakers were the least stable workers, averaging only 2.8 quarters of work with each of their employers. “Fair” English-speakers, who worked for almost as many employers as “Good” English-speakers, were slightly more stable in their work habits, averaging 3.5 quarters of work for each of their employers. Refugees who spoke no English when they arrived in Portland were the most stable workers: they averaged 4.2 quarters of work for each of their employers. It is possible that “Good” English-speakers had more available employment choices compared to those who spoke no English. This may help to explain the observed differences in work stability between these two groups.

**Chart 12: Average number of quarters worked per employer for refugees who arrived and worked in Portland between 1998 and 2004, by level of English fluency**



Regardless of level of English fluency, most refugees began working in one of two industries: Administrative and support services and Accommodation. Depending upon a refugee’s level of English fluency, between 50 and 67 percent of refugees worked in one of these industries for their first employment occurrence. **Table 41** shows the most popular industries for the first employment occurrence of refugees, by level of English fluency.

**Table 41: The three most popular industries for the first employment occurrence of refugees, by level of English fluency**

Good (N=155)		Fair (N=166)	
Administrative and support services	69 (47%)	Administrative and support services	72 (44%)
Accommodation	14 (10%)	Accommodation	24 (15%)
Printing and related support	7 (5%)	Textile mills	8 (5%)

**Table 41 (continued)**  
**Poor (N=51)      None (N=363)**

Administrative and support services	20 (41%)	Administrative and support services	169 (48%)
Accommodation	4 (8%)	Accommodation	65 (19%)
Food services and drinking places	4 (8%)	Social assistance	18 (5%)

Similar to the industrial employment pattern for the first employment occurrence of refugees, two industries dominated employment for refugees in their most recent employment occurrence. Administrative and support services still employed the largest percentage of refugees from each level of English fluency, but the proportion of refugees working in this industry was substantially lower compared to the first employment occurrence. Food manufacturing was the industry that employed the second largest percentage of refugees in each level of English fluency in their most recent employment occurrence. **Table 42** shows the industries that employed the largest proportions of refugees from each level of English fluency in their most recent employment occurrence.

**Table 42: The three most popular industries for refugee's most recent employment occurrence, by level of English fluency**

<b>Good (N=155)</b>		<b>Fair (N=166)</b>	
Administrative and support services	46 (30%)	Administrative and support services	28 (17%)
Food manufacturing	10 (7%)	Food manufacturing	10 (7%)
Merchant wholesaler, durable	9 (7%)	Hospitals	14 (9%)

<b>Poor (N=51)</b>		<b>None (N=363)</b>	
Administrative and support services	8 (16%)	Administrative and support services	63 (18%)
Food manufacturing	7 (14%)	Food manufacturing	61 (18%)
Personal and laundry services	5 (10%)	Accommodation	41 (12%)

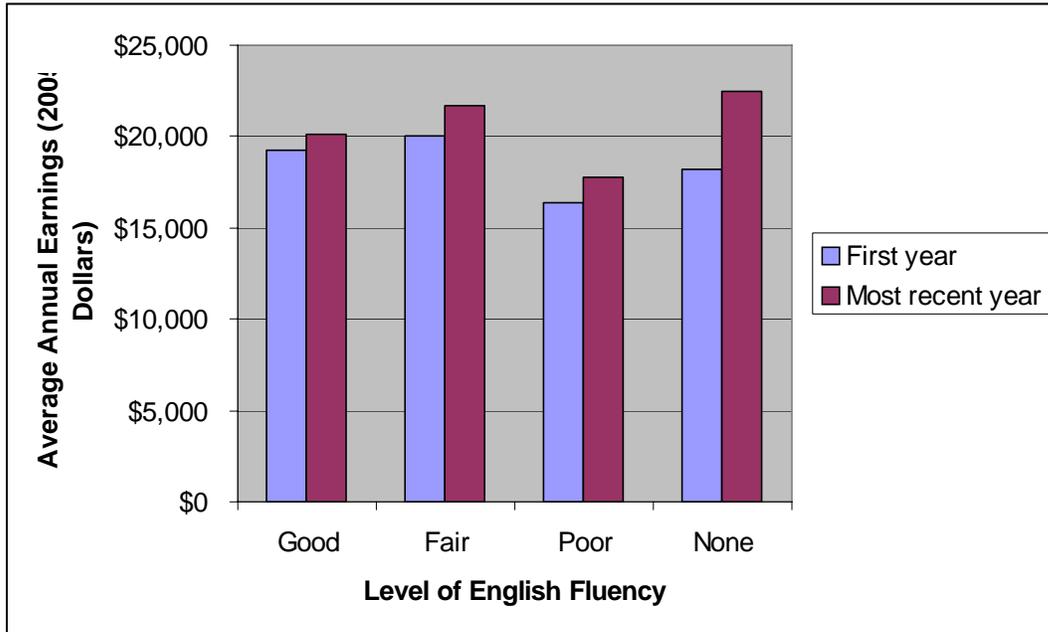
Level of English fluency was not well correlated with earnings for refugees who arrived and worked in Maine between 1998 and 2004. One would expect that refugees who spoke English well would earn more than refugees who spoke English poorly or not at all. In fact, as **Table 43** shows, average quarterly earnings (2005 dollars) were slightly higher for refugees who spoke no English than refugees who spoke “Good” English.

**Table 43: Earnings outcomes for refugees who arrived in Portland, ME between 1998 and 2004, by level of English fluency**

	Good (N=155)	Fair (N=166)	Poor (N=51)	None (N=363)
Average quarterly earnings (2005)	\$4,705	\$5,110	\$4,449	\$4,872
First year earnings (2005) (mean/median)	\$19,252 / \$19,447	\$20,073 / \$17,925	\$16,363 / \$15,818	\$18,171 / \$18,627
Most recent year earnings (2005) (mean/median)	\$20,107 / \$19,966	\$21,658 / \$20,290	\$17,793 / \$17,275	\$22,500 / \$20,991
% increase in earnings (2005) (mean/median)	4% / 3%	8% / 13%	9% / 9%	24% / 13%

As **Chart 13** illustrates, refugees at all levels of English fluency experienced, on average, an increase in earnings between their first year and most recent year of work in Maine. Earnings in the first year corresponded to expectations regarding level of English fluency: refugees with more English fluency earned more than those with less English fluency. In contrast, earnings in the most recent year did not correspond to expectations: refugees with no English upon arrival in Portland had higher average earnings than refugees in all of the other levels of English fluency. In addition, refugees with no English upon arrival in Portland had the highest percentage increase in average earnings between their first and most recent years of work in Maine, an increase of 24 percent. In contrast, refugees with “Good” English skills upon arrival in Portland had the lowest percentage increase in average earnings between their first and most recent years of work in Maine, an increase of four percent.

**Chart 13: Average annual earnings (2005 dollars) for the first and most recent years of work in Maine for refugees who arrived in Portland, ME between 1998 and 2004, by level of English fluency**

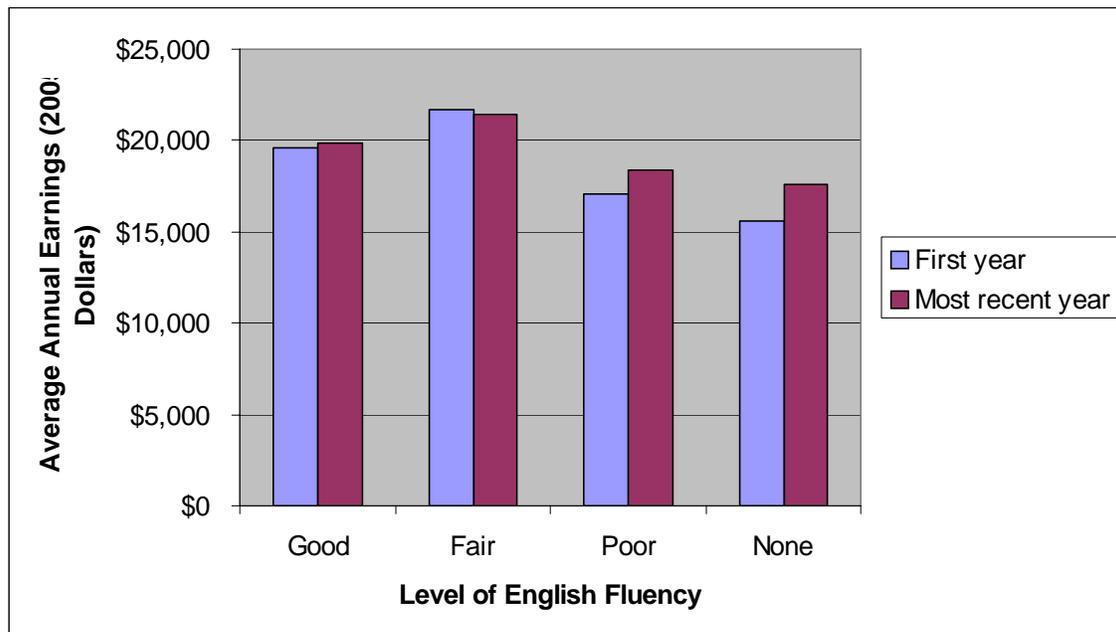


One possible explanation for this unexpected finding comes from an examination of who in the sample spoke no English upon arrival to Portland. Specifically, the majority of refugees who did not speak English upon arrival were from Eastern Europe. As **Table 28** in this report indicates, refugees from Eastern Europe were over-represented among refugees with a higher or secondary education. Refugees with these education levels tended to earn more than refugees with a primary education or no education. Therefore, the fact that this analysis shows higher earnings for refugees who did not speak English upon arrival in Maine compared to those who did may have been driven by the over-representation of Eastern Europeans among refugees who did not speak English upon arrival.

When Eastern Europeans are excluded from the sample, earnings by level of English fluency aligned more closely with expectations. As **Chart 14** indicates, when Eastern Europeans are excluded from the analysis refugees who spoke better English upon arrival earned more than refugees who spoke English poorly in their first and most recent years

of working in Maine. However, with the exclusion of Eastern Europeans, refugees who spoke Good or Fair English when they arrived in Portland experienced stagnation in earnings between their first and most recent years of working in Maine.

**Chart 14: Earnings of refugees who arrived in Portland, ME between 1998 and 2004 by level of English fluency (excluding refugees from Eastern Europe)**



The types of industries where Eastern Europeans worked may help to explain why they earned so much despite their arrival in Portland without high levels of English fluency. As **Table 44** indicates, about two-thirds of the Eastern European refugees who worked in Maine were employed in one of eight industries in their last employment occurrence. The largest percentage of Eastern Europeans (22%) was employed in the food manufacturing industry. **Table 44** also indicates the average inflation adjusted annual earnings (2005 dollars) for the most recent year of work for the individuals employed in

each of these industries during their most recent employment occurrence. Many of the industries where Eastern European refugees worked in their last employment occurrence involved production line or light industrial work and offered relatively high wages.

**Table 44: Industries where Eastern European refugees worked in their most recent employment occurrence**

<b>Industry</b>	<b>Number</b>	<b>Percentage</b>	<b>Most Recent Year Average Earnings (2005 Dollars)</b>
Food Manufacturing	76	22%	\$30,542
Administrative and Support Services	46	14%	\$17,409
Merchant wholesalers, durable	27	8%	\$25,451
Accommodation	19	5%	\$15,027
Social assistance	16	5%	\$16,027
Fabricated metal product manufacturing	17	5%	\$28,252
Hospitals	13	4%	\$24,469
Machinery manufacturing	13	4%	\$34,330
Other industries	112	33%	N/A
Total	339	100%	N/A

Most research regarding refugee employment has determined that the ability to speak English plays a vital role in determining employment and earnings outcomes for refugees. This analysis has uncovered a more complicated picture in Portland. In general, refugees who arrived in Portland speaking good or fair English had better employment and earnings outcomes than those who arrived speaking English poorly or not at all. A notable exception was the group of refugees from Eastern Europe, who experienced impressive employment and earnings outcomes despite the fact that few of them spoke English. This unique finding is probably explained by the fact that Eastern European refugees had relatively high levels of education and may have come to Portland with more experience in an industrial economy that was similar to Portland’s economy compared to refugees from other regions of the world.

## Time in Maine

The longer refugees lived in Portland, the more exposure they had to American culture, the English language, and, potentially, employment opportunities. All else equal, exposure to these things should have resulted in better employment and earnings outcomes for refugees. Dividing the refugees who arrived in Portland between 1998 and 2004 into arrival year cohorts results in groups of refugees with demographic differences that, in addition to time spent in Portland, could help explain differences in employment and earnings outcomes (**Table 45**). There were more males than females in each cohort, with the gender division approximating a 56 percent male and 44 percent female split in most cohorts. Age at arrival in Maine ranged from an average of 29.2 years old in 1999 to an average of 32.9 years old in 2002.

The percentage of individuals included in the cohort who were minors upon arrival in Maine decreased in successive cohorts. About 20 percent of the individuals included in the 1998 and 1999 cohorts were minors upon arrival in Maine, in contrast to only three percent in 2004. This pattern makes sense because, by 2005, many minors who arrived in 1998 were aged 18 or older and were thus included in the sample for analysis. In contrast, by 2005 most of the minors who arrived in 2004 were probably not adults, making them ineligible for this analysis.

**Table 45: Gender and age difference for refugees who arrived in Portland, ME between 1998 and 2004, by arrival year**

	1998 (N=196)	1999 (N=213)	2000 (N=204)	2001 (N=186)
Age (mean/median)	38.3 / 39.5	35.3 / 32	36.4 / 35	34.3 / 31
Age at arrival in ME (mean/median)	31.2 / 32.5	29.2 / 26	31.3 / 30	30.2 / 27
Number (%) younger than 18 at arrival in ME	39 (20%)	42 (20%)	27 (13%)	23 (13%)
Gender				
Male	110 (56%)	116 (55%)	115 (57%)	102 (55%)
Female	86 (44%)	97 (46%)	88 (43%)	84 (45%)
Not Available	0	0	1	0

**Table 45 (continued)**

	2002 (N=112)	2003 (N=107)	2004 (N=90)
Age (mean/median)	36.0 / 35	34.0 / 32	33.4 / 31
Age at arrival in ME (mean/median)	32.9 / 31.5	31.9 / 30	32.4 / 30
Number (%) younger than 18 at arrival in ME	8 (7%)	9 (8%)	3 (3%)
Gender			
Male	70 (63%)	61 (57%)	49 (55%)
Female	42 (38%)	46 (43%)	40 (45%)
Not Available	0	0	1

For refugees who arrived in Portland between 1998 and 2004, region of origin, educational attainment prior to arrival in the U.S., and level of English fluency varied dramatically by cohort (**Table 46**). Reflecting the timing of various conflicts that have occurred around the world, individuals from Eastern Europe dominated early cohorts and individuals from Africa dominated later cohorts. The most highly educated refugees arrived in 1998 and 2002, when 75 percent of the refugees who arrived in Portland had either a higher or secondary educational background. Refugees who arrived in 2003 were the least well educated: only 42 percent had either a higher or secondary educational background. Refugees who arrived in Portland without any formal education exceeded 20 percent of a cohort only twice, in 2001 and 2004. Generally, there was a steady decline between 1998 and 2004 in the percentage of refugees who arrived in Portland without any English skills: 62 percent of refugees who arrived in 1998 spoke no English, while 44 percent spoke no English in 2004. Usually, between one-fifth and one-quarter of the individuals in each cohort arrived in Portland with “Good” spoken English.

**Table 46: Region of origin, education, and English fluency differences among refugees who arrived in Portland, ME between 1998 and 2004, by arrival year**

	1998 (N=196)	1999 (N=213)	2000 (N=204)	2001 (N=186)
<b>Region of origin</b>				
Africa	35 (18%)	89 (42%)	142 (70%)	148 (80%)
Eastern Europe	147 (75%)	117 (55%)	51 (25%)	27 (15%)
Middle East	11 (6%)	7 (3%)	8 (4%)	6 (3%)
Other	3 (2%)	0 (0%)	3 (2%)	5 (3%)
Not Available	0	0	0	0
<b>Educational attainment</b>				
Higher	27 (15%)	31 (17%)	36 (20%)	20 (12%)
Secondary	105 (60%)	84 (45%)	62 (35%)	70 (41%)
Primary	34 (19%)	44 (24%)	45 (25%)	38 (23%)
None	9 (5%)	27 (15%)	36 (20%)	41 (24%)
Not Available	21	27	25	17
<b>English fluency</b>				
Good	16 (10%)	35 (20%)	37 (22%)	30 (20%)
Fair	39 (25%)	30 (17%)	30 (17%)	40 (26%)
Poor	4 (3%)	9 (5%)	18 (11%)	9 (6%)
None	98 (62%)	104 (58%)	87 (51%)	73 (48%)
Not Available	39	35	32	34

	2002 (N=112)	2003 (N=107)	2004 (N=90)
<b>Region of origin</b>			
Africa	68 (61%)	69 (65%)	81 (90%)
Eastern Europe	29 (26%)	11 (10%)	9 (10%) <sup>a</sup>
Middle East	14 (13%)	23 (22%)	--
Other	0 (0%)	4 (4%)	0 (0%)
Not Available	1	0	0
<b>Educational attainment</b>			
Higher	20 (23%)	13 (18%)	8 (11%)
Secondary	45 (52%)	29 (39%)	23 (31%)
Primary	18 (21%)	21 (28%)	25 (34%)
None	4 (5%)	11 (15%)	18 (24%)
Not Available	25	33	16
<b>English fluency</b>			
Good	21 (32%)	11 (22%)	17 (23%)
Fair	10 (15%)	17 (34%) <sup>b</sup>	21 (29%)
Poor	8 (12%)	--	3 (4%)
None	27 (41%)	22 (44%)	32 (44%)
Not Available	46	57	17

a = Eastern Europe + Middle East, b = Fair + Poor

The relative proportions of refugees by refugee type and refugee status changed over time, probably reflecting policy changes among CCMRIS and other entities that served refugees during this time period (**Table 47**). The proportion of reunification refugees gradually increased in each cohort. This change in the refugee type of each cohort occurred, at least in part, because CCMRIS made a policy decision to focus on reunification refugees in Maine after September 11<sup>th</sup>. However, the increasing proportion of reunification refugees in the arrival cohorts of refugees in Portland preceded 2002, suggesting that other factors were also pushing reunification cases toward Portland. One possible factor was the establishment of sizeable refugee populations living in Portland who could, in turn, sponsor family members or friends as reunification refugees.

Secondary migrants represented significant shares of each cohort until 2003, when they fell to below 10 percent of the cohort. The timing of this decline in secondary migrants coincided with the Refugee Services Program at the City of Portland beginning to serve large numbers of secondary migrants who arrived in Portland. Therefore, rather than reflect a decline in the number or proportion of secondary migrants coming to Portland, this change in cohort composition probably occurred because of a conscious policy decision that channeled many secondary migrants to the City of Portland for services. As mentioned previously in this report, secondary migrants served by the City of Portland instead of CCMRIS are not included in this analysis.

**Table 47: Refugee type and status differences among refugees who arrived in Portland, ME between 1998 and 2004, by arrival year**

	1998 (N=196)	1999 (N=213)	2000 (N=204)	2001 (N=184)
Refugee type				
Reunification	89 (45%)	148 (69%)	132 (65%)	144 (78%)
Free	107 (55%)	65 (31%)	72 (35%)	40 (22%)
Not Available	0	0	0	0
Refugee status				
General	174 (89%)	166 (78%)	161 (79%)	128 (70%)
Secondary Migrant	22 (11%)	47 (22%)	43 (21%)	51 (28%)
Asylee	0 (0%)	0 (0%)	0 (0%)	5 (3%)

**Table 47 (continued)**

	2002 (N=112)	2003 (N=107)	2004 (N=90)
Refugee type			
Reunification	69 (62%)	100 (93%)	90 (100%)
Free	42 (38%)	7 (7%)	0 (0%)
Not Available	1	0	0
Refugee status			
General	58 (52%)	92 (86%)	84 (93%)
Secondary Migrant	44 (40%)	7 (7%)	6 (7%)
Asylee	9 (8%)	8 (8%)	0 (0%)
Not Available	1	0	0

As cohorts differed demographically, they also differed with respect to the employment outcomes experienced by those in the cohort (**Table 48**). The percentage of individuals in each cohort who worked at least one job in Maine decreased in successive cohorts. For those arriving in Portland in 1998, 95 percent had worked in at least one job in Maine by the third quarter of 2005. In contrast, for those arriving in Portland in 2004, only 66 percent had worked in at least one job in Maine by the third quarter of 2005. With the exception of the 1998 cohort, individuals in most cohorts experienced their first employment occurrence approximately two quarters after arriving in Portland. As expected, those who arrived in earlier cohorts had more employable quarters and more employers than those who arrived in later cohorts. Generally, work stability increased over time, with those in the 1998 cohort averaging four quarters worked per employer and those in the 2004 cohort averaging two quarters worked per employer. These findings suggest that time spent in Portland may have exposed refugees to more work opportunities and improved their employment outcomes.

**Table 48: Employment outcomes for refugees who arrived in Portland, ME between 1998 and 2004, by year of arrival**

	1998 (N=196)	1999 (N=213)	2000 (N=204)	2001 (N=184)
Experienced employment	187 (95%)	179 (84%)	184 (90%)	149 (81%)
Quarters until 1 <sup>st</sup> employment occurrence (mean/median)	3.1 / 1	2.4 / 1	2.1 / 1	2.1 / 1
Quarters between 1 <sup>st</sup> and most recent employment occurrences (mean/median)	21.3 / 25	18.3 / 22	15.9 / 19	12.8 / 15
# quarters with at least one employment occurrence (mean/median)	19.5 / 21	15.7 / 17	14.3 / 17	11.7 / 14
% of employable quarters with at least one employment occurrence	90%	85%	87%	88%
Number of employers (mean/median)	5.9 / 5	5.9 / 5	4.8 / 4	4.6 / 4
Number of quarters worked per employer (mean/median)	4.0 / 3.3	3.3 / 2.4	4.4 / 3.2	3.3 / 2.7

	2002 (N=112)	2003 (N=107)	2004 (N=90)
Experienced employment	95 (85%)	90 (84%)	59 (66%)
Quarters until 1 <sup>st</sup> employment occurrence (mean/median)	1.7 / 1	2.0 / 2	1.7 / 1
Quarters between 1 <sup>st</sup> and most recent employment occurrences (mean/median)	9.2 / 10	6.5 / 7	3.8 / 4
# quarters with at least one employment occurrence (mean/median)	8.6 / 9	6.1 / 7	3.6 / 4
% of employable quarters with at least one employment occurrence	94%	90%	90%
Number of employers (mean/median)	3.3 / 3	2.7 / 2	2.2 / 2
Number of quarters worker per employer (mean/median)	3.3 / 2.6	2.8 / 2.5	2.0 / 1.5

The relationship between time spent in Portland and earnings is somewhat ambiguous. In general, average quarterly earnings (2005 dollars) were larger in earlier cohorts and smaller in later cohorts, though this trend was not consistent for all cohorts (**Table 49**). In particular, the 1999 and 2002 cohorts had average quarterly earnings that were lower than one would expect given the overall trend in earnings for all cohorts. It is unclear from available demographic and employment data why these cohorts earned less than expected.

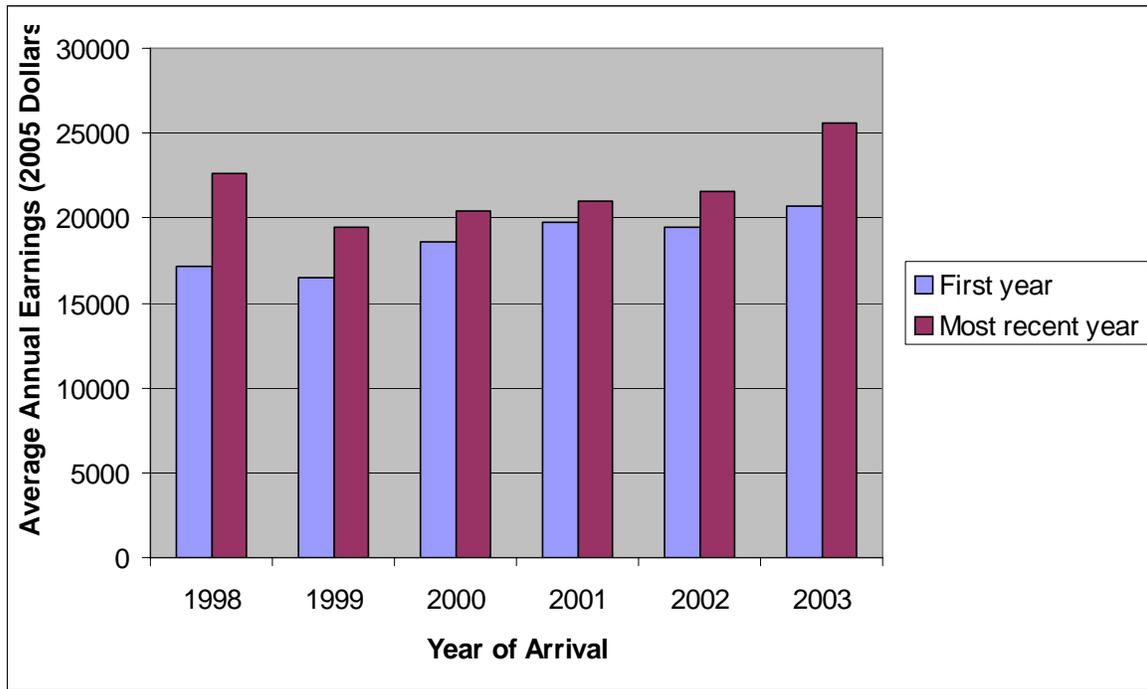
**Table 49: Earnings outcomes for refugees who arrived in Portland, ME between 1998 and 2004, by year of arrival**

	1998 (N=187)	1999 (N=179)	2000 (N=184)	2001 (N=149)
Average quarterly earnings (2005)	\$5,068	\$4,410	\$4,903	\$4,920
First year earnings (2005) (mean/median)	\$17,196 / \$18,022	\$16,497 / \$18,212	\$18,629 / \$17,437	\$19,768 / \$18,254
Most recent year earnings (2005) (mean/median)	\$22,630 / \$22,484	\$19,440 / \$19,097	\$20,423 / \$18,445	\$21,029 / \$19,435
% increase in earnings (2005) (mean/median)	32% / 25%	18% / 5%	10% / 6%	6% / 6%

	2002 (N=95)	2003 (N=90)	2004 (N=59)
Average quarterly earnings (2005)	\$4,544	\$4,686	\$4,470
First year earnings (2005) (mean/median)	\$19,430 / \$19,621	\$20,695 / \$17,657	\$24,282 / \$22,922
Most recent year earnings (2005) (mean/median)	\$21,558 / \$20,394	\$25,602 / \$19,574	N/A
% increase in earnings (2005) (mean/median)	11% / 4%	24% / 11%	N/A

Surprisingly, there was a slight negative relationship between average annual earnings in the first and most recent years of work and time spent in Portland (**Chart 15**). In other words, refugees who spent less time in Portland tended to earn more on average than refugees who spent more time in Portland. One reason that could explain this pattern is that as refugees spent more time in Portland, more of them found employment regardless of educational background or English fluency. Since refugees with more education earned more than refugees with less education, this could help explain why earlier cohorts had lower average earnings than later cohorts. This was in fact the case. By the third quarter of 2005, 78 percent of refugees with no education who arrived in 1998 found a job compared to only 44 percent of refugees with no education who arrived in 2004.

**Chart 15: Average annual earnings (2005 dollars) from the first and most recent years of work in Maine for refugees who arrived in Portland, ME between 1998 and 2003, by year of arrival**



In general, refugees who spent more time in Portland experienced better employment and earnings outcomes. This probably occurred because refugees with more time in Portland were exposed to more educational opportunities, more chances to learn or practice English, and more work experiences. Together, these factors may have given refugees with a longer tenure in Portland an advantage over those with a shorter tenure in Portland.

## V. Conclusion and Recommendations

Refugees who now call Portland home hail from countries from around the world, each arriving in Portland with a unique story, full of hardships and successes. These refugees have brought varied backgrounds, experiences and skills with them, making Portland not only a more diverse place, but also adding to the city's labor supply. As this report has shown, the vast majority of adult refugees who came to Portland between 1998 and 2004 worked in jobs and became a part of the local economy. However, the economic success of recently arrived refugees in Portland has ranged from those who struggled to find and keep decent paying work, to those whose earnings surpassed many native born residents of Portland.

The analysis in this report suggests that, while it is important to make generalizations with caution, there are five key findings about the economic experiences of refugees in Portland.

1. **Refugees in Portland have increased Portland's diversity and injected a substantial number of working-aged adults into the labor force.** In fact, over 90 percent of recently arrived refugees came from a country in Africa or Eastern Europe; about 75 percent were between the ages of 18 and 44; and 85 percent have found work since they arrived in Maine.
2. **The Administrative and support services industry emerged as the most important source of employment for refugees.** Almost all of the refugees who worked in this industry worked for a temporary help services business. Nearly half of the refugees who worked in Maine found their first job at a temporary help services business. The industry remained an important source of employment for refugees: about one-fifth of the refugees who worked in Maine worked at a temporary help services business in their most recent job. However, employment in this industry is correlated with low earnings.

3. **The average earnings of recently arrived refugees increased over time, but they still earned significantly less than typical workers in Portland.** On average, recently arrived refugees had about three and one half years of employment activity in Portland and over this period their inflation adjusted earnings increased by about 15 percent. However, the average earnings of recently arrived refugees in their most recent year of work was just over half of the amount earned by a typical worker in Portland.
4. **Refugees who worked consistently and stably earned substantially more and experienced greater economic mobility than those who worked inconsistently and unstably.** These disparate outcomes are due, at least in part, to the large amounts of work experience in Maine gained by refugees who worked consistently and stably.
5. **Economic success for recently arrived refugees was concentrated among those who were well educated and spoke English when they arrived in the U.S.** Experience in an economy resembling Portland's economy also seemed to give a refugee an advantage. Refugees from Eastern Europe, who probably had work experience in an economy that was most similar to Portland's, fared best: their inflation adjusted earnings increased over 25 percent during their time in Portland. On the other hand, the earnings of refugees from Africa were nearly stagnant and the earnings of refugees from the Middle East decreased during their time in Portland.

These general findings should be used to help create policies and programs that match the range of needs of the refugee community in Portland. Of course, any policy or program that aims to improve outcomes for refugees in Portland must acknowledge that a significant portion of refugee resettlement policy in the U.S. is determined at the national level by Congress and the federal bureaucracy. For example, the Office of Refugee Resettlement (ORR) is the federal office that funds, via nonprofit agencies like Catholic Charities Maine, most of the assistance for refugees when they first arrive in the U.S.

Federal legislation rather than the local Catholic Charities Maine office determines levels of funding from ORR and time restrictions on available assistance to refugees. While there is sometimes additional funding available from ORR in the case of large numbers of refugees who unexpectedly arrive in a city, the federal refugee resettlement program is largely inflexible, requiring states and localities to seek alternate solutions when the resources provided by the federal government are not enough to help refugees attain self-sufficiency.

Fortunately, new approaches are already underway in Portland to help refugees. Refugees are served by multiple state and local government agencies, and nonprofits. Each entity working with refugees in Portland brings with it valuable expertise and services. Leaders from these entities have recognized that increased cooperation and communication between them, through a partnership called the Refugee Collaborative, could be very helpful to refugee clients who are served simultaneously by multiple agencies. This is a promising step in the coordination of services for refugee clients in Portland that will undoubtedly pay significant dividends for refugees who now live in Portland and those who arrive in the future.

With the findings from this report, the limitations that accompany federal support of refugee resettlement, and current efforts underway in Portland to more effectively serve refugees in mind, this report concludes with several recommendations. All of the recommendations start from the premise that refugees who come to Maine should receive the assistance necessary to help them become self-sufficient in a reasonable amount of time, regardless of the intensity of their needs. This is a bold statement that may be impossible to fulfill in some cases, such as refugees who arrive in Maine with chronic health conditions or very elderly refugees. However, this statement should serve as a goal to strive for in the case of each refugee who arrives in Maine.

Recommendations address two broad topics: **English language instruction** and **education**, since (1) these are more easily controlled at the state and local level, and (2) this report has shown that English fluency and educational attainment are both important

determinants of a refugee's economic success. Refugees who arrived in Maine without speaking English or speaking only poor English usually found work, but may have become stuck in entry-level, low-wage work that did not provide much chance of earnings progression. Refugees lacking education fared poorly compared to well-educated refugees, but even well educated refugees did not achieve earnings close to typical workers in Portland. Therefore, strategies that help refugees learn English better and translate or adapt their existing skills to the labor market in Maine will improve refugee economic outcomes.

**Recommendation 1: Maine state government, in partnership with employers and refugees, should fund workplace English education courses.**

English language classes offered on site at the workplace provide a solution to a thorny problem faced by refugees and those who help them with resettlement: how is it possible to meet the federal mandate that refugees find employment as soon as possible without education in the English language that will eventually help with economic mobility? Currently, workplace English classes are offered at some large Portland businesses that employ substantial numbers of refugees and recognize the need for an English-speaking workforce. Other businesses that hire refugees may not offer workplace English classes for several reasons: they only have a small number of refugees working for them, they do not have the resources available to offer this type of training, or they fear that refugees will take a “free ride” by using their English course to learn the language and then find a better job at a different business.

Investment by the state to partially fund workplace English classes could solve the dilemma faced by refugees and resettlement workers, as well as ease some of the concerns of businesses. First, coupling English instruction with work allows refugees to begin employment while increasing their English skills simultaneously. Second, partial government funding for workplace English classes helps to reduce the free rider problem because it reduces the investment that a business must make. Third, a “magnet” approach that organized centralized English instruction classes by industry could interest busi-

nesses that only hire a small number of refugees or those with few resources to fund their own English instruction course. Clearly, state government should not be the sole provider of funds to sponsor workplace English instruction courses. Instead, employers and refugees themselves should also contribute a share of the expenses so that all parties have an interest in the quality and longevity of the program.

An existing state program, known as the Governor’s Training Initiative (GTI), was designed to assist Maine businesses with retraining and educational needs for their workforces. In the past, some businesses have taken advantage of GTI to help offer English classes to workers. The GTI should be expanded or replicated with the express intention of helping businesses that hire refugees offer English classes for their workers.

**Recommendation 2: Service providers should focus more intensely on refugees who are illiterate in their native languages when providing English language instruction and an introduction to working in Maine.**

This report found that recently arrived refugees in Portland came from an astounding variety of backgrounds, including the degree to which they could speak English and their educational attainment prior to arrival in the U.S. In the sample used in the analysis of this report, about 28 percent of refugees with known English fluency and educational attainment prior to arrival in the U.S. arrived without English and no formal education or only a primary school education. These individuals may have never “learned how to learn” and methods of English instruction that are effective for most English Language Learners may be ineffective with them. They are likely to require more intensive instruction that does not match the methods of English instruction currently available in Portland.

At the same time, these refugees who are functionally illiterate in their own languages probably have little experience with working in an industrial economy. They are unlikely to understand the importance of a variety of conventional expectations in the workplace, such as punctuality. A supervised work program could help to introduce these

refugees to some of these conventions and give them a place to practice their fledgling English in an environment where mistakes are not met with immediate employment termination. The keys to making a supervised work program successful are subsidizing the wages of refugees in training and providing a job coach who trains refugees and ensures that the work is completed. These steps minimize the risks assumed by businesses willing to work with such a program.

Intensive English language classes that are appropriate for refugees who are functionally illiterate in their own languages should be offered to these refugees soon after their arrival in the U.S. in order to take advantage of the fact that federal funds can help to pay their living expenses for their first eight months in the country. Pairing this intensive English language instruction with a supervised work environment, like one currently provided by Coastal Enterprises, Inc., would help to introduce refugees to the English language and employment expectations simultaneously.

**Recommendation 3: The state government, local governments, and the Maine University System should take a more active role in helping refugees translate or adapt their existing skills to the context of the Maine labor market.**

Recently arrived refugees in Portland came with a variety of skills, many of which could be translated to make the refugees who possess them more marketable in Maine's labor market. Of course, there are limitations on how easily existing skills are translated. For example, refugees who were physicians in their countries of origin usually must go through an arduous process to become licensed physicians in the U.S. Still, there may be related positions, such as a nurse or physician assistant, that take less time to qualify for, use existing skills, pay reasonably well, and offer an avenue for economic mobility. The same could be true for refugees who held other kinds of professional positions in their countries of origin. In some cases, such as those refugees who were farmers or experts in animal husbandry in their countries of origin, there may be farming opportunities in Maine.

In any of these cases, it is necessary to provide refugees with access to technical assistance and training in order to make existing skills marketable in Maine's economy. There are examples of these kinds of programs at the University of Southern Maine, which help well-educated refugees become certified teachers, and Coastal Enterprises, Inc., which help refugees who were former farmers work in agriculture (the New American Sustainable Agriculture Project). There is room for considerably more assistance for these refugees from the state and local government, and institutions of higher education.

These recommendations should be the start of an important series of conversations between policymakers at the state and local levels, nonprofit service providers, and refugees living in Portland. Refugees must play an important part in future discussions regarding policies and programs designed to assist refugees with self-sufficiency. After all, who is better to articulate the problems faced by refugees and potential solutions that could solve the problems, than refugees themselves? It should also be noted that Portland is one of two communities in Maine with substantial numbers of refugees living there. The other is Lewiston, Maine, which is home to thousands of recently arrived refugees, the majority of whom are from Somalia. Since the size and health of Lewiston's economy differ significantly from Portland's economy, it is unclear how transferable the findings from this report are to the situation in Lewiston. Therefore, in order to gain a more comprehensive understanding of the economic experiences of refugees in Maine, it is important to analyze the employment and earnings outcomes of the refugee population in Lewiston in a similar way.

# Appendices

## Appendix 1: Confidentiality Protocol

### Project Summary

This research project examined the post-resettlement and post-relocation labor market experiences of a pool of adult refugees who arrived in Portland between January 1, 1998 and December 31, 2004. Demographic data for these refugees was connected to employment and wage data available through the Maine Department of Labor (MDOL). The ability to connect these data sources using social security numbers is a relatively new development with immense potential to inform refugee resettlement workers, policy makers, refugee communities, and a wider academic audience on the labor market experiences of refugees.

This research called for merging wage records maintained by the MDOL with individual-level refugee data collected by Catholic Charities Maine Refugee and Immigrant Services (CCMRIS). This combined dataset allowed the tracking of employment outcomes, earnings, and economic mobility of refugees who resettled or relocated to Maine. While the creation of this dataset required the temporary use of sensitive personal identifiers, the use of this information was subject to strict confidentiality protocols. **The final dataset did not include any personal identifying information and therefore posed no threat to any individual refugee's privacy.** The steps that were taken to preserve the confidentiality of research subjects are described below.

### Confidentiality Measures

Ryan Allen, a PhD candidate at the Massachusetts Institute of Technology (MIT), was the researcher directing this project. He had this research project approved by a separate Internal Review Board (IRB) process at MIT to ensure that the research embodied ethical practices and ensured the confidentiality of research subjects.

Confidentiality was of particular concern in this project because it was necessary to use, on a temporary basis, sensitive information in order to conduct the research. Normally, the Health Insurance Portability and Accountability Act (HIPAA) protects some of the information used in this analysis. HIPAA is designed to protect individually identifiable health information, known as protected health information. Social security numbers and an individual's date of birth are considered protected health information and, therefore, an "Authorization for Release of Protected Health Information" is usually required before this information can be released to an individual working outside of the agency who originally collected the information.

There are exceptions to this requirement for research projects that satisfy certain conditions. The disclosure of protected health information (like a social security number or date of birth) without a subject's specific prior authorization is possible if the research has a sound purpose and cannot be practically conducted without access to the protected health information; the research cannot be practically conducted without a waiver of authorization; and the disclosure involves no more than minimal risk to the privacy of the research subject.

This project fulfilled these requirements in the following ways. First, the research involved linking a dataset of demographic information from refugee case files to a dataset of labor market information using social security numbers of refugees. Social security numbers were the only means of linking these two datasets and, as a result, the success of this project rested on being able to acquire the social security numbers of refugees who settled in Portland. Further, an individual's age plays an important role in their labor market experiences, but it is impossible to calculate a research subject's age without first knowing their date of birth. Therefore, without these two pieces of information, it would have been extremely difficult to assess the labor market experiences of refugees in Maine. Second, gaining the consent of all, or even a portion, of the refugees who moved to Portland during this timeframe and are now living in various parts of Portland,

the State of Maine, or even the U.S. would have been prohibitively difficult. Therefore, it was necessary to obtain a waiver of authorization for the use of these data. Third, the researcher who conducted this project established strict security procedures for handling the data and reporting research findings, making the risks to a refugee's privacy minimal, probably no greater than everyday living.

Accessing data from CCMRIS was conducted in a manner that strictly controlled personal identifiers. First, refugee demographic data from CCMRIS included the following personal identifiers: social security number (SSN) and date of birth (DOB). **Aside from the SSN and DOB, no personal identifiers were included in data from CCMRIS.** At the time of receiving the CCMRIS dataset, the DOB data field was used to create an Age data field (calculated using the DOB and September 1, 2005) and convert DOB data to reflect only the year of birth. The researcher assigned a randomly generated, unique numerical identifier (**IDENTIFIER**) to each refugee record. He created a crosswalk file that listed each refugee's SSN and corresponding **IDENTIFIER**. This file resided on a secure CCMRIS server and was accessible only by the researcher and CCMRIS personnel.

The researcher used the SSNs from the crosswalk file to extract data on employment and earnings kept by the MDOL. To the extent that technical support was necessary from MDOL to extract labor market data, SSNs were suppressed from view while working on computer terminals. Instead, the **IDENTIFIER** was used to keep track of the employment and earnings records. Upon matching the refugee demographic records with the corresponding employment and earnings for each refugee, the researcher permanently deleted the SSNs from the final dataset, leaving the **IDENTIFIER** as the only way to identify each record. **Therefore, the final dataset did not include any personal identifiers.** Research results were presented in published materials in aggregate for the entire group of refugees, or in subsets that contained no fewer than three refugees. As such, the use of this de-identified dataset for research purposes did not pose any threat to the privacy of any individual refugees.

**Appendix 2: Refugees who arrived in Portland between 1998 and 2004**

**N=1,106**

Age (mean/median)	35.7 / 33
Age at arrival in ME (mean/median)	31.0 / 29
Number (%) younger than 18 at arrival in ME	151 (14%)
Gender	
Male	622 (56%)
Female	482 (44%)
Not Available	2
Region of origin	
Africa	630 (57%)
Eastern Europe	389 (35%)
Middle East	71 (6%)
Other	15 (1%)
Not Available	1
Visible minority	716 (65%)
Educational attainment	
Higher	155 (16%)
Secondary	418 (44%)
Primary	225 (24%)
None	146 (15%)
Not Available	162
English fluency	
Good	167 (20%)
Fair	186 (22%)
Poor	52 (6%)
None	443 (52%)
Not Available	258
Refugee type	
Reunification	772 (70%)
Free	333 (30%)
Not Available	1
Refugee status	
General	863 (78%)
Secondary Migrant	220 (20%)
Asylee	22 (2%)
Not Available	1
Months in US (mean/median)	59 / 61
Months in ME (mean/median)	56.1 / 59
Quarters in ME (mean/median)	18.7 / 20
Experienced employment	943 (85%)
Quarters until 1 <sup>st</sup> employment occurrence (mean/median)	2.3 / 1
Quarters between 1 <sup>st</sup> and most recent employment occurrences (mean/median)	14.6 / 13
# quarters with at least one employment occurrence (mean/median)	13.2 / 13
% of employable quarters with at least one employment occurrence	90%
Number of employers (mean/median)	4.7 / 4
Number of quarters worked per employer (mean/median)	3.5 / 2.7
Average quarterly earnings (2005)	\$4,762
First year earnings (2005) (mean/median)	\$18,489 / \$18,000
Most recent year earnings (2005) (mean/median)	\$21,223 / \$19,807
% increase in earnings (2005) (mean/median)	15% / 10%

**Appendix 3: Refugees who arrived in Portland between 1998 and 2004, by work status**

	<b>Work in Maine (N=943)</b>	<b>No work in Maine (N=163)</b>
Age (mean/median)	34.9 years / 33 years	39.7 years / 35 years
Age at arrival in ME (mean/median)	30.2 / 28	35.5 / 32
Number (%) younger than 18 at arrival in ME	134 (14%)	17 (10%)
Gender		
Male	550 (58%)	72 (45%)
Female	393 (42%)	89 (55%)
Not available	0	2
Region of origin		
Africa	524 (56%)	106 (65%)
Eastern Europe	347 (37%)	42 (26%)
Middle East	57 (6%)	15 (9%) <sup>a</sup>
Other	14 (1%)	--
Not available	1	0
Visible minority	595 (63%)	121 (74%)
Educational attainment		
Higher	138 (17%)	17 (13%)
Secondary	384 (47%)	34 (26%)
Primary	191 (23%)	34 (26%)
None	102 (13%)	44 (34%)
Not available	128	34
English fluency		
Good	155 (21%)	12 (11%)
Fair	166 (23%)	21 (19%) <sup>b</sup>
Poor	51 (7%)	--
None	364 (49%)	79 (71%)
Not available	207	51
Refugee type		
Reunification	644 (68%)	35 (21%)
Free	298 (32%)	128 (79%)
Not available	1	0
Refugee status		
General	729 (77%)	134 (82%)
Secondary Migrant	194 (21%)	26 (16%)
Asylee	19 (2%)	3 (2%)
Not available	1	0
Months in US (mean/median)	60.9 / 63	50.4 / 54
Months in ME (mean/median)	57.7 / 60	46.9 / 48
Quarters in ME (mean/median)	19.3 / 20	15.7 / 16

a = Middle East + Other, b = Fair + Poor

**Appendix 4: Refugees who arrived in Portland between 1998 and 2004, by age**

	18-21 (N=141)	22-24 (N=114)	25-34 (N=323)	35-44 (N=252)
Age at arrival in ME (mean/median)	15.4 / 15	18.3 / 18	24.6 / 25	34.1 / 34
Number (%) younger than 18 at arrival in ME	111 (78%)	39 (34%)	a	0 (0%)
Gender				
Male	89 (63%)	64 (56%)	167 (52%)	154 (61%)
Female	52 (37%)	50 (44%)	155 (48%)	98 (39%)
Not available	0	0	1	0
Region of origin				
Africa	95 (67%)	78 (68%)	194 (60%)	145 (58%)
Eastern Europe	33 (23%)	28 (25%)	99 (31%)	84 (34%)
Middle East + Other	13 (9%)	8 (7%)	30 (9%)	22 (9%)
Not available	0	0	0	1
Visible minority	108 (77%)	86 (75%)	224 (70%)	167 (66%)
Educational attainment				
Higher	0 (0%)	4 (4%)	48 (18%)	48 (23%)
Secondary	24 (20%)	37 (37%)	148 (54%)	109 (52%)
Primary	69 (59%)	31 (31%)	50 (18%)	35 (17%)
None	25 (21%)	27 (27%)	29 (11%)	17 (8%)
Not available	23	15	48	43
English fluency				
Good	15 (15%)	17 (20%)	61 (25%)	45 (24%)
Fair	23 (23%)	17 (20%)	72 (29%)	45 (24%)
Poor	8 (8%)	5 (6%)	13 (5%)	12 (6%)
None	55 (55%)	47 (55%)	99 (40%)	88 (46%)
Not available	40	28	78	62
Refugee type				
Reunification	113 (81%)	89 (78%)	221 (68%)	151 (60%)
Free	27 (19%)	25 (22%)	102 (32%)	101 (40%)
Not available	1	0	0	0
Refugee status				
General	124 (89%)	91 (80%)	227 (70%)	191 (75%)
Secondary Migrant	16 (11%)	20 (18%)	89 (28%)	53 (21%)
Asylee	0 (0%)	3 (3%)	7 (2%)	8 (3%)
Not available	1	0	0	0
Months in US (mean/median)	52.3 / 55	58.8 / 59	58.8 / 60	59.9 / 63
Months in ME (mean/median)	51.3 / 55	57.0 / 58.5	54.1 / 56	56.8 / 60
Quarters in ME (mean/median)	17.1 / 18	19.1 / 19.5	18.1 / 19	18.9 / 20
Experienced employment	122 (87%)	103 (90%)	275 (85%)	226 (89%)
Quarters until 1 <sup>st</sup> employment occurrence (mean/median)	6.3 / 4.5	1.7 / 1	1.6 / 1	1.6 / 1
Quarters between 1 <sup>st</sup> and most recent employment occurrences (mean/median)	10.6 / 9	13.9 / 16	14.4 / 15	15.4 / 16
# quarters with at least one employment occurrence (mean/median)	8.7 / 7	11.7 / 12	13.1 / 13	14.3 / 14
% of employable quarters with at least one employment occurrence	81%	81%	90%	93%
Number of employers (mean/median)	3.7 / 3	5.8 / 5	5.0 / 4	5.0 / 4
Number of quarters worked per employer (mean/median)	2.6 / 2.1	2.3 / 2	3.3 / 2.5	3.8 / 2.8
Average quarterly earnings (2005)	\$2,125	\$3,668	\$5,012	\$5,664
First year earnings (2005) (mean/median)	\$6,533 / \$4,977	\$12,748 / \$10,412	\$19,884 / \$18,986	\$22,414 / \$19,867
Most recent year earnings (2005) (mean/median)	\$9,005 / \$6,844	\$16,871 / \$13,494	\$21,567 / \$20,386	\$24,947 / \$22,946
% increase in earnings (2005)	38% / 38%	32% / 30%	8% / 7%	11% / 15%

a = excluded from table to ensure confidentiality

**Appendix 4: Refugees who arrived in Portland between 1998 and 2004, by age ranges (continued)**

	45-54 (N=164)	55-64 (N=82)	65+ (N=30)
Age at arrival in ME (mean/median)	43.6 / 43.5	53.9 / 53	63.5 / 62.5
Number (%) younger than 18 at arrival in ME	0 (0%)	0 (0%)	0 (0%)
Gender			
Male	87 (53%)	45 (55%)	16 (55%)
Female	77 (47%)	37 (45%)	13 (45%)
Not available	0	0	1
Region of origin			
Africa	56 (34%)	40 (49%)	22 (73%)
Eastern Europe	96 (59%)	42 (51%) <sup>b</sup>	8 (27%)
Middle East + Other	12 (8%)	--	0 (0%)
Not available	0	0	0
Visible minority	68 (41%)	41 (49%)	22 (73%)
Educational attainment			
Higher	31 (21%)	17 (26%)	7 (23%)
Secondary	79 (53%)	18 (28%)	3 (10%)
Primary	25 (17%)	11 (17%)	4 (13%)
None	13 (9%)	19 (29%)	16 (53%)
Not available	16	17	0
English fluency			
Good	21 (15%)	6 (10%)	--
Fair	20 (14%)	6 (10%)	5 (18%) <sup>c</sup>
Poor	10 (7%)	--	--
None	90 (64%)	46 (79%) <sup>d</sup>	22 (81%) <sup>d</sup>
Not available	23	24	3
Refugee type			
Reunification	115 (70%)	58 (71%)	26 (84%)
Free	49 (30%)	24 (29%)	4 (16%)
Not available	0	0	0
Refugee status			
General	142 (87%)	62 (76%)	25 (83%)
Secondary Migrant + Asylee	22 (14%)	20 (24%)	5 (17%)
Not available	0	0	0
Months in US (mean/median)	65.9 / 71	61.3 / 63	55.4 / 59
Months in ME (mean/median)	61.7 / 70	58.5 / 60.5	53.1 / 56.5
Quarters in ME (mean/median)	20.7 / 23.5	19.5 / 20	17.7 / 19
Experienced employment	149 (91%)	57 (70%)	13 (43%)
Quarters until 1 <sup>st</sup> employment occurrence (mean/median)	1.8 / 1	2.3 / 1	1.8 / 1
Quarters between 1 <sup>st</sup> and most recent employment occurrences (mean/median)	17.4 / 19	15.2 / 16	12.2 / 12
# quarters with at least one employment occurrence	16.3 / 17	14 / 15	10.6 / 12
% of employable quarters with at least one employment occurrence	92%	91%	82%
Number of employers (mean/median)	4.1 / 4	3.9 / 3	3 / 3
Number of quarters worked per employer (mean/median)	4.6 / 4	4.6 / 3.25	3.5 / 3.8
Average quarterly earnings (2005)	\$5,522	\$5,403	\$4,402
First year earnings (2005) (mean/median)	\$21,597 / \$21,548	\$21,249 / \$20,811	\$18,828 / \$14,171
Most recent year earnings (2005) (mean/median)	\$24,950 / \$23,723	\$22,598 / \$20,420	\$16,938 / \$17,151
% increase in earnings (2005)	16% / 10%	6% / (2%)	(10%) / 21%

b = Eastern Europe + Middle East + Other, c = Fair + Good, d = None + Poor

**Appendix 5: Refugees who arrived in Portland between 1998 and 2004, by gender**

	<b>Males (N=622)</b>	<b>Females (N=482)</b>
Age (mean/median)	35.4 / 34	36.0 / 33
Age at arrival in ME (mean/median)	30.8 / 29	31.3 / 28
Number (%) younger than 18 at arrival in ME	95 (15%)	56 (12%)
Region of origin		
Africa	366 (59%)	262 (55%)
Eastern Europe	208 (33%)	181 (38%)
Middle East	39 (6%)	32 (7%)
Other	9 (1%)	6 (1%)
Not available	0	1
Visible minority	414 (66%)	300 (62%)
Educational attainment		
Higher	108 (20%)	47 (11%)
Secondary	246 (47%)	172 (41%)
Primary	122 (23%)	103 (25%)
None	51 (10%)	94 (23%)
Not available	95	66
English fluency		
Good	119 (25%)	48 (13%)
Fair	114 (24%)	72 (20%)
Poor	35 (7%)	17 (5%)
None	218 (45%)	224 (62%)
Not available	136	121
Refugee type		
Reunification	418 (67%)	352 (73%)
Free	203 (33%)	130 (27%)
Not available	1	0
Refugee status		
General	460 (74%)	402 (83%)
Secondary Migrant	145 (23%)	74 (15%)
Asylee	16 (3%)	6 (1%)
Not available	1	0
Months in US (mean/median)	59.9 / 62	58.8 / 61
Months in ME (mean/median)	55.9 / 59	56.4 / 59
Quarters in ME (mean/median)	18.7 / 20	18.9 / 20
Experienced employment	547 (88%)	395 (82%)
Quarters until 1 <sup>st</sup> employment occurrence (mean/median)	1.9 / 1	2.9 / 1
Quarters between 1 <sup>st</sup> and most recent employment occurrences (mean/median)	14.9 / 15	14.2 / 15
# quarters with at least one employment occurrence (mean/median)	13.4 / 13	12.9 / 13
% of employable quarters with at least one employment occurrence	89%	88%
Number of employers (mean/median)	5.1 / 4	4.0 / 3
Number of quarters worked per employer (mean/median)	3.3 / 2.5	3.8 / 3
Average quarterly earnings (2005)	\$5,118	\$4,254
First year earnings (2005) (mean/median)	\$19,647 / \$19,574	\$16,768 / \$16,054
Most recent year earnings (2005) (mean/median)	\$22,325 / \$20,568	\$19,557 / \$17,966
% increase in earnings (2005)	14% / 5%	17% / 12%

**Appendix 6: Refugees who arrived in Portland between 1998 and 2004, by region of origin**

	Africa (N=630)	E. Europe (N=389)	Middle East (N=71)
Age (mean/median)	33.9 / 31	39.0 / 39	32.2 / 32
Age at arrival in ME (mean/median)	29.9 / 27	33.2 / 33	28.2 / 27
Number (%) younger than 18 at arrival in ME	88 (14%)	51 (13%)	10 (14%)
Gender			
Male	366 (58%)	208 (54%)	39 (55%)
Female	262 (42%)	181 (47%)	32 (45%)
Not available	2	0	0
Educational attainment			
Higher	70 (14%)	72 (20%)	11 (19%)
Secondary	174 (34%)	212 (58%)	28 (48%)
Primary	132 (26%)	76 (21%)	19 (32%) <sup>a</sup>
None	136 (27%)	7 (2%)	--
Not available	118	22	13
English fluency			
Good	139 (29%)	25 (8%)	3 (9%)
Fair	115 (24%)	63 (19%)	8 (23%) <sup>b</sup>
Poor	39 (8%)	10 (3%)	--
None	186 (39%)	231 (70%)	24 (69%)
Not available	151	60	36
Refugee type			
Reunification	453 (72%)	256 (66%)	51 (72%)
Free	177 (28%)	132 (34%)	20 (28%)
Not available	0	1	0
Refugee status			
General	430 (68%)	362 (93%)	64 (90%)
Secondary Migrant	183 (29%)	26 (7%) <sup>c</sup>	7 (10%)
Asylee	17 (3%)	--	0 (0%)
Not available	0	1	0
Months in US (mean/median)	53.1 / 56	71.4 / 74	48.7 / 37
Months in ME (mean/median)	48.9 / 51	69.5 / 74	47.4 / 37
Quarters in ME (mean/median)	16.3 / 17	23.2 / 25	15.8 / 12
Experienced employment	522 (83%)	347 (89%)	57 (80%)
Quarters until 1 <sup>st</sup> employment occurrence (mean/median)	2.4 / 1	1.9 / 1	3.6 / 2
Quarters between 1 <sup>st</sup> and most recent employment occurrences (mean/median)	12.5 / 13	18.6 / 21	10.6 / 8
# quarters with at least one employment occurrence (mean/median)	11.1 / 10.5	17.3 / 18	8.5 / 7
% of employable quarters with at least one employment occurrence	87%	92%	83%
Number of employers (mean/median)	4.7 / 4	4.8 / 4	3.5 / 2
Number of quarters worked per employer (mean/median)	2.9 / 2.3	4.5 / 3.5	3.4 / 3
Average quarterly earnings (2005)	\$4,519	\$5,337	\$3,664
First year earnings (2005) (mean/median)	\$18,315 / \$16,837	\$19,346 / \$19,867	\$15,085 / \$11,956
Most recent year earnings (2005) (mean/median)	\$19,321 / \$17,137	\$24,377 / \$23,703	\$13,772 / \$9,439
% increase in earnings (2005) (mean/median)	5% / 2%	26% / 19%	(9%) / (21%)

a = Primary + None, b = Fair + Poor, c = Secondary Migrant + Asylee

**Appendix 7: Refugees who arrived in Portland between 1998 and 2004, by country of origin<sup>32</sup>**

	<b>Somalia (N=234)</b>	<b>Sudan (N=315)</b>	<b>Yugoslavia (N=344)</b>
Age (mean/median)	34.7 / 31	33.1 / 31	39.2 / 39
Age at arrival in ME (mean/median)	30.3 / 27	29.4 / 26.5	33.2 / 33
Number (%) younger than 18 at arrival in ME	29 (12%)	49 (16%)	46 (13%)
Gender			
Male	136 (58%)	181 (58%)	187 (54%)
Female	97 (42%)	133 (42%)	157 (46%)
Not available	1	1	0
Educational attainment			
Higher	22 (12%)	30 (11%)	51 (16%)
Secondary	51 (27%)	100 (37%)	200 (61%)
Primary	31 (17%)	90 (33%)	71 (22%)
None	82 (44%)	53 (19%)	6 (2%)
Not available	48	42	16
English fluency			
Good	39 (22%)	79 (31%)	25 (8%)
Fair	33 (19%)	65 (26%)	59 (20%)
Poor	16 (9%)	18 (7%)	7 (2%)
None	88 (50%)	91 (36%)	212 (70%)
Not available	58	62	41
Refugee type			
Reunification	175 (75%)	242 (77%)	211 (62%)
Free	59 (25%)	73 (23%)	132 (39%)
Not available	0	0	1
Refugee status			
General	128 (55%)	256 (81%)	318 (93%)
Secondary Migrant	100 (43%)	59 (19%)	25 (7%) <sup>a</sup>
Asylee	6 (3%)	0 (0%)	--
Not available	0	0	1
Months in US (mean/median)	60.8 / 61	48.1 / 54	72.7 / 74
Months in ME (mean/median)	54.6 / 54	45 / 50	70.7 / 74
Quarters in ME (mean/median)	18.2 / 18	15.1 / 17	23.6 / 25
Experienced employment	187 (80%)	265 (84%)	320 (93%)
Quarters until 1 <sup>st</sup> employment occurrence (mean/median)	1.9 / 1	2.9 / 1	1.8 / 1
Quarters between 1 <sup>st</sup> and most recent employment occurrences (mean/median)	12.1 / 12	12.8 / 13	18.8 / 21
# quarters with at least one employment occurrence (mean/median)	8.3 / 7	9.5 / 8	16.3 / 17
% of employable quarters with at least one employment occurrence	84%	88%	92%
Number of employers (mean/median)	5.0 / 4	4.6 / 4	4.9 / 4
Number of quarters worked per employer (mean/median)	2.5 / 2	3.2 / 2.3	4.5 / 3.5
Average quarterly earnings (2005)	\$3,877	\$4,973	\$5,412
First year earnings (2005) (mean/median)	\$16,392 / \$15,429	\$19,491 / \$17,804	\$19,656 / \$20,439
Most recent year earnings (2005) (mean/median)	\$15,462 / \$12,543	\$21,164 / \$18,745	\$24,676 / \$23,838
% increase in earnings (2005) (mean/median)	(6%) / (19%)	9% / 5%	26% / 17%

a = Secondary Migrant + Asylee

<sup>32</sup> Only refugees from Somalia, Sudan, and the former Yugoslavia are included in this portion of the analysis, since no other country accounted for more than five percent of the total number of refugees in the sample.

**Appendix 8: Refugees who arrived in Portland between 1998 and 2004, by educational attainment**

	Higher (N=155)	Secondary (N=418)	Primary (N=225)	None (N=146)
Age	40.9 / 38	35.9 / 34.5	31.2 / 27	37.2 / 30
Age at arrival in ME	36.1 / 34	30.9 / 29	26.6 / 23	32.9 / 27
Number (%) younger than 18 at arrival in ME	a	30 (7%)	76 (34%)	27 (19%)
Gender				
Male	108 (70%)	246 (59%)	122 (54%)	51 (35%)
Female	47 (30%)	172 (41%)	103 (46%)	94 (65%)
Not available	0	0	0	1
Region of origin				
Africa	70 (14%)	174 (34%)	132 (26%)	136 (27%)
Eastern Europe	72 (20%)	212 (58%)	76 (21%)	7 (2%)
Middle East + Other	13 (8%)	32 (8%)	17 (8%)	3 (2%)
Not available	0	0	0	0
Visible minority	83 (54%)	206 (49%)	149 (66%)	139 (95%)
English fluency				
Good	60 (46%)	77 (21%)	24 (12%)	0 (0%)
Fair	24 (18%)	103 (27%)	46 (24%)	6 (5%) <sup>b</sup>
Poor	3 (2%)	32 (9%)	14 (7%)	--
None	44 (34%)	164 (44%)	110 (57%)	118 (95%)
Not available	24	42	31	22
Refugee type				
Reunification	101 (65%)	263 (63%)	168 (75%)	124 (85%)
Free	54 (35%)	155 (37%)	57 (25%)	22 (15%)
Not available	0	0	0	0
Refugee status				
General	128 (83%)	336 (80%)	207 (92%)	137 (94%)
Secondary Migrant + Asylee	27 (17%)	82 (20%)	18 (8%)	9 (6%)
Not available	0	0	0	0
Months in US (mean/median)	60.4 / 63	64.0 / 66.5	55.4 / 60	52.7 / 55.5
Months in ME (mean/median)	57.9 / 61	60.1 / 63.5	54.6 / 59	52.2 / 55
Quarters in ME (mean/median)	19.3 / 20	20.1 / 21	18.3 / 20	17.4 / 18
Experienced employment	138 (89%)	384 (92%)	191 (85%)	102 (70%)
Quarters until 1 <sup>st</sup> employment occurrence (mean/median)	1.3 / 1	1.6 / 1	3.7 / 2	3.5 / 2
Quarters between 1 <sup>st</sup> and most recent employment occurrences (mean/median)	15.1 / 15.5	16.6 / 18	13.6 / 15	13.0 / 14
# quarters with at least one employment occurrence (mean/median)	12.2 / 12	14.1 / 14	10.1 / 8	7.8 / 7
% of employable quarters with at least one employment occurrence	90%	92%	86%	82%
Number of employers (mean/median)	4.8 / 4	5.0 / 4	4.0 / 3	4.5 / 4
Number of quarters worked per employer (mean/median)	3.3 / 3	3.9 / 3	3.7 / 2.4	3.3 / 2.4
Average quarterly earnings (2005)	\$5,352	\$5,359	\$3,933	\$4,078
First year earnings (2005) (mean/median)	\$21,687 / \$20,626	\$20,280 / \$19,905	\$14,879 / \$12,874	\$15,684 / \$13,619
Most recent year earnings (2005) (mean/median)	\$24,392 / \$23,922	\$23,399 / \$22,392	\$18,569 / \$15,757	\$16,325 / \$14,894
% increase in earnings (2005) (mean/median)	12% / 16%	15% / 12%	25% / 22%	4% / 9%

a = excluded from the table to ensure confidentiality, b = Fair + Poor

**Appendix 9: Refugees who arrived in Portland between 1998 and 2004, by level of English fluency**

	<b>Good (N=167)</b>	<b>Fair (N=186)</b>	<b>Poor (N=52)</b>	<b>None (N=443)</b>
Age	33.9 / 33	33.7 / 32	35.3 / 34.5	38.1 / 36
Age at arrival in ME	29.5 / 28	29.1 / 27	30.6 / 30.5	33.0 / 31
Number (%) younger than 18 at arrival in ME	15 (9%)	26 (14%)	9 (17%)	68 (15%)
Gender				
Male	119 (71%)	114 (61%)	35 (67%)	218 (49%)
Female	48 (29%)	72 (39%)	17 (33%)	224 (51%)
Not available	0	0	0	1
Region of origin				
Africa	139 (83%)	115 (62%)	39 (75%)	186 (42%)
Eastern Europe	25 (15%)	63 (34%)	10 (19%)	231 (52%)
Middle East + Other	3 (2%)	8 (5%)	3 (6%)	26 (6%)
Not available	0	0	0	0
Visible minority	85%	66%	81%	48%
Educational attainment				
Higher	60 (37%)	24 (14%)	3 (6%)	44 (10%)
Secondary	77 (48%)	103 (58%)	32 (63%)	164 (38%)
Primary	24 (15%)	46 (26%)	16 (32%) <sup>a</sup>	110 (25%)
None	0 (0%)	4 (2%)	--	118 (27%)
Not available	6	9	1	7
Refugee type				
Reunification	102 (61%)	119 (64%)	37 (71%)	322 (73%)
Free	65 (39%)	67 (36%)	15 (29%)	121 (27%)
Not available	0	0	0	0
Refugee status				
General	106 (64%)	147 (79%)	28 (54%)	428 (97%)
Secondary Migrant +Asylee	61 (36%)	39 (21%)	24 (46%)	15 (3%)
Not available	0	0	0	0
Months in US (mean/median)	59.0 / 61	60.3 / 63	70.0 / 64	61.1 / 65
Months in ME (mean/median)	53.8 / 56	56.2 / 57.5	56.8 / 62	60.7 / 65
Quarters in ME (mean/median)	18.0 / 19	18.8 / 19	18.9 / 20.5	20.3 / 22
Experienced employment	155 (93%)	166 (89%)	51 (98%)	363 (82%)
Quarters until 1 <sup>st</sup> employment occurrence (mean/median)	1.8 / 1	2.0 / 1	2.6 / 1	2.4 / 1
Quarters between 1 <sup>st</sup> and most recent employment occurrences (mean/median)	13.8 / 15	15.4 / 16	14.9 / 16	16.2 / 17
# quarters with at least one employment occurrence (mean/median)	11.6 / 12	12.5 / 12	12.7 / 12	12.1 / 12
% of employable quarters with at least one employment occurrence	90%	91%	83%	89%
Number of employers (mean/median)	5.5 / 4	4.9 / 4	4.6 / 4	4.4 / 4
Number of quarters worked per employer (mean/median)	2.8 / 2.3	3.5 / 2.8	3.1 / 2.4	4.2 / 3.2
Average quarterly earnings (2005)	\$4,705	\$5,110	\$4,449	\$4,872
First year earnings (2005) (mean/median)	\$19,252 / \$19,447	\$20,073 / \$17,925	\$16,363 / \$15,818	\$18,171 / \$18,627
Most recent year earnings (2005) (mean/median)	\$20,107 / \$19,966	\$21,658 / \$20,290	\$17,793 / \$17,275	\$22,500 / \$20,991
% increase in earnings (2005) (mean/median)	4% / 3%	8% / 13%	9% / 9%	24% / 13%

a = Primary + None

**Appendix 10: Refugees who arrived in Portland between 1998 and 2004, by refugee type**

	<b>Reunification (N=772)</b>	<b>Free (N=333)</b>
Age (mean/median)	35.3 / 32	36.6 / 35
Age at arrival in ME (mean/median)	31.0 / 28	31.1 / 30
Number (%) younger than 18 at arrival in ME	112 (15%)	38 (11%)
Gender		
Male	418 (54%)	203 (61%)
Female	352 (46%)	130 (39%)
Not available	2	0
Educational attainment		
Higher	101 (15%)	54 (19%)
Secondary	263 (40%)	155 (54%)
Primary	168 (26%)	57 (20%)
None	124 (19%)	22 (8%)
Not available	116	45
English fluency		
Good	102 (18%)	65 (24%)
Fair	119 (21%)	67 (25%)
Poor	37 (6%)	15 (6%)
None	322 (56%)	121 (45%)
Not available	192	65
Region of origin		
Africa	453 (59%)	177 (53%)
Eastern Europe	256 (33%)	132 (40%)
Middle East	51 (7%)	20 (6%)
Other	11 (1%)	4 (1%)
Not available	1	0
Visible minority	511 (66%)	201 (60%)
Refugee status		
General	625 (81%)	238 (72%)
Secondary Migrant	135 (18%)	85 (26%)
Asylee	12 (2%)	10 (3%)
Not available	0	0
Months in US (mean/median)	54.7 / 59	70.4 / 71
Months in ME (mean/median)	51.7 / 55	66.4 / 71
Quarters in ME (mean/median)	17.3 / 18	22.2 / 24
Experienced employment	642 (83%)	298 (89%)
Quarters until 1 <sup>st</sup> employment occurrence (mean/median)	2.4 / 1	2.0 / 1
Quarters between 1 <sup>st</sup> and most recent employment occurrences (mean/median)	13.3 / 13	17.2 / 18
# quarters with at least one employment occurrence (mean/median)	12.0 / 11	15.6 / 15.5
% of employable quarters with at least one employment occurrence	88%	90%
Number of employers (mean/median)	4.4 / 3	5.4 / 5
Number of quarters worked per employer (mean/median)	3.5 / 2.7	3.5 / 2.7
Average quarterly earnings (2005)	\$4,770	\$4,749
First year earnings (2005) (mean/median)	\$17,840 / \$18,000	\$18,819 / \$18,139
Most recent year earnings (2005) (mean/median)	\$20,701 / \$19,840	\$21,519 / \$19,739
% increase in earnings (2005)	16% / 10%	14% / 9%

**Appendix 11: Refugees who arrived in Portland between 1998 and 2004, by refugee status<sup>33</sup>**

	<b>General (N=863)</b>	<b>Secondary Migrant (N=220)</b>
Age (mean/median)	35.8 / 34	34.9 / 33
Age at arrival in ME (mean/median)	31.2 / 29	30.3 / 27
Number (%) younger than 18 at arrival in ME	134 (16%)	16 (7%)
Gender		
Male	460 (53%)	145 (66%)
Female	402 (47%)	74 (34%)
Not available	1	1
Region of origin		
Africa	430 (50%)	183 (84%)
Eastern Europe	362 (42%)	24 (11%)
Middle East	64 (7%)	7 (3%)
Other	7 (1%)	5 (2%)
Not available	0	1
Educational attainment		
Higher	128 (16%)	23 (18%)
Secondary	336 (42%)	78 (62%)
Primary	207 (26%)	17 (14%)
None	137 (17%)	8 (6%)
Not available	55	94
English fluency		
Good	106 (15%)	54 (42%)
Fair	147 (21%)	37 (29%)
Poor	28 (4%)	23 (18%)
None	428 (60%)	14 (11%)
Not available	154	92
Visible minority	501 (58%)	195 (89%)
Refugee type		
Reunification	625 (72%)	135 (61%)
Free	238 (28%)	85 (39%)
Not available	0	0
Months in US (mean/median)	56.5 / 60	72.8 / 67.5
Months in ME (mean/median)	56.5 / 60	56.7 / 56
Quarters in ME (mean/median)	18.9 / 20	18.9 / 19
Experienced employment	725 (84%)	194 (88%)
Quarters until 1 <sup>st</sup> employment occurrence (mean/median)	2.5 / 1	1.7 / 1
Quarters between 1 <sup>st</sup> and most recent employment occurrences (mean/median)	15.0 / 16	13.4 / 14
# quarters with at least one employment occurrence (mean/median)	13.7 / 14	11.8 / 12
% of employable quarters with at least one employment occurrence	89%	86%
Number of employers (mean/median)	4.5 / 4	5.5 / 5
Number of quarters worked per employer (mean/median)	3.8 / 3	2.6 / 2.2
Average quarterly earnings (2005)	\$4,926	\$4,161
First year earnings (2005) (mean/median)	\$18,692 / \$18,322	\$17,421 / \$16,670
Most recent year earnings (2005) (mean/median)	\$22,503 / \$20,551	\$16,446 / \$14,965
% increase in earnings (2005)	20% / 12%	(6%) / (10%)

<sup>33</sup> Asylees (N=22) are excluded from this portion of the analysis, due to their small number in the sample.

**Appendix 12: Refugees who arrived in Portland between 1998 and 2004, by year of arrival in ME**

	1998 (N=196)	1999 (N=213)	2000 (N=204)	2001 (N=186)
Age	38.3 / 39.5	35.3 / 32	36.4 / 35	34.3 / 31
Age at arrival in ME	31.2 / 32.5	29.2 / 26	31.3 / 30	30.2 / 27
Number (%) younger than 18 at arrival in ME	39 (20%)	42 (20%)	27 (13%)	23 (13%)
Gender				
Male	110 (56%)	116 (55%)	115 (57%)	102 (55%)
Female	86 (44%)	97 (46%)	88 (43%)	84 (45%)
Not available	0	0	1	0
Region of origin				
Africa	35 (18%)	89 (42%)	142 (70%)	148 (80%)
Eastern Europe	147 (75%)	117 (55%)	51 (25%)	27 (15%)
Middle East	11 (6%)	7 (3%)	8 (4%)	6 (3%)
Other	3 (2%)	0 (0%)	3 (2%)	5 (3%)
Not available	0	0	0	0
Visible minority	49 (25%)	96 (45%)	153 (75%)	157 (85%)
Educational attainment				
Higher	27 (15%)	31 (17%)	36 (20%)	20 (12%)
Secondary	105 (60%)	84 (45%)	62 (35%)	70 (41%)
Primary	34 (19%)	44 (24%)	45 (25%)	38 (23%)
None	9 (5%)	27 (15%)	36 (20%)	41 (24%)
Not available	21	27	25	17
English fluency				
Good	16 (10%)	35 (20%)	37 (22%)	30 (20%)
Fair	39 (25%)	30 (17%)	30 (17%)	40 (26%)
Poor	4 (3%)	9 (5%)	18 (11%)	9 (6%)
None	98 (62%)	104 (58%)	87 (51%)	73 (48%)
Not available	39	35	32	34
Refugee type				
Reunification	89 (45%)	148 (69%)	132 (65%)	144 (78%)
Free	107 (55%)	65 (31%)	72 (35%)	40 (22%)
Not available	0	0	0	2
Refugee status				
General	174 (89%)	166 (78%)	161 (79%)	128 (70%)
Secondary Migrant	22 (11%)	47 (22%)	43 (21%)	51 (28%)
Asylee	0 (0%)	0 (0%)	0 (0%)	5 (3%)
Not available	0	0	0	2
Months in US (mean/median)	86.4 / 84	75.4 / 74	62.7 / 61	54.3 / 51
Months in ME (mean/median)	84.9 / 84	73.3 / 73	61.4 / 61	50.0 / 50
Quarters in ME (mean/median)	28.3 / 28	24.6 / 24	20.5 / 20	16.7 / 17
Experienced employment	187 (95%)	179 (84%)	184 (90%)	149 (81%)
Quarters until 1 <sup>st</sup> employment occurrence (mean/median)	3.1 / 1	2.4 / 1	2.1 / 1	2.1 / 1
Quarters between 1 <sup>st</sup> and most recent employment occurrences (mean/median)	21.3 / 25	18.3 / 22	15.9 / 19	12.8 / 15
# quarters with at least one employment occurrence (mean/median)	19.5 / 21	15.7 / 17	14.3 / 17	11.7 / 14
% of employable quarters with at least one employment occurrence	90%	85%	87%	88%
Number of employers (mean/median)	5.9 / 5	5.9 / 5	4.8 / 4	4.6 / 4
Number of quarters worked per employer (mean/median)	4.0 / 3.3	3.3 / 2.4	4.4 / 3.2	3.3 / 2.7
Average quarterly earnings (2005)	\$5,068	\$4,410	\$4,903	\$4,920
First year earnings (2005) (mean/median)	\$17,196 / \$18,022	\$16,497 / \$18,212	\$18,629 / \$17,437	\$19,768 / \$18,254
Most recent year earnings (2005) (mean/median)	\$22,630 / \$22,484	\$19,440 / \$19,097	\$20,423 / \$18,445	\$21,029 / \$19,435
% increase in earnings (2005) (mean/median)	32% / 25%	18% / 5%	10% / 6%	6% / 6%

**Appendix 12: Refugees who arrived in Portland between 1998 and 2004, by year of arrival in ME (continued)**

	2002 (N=112)	2003 (N=107)	2004 (N=90)
Age	36.0 / 35	34.0 / 32	33.4 / 31
Age at arrival in ME	32.9 / 31.5	31.9 / 30	32.4 / 30
Number (%) younger than 18 at arrival in ME	8 (7%)	9 (8%)	3 (3%)
Gender			
Male	70 (63%)	61 (57%)	49 (55%)
Female	42 (38%)	46 (43%)	40 (45%)
Not available	0	0	1
Region of origin			
Africa	68 (61%)	69 (65%)	81 (90%)
Eastern Europe	29 (26%)	11 (10%)	9 (10%) <sup>a</sup>
Middle East	14 (13%)	23 (22%)	--
Other	0 (0%)	4 (4%)	0 (0%)
Not available	1	0	0
Visible minority	82 (74%)	96 (87%)	83 (92%)
Educational attainment			
Higher	20 (23%)	13 (18%)	8 (11%)
Secondary	45 (52%)	29 (39%)	23 (31%)
Primary	18 (21%)	21 (28%)	25 (34%)
None	4 (5%)	11 (15%)	18 (24%)
Not available	25	33	16
English fluency			
Good	21 (32%)	11 (22%)	17 (23%)
Fair	10 (15%)	17 (34%) <sup>b</sup>	21 (29%)
Poor	8 (12%)	--	3 (4%)
None	27 (41%)	22 (44%)	32 (44%)
Not available	46	57	17
Refugee type			
Reunification	69 (62%)	100 (93%)	90 (100%)
Free	42 (38%)	7 (7%)	0 (0%)
Not available	1	0	0
Refugee status			
General	58 (52%)	92 (86%)	84 (93%)
Secondary Migrant	44 (40%)	7 (7%)	6 (7%)
Asylee	9 (8%)	8 (8%)	0 (0%)
Not available	1	0	0
Months in US (mean/median)	49.1 / 38	27.2 / 24	16.2 / 14
Months in ME (mean/median)	37.6 / 37	24.6 / 24	13.2 / 13
Quarters in ME (mean/median)	12.5 / 12	8.3 / 8	4.4 / 4
Experienced employment	95 (85%)	90 (84%)	59 (66%)
Quarters until 1 <sup>st</sup> employment occurrence (mean/median)	1.7 / 1	2.0 / 2	1.7 / 1
Quarters between 1 <sup>st</sup> and most recent employment occurrences (mean/median)	9.2 / 10	6.5 / 7	3.8 / 4
# quarters with at least one employment occurrence (mean/median)	8.6 / 9	6.1 / 7	3.6 / 4
% of employable quarters with at least one employment occurrence	94%	90%	90%
Number of employers (mean/median)	3.3 / 3	2.7 / 2	2.2 / 2
Number of quarters worker per employer (mean/median)	3.3 / 2.6	2.8 / 2.5	2.0 / 1.5
Average quarterly earnings (2005)	\$4,544	\$4,686	\$4,470
First year earnings (2005) (mean/median)	\$19,430 / \$19,621	\$20,695 / \$17,657	\$24,282 / \$22,922
Most recent year earnings (2005) (mean/median)	\$21,558 / \$20,394	\$25,602 / \$19,574	N/A
% increase in earnings (2005) (mean/median)	11% / 4%	24% / 11%	N/A

a = Eastern Europe + Middle East, b = Fair + Poor

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