Economic and Fiscal Impacts of Refugees in Central Iowa: Opportunities for University Extension

Abstract
An increasing refugee population has led to scrutiny of the effects of refugees in the United States. One way to assess effects is through studying economic and fiscal impacts. We used an input–output framework and refugee employment and wage data to estimate the short-term economic and fiscal impacts, both indirect and induced effects, of refugees living in central Iowa. Findings suggest that the employment and income multiplier effects are significant, although short-term fiscal impacts are negative. The study provides an objective assessment of an important and understudied group in central Iowa and could have relevance nationwide, including for Extension practitioners in developing or strengthening programming or contributing to policy formulation.

Introduction
Since 1975, over 3.3 million refugees from different parts of the world have come into the United States and resettled across all 50 states (Refugee Processing Center, n.d.). As opposed to an immigrant, who consciously decides to move to a foreign country with the intention of settling there, a refugee is someone who has been forced to flee his or her home because of war, violence, or persecution, often without warning (International Rescue Committee, 2018). As various parts of the world witness increasing ethnic and religious conflicts, more people are being displaced from their countries. On the basis of United Nations estimates, the current world population of refugees is approximately 65 million (Edwards, 2016). As a consequence, refugee arrivals into the United States will continue into the foreseeable future. However, there continues an ongoing debate on this topic, with supporters and skeptics highlighting reasons for and against allowing refugees to become part of our communities. Political rhetoric and media coverage have contributed to the lack of objectivity in the way refugees are understood as a group (Cooke & White, 2015). Opponents have engaged in debate highlighting the disadvantages of accepting refugees, and proponents of the cause have sometimes overstated and oversimplified the contribution of refugees without accurately acknowledging the cost that is incurred.

As the debate continues, existing refugees in the United States continue to be contributing members of
Objective

Iowa State University Extension and Outreach and others have been working in partnership with the Refugee Alliance of Central Iowa to engage the refugee population in central Iowa. Demonstrating the contributions this group makes is a politically divisive and contentious issue. This circumstance is compounded by a lack of understanding and availability of reliable research quantifying the economic impacts of the group. To understand how refugees contribute to communities on arrival and in their initial years, we estimated the short-term economic and fiscal impacts of refugees living in central Iowa. We hope university Extension personnel across the nation wanting to engage with refugees can use the findings to better understand this group and develop or improve targeted outreach efforts. An improved understanding of the issue can enhance programming efforts by university Extension related to assisting communities in welcoming and accepting refugees and helping in their integration and progress toward becoming contributing community members.

Data

We conducted our analysis using employment and wage data from the Central Iowa region. For the study, refugees were defined as new if they had arrived during 2014–2016. We estimated the direct and indirect effects of refugee employment and income using multipliers estimated in an input–output framework (Blaine, Bowen-Ellzey, & Davis, 2011) and software developed by IMPLAN (IMPLAN Inc., 2015). Data for the study were primarily obtained from the Bureau of Refugee Services (BRS), the state agency in Iowa directly working with refugees on relocation and resettlement in the initial phase of their moving in. In addition, U.S. Bureau of Labor Statistics Consumer Expenditure Survey data (U.S. Department of Labor, Bureau of Labor Statistics, 2015) were used.

Analytical Framework

Economic impact studies are best understood in the context of contributions sectors make to a local economy and activities that affect that local economy. Input–output models used for estimating economic and fiscal impacts involve a contemporary intersectoral accounting of all major economic transactions in a region coupled with estimates of household-level demands for goods and services. Such models allow interested parties to project what would happen if sectoral employment, output, government expenditure, or household consumption levels were to change. Using employment and household income data collected by the BRS in
central Iowa, we examined the direct, indirect, and induced impacts on the various economic sectors, including the government. Direct values are those that describe the change in employment and wages attributable to refugee workers. Indirect values, which include the induced effects that occur when households affected through the direct and indirect sectors spend their earnings locally, are a measure of economic linkages that the directly impacted sectors have with the local economy: When industries procure inputs from suppliers and workers spend their paychecks, they spark an additional round of economic transactions. When all these values are summed, estimates of the total economic and fiscal impacts attributable to the group under study—in our case, refugees—can be determined.

**Study Area**

Between 1975 and 2016, approximately 35,000 refugees settled in Iowa, most of them in the Central Iowa region, which is the area we studied (Refugee Processing Center, n.d.). The study area includes the largest county in the state, Polk County, which has a population of approximately 474,045 and includes the state's capital and largest city, Des Moines. The area has been the state's major destination for refugees for over 30 years. Approximately 500–700 refugees came annually to work and live in the area from 2006 to 2016. During that time period, 5,739 refugees held various jobs in the study area (Table 1), of which 1,438 working during 2014–2016 were the basis for our analysis. The inflation-adjusted median wage for 2006–2016 was $8.80 per hour. The inflation-adjusted median annual wage per refugee changed from approximately $18,350 to $16,760 during 2006–2016, a decrease primarily driven by wage stagnation. For the study, we made the assumptions that workers work about 31–38 hr per week and work for about 3 years in a job before they potentially make a decision to leave it (based on anecdotal information from refugees collected from time to time by the primary author). When the refugees change jobs, they usually stay in the area. Impacts of such changes are minimal because the multiplier values are not drastically divergent from each other.

Table 1.
Jobs and Wages for Refugees in the Central Iowa Region

<table>
<thead>
<tr>
<th>Year</th>
<th>Employment (#)</th>
<th>Total annual wages ($)</th>
<th>Median annual wage (per laborer) ($)</th>
<th>Median wage rate (per hour) ($)</th>
<th>Total annual wages ($)</th>
<th>Median annual wage (per laborer) ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>392</td>
<td>6,451,823</td>
<td>16,640</td>
<td>8.95</td>
<td>7,115,170</td>
<td>18,351</td>
</tr>
<tr>
<td>2007</td>
<td>399</td>
<td>7,049,587</td>
<td>17,278</td>
<td>9.00</td>
<td>7,387,491</td>
<td>18,106</td>
</tr>
<tr>
<td>2008</td>
<td>464</td>
<td>8,760,799</td>
<td>16,789</td>
<td>8.90</td>
<td>8,736,424</td>
<td>16,742</td>
</tr>
</tbody>
</table>
Findings

Table 2 illustrates the total employment and income impacts attributable to the refugees in central Iowa. These impacts comprise direct, indirect, and induced effects. The direct effects relate to the employed refugees; the indirect and induced effects relate to the broader economy, which may or may not include other refugees. Refugees held 1,438 jobs, which in turn supported an additional 1,067 jobs. The table illustrates the direct jobs in the sectors in which the refugees are employed; the indirect and induced effects are mostly in other sectors. During the years 2014–2016, the largest direct employment numbers were in production units, meat processing plants, housekeeping services, and janitorial services. The largest multiplier effects, however, were in meat processing and janitorial services. Multiplier values tend to be affected by the way inputs are procured in any type of production activity, be it goods or services. For example, for every 1 direct job created in the meat processing sector, an additional 1.46 jobs are supported or created due to indirect impacts, meaning that the suppliers to these plants and the retailers where members of the labor force spend their dollars benefit significantly as a result. Barring the two sectors identified, the rest of the sectors had multiplier effects ranging from 0.06 to 0.69.

Similarly, the direct income effect is approximately $25.7 million earned by refugees. Additionally, $23.5 million in income is earned due to the associated indirect and induced effects. The largest direct income effect is in the production sector, to the tune of about $9.5 million, with the indirect and induced effects for that sector totaling an additional $8.9 million. The meat processing sector accounts for $5.2 million in direct effects and $7.5 million in indirect and induced effects, with higher multiplier values in that sector leading to greater ripple effects. On a per-worker basis, refugees working in the meat processing sector have marginally higher annual wages relative to other sectors. However, there are a small number of refugees
who because of their skills work in jobs such as paramedic, clerk, and customer service representative that pay relatively higher wages.

### Table 2.

Employment and Income Impacts of Central Iowa Refugees (2014–2016)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Employment Effects</th>
<th>Income Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direct effects</td>
<td>Indirect and induced effects</td>
</tr>
<tr>
<td>Meat processing</td>
<td>237</td>
<td>346</td>
</tr>
<tr>
<td>Customer service</td>
<td>39</td>
<td>20</td>
</tr>
<tr>
<td>Stocker</td>
<td>56</td>
<td>22</td>
</tr>
<tr>
<td>Mail sorter</td>
<td>24</td>
<td>15</td>
</tr>
<tr>
<td>Production worker</td>
<td>510</td>
<td>352</td>
</tr>
<tr>
<td>General laborer</td>
<td>51</td>
<td>3</td>
</tr>
<tr>
<td>Food service</td>
<td>37</td>
<td>9</td>
</tr>
<tr>
<td>Assembler</td>
<td>70</td>
<td>48</td>
</tr>
<tr>
<td>Packer</td>
<td>39</td>
<td>27</td>
</tr>
<tr>
<td>Housekeeper</td>
<td>100</td>
<td>49</td>
</tr>
<tr>
<td>Maintenance worker</td>
<td>21</td>
<td>9</td>
</tr>
<tr>
<td>Janitor</td>
<td>72</td>
<td>76</td>
</tr>
<tr>
<td>Other</td>
<td>182</td>
<td>91</td>
</tr>
<tr>
<td>Total</td>
<td>1,438</td>
<td>1,067</td>
</tr>
</tbody>
</table>

Fiscal impacts refer to the tax contributions refugees make to federal, state, and local governments. A breakdown of the taxes refugees pay indicates that the 1,438 individuals on which our analysis was based received a combined refund of $1.04 million from the federal government ($730 per refugee employed) and $31,000 from the state of Iowa ($21 per refugee employed) and paid a total of approximately $163,000 in local taxes. Overall, in the short term, refugees do not make a very significant contribution to the federal and state government tax bases, primarily because they are mostly earning the minimum wage and thus remain in low tax brackets. They do pay local taxes, including property and sales taxes, but those payments usually translate into very low amounts compared with the general population.

### Discussion and Conclusion

There is always a demand for low-skill and low-paying jobs, and refugees and other immigrants, both legal and illegal, often find them easily (Porter, 2017). Usually these groups are drawn to places that offer such opportunities, a circumstance that aligns well with the needs of both the workers and employers. In the short term, refugees make positive economic contributions through direct and indirect and induced effects on jobs...
and income. Regarding the long term, research has pointed at significant economic and fiscal impacts refugees make (Evans & Fitzgerald, 2017). Moreover, even in the short term, some of the public investments made by government and other groups, including religious organizations, nonprofits, and service providers, toward refugee resettlement are recovered by way of the significant employment, income, and fiscal effects.

Our study is timely and fills a gap in the literature on a contemporary issue. In doing so, the study expands the discussion in an objective manner on the ways refugees contribute to communities and "repay" the short-term public investments made to rehabilitate them in the United States. The findings offer Extension educators and practitioners a rationale for engaging a growing demographic group (Gossett, 2012). With a rise in conflicts in various parts of the world leading to a rise in the refugee population, there is increasing scrutiny of this group. Studies such as ours can aid others in Extension in conducting similar research in their states and generating additional data on the topic to further improve understanding. Given the potential that refugees bring to communities, Extension is presented with a unique opportunity to work with refugees in areas such as education, employment, health care, transportation, and legal matters in an effort to improve their socioeconomic conditions.

Although Extension units throughout the nation reach out to minority groups, very few Extension programs target refugees. The Refugee Alliance of Central Iowa, a collaborative of Iowa State University Extension and Outreach and a host of partners, is a model of how university Extension and other stakeholder groups can be effective in serving this key demographic group. Evans and Fitzgerald (2017) observed that as refugees stay longer, their wages grow, and, ultimately, in the long-term, they contribute to the tax base as the rest of the population does. Their long-term contributions tend to compensate for government expenses incurred on them on their arrival (Evans & Fitzgerald, 2017). Some of the fiscal shortfall in the short term is compensated via the multiplier effects on jobs and income. Our study assists in providing a fact-based rationale for launching efforts similar to those of the Refugee Alliance of Central Iowa in states that do not yet have outreach programs targeting refugees. Although decisions relating to accepting refugees are a federal subject, state and local organizations play significant roles in ensuring that individuals and families adjust and thrive in their new lives in the United States. With increasing budgetary challenges facing university Extension, partnering with other stakeholder groups to form collaboratives to serve this growing demographic group could be a pragmatic approach in the near future. Our study provides Extension professionals with information on not just the diversity aspect of having refugees but also their economic contributions as productive members of communities.

Acknowledgments

We thank the Bureau of Refugee Services, Iowa for its support by way of sharing data. We also thank the editor and anonymous referees for valuable comments and suggestions.

References


