Employment Prospects and Health Insurance Among Legal Permanent Residents: a Longitudinal Assessment of the Influence of Visa Type and Job Skill Level

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Abstract

Background

Immigrants have disparate access to employment and health insurance, but it is unclear whether differences in access exist by visa types and job skill. We examined the relationship between visa type and employment, and the association between job skill and health insurance.

Methods

We conducted a retrospective cohort study using the 2003 to 2004 and 2007 to 2009 longitudinal data from the New Immigrant Survey. Using logistic regression, we compared the odds of employment by visa type (immediate relatives/family sponsored; diversity; refugee/asylee/parolee; and legalization) and the odds of insurance by job skill level (high, medium, and low), at each survey wave and assessed the change in each outcome over time.

Results

More immigrants were employed in wave 2 than in wave 1 (74% vs. 58%). Those with refugee/asylee/parolee visas had the highest rate of employment (82%) in wave 1 but decreased in wave 2 (76.4%). Those with diversity visas had the highest increase in employment over time (56.6% in wave 1 vs. 85.5% in wave 2). The odds of insurance were consistently high among immigrants in high skill level jobs compared to those in lower skill level jobs over time.

Conclusion

Those with the diversity visa may be most vulnerable to unemployment and those in medium and low skill level jobs may be most vulnerable to uninsurance. They may benefit the most from job placement support in industries offering skill building, career advancement and health insurance to ensure best use of their human capital and continued upward mobility.

Contribution To The Literature: Policy And Public Health Implications

Our findings inform the literature by elucidating potential mechanisms through which disparities in healthcare access and economic mobility among immigrants prevail. To address the labor shortages currently facing the U.S. (Collins, 2023), and to ensure that those in the workforce are productive longer, there is a critical need to invest in the immigrant population.

Immigration and public health legislators can use our findings to gauge best strategies for job readiness programs that capitalize upon the education, skills, and work experiences that immigrants possess. Policy makers may invest in industries where immigrants are hired the most by incentivising, through tax breaks for example, initiatives that include immigrant-specific job trainings for career advancement. Lastly, the federal government may consider streamlining processes to validate past education and professional credentials so that immigrants can apply their highest skills to the American workforce and be compensated with better access to health insurance and other necessary resources for long term wellbeing.

Introduction

Immigrants are key contributors to the U.S. workforce in a variety of industries and occupations. In 2022, they constituted 17% of the total U.S workforce (American Immigration Council, 2021; Kosten, 2018). Immigrant workers are channeled into either high skill or low skill jobs based on how transferable their previous skills are to the U.S. workforce (Chiswick et al., 2005). When skills—defined as familiarity with the labor market, language proficiency of the host nation, occupational credentials, education, and job specific experience (Chiswick et al., 2005)—are not transferable, immigrant workers settle for lower wage and lower skilled jobs than previously held until they acquire new skills and credentials in the destination country (Chiswick et al., 2005; Kreisberg, 2019). The U.S. economy benefits from immigrant labor in two ways: (1) immigrants in low skill work sectors increase the labor supply by filling vital gaps and driving up overall employment, and (2) immigrants with highly transferable occupational skills complement similarly skilled native born workers, meet job demands, and increase employment and wages for both groups (Holzer, 2019).

Being employed offers important benefits—such as access to health insurance— beyond pay that improve quality of life (Carrasquillo et al., 2000; Farrell & Gottlieb, 2020; Fronstin, 2009; Hsia et al., 2000; Kao et al., 2010). However, immigrants disproportionally lack access to quality employment that offer health insurance (Goldman et al., 2005; U.S. Bureau of Labor Statistics, 2022). They are concentrated in industries that do not offer comprehensive insurance benefits and high compensation (Cathie, 2022; Ponce et al., 2005; Ponce et al., 2006; Williamson et al., 2016) to justify purchasing insurance privately (Williamson et al., 2016).

Disparities persist despite health reforms by the Affordable Care Act [ACA] (Bureau of Labor Statistics, 2014; Bustamante et al., 2014; Fronstin, 2012; Kao et al., 2010; Long & Marquis, 2001; Ponce et al., 2005; Tarraf et al., 2014; Williamson et al., 2016). Among the non-elderly population in 2020, 26% of legal permanent residents (LPRs) and 42% of undocumented immigrants had no health insurance compared to 8% of U.S. citizens (Kaiser Family Foundation, 2022). Immigrants face substantial barriers to gaining high quality employment and health insurance, including non-recognition of their foreign credentials or experiences, discrimination, lack professional networks and low English proficiency (Yanar et al., 2018).

While studies have evaluated the effect of immigration on both employment and insurance in the U.S. (Goldman et al., 2005; Holzer, 2019; Kaiser Family Foundation, 2022; Kao et al., 2010; Kosten, 2018; Kreisberg, 2019; Kreisberg et al., 2022; Ku, 2006, 2009; LiveStories: Immigration & Citizenship, 2017), few have considered the impact of different immigration paths on these outcomes (Kreisberg, 2019; Kreisberg et al., 2022; Pandey & Kagotho, 2010). These pathways often influence the type of visa available to an immigrant, with important implications for social and health outcomes (Chen et al., 2009; Morey et al., 2020; Yeh et al., 2016). In this study, we evaluated differences in employment status *within* and *across* visa types upon becoming LPRs and over time. We

also investigated whether job skill level affected the odds of health insurance among employed immigrants with different visa types over time. We hypothesized that employment status will vary by visa type upon becoming LPRs and over time and that the gap in employment status by visa type will narrow overtime. We also hypothesized that among employed immigrants, those in high skill jobs will have the highest odds of insurance upon becoming LPRs and over time compared to those in medium and low skill jobs, and that the gap in the odds of insurance between those in high skill jobs compared to those in medium and low skill jobs will decrease over time.

Methods

Design/Sample

We conducted a retrospective cohort study using longitudinal data from wave 1 [launched in 2003 to 2004, (Guillermina et al., 2006)] and wave 2 [launched in 2007 to 2009, (Guillermina et al., 2014)] of the New Immigrant Survey [NIS]. Interviews were conducted either in person or over telephone in the participants' language of choice among both newly arrived immigrants and those already in the U.S. but adjusting their status from temporary visa holders or undocumented to LPRs. Attrition weights were developed to correct for non-response bias in wave 2. We used sampling weights in wave 1 and attrition weights in wave 2 analyses (Massey et al., 2017; The New Immigrant Survey, n.d). This study was exempt from human subject review by the authors' institutional Review Board because the NIS data is publicly available and contains de-identified personal information.

Exposure Variables

The exposure variable for our first analysis was visa type at entry in the U.S. or the visa type that led to legal permanent resident status. The NIS data included 10 visa types that we collapsed into five groups based on the U.S. Citizenship and Immigration Services [USCIS, (U.S. Department of State-Bureau of Consular Affairs, 2021)] main immigrant classes and as done by others (Guillermina, 2011; Pandey & Kagotho, 2010; Yeh et al., 2016): (1) immediate relatives and family sponsored, (2) employment-based, (3) diversity, (4) refugee/asylee/parolee, and (5) legalization visas (Table 1). Refugees/asylees/parolees were grouped as one visa category in the NIS data based on their shared humanitarian reason for migration. We collapsed the following visa categories, based on kinship and family ties, to create the immediate relatives and family sponsored visa group: spouses of U.S. Citizens, spouses of LPRs, parents, children, and siblings of U.S. citizens. We excluded individuals with employment-based visas from the first analysis because they do not have the same risk of being unemployed as others. Individuals did not change their visa type between waves 1 and 2.

In our second analysis, the main exposure was job skill level. We defined job skill as a categorical variable with four levels using the International Standard Classification of Occupation [ISCO, (Internation Labour Organization, 2022)] as follows: high, medium, low, and not in the labor force (Table 2). We excluded those either not employed or not in the labor force from our analysis because we wanted to compare job skill level among those who were employed.

Outcome Variables

The dependent variable in our first analysis was employment status and in the second analysis was insurance coverage. We created employment status based on responses about current employment at the time of the interviews. Those currently employed were assigned a value of 1 and those who were unemployed but looking for work, laid off, homemakers, on leave, and those who were students/interns/volunteering were assigned a value of 0. We also created a binary health insurance variable for both wave 1 and wave 2 data for our second analysis. Having insurance from any source except Medicare was coded 1 and not having any insurance was coded as 0.

Covariates

Our covariate selection was informed by the modified Andersen behavioral model of health access and health use (Yang & Hwang, 2016) and the model of stratification (Kreisberg, 2019; Menjívar, 2006). We controlled for the following predisposing factors in the first analysis (age, sex, education, and region of birth) and in the second analysis (visa types, age, sex, education, region of birth and time in the U.S.). We operationalized these variables similarly for both wave 1 and wave 2 (Table 1).

Analytical Approach

Our analytical sample was restricted to adults (18–64 years) who participated in both wave 1 and wave 2 (n = 4,363). For the first analysis, we excluded employment-based visa holders at wave 1 and 2, those missing employment data, 65 + years old at wave 1 only, and disabled/retired at both wave 1 and wave 2. For the second analysis, our exclusion criteria were similar to the first analysis except we further restricted our analysis to employed individuals and those who had no missing data on job skill level and insurance in either wave 1 or 2.

First, we analyzed the distribution of demographic variables by visa categories and job skill level in wave 1 and 2 using Pearson's chi-square tests. We used a McNemar's test to assess whether the proportion employed by visa type or the proportion insured by job skill level at both wave 1 and wave 2 were significantly different.

Second, we fit two survey weighted logistic regression models to assess the association between visa type and employment status, holding other covariates constant. We used pairwise analysis of odds to assess how employment status varied by each visa type. This allowed us to obtain effect estimates of employment status for each visa type compared to others instead of effect estimates for each visa type compared to one referent group.

Third, we modeled the relationship between job skill levels and health insurance, holding other covariates constant. We estimated the association between job skills identified in wave 1 and health insurance status in wave 1 and the association between job skills in wave 2 and health insurance status in wave 2. We selected the group with the lowest frequency as the referent group for all predictors used in our regression analyses. We verified that missing values were missing at random (Appendix Table 8).

Fourth, we performed sensitivity analyses to validate our results (Appendix Fig. 7–9 for details). All Analyses were completed using SAS 9.4 [Cary, NC] (SAS Institute Inc, 2013).

Results

Analysis of Employment by Visa Type

Participants' characteristics

Our analytical sample included 3,104 participants in wave 1 and wave 2. Table 4 and Table 5 summarize sociodemographic characteristics of wave 1 and wave 2 participants by visa categories, respectively. In total, 58.3% of participants in wave 1 were employed, with refugees/asylees/parolees being the most employed (82%), followed by those with legalization visas (79.2%), diversity visas (56.6%) and immediate relative and family sponsored visas (53.1%). Approximately half of our participants were from Latin America and the Caribbean (50.8%), among whom 98.1% had a legalization visa. Most of our sample was female (60%), among whom 65% had immediate relatives and family sponsored visas. The wave 1 cohort was young (37% were between 25 and 34 years old), among whom 47% had diversity visa. Lastly, 46% of the sample had greater than 12 years of schooling, among whom 70.9% had diversity visas.

In wave 2, the rate of employment increased (73.7% vs. 58.3% in wave 1, Table 4–5). Individuals with diversity visas had the highest employment rate (85.3%), followed by legalization (79.4%), refugees/asylees/parolees (76.4%) and immediate relatives and family sponsored visa holders (68.1%). Our sample consisted mostly of 35 to 44-year-olds; among whom 47.2% had a legalization visa. The region of origin and the education level were similar to wave 1.

Figure 3 – 2 shows the crude rate of employment by visa type and reveals differences by visa type in wave 1 and 2. All but those with refugee/asylee/parolee visas increased their employment rates over time. Immediate relatives and family sponsored visa holders had the lowest employment rates in both wave 1 and wave 2 (53.1% vs. 68.1%, $p < 0.0001$). While those with a diversity visa had the second lowest rate of employment in wave 1 (56.6%), they had the highest employment rate in wave 2 (85.5%, $p < 0.0001$). Those with a refugee/asylee/parolee visa had the highest rate of employment in wave 1 (82%), but this decreased, albeit not significantly in wave 2 (76.4%, $p = 0.24$). Individuals with a legalization visa had no statistically significant change in employment rate from wave 1 to wave 2 (79.2% vs. 79.4%, $p = 0.91$).

Overall, results from the McNemar test showed that the proportion employed in wave 1 were significantly different from the proportion employed in wave 2 ($p < 0.0001$). More individuals gained employment in wave 2 when they were unemployed in wave 1 (n = 732). Fewer individuals who initially were employed in wave 1 lost employment in wave 2 (n = 213).

Logistic Regression Results

The odds of employment by visa categories in wave 1 and wave 2 are shown in Fig. 2(full results in Appendix Table 9 and Table 10). Results were similar between the unadjusted and adjusted models in wave 1 (Appendix Fig. 5). The odds of employment among individuals with legalization visas were not significantly different from those with refugee/asylee/parolee visas. In contrast, the odds of employment among those with immediate relatives and family sponsored visas were significantly lower than both those with refugee/asylee/parolee visas (AOR: 0.25; 95%CI: 0.15–0.42) and those with legalization visas (AOR: 0.30; 95%CI: 0.20–0.46). Similarly, the odds of employment among immigrants with diversity visas were lower than the odds of employment among both those with refugee/asylee/parolee visas (AOR: 0.28; 95%CI: 0.16–0.49) and those with legalization visas (AOR: 0.34; 95%CI: 0.20–0.58). The odds of employment among those with diversity visas were not significantly different from those of immediate relatives and family sponsored visa holders.

Results between the unadjusted and adjusted models were similar in wave 2. The odds of employment among all visa type comparisons increased in magnitude compared to wave 1 and differences in employment status narrowed over time.

Analysis Of Insurance By Job Skill Level

Participants' characteristics

Our analytical sample included 2,173 participants in wave 1 and 2 who met the inclusion criteria. Sociodemographic characteristics for participants are summarized in Table 6 and Table 7). In wave 1, less than half of the total cohort had health insurance (48.1%), with those in high skill level jobs being the most insured (70.8%), followed by those in medium skill level jobs (41.7%) and those in low skill level jobs (34.8%). Over half had immediate relatives and family sponsored visas (56.7%) and most occupied medium skill level jobs (61.9%). The sample consisted of more males (55.5%) than females (44.5%). Males were concentrated in both high skill (50.9%) and medium skill level jobs (65.2%). About 81% of the sample was under 45 years old, among whom 85% had high skill level jobs. Over half had greater than 12 years of schooling (54.8%), among whom 88.2% had high skill level jobs. Many participants were newly arrived, 44.3% had been in the U.S. for less than 5 years, among whom 47.9% had medium skill level jobs.

Insurance coverage increased from wave 1 to wave 2 (48.1% vs. 73.2%, $p = 0.0001$) among individuals occupying all job skill levels (Table 6 and Table 7). We observed the same trends in insurance rates by skill level in both wave 1 and 2. The most common visa type was immediate relatives and family sponsored (35.3%), among whom 46.5% had low skill level jobs. Most of the cohort had more than 12 years of schooling (62.8%) and had lived in the country between 5 to 10 years (35.5%).

Figure 3 shows the crude percentage of health insurance coverage by job skill level over time. Differences in health insurance by job skill level persisted from wave 1 to wave 2 at a statistically significant level ($p < 0.0001$). The overall proportion insured in wave 1 were significantly different from the proportion

insured in wave 2 ($p < 0.0001$). More people gained insurance in wave 2 when they were uninsured in wave 1 (n = 607) than there were people who lost insurance in wave 2 when they were insured in wave 1 (n = 109).

Logistic Regression Results

Figure 4 shows pairwise comparisons of odds of insurance by job skill level in both wave 1 and 2 (complete regression results shown in Appendix Table 11 and Table 12). In wave 1, the odds of insurance among immigrants in medium skill level jobs compared to those in low skill level jobs were not significantly different. In contrast, the odds of insurance among immigrants in high skill level jobs were higher than those in medium skill (AOR: 2.10; 95%CI: 1.40–3.13) and low skill jobs (AOR: 2.82; 95%CI: 1.78–4.47).

Differences in insurance status by job skill level persisted in wave 2. Those in high skill level jobs had significantly higher odds of insurance compared to both those in medium skill level jobs (AOR: 3.49; 95%CI: 2.34–5.22) and those in low skill level jobs (AOR: 3.80; 95%CI: 2.37–6.10). The gap in insurance coverage across job skill level did not narrow over time. Results were similar in both the adjusted and unadjusted model for wave 1 and 2 (Appendix Fig. 6).

Discussion

We found that upon becoming LPRs, those with refugee/asylee/parolee and legalization visas were most likely to be employed, followed by those with diversity visas and those with immediate relatives and family sponsored visas. Within 5 years, those with diversity and immediate relatives and family sponsored visas had the highest increase in employment. Those with a refugee/asylee/parolees visa experienced a decline in employment, while employment rate among those with legalizaton remained constant. These results suggest that initial gaps in employment status by visa category narrowed over time.

Our second analysis showed that those in high skill jobs were most likely to have health insurance and those in low skill jobs were least likely to have health insurance shortly after becoming LPRs in wave 1 and over time. Overall, health insurance coverage improved for workers across all job skill levels from wave 1 to wave 2. The odds of insurance among those with high skill level jobs remained higher than for those in medium and low skill level jobs in wave 1 and over time. The difference in insurance coverage across job skill level, thus, persisted over time.

Our findings of a difference in the odds of employment by visa type suggest that there is a differential rate of social mobility based on migration pathways. These conclusions align with theories of heterogeneous selective advantages post-migration based on visa categories (Chiswick et al., 2005; Kreisberg, 2019; Morey et al., 2020). The types of visa represent distinct “starting points” that determine differential employment prospects, which persist despite legal status and over time (Kreisberg, 2019). Gelatt (Gelatt, 2020) evaluated employment prospects and job skill by visa type using both waves of the NIS data. The key distinctions between our study and the study by Gelatt (Gelatt, 2020) include our different definition of visa categories, their inclusion of individuals with employment-based visas and their exclusion of those with legalization visas, their comparison of employment trends with those of the U.S. population, their different regression methods and our analysis of insurance status by job skill. Despite these differences in analytical approach, Gelatt also found differences in employment status by visa type. Those with diversity and siblings of U.S citizens/LPR visas improved their employment status the most over time. Compared to the U.S. population, immigrants had higher rates of employment over time.

Using both waves of the NIS data and interviews with stakeholders, Kreisberg et al. (Kreisberg et al., 2022) found that refugees experienced significant declines in employment the longer they lived in the U.S. despite having unique early federal aid to obtain employment upon arrival in the U.S. We similarly found that refugees/asylees/parolees initially were most likely to be employed, but this declined within 5 years of becoming LPRs. Refugees face challenges maintaining long-term employment, especially, after losing aid from resettlement services shortly after being placed in undesirable low wage “survival jobs” (Kreisberg et al., 2022) .

The observed employment trajectories among those with legalization visas also highlight their unique migration path that, perhaps, is advantageous in the labor market. Given that those with legalization visas adjusted their immigration status, from temporary immigrants to LPRs, after having already lived or worked in the U.S. (U.S. Citizenship and Immigration Services, 2022), it is expected that they would have a higher and more stable rate of employment than immigrants with less familiarity with the U.S. These findings suggest that when legal pathways to securing legal permanent residence are open, individuals can move up the social ladder and contribute meaningfully to the American society.

Their experiences contrast with those of diversity visa holders who were least likely to be employed in wave 1 but had the most improvement in employment status by wave 2. Those with diversity visas were the least familiar with the U.S. (Kreisberg, 2019), because of being newly arrived (Guillermina, 2011), and lacked support from both family and social services with their integration into American society (Chiswick et al., 2005; Guillermina, 2011; Kreisberg, 2019). Given the highly selective process for award of the diversity visa (American Immigration Council, 2017; Guillermina, 2011), it is expected that they would have the educational background and skill sets to quickly learn how to navigate various systems in the U.S. (Chen et al., 2009). They would, therefore, have the most upward mobility of all migrant groups we studied.

The comparable odds of employment between individuals with diversity visas and those with immediate relatives and family sponsored visas in wave 1 suggests that both groups have similar initial experiences of finding work despite the latter potentially having more social support and employment opportunities due to family networks. Perhaps those with immediate relatives and family sponsored visas do not share the same financial pressures of gaining employment quickly and may be more selective in their search for work that best match their skills and interests. Our findings align with those reported by Kreisberg (Kreisberg, 2019) that despite initial disadvantages in securing prestigeous jobs, diversity visas improve their employment prospects over time and gain jobs that are equal in prestige to those gained by family-based visa holders.

In the second analysis, our findings that immigrants in high skill level jobs were most likely to be insured also align with current evidence (Goldman et al., 2005; Kao et al., 2010). Job skill level may represent different job quality or prestige. Highly prestigeous jobs require higher average education attainment and

offer higher pay, more job security and more job autonomy than less prestigeous work (Kreisberg, 2019). Those in highly prestigeous jobs not only have more access to health insurance, they also are the most socially and economically mobile (Chiswick et al., 2005; Kreisberg, 2019). Immigrants who secure highly prestigeous jobs upon arrival in a destination country have highly transferable skills that enable them to acquire and maintain higher occupational status (Chiswick et al., 2005). They also are highly motivated to continue investing in themselves by gaining new skills to remain competitive in the labor market (Chiswick et al., 2005). This may explain why this group consistently had high coverage that never converged with those in lower skill level jobs over time.

Strengths and Limitation*s*

Our work builds on existing literature both by using a data source of LPRs reliably ascertained by USCIS and by assessing more nuanced heterogeneous effects of visa types and job skill level on employment and insurance, respectively.

Our study also had some limitations to note. First, we used data that are close to 20 years old. Therefore, our results may not reflect current trends in employment and insurance among immigrants. However, the NIS data remains the only large nationally representative and comprehensive data source of immigrants with well ascertained visa categories (Kreisberg et al., 2022; Pandey & Kagotho, 2010; Zajdel, 2023). Second, we had some concerns about selection bias resulting from loss to follow-up in wave 2. However, nonresponse weights corrected for this attrition, and the sensitivity analyses we performed showed no evidence of selection bias. Third, while our study evaluated employment rates and odds of employment by visa type, we did not evaluate the type and quality of employment attained by visa type. Therefore, we should be cautious about interpreting our lower odds of employment among immigrants with certain visa types as evidence of workforce disadvantage. Fourth, we also did not evaluate whether people changed job skill level and what impact that had on their insurance status. Finally, our findings do not reflect experiences of undocumented immigrants since they are not included in the NIS data. They, thus, cannot be generalized to all immigrants and may underestimate the true effects of immigration on employment prospects and health insurance in the U.S.

Future research with recent longitudinal data is warranted to capture current trends in employment and health insurance among immigrants, including the impact of change in job skill level on insurance status. Such work will provide further support for increased funding and investment in interventions aimed at social integration and upward mobility of the immigrant population.

Conclusion

In conclusion, we find that differences exist in employment status by visa type and health insurance by job skill level among LPRs. While disparities in employment status by visa categories lessened over time, differences in health insurance by job skills did not. We argue that different reasons for migration—resulting in assignment of different types of visas— may play key roles in integrating in the U.S. workforce with significant implications for access to health insurance. Family connections may not improve the odds of employment but having a diversity visa does. Increased federal and state funding can improve the support that community organizations render to immigrants, especially those with the diversity visa and those in medium and low skill level jobs, to acquire quality employment and health insurance.

Declarations

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COMPETING INTERESTS

The authors declare no conflicts of interest relating to either their authorship or the publication of this article.

AUTHOR CONTRIBUTIONS

Study design, methods implementation, data analysis and drafts and final manuscript preparation: Niclette I. Kibibi. Ms. Kibibi had access to all study data and takes full responsibility for the integrity of the data and analysis.

Critical review of methods, data analysis and manuscript drafts: all authors

Statistical support and supervision: Dr. Ryckman and Dr. Oleson

Critical review and editing of manuscript for significant intellectual content: all authors.

ETHICS APPROVAL

This study was exempt from human subject review by the authors' Institutional Review Board because the New Immigrant Survey data is publicly available and contains de-identified personal information.

CONSENT TO PARTICIPATE AND CONSENT TO PUBLISH

This article did not include any human subjects engaged by the authors.

References

1. American Immigration Council. (2017). *The Diversity Immigrant Visa Program: An Overview*. Retrieved January 22 from https://www.americanimmigrationcouncil.org/research/diversity-immigrant-visa-program-overview
2. American Immigration Council. (2021). *Immigrants in the United States*. https://www.americanimmigrationcouncil.org/research/immigrants-in-the-united-states
3. Amnesty International. (2021). *Refugees, Asylum-seekers and Migrants*. Retrieved September 31 from https://www.amnesty.org/en/what-we-do/refugees-asylum-seekers-and-migrants/
4. Boundless Immigration Inc. (2022). *The Diversity Visa Lottery, Explained*. Retrieved December 31 from https://www.boundless.com/immigration-resources/diversity-visa-lottery/#:~:text=Diversity%20Visa%20Timeline%20The%20winners%20of%20the%20green,on%20how%20soon%20you%20apply%20for%20your%20visa.
5. Bray, I. (2022). *EB-1 Visa for Priority Workers: Who Qualifies?* https://www.nolo.com/legal-encyclopedia/eb-1-visa-priority-workers-who-qualifies.html
6. Bureau of Labor Statistics. (2014). *Trends in employment-based health insurance coverage* (The Economics Daily,, Issue. https://www.bls.gov/opub/ted/2014/ted_20141017.htm
7. Bustamante, A. V., Chen, J., Fang, H., Rizzo, J. A., & Ortega, A. N. (2014). Identifying health insurance predictors and the main reported reasons for being uninsured among US immigrants by legal authorization status. *The International journal of health planning and management*, *29*(1), e83-e96. https://doi.org/10.1002/hpm.2214
8. Carrasquillo, O., Carrasquillo, A. I., & Shea, S. (2000). Health insurance coverage of immigrants living in the United States: differences by citizenship status and country of origin. *American journal of public health*, *90*(6), 917-923. https://doi.org/10.2105/AJPH.90.6.917
9. Cathie. (2022). *The Pew Research Center Finds That Immigrants Are Taking More Low-Paying Jobs*. List Foundation. Retrieved February 24 from https://www.listfoundation.org/the-pew-research-center-finds-that-immigrants-are-taking-more-low-paying-jobs#:~:text=The%20percentage%20of%20immigrants%20is%20likely%20to%20differ,all%20workers%20and%2020%20percent%20of%20low-paid%20workers.
10. Chen, J., Gee, G. C., Spencer, M. S., Danziger, S. H., & Takeuchi, D. T. (2009). Perceived Social Standing among Asian Immigrants in the U.S.: Do Reasons for Immigration Matter? *Soc Sci Res*, *38*(4), 858-869. https://doi.org/10.1016/j.ssresearch.2009.06.003
11. Chiswick, B. R., Lee, Y. L., & Miller, P. W. (2005). A longitudinal analysts of immigrant occupational mobility: A test of the immigrant assimilation hypothesis. *International Migration Review*, *39*(2), 332-353.
12. Collins, L. (2023). *Immigration: Finding a way forward*. https://www.bushcenter.org/publications/policy-recommendation-immigration
13. Enchautegui, M. E. (2014). *Legalization Programs and the Integration of Unauthorized Immigrants: A Comparison of S. 744 and IRCA*. Urban Institute. https://www.urban.org/sites/default/files/publication/24316/412981-Legalization-Programs-and-the-Integration-of-Unauthorized-Immigrants-A-Comparison-of-S-and-IRCA.PDF
14. Farrell, C. M., & Gottlieb, A. (2020). The Effect of Health Insurance on Health Care Utilization in the Justice-Involved Population: United States, 2014–2016. *American journal of public health*, *110*(S1), S78-S84. https://doi.org/10.2105/ajph.2019.305399
15. Fronstin, P. (2009). Sources of health insurance and characteristics of the uninsured: analysis of the March 2009 Current Population Survey. *EBRI Issue Brief*(334), 1-35.
16. Fronstin, P. (2012). Sources of Health Insurance and Characteristics of the Uninsured: Analysis of the March 2012 Current Population Survey (September 2012) [EBRI Issue Brief]. Article 376. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2153195
17. Gelatt, J. (2020). Do Employer-Sponsored Immigrants Fare Better in Labor Markets Than Family-Sponsored Immigrants? *RSF: The Russell Sage Foundation Journal of the Social Sciences*, *6*(3), 70. https://doi.org/10.7758/RSF.2020.6.3.04
18. Gelatt J. (2019). *Explainer: How the U.S. Legal Immigration System Works*. Migration Policy Institute,. Retrieved March 14 from https://www.migrationpolicy.org/content/explainer-how-us-legal-immigration-system-works
19. Goldman, D., Smith, J., & Sood, N. (2005). Legal Status And Health Insurance Among Immigrants. *Health Affairs*, *24*(6), 1640-1653. https://doi.org/10.1377/hlthaff.24.6.1640
20. Guillermina, J. (2011). Migration and stratification. *Soc Sci Res*, *40*(5), 1292-1336. https://doi.org/10.1016/j.ssresearch.2011.03.007
21. Guillermina, J., , Massey, D. S., Rosenzweig, M. R., & Smith, J. P. (2014). *"The New Immigrant Survey 2003 Round 2 (NIS-2003-2) Public Release Data."* [SAS]. http://nis.princeton.edu
22. Guillermina, J., Massey, D. S., Rosenzweig, M. R., & & Smith, J. P. (2006). *"The New Immigrant Survey 2003 Round 1 (NIS-2003-1) Public Release Data."* [SAS]. http://nis.princeton.edu.
23. HealthCare.gov. (n.d.). *Coverage for lawfully present immigrants*. https://www.healthcare.gov/immigrants/lawfully-present-immigrants/
24. Holzer, H. J. (2019). *Immigration and the U.S. Labor Market*. https://www.migrationpolicy.org/sites/default/files/publications/MPI-Holzer-Future-US-Labor-Market_Final.pdf
25. Hsia, J., Kemper, E., Sofaer, S., Bowen, D., Kiefe, C. I., Zapka, J., Mason, E., Lillington, L., & Limacher, M. (2000). Is insurance a more important determinant of healthcare access than perceived health? Evidence from the Women's Health Initiative. *J Womens Health Gend Based Med*, *9*(8), 881-889. https://doi.org/10.1089/152460900750020919
26. Internation Labour Organization. (2022). *International Standard Classification of Occupation (ISCO)*. Retrieved 01/02 from https://ilostat.ilo.org/resources/concepts-and-definitions/classification-occupation/
27. Kaiser Family Foundation. (2022). *Health Coverage of Immigrants*. Retrieved Januart 29, 2023 from https://www.kff.org/racial-equity-and-health-policy/fact-sheet/health-coverage-of-immigrants/

28. Kao, D. T., Park, J., Min, S., & Myers, D. (2010). Occupational status and health insurance among immigrants: effects by generation, length of residence in U.S., and race. *J Immigr Minor Health*, *12*(3), 290-301. https://doi.org/10.1007/s10903-008-9189-4
29. Kosten, D. (2018). *Immigrants as Economic Contributors: They Are the New American Workforce*. https://immigrationforum.org/article/immigrants-as-economic-contributors-they-are-the-new-american-workforce/
30. Kreisberg, A. N. (2019). Starting Points: Divergent Trajectories of Labor Market Integration among U.S. Lawful Permanent Residents. *Social Forces*, *98*(2), 849-884. https://doi.org/10.1093/sf/soy128
31. Kreisberg, A. N., de Graauw, E., & Gleeson, S. (2022). Explaining Refugee Employment Declines: Structural Shortcomings in Federal Resettlement Support. *Social Problems*. https://doi.org/10.1093/socpro/spab080
32. Ku, L. (2006). *Why Immigrants Lack Adequate Access to Health Care and Health Insurance*. https://www.migrationpolicy.org/article/why-immigrants-lack-adequate-access-health-care-and-health-insurance/
33. Ku, L. (2009). Health insurance coverage and medical expenditures of immigrants and native-born citizens in the United States. *American journal of public health*, *99*(7), 1322-1328. https://doi.org/10.2105/AJPH.2008.144733
34. LiveStories: Immigration & Citizenship. (2017). *Immigrant Employment*. https://www.livestories.com/statistics/immigration-citizenship/us-immigrant-employment
35. Long, S. H., & Marquis, M. S. (2001). Low-wage workers and health insurance coverage: can policymakers target them through their employers? *Inquiry*, *38*(3), 331-337. https://doi.org/10.5034/inquiryjrnl_38.3.331
36. Massey, D. S., Guillermina, J., & Espinoza, M. (2017). Weighting for Nonresponse on Round Two of the New Immigrant Survey. In: Princeton University.
37. Menjívar, C. (2006). Liminal legality: Salvadoran and Guatemalan immigrants' lives in the United States. *American journal of sociology*, *111*(4), 999-1037.
38. Morey, B. N., Bacong, A. M., Hing, A. K., de Castro, A. B., & Gee, G. C. (2020). Heterogeneity in Migrant Health Selection: The Role of Immigrant Visas. *Journal of Health and Social Behavior*, *61*(3), 359-376. https://doi.org/10.1177/0022146520942896
39. New Immigrant Survey. (2003). *New Immigrant Survey NIS-2003-1 – Picklists-NIS-2003-2.doc*. https://nis.princeton.edu/downloads/NIS_2003_2/Picklists-NIS-2003-2.pdf
40. Obinna, D. N. (2014). The challenges of American legal permanent residency for family- and employment-based petitioners. *Migration and Development*, *3*(2), 272-284. https://doi.org/10.1080/21632324.2014.914689
41. Pandey, S., & Kagotho, N. (2010). Health insurance disparities among immigrants: are some legal immigrants more vulnerable than others? *Health Soc Work*, *35*(4), 267-279. https://doi.org/10.1093/hsw/35.4.267
42. Ponce, N., Nordyke, J., & Hirota, S. (2005). Uninsured Working Immigrants: A View from a California County. *Journal of Immigrant Health*, *7*(1), 45-53. https://doi.org/10.1007/s10903-005-1390-0
43. Ponce, N. A., Hays, R. D., & Cunningham, W. E. (2006). Linguistic disparities in health care access and health status among older adults. *J Gen Intern Med*, *21*(7), 786-791. https://doi.org/10.1111/j.1525-1497.2006.00491.x
44. SAS Institute Inc. (2013). *What's New in SAS® 9.4*. SAS Institute Inc. https://www.mit.edu/afs.new/athena/software/sas_v9.4m2/whatsnew.pdf
45. Tarraf, W., Vega, W., & González, H. M. (2014). Emergency department services use among immigrant and non-immigrant groups in the United States. *Journal of Immigrant and Minority Health*, *16*(4), 595-606. https://doi.org/10.1007/s10903-013-9802-z
46. The New Immigrant Survey. (n.d). *NIS-2003 Sampling Weights*. https://nis.princeton.edu/downloads/nis_2003/NIS-2003-Sampling-Weights.pdf
47. U.S. Bureau of Labor Statistics. (2022). *Labor Force Characteristics of Foreign-born Workers Summary*. Retrieved February 27 from https://www.bls.gov/news.release/forbrn.nr0.htm
48. U.S. Citizenship and Immigration Services. (2021). *Humanitarian Parole*. https://www.uscis.gov/forms/explore-my-options/humanitarian-parole
49. U.S. Citizenship and Immigration Services. (2022). *Part N-Legalization: Adjudicator's Field Manual*. Retrieved from https://www.uscis.gov/policy-manual/volume-7-part-n
50. U.S. Citizenships and Immigration Services. (2021, 11/12/2021). *Humanitarian or Significant Public Benefit Parole for Individuals Outside the United States*. https://www.uscis.gov/humanitarian/humanitarian-or-significant-public-benefit-parole-for-individuals-outside-the-united-states
51. U.S. Department of State-Bureau of Consular Affairs. (2021). *Directory of Visa Categories*. https://travel.state.gov/content/travel/en/us-visas/visa-information-resources/all-visa-categories.html
52. United States Census Bureau. (2017). *ACS Demographic and Housing Estimates*. https://data.census.gov/cedsci/table?q=United%20States&table=DP05&tid=ACSDP1Y2017.DP05&g=0100000US&lastDisplayedRow=29&vintage=2017&layer=state&cid=DP05_0001E
53. USA.gov. (2022, 10/24/2022). *Green Cards and Permanent Residence in the U.S.* USA.gov. Retrieved December 31 from https://www.usa.gov/green-cards
54. Williamson, A., Antonisse, L., Tolbert, J., Garfield, R., & & Damico, A. (2016). *ACA Coverage Expansions and Low-Income Workers*. Kaiser Family Foundation. Retrieved February 23 from https://www.kff.org/report-section/aca-coverage-expansions-and-low-income-workers-issue-brief/#:~:text=Firms%20with%20fewer%20than%2050%20workers%20are%20exempt,Industry%20of%20Low-Income%20and%20Higher%20Income%20Workers%2C%202014
55. Yanar, B., Kosny, A., & Smith, P. M. (2018). Occupational Health and Safety Vulnerability of Recent Immigrants and Refugees. *International journal of environmental research and public health*, *15*(9). https://doi.org/10.3390/ijerph15092004
56. Yang, P. Q., & Hwang, S. H. (2016). Explaining Immigrant Health Service Utilization: A Theoretical Framework. *SAGE Open*, *6*(2), 2158244016648137. https://doi.org/10.1177/2158244016648137

57. Yeh, M., Parikh, N. S., Megliola, A. E., & Kelvin, E. A. (2016). Immigration Status, Visa Types, and Body Weight Among New Immigrants in the United States. *American Journal of Health Promotion*, *32*(3), 771-778. https://doi.org/10.1177/0890117116677797

58. Zajdel, R. A. (2023). Divergent Immigrant Health Trajectories: Disparities in Physical Health Using a Multidimensional Conceptualization of Legal Status. *International Migration Review*, 01979183221149021. https://doi.org/10.1177/01979183221149021

Tables

Table 1 Visa categories as defined by the United States Citizenship and Immigration Services (USCIS) class of Admission for Legal Permanent Residency (U.S. Department of State-Bureau of Consular Affairs, 2021)

Employment-based	Immediate Relatives and Family Sponsored	Refugee/Asylees/Parolees	Legalization	Diversity
Eligibility criteria				
These include main applicant, their spouse, and their children under these categories (Pandey & Kagotho, 2010)**:** o Priority workers (Bray, 2022)-obtain green card prior to US arrival-include "workers with exceptional abilities", "outstanding university professors/researchers", " executives/managers of multinational companies relocating in the US for work". o Professional with advanced degrees or foreign nationals with exceptional skills o Skilled workers, professionals without advanced degrees and needed unskilled workers. o Special immigrants-e.g., ministers, religious workers, and employees of US government abroad o Entrepreneurs/investors	o **Immediate relatives**: (spouse, fiancé, children under age 21, parents) sponsored by a U.S. citizen. o **Family sponsored**: (both married and unmarried adult children over age 21 [including their spouse and children], and siblings of U.S. citizens or LPR including their spouse and children (New Immigrant Survey, 2003; Obinna, 2014))	Those granted visas on humanitarian grounds including: o **Parolees**: those awarded temporary visas for urgent humanitarian reasons, emergency(U.S. Citizenship and Immigration Services, 2021) or "significant public benefit"(U.S. Citizenships and Immigration Services, 2021). Includes those from Soviet and Indochinese regions (Pandey & Kagotho, 2010) o **Refugees and asylees**: recognized nationally and internationally as a protected class of immigrants (Amnesty International, 2021). Both fled home countries out of legitimate fear for their safety and lives and cannot return after crossing international borders (Amnesty International, 2021) o refugee status/visa granted prior to resettlement in a destination country (Amnesty International, 2021) o asylum status/visa sought and granted after arrival in county sought to stay permanently (Amnesty International, 2021)	o Under IRCA 1986 and NACARA 202 legislations, awarded LPR status after either living or working in the US without legal documentation. o Individuals gradually become LPR if they arrived in the US prior to 1982 or if they were agricultural workers for at least 90 days prior to May 1, 1986 (Enchautegui, 2014)	The Department of State administers diversity visas yearly to diversify the U.S. immigrant pool (Boundless Immigration Inc, 2022). o Individuals (and their spouse and children) from countries with fewer than 50,000 admissions to the U.S. in the 5 years preceding visa application (Pandey & Kagotho, 2010) o **Green card awarded prior to US arrival** once visa is approved (Boundless Immigration Inc, 2022; USA.gov, 2022)
Annual Admission Limit[a]				
140,000 (Guillermina, 2011)	Immediate relatives: none (Guillermina, 2011) Family sponsored: 226,000 (Guillermina, 2011)	Refugees: the president sets the limit of refugees admitted to the U.S. in a year (Gelatt J, 2019) Asylees/parolees: none (Gelatt J, 2019)	5,000 (Gelatt J, 2019)	50,000 (Gelatt J, 2019)
Awarded LPR overseas or in the U.S.				
Both (Guillermina, 2011)	Both (Guillermina, 2011)	In the U.S. (Guillermina, 2011)	In the U.S. (Guillermina, 2011)	Overseas (Guillermina, 2011)

Table 2 Job skill categories per the International Classification of Occupation (ISCO)[46]

High Skill	Medium Skill	Low Skill
Individuals with the following occupations: o Executive, administrative and managerial, management related. o Mathematical and computer scientists, engineers, architects and surveyors, engineering, and related technicians, o Life and physical scientists, social scientists and related workers, life, physical, and social science technicians, counselors, social and religious workers Lawyers, judges, and legal support workers, teachers, education, training, and library workers o Entertainers and performers, sports and related workers, media, and communication workers o Health diagnosis and treating practitioners and health care technical and support.	Individuals with the following occupations: o Protective service, sales and related workers, office and administrative support workers, construction trades and extraction workers o Installation, maintenance, and repair workers, production and operating workers, setter, operators, and tenders o Transportation and material moving workers	Individuals with the following occupations: o Food preparation and serving related, cleaning, and building service. o Entertainment attendants and related workers, personal care, and service workers o Farming, fishing, and forestry, and military specific occupations

Table 3 Covariates controlled in the logistic regression assessing employment status by visa type and insurance status by job skill level

Variables	Levels	Definition
Age	**Six levels**: o 18-24 o 25-34 o 35-44, o 45-55, o 55-64 o 65+	o Age categories per the US Census Bureau's age grouping(United States Census Bureau, 2017). o We categorized age though it may be linearly related to insurance and employment for ease of interpretation and comparison of effect estimates between age groups
Region of birth	**Six levels**: o North America (Canada and United States) o Latin America and the Caribbean (Colombia, Cuba, Dominican Republic, El Salvador, Guatemala, Haiti, Jamaica, Mexico, Peru) o West, East, and Sub-Saharan Africa (Ethiopia, Nigeria, and African Sub-Saharan) o The Middle East and North Africa (group kept as coded in the NIS data) o East Asia, South Asia, and the Pacific (Vietnam, Philippines, Korea, India, the People's Republic of China, Oceania, and Artic regions) o Europe and Central Asia (Poland, Russia, Ukraine, United Kingdom, Europe, and Central Asia)	Collapsed 30 different country and regions of birth based on assumed similarity in culture and/or geographic vicinity(Pandey & Kagotho, 2010; Yeh et al., 2016).
Education	**Four levels:** o 0 years of schooling o < 12 years, o 12 years o 12 years	o In wave 1, education represents the total years of schooling. o In wave 2, individuals did not significantly change their years of total school, however, o We added 1 to the total years of schooling for those who got either a new degree or certificate in wave 2 since it was unclear how long it took to complete the degree/certificate. o This did not move people from one education category to the next. o We categorized total years of schooling assuming the effect of education on insurance status to not be linear(Zajdel, 2023). o We used a categorical education variable to assess employment to be consistent with our second analysis of insurance.
Time in the U.S	**Three levels**: o <5 years, o 5 to 10 years, o >10 years	o In wave 1, we created the time in the U.S. variable by subtracting the interview year from the latest year participants left their home country if they were adjusting their immigration status. For those who were new arrivals, their time in the U.S. was equaled to their interview year. o In wave 2, we created the time in the U.S. variable by subtracting the latest year of entry in the U.S. from the interview year. o We categorized time in the U.S. into three levels based on the number of years in the U.S. needed for most immigrants to become eligible for Medicaid(HealthCare.gov, n.d.).

Table 4 Distribution of sociodemographic characteristics by visa type, New Immigrant Survey-Wave 1, N=3104

	Immediate Relatives and Family Sponsored		Diversity visa		Refugee/Asylee/Parolee		Legalization		Total		
Characteristic	**UW n**	**W% (95 % CI)**	**UW n**	**W% (95 % CI)**	**UW n**	**W% (95 % CI)**	**UW n**	**W% (95 % CI)**	**UW N**	**W% (95 % CI)**	**P-value**
Employment											<.001
Yes	953	53(50.5 - 55.5)	430	56.7(52.5 - 60.8)	204	81.7(76.8 - 86.5)	293	78.9(74.7 - 83.1)	1880	58.1(56.1 - 60.0)	
No	910	47(44.5 - 49.5)	293	43.3(39.2 - 47.5)	46	18.3(13.5 - 23.2)	78	21.1(16.9 - 25.3)	1327	41.9(40.0 - 43.9)	
Region of Birth											<.001
North America	16	1.2(0.6 - 1.8)	0	.	0	.	0	.	16	0.9(0.4 - 1.3)	
Latin America and the Caribbean	994	53.3(50.8 - 55.7)	29	3.9(2.2 - 5.5)	77	30.5(24.7 - 36.4)	364	98.1(96.8 - 99.5)	1464	51.7(49.7 - 53.6)	
East, West, and Sub-Saharan Africa	77	4.6(3.5 - 5.7)	242	30.7(27.0 - 34.4)	38	15.3(10.7 - 19.9)	4	1	361	7.5(6.5 - 8.4)	
North Africa and Middle East	60	3.6(2.6 - 4.5)	60	8.5(6.2 - 10.8)	17	7.1(3.8 - 10.4)	0	.	137	3.9(3.1 - 4.7)	
East Asia, South Asia, and Oceania	553	27(24.9 - 29.2)	96	14.2(11.2 - 17.3)	32	12.8(8.6 - 17.0)	2	0.6(0.0 - 1.5)	683	22(20.4 - 23.6)	
Europe and Central Asia	159	10.3(8.7 - 11.9)	296	42.7(38.5 - 46.9)	84	34.2(28.2 - 40.2)	1	0.2 (0.0 - 0.5)	540	14(12.7 - 15.4)	
Sex											<.001
Male	701	37.2(34.8 - 39.6)	408	54.9(50.8 - 59.1)	130	52.8(46.5 - 59.1)	190	51.9(46.8 - 57.1)	1429	41.6(39.6 - 43.5)	
Female	1162	62.8(60.4 - 65.2)	315	45.1(40.9 - 49.2)	120	47.2(40.9 - 53.5)	181	48.1(42.9 - 53.2)	1778	58.4(56.5 - 60.4)	
Age Groups											<.001
18-24	226	12.6(11.0 - 14.3)	97	12.3(9.6 - 15.0)	20	7.6(4.4 - 10.9)	30	8.4(5.4 - 11.3)	373	11.8(10.5 - 13.1)	
25-34	614	37.3 (34.9 - 39.8)	338	46.5(42.3 - 50.7)	75	29.8(24.0 - 35.6)	80	21.6 (17.3 - 25.8)	1107	36(34.1 - 38.0)	
35-44	464	25.6(23.4 - 27.8)	187	26.2(22.5 - 29.9)	86	34.4(28.3 - 40.4)	181	48.8 (43.6 - 54.0)	918	28.7(26.9 - 30.5)	
45-54	342	15.5(13.8 - 17.1)	83	12.6(9.7 - 15.6)	53	22.2(16.8 - 27.5)	67	17.5(13.6 - 21.4)	545	15.9(14.5 - 17.2)	
55-64	217	9(7.8 - 10.2)	18	2.4(1.1 - 3.7)	16	6(3.1 - 9.0)	13	3.7(1.7 - 5.8)	264	7.6(6.6 - 8.5)	
Education											<.001
0	33	1.5(1.0 - 2.1)	3	0.9(0.0 - 1.9)	6	2.4(0.5 - 4.3)	14	3.6(1.7 - 5.5)	56	1.7(1.3 - 2.2)	
< 12	722	35.4(33.1 - 37.8)	65	10.8(8.0 - 13.5)	55	21.4(16.2 - 26.5)	228	61.6(56.6 - 66.7)	1070	34.9(33.0 - 36.7)	
12	326	17.9(16.0 - 19.8)	131	17.5(14.3 - 20.7)	61	23.5(18.2 - 28.8)	54	14.7(11.0 - 18.4)	572	17.9(16.4 - 19.4)	
>12	777	45.2(42.7 - 47.6)	522	70.8(67.0 - 74.7)	127	52.7(46.4 - 59.0)	75	20(15.9 - 24.2)	1501	45.5(43.5 - 47.5)	

The education variable denotes total years in school

UW=Unweighted; W= Weighted

Table 5 Distribution of sociodemographic characteristics by visa type, New Immigrant Survey-Wave 2, N=3104

	Immediate Relatives and Family Sponsored		Diversity visa		Refugee/Asylee/Parolee		Legalization		Total		
Characteristic	UW n	W % (95 % CI)	UW n	W % (95 % CI)	UW n	W % (95 % CI)	UW n	W % (95 % CI)	UW N	W% (95 % CI)	P-value
Employment											<.001
Yes	1246	68.1(65.8 - 70.3)	597	85.3(82.6 - 87.9)	187	76.4(70.8 - 81.9)	280	79.4(75.1 - 83.7)	2310	73.7(72.1 - 75.3)	
No	559	31.9(29.7 - 34.2)	106	14.7(12.1 - 17.4)	57	23.6(18.1 - 29.2)	72	20.6(16.3 - 24.9)	794	26.3(24.7 - 27.9)	
Region of Birth											<.001
North America	16	0.8(0.4 - 1.2)	0	.	0	.	0	.	16	0.5(0.3 - 0.7)	
Latin America and the Caribbean	946	50.6(48.2 - 53.0)	29	3.7(2.3 - 5.0)	73	28.5(22.7 - 34.2)	345	98(96.5 - 99.5)	1393	43.1(41.4 - 44.9)	
East, West, and Sub-Saharan Africa	74	4.1(3.1 - 5.0)	236	34.4(30.8 - 38.0)	35	13.7(9.3 - 18.0)	4	1.1(0.0 - 2.2)	349	11.3(10.1 - 12.4)	
North Africa and Middle East	59	4.2(3.1 - 5.2)	57	10.4(7.8 - 13.1)	17	9.8(5.3 - 14.2)	0	.	133	5.6(4.6 - 6.5)	
East Asia, South Asia, and Oceania	543	31.5(29.2 - 33.7)	90	13.9(11.2 - 16.7)	31	15(10.1 - 19.9)	2	0.6(0.0 - 1.4)	666	23.1(21.6 - 24.7)	
Europe and Central Asia	163	8.9(7.5 - 10.2)	291	37.5(33.9 - 41.1)	86	33.1(27.1 - 39.1)	1	0.3(0.0 - 0.8)	541	16.3(15.0 - 17.7)	
Sex											<.001
Male	645	37.6(35.3 - 40.0)	397	59.6(55.9 - 63.3)	129	55.6(49.2 - 62.0)	179	52.8(47.5 - 58.1)	1350	45.5(43.7 - 47.3)	
Female	1160	62.4(60.0 - 64.7)	306	40.4(36.7 - 44.1)	115	44.4(38.0 - 50.8)	173	47.2(41.9 - 52.5)	1754	54.5(52.7 - 56.3)	
Age Groups											<.001
21-24	72	5(3.8 - 6.2)	16	2.9(1.5 - 4.4)	4	2.1(0.0 - 4.2)	14	4.7(2.3 - 7.1)	106	4.3(3.5 - 5.1)	
25-34	467	26.8(24.7 - 28.9)	285	43.4(39.6 - 47.2)	50	22.6(17.0 - 28.3)	34	11.3(7.6 - 14.9)	836	28.6(26.9 - 30.3)	
35-44	528	27.4(25.3 - 29.4)	248	34.5(39.6 - 47.2)	83	33.3(27.3 - 39.4)	169	47.2(41.9 - 52.5)	1028	31.4(29.8 - 33.1)	
45-54	351	18.1(16.3 - 19.8)	113	14(11.5 - 16.5)	70	27.3(21.7 - 33.0)	100	26.8(22.2 - 31.4)	634	18.8(17.4 - 20.2)	
55-64	184	9.9(8.5 - 11.3)	30	3.8(2.4 - 5.1)	23	8.8(5.2 - 12.3)	27	7.5(4.8 - 10.3)	264	8.2(7.3 - 9.2)	
65+	203	12.8(11.2 - 14.5)	11	1.3(0.5 - 2.1)	14	5.8(2.7 - 8.8)	8	2.5(0.8 - 4.1)	236	8.7(7.6 - 9.7)	
Education											<.001
0	46	3(2.1 - 3.8)	3	0.6(0.0 - 1.2)	5	2.3(0.3 - 4.3)	15	4.3(2.2 - 6.5)	69	2.5(1.9 - 3.1)	
< 12	710	39.8(37.5 - 42.2)	62	9.3(7.0 - 11.6)	53	24(18.2 - 29.7)	214	60.8(55.6 - 66.0)	1039	33.9(32.1 - 35.6)	
12	265	14.8(13.1 - 16.5)	113	16.3(13.5 - 19.2)	52	21.9(16.5 - 27.3)	49	14.7(10.8 - 18.6)	479	15.7(14.4 - 17.0)	
>12	778	42.4(40.1 - 44.8)	523	73.8(70.4 - 77.2)	133	51.8(45.3 - 58.3)	74	20.2(16.0 - 24.4)	1508	47.9(46.1 - 49.7)	

The education variable denotes total years in school

UW=Unweighted; W=Weighted

Table 6 Distribution of sociodemographic characteristics by job skill level, New Immigrant Survey-Wave 1, N=2173

	High		Medium		Low		Total		
Characteristic	**UW n**	**W% 95 % CI**	**UW n**	**W% 95 % CI**	**UW n**	**W% 95 % CI**	**UW N**	**W% 95 % CI**	**P-value**
Insurance Status									<.001
Yes	567	70.8(66.6 - 75.0)	324	41.7(37.9 - 45.6)	145	34.8(29.8 - 39.7)	1036	48.1(45.5 - 50.6)	
No	205	29.2(25.0 - 33.4)	541	58.3(54.4 - 62.1)	368	65.2(60.3 - 70.2)	1114	51.9(49.4 - 54.5)	
Visa Categories									<.001
Immediate Relatives and Family Sponsored	156	47.2(42.5 - 51.9)	391	61.9(58.4 - 65.4)	213	57.8(53.1 - 62.5)	760	56.7(54.3 - 59.1)	
Employment-based visa holder	498	37.2(33.4 - 41.0)	90	4.9(3.8 - 6.1)	58	5.5(3.9 - 7.2)	646	14.1(12.9 - 15.4)	
Diversity visa	68	5.3(3.9 - 6.7)	187	9.5(8.0 - 11.1)	119	11(8.7 - 13.2)	374	8.7(7.7 - 9.7)	
Refugee/Asylee/Parolee	40	7(4.8 - 9.2)	85	9.7 (7.6 - 11.7)	30	5.8(3.7 - 7.9)	155	7.9(6.7 - 9.1)	
Legalization	18	3.3(1.8 - 4.8)	120	14 (11.5 - 16.4)	100	19.9(16.2 - 23.6)	238	12.5(11.0 - 14.1)	
Region of Birth									<.001
North America	26	3.6 (1.7 - 5.5)	6	0.7(0.0 - 1.4)	1	0.5(0.0 - 1.3)	33	1.4(0.8 - 2.1)	
Latin America and the Caribbean	115	23(18.8 - 27.3)	418	55.5(51.7 - 59.3)	275	61.2(56.4 - 65.9)	808	47.9(45.3 - 50.4)	
East, West, and Sub-Saharan Africa	58	8.4(5.9 - 11.0)	88	6.8(5.0 - 8.6)	42	4.9(3.1 - 6.8)	188	6.8(5.6 - 8.0)	
North Africa and Middle East	21	3(1.4 - 4.5)	35	3.5(2.2 - 4.9)	22	3.1(1.5 - 4.7)	78	3.3(2.4 - 4.1)	
East Asia, South Asia, and Oceania	388	36.6(32.5 - 40.6)	172	19.6(16.6 - 22.6)	88	17.6(13.7 - 21.4)	648	23.8(21.8 - 25.9)	
Europe and Central Asia	170	25.4(21.2 - 29.6)	151	13.8(11.3 - 16.4)	92	12.8(9.8 - 15.8)	413	16.8(14.9 - 18.7)	
Sex									<.001
Male	456	50.9(46.3 - 55.5)	602	65.2(61.5 - 68.9)	238	43.4(38.5 - 48.3)	1296	55.5(53.0 - 58.0)	
Female	324	49.1(44.5 - 53.7)	271	34.8(31.1 - 38.5)	282	56.6(51.7 - 61.5)	877	44.5(42.0 - 47.0)	
Age Groups									<.001
18-24	20	4(1.9 - 6.2)	96	11.9(9.3 - 14.5)	50	9.8(6.7 - 12.8)	166	9.1(7.6 - 10.7)	
25-34	367	48.4(43.8 - 53.0)	306	37.3(33.5 - 41.1)	174	34.1(29.3 - 38.9)	847	39.6(37.1 - 42.1)	
35-44	270	32.4(28.2 - 36.6)	284	31.2(27.7 - 34.7)	171	33.9(29.2 - 38.6)	725	32.2(29.9 - 34.6)	
45-54	100	12.1(9.4 - 14.8)	150	15.4(12.8 - 18.0)	94	16.7(13.2 - 20.3)	344	14.8(13.1 - 16.5)	
55-64	23	3.1(1.7 - 4.6)	37	4.1(2.8 - 5.5)	31	5.5(3.5 - 7.5)	91	4.2(3.3 - 5.1)	
Education									<.001
0	0	.	3	0.5(0.0 - 1.1)	12	2.6(1.0 - 4.1)	15	0.9(0.4 - 1.4)	
< 12	26	4.6(2.6 - 6.6)	271	33.9(30.2 - 37.5)	218	45.8(40.9 - 50.8)	515	28.8(26.5 - 31.1)	
12	37	7.2(4.5 - 9.9)	169	19.7(16.6 - 22.8)	94	17(13.3 - 20.8)	300	15.5(13.6 - 17.4)	
>12	716	88.2 (85.0 - 91.5)	429	45.9(42.1 - 49.8)	195	34.5(29.8 - 39.3)	1340	54.8(52.3 - 57.3)	
Time in the U.S.									<.001
<5 years	318	37.6(33.3 - 42.0)	457	47.9(44.0 - 51.8)	261	45.2(40.2 - 50.1)	1036	44.3(41.7 - 46.8)	

5 to 10 years	262	35.2(30.7 - 39.7)	130	17.8(14.7 - 20.9)	72	16.6(12.6 - 20.6)	464	22.4(20.2 - 24.6)
>10 years	194	27.2 (23.1 - 31.3)	265	34.3(30.6 - 38.1)	178	38.3 (33.4 - 43.1)	637	33.3(30.9 - 35.8)

The education variable denotes total years in school

UW=Unweighted; W=Weighted

Table 7 Distribution of sociodemographic characteristics by job skill level, New Immigrant Survey-Wave 2, N=2173

	High		Medium		Low		Total		
Characteristic	**UW n**	**W % 95 % CI**	**UW n**	**W % 95 % CI**	**UW n**	**W % 95 % CI**	**UW N**	**W % 95 % CI**	**P-value**
Insurance Status									<.001
Yes	809	91.2(89.3 - 93.1)	518	61.8(58.4 - 65.2)	232	56.7(51.8 - 61.6)	1559	73.2(71.2 - 75.1)	
No	81	8.8(6.9 - 10.7)	312	38.2(34.8 - 41.6)	174	43.3(38.4 - 48.2)	567	26.8(24.9 - 28.8)	
Visa Categories									<.001
Immediate Relatives and Family Sponsored	200	22.6(19.8 - 25.4)	364	43.3(39.9 - 46.7)	196	46.5(41.7 - 51.4)	760	35.3(33.2 - 37.4)	
Employment-based visa holder	494	54.4(51.0 - 57.7)	104	12.7(10.3 - 15.0)	48	12.4(9.1 - 15.8)	646	29.9(28.0 - 31.9)	
Diversity visa	125	14.1(11.7 - 16.4)	183	21.5(18.7 - 24.3)	66	15.7(12.1 - 19.2)	374	17.3(15.7 - 19.0)	
Refugee/Asylee/Parolee	49	5.4(3.9 - 6.9)	85	10.8(8.5 - 13.0)	21	5.5(3.2 - 7.8)	155	7.5(6.4 - 8.7)	
Legalization	35	3.6(2.4 - 4.8)	113	11.8(9.7 - 13.9)	90	19.9(16.1 - 23.7)	238	9.9(8.7 - 11.1)	
Region of Birth									<.001
North America	22	2.3(1.4 - 3.3)	9	1(0.4 - 1.7)	2	0.5(0.0 - 1.1)	33	1.5(1.0 - 2.0)	
Latin America and the Caribbean	157	17(14.5 - 19.4)	398	44.7(41.3 - 48.1)	253	58(53.1 - 62.9)	808	35.7(33.6 - 37.7)	
East, West, and Sub-Saharan Africa	80	8.9(7.0 - 10.8)	80	9.6(7.6 - 11.7)	28	6.8(4.4 - 9.3)	188	8.8(7.6 - 10.0)	
North Africa and Middle East	33	4.3(2.8 - 5.7)	31	4.8(3.1 - 6.5)	14	4.6(2.2 - 7.0)	78	4.5(3.5 - 5.5)	
East Asia, South Asia, and Oceania	406	45.6(42.3 - 48.9)	172	22.2(19.2 - 25.2)	70	18.3(14.4 - 22.2)	648	31.2(29.2 - 33.2)	
Europe and Central Asia	204	21.9(19.2 - 24.7)	156	17.6(15.0 - 20.2)	53	11.9(8.8 - 15.0)	413	18.3(16.7 - 20.0)	
Sex									<.001
Male	523	60.3(57.0 - 63.5)	590	71.1(68.0 - 74.2)	183	46(41.1 - 50.9)	1296	61.9(59.8 - 64.0)	
Female	380	39.7(36.5 - 43.0)	259	28.9(25.8 - 32.0)	238	54(49.1 - 58.9)	877	38.1(36.0 - 40.2)	
Age Groups									<.001
21-24	14	1.9(0.9 - 2.9)	24	3.5(2.1 - 4.9)	7	2(0.4 - 3.6)	45	2.6(1.8 - 3.3)	
25-34	251	29.5(26.4 - 32.6)	226	29(25.7 - 32.2)	95	24.7(20.4 - 29.1)	572	28.4(26.4 - 30.4)	
35-44	420	45.9(42.5 - 49.2)	307	35.3(32.0 - 38.6)	151	35.2(30.6 - 39.9)	878	39.7(37.6 - 41.8)	
45-54	172	18(15.5 - 20.5)	214	23.5(20.6 - 26.3)	112	24.9(20.8 - 29.0)	498	21.5(19.7 - 23.2)	
55-64	39	3.9(2.7 - 5.1)	63	7(5.3 - 8.7)	40	9.3(6.5 - 12.1)	142	6.1(5.1 - 7.1)	
65+	7	0.8(0.2 - 1.4)	15	1.8(0.8 - 2.7)	16	3.9(2.0 - 5.8)	38	1.8(1.2 - 2.3)	
Education									<.001
0	0	.	4	0.5(0.0 - 1.0)	10	2.3(0.9 - 3.8)	14	0.6(0.3 - 1.0)	
< 12	48	5.5(4.0 - 7.1)	271	32.1(28.9 - 35.4)	197	47.5(42.6 - 52.4)	516	24(22.1 - 25.8)	
12	47	5.4(3.9 - 7.0)	154	18.6(15.8 - 21.3)	66	15.9(12.3 - 19.5)	267	12.6(11.2 - 14.1)	
>12	807	89.1(86.9 - 91.2)	419	48.8(45.4 - 52.3)	147	34.2(29.6 - 38.8)	1373	62.8(60.7 - 64.9)	
Time in the U.S.									0.003

	High		Medium		Low		Total		
Characteristic	UW n	W % 95 % CI	UW n	W % 95 % CI	UW n	W % 95 % CI	UW N	W % 95 % CI	P-value
<5 years	260	30.8(27.6 - 34.0)	245	31.2(27.9 - 34.5)	106	27(22.5 - 31.5)	611	30.3(28.2 - 32.3)	
5 to 10 years	337	39.1(35.7 - 42.4)	260	33.3(29.9 - 36.7)	118	32(27.1 - 36.8)	715	35.5(33.4 - 37.6)	
>10 years	258	30.1(27.0 - 33.3)	290	35.5(32.1 - 38.9)	161	41(36.0 - 46.0)	709	34.2(32.1 - 36.3)	

The education variable denotes total years in school

UW=Unweighted; W=Weighted

Figures

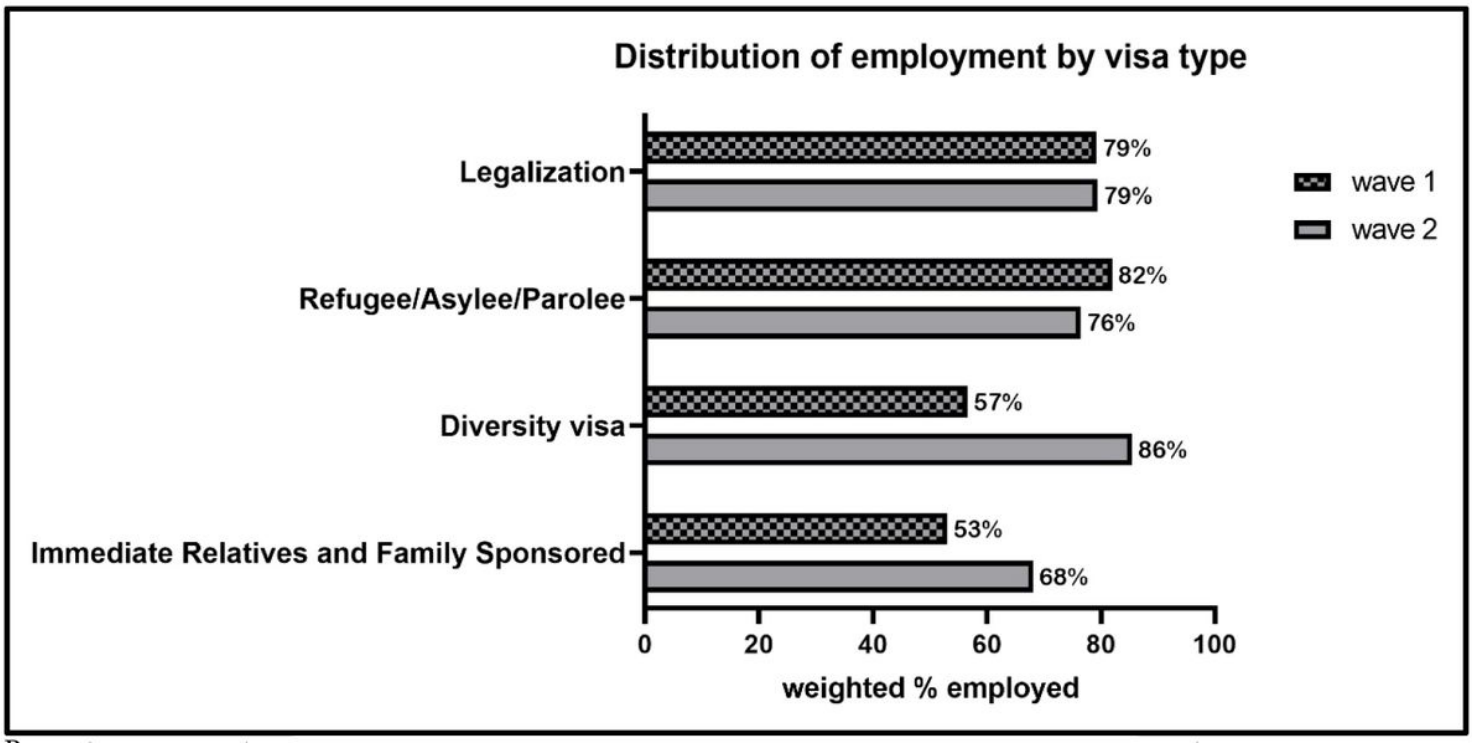

Figure 1

Crude distribution of employment by visa categories over time

Percentage represent number employed over total number of individuals within the specified visa category

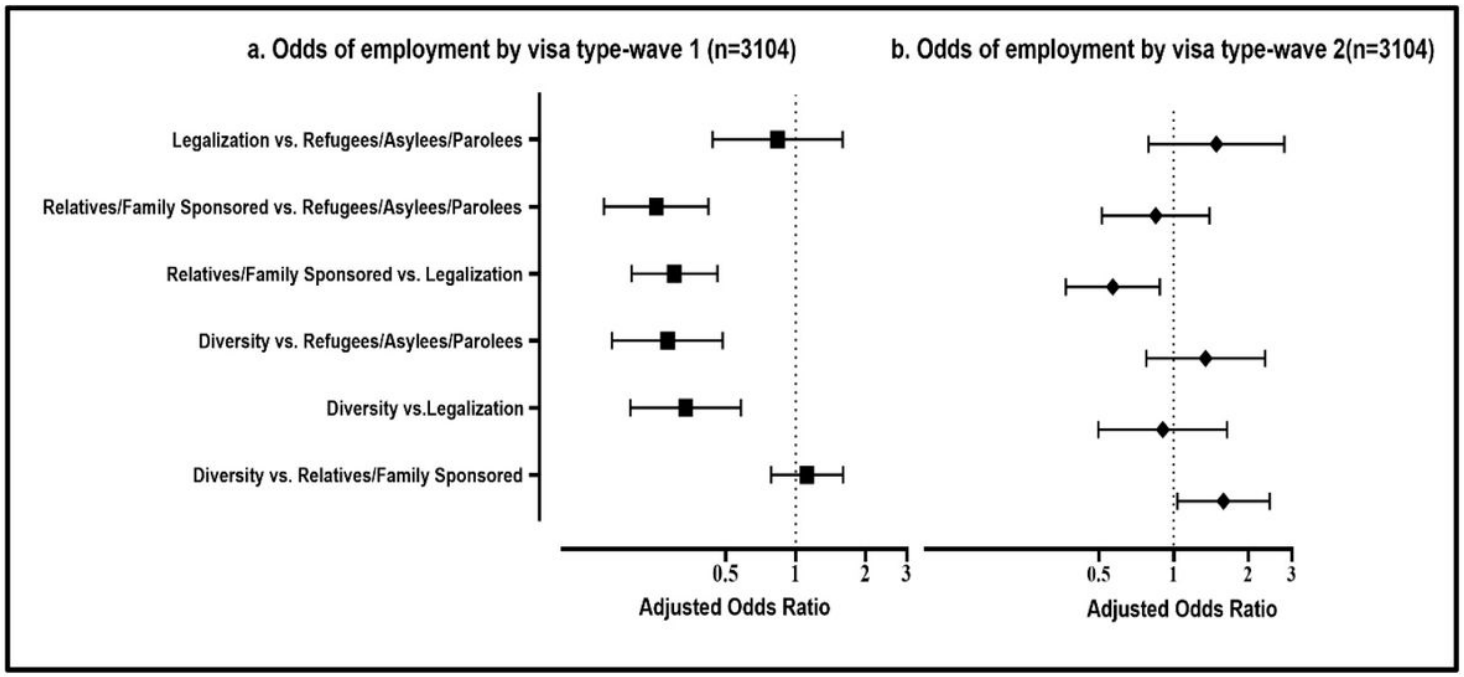

Figure 2

Pairwise comparison of odds of employment by visa type-wave 1 and wave 2

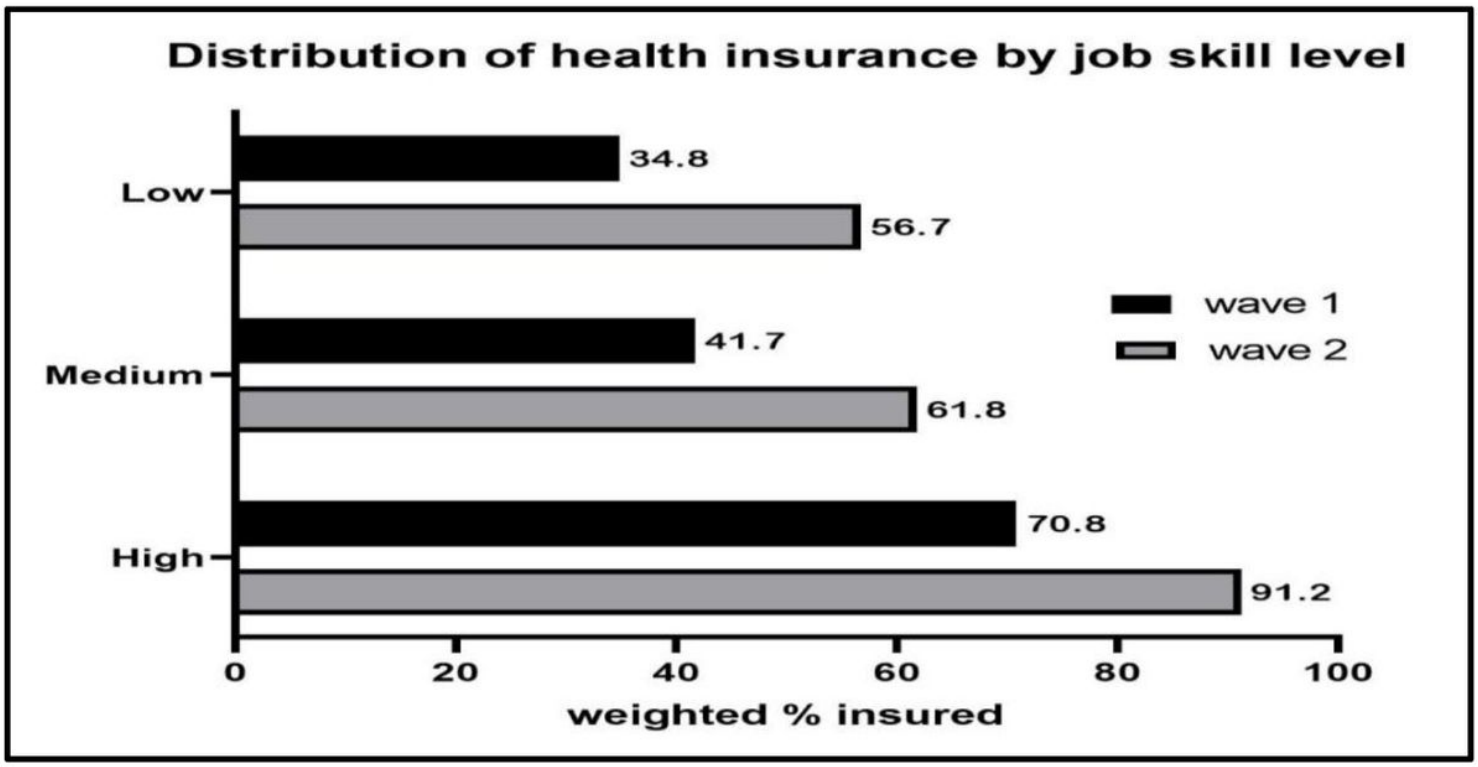

Figure 3

Crude distribution of health insurance by job skill level over time

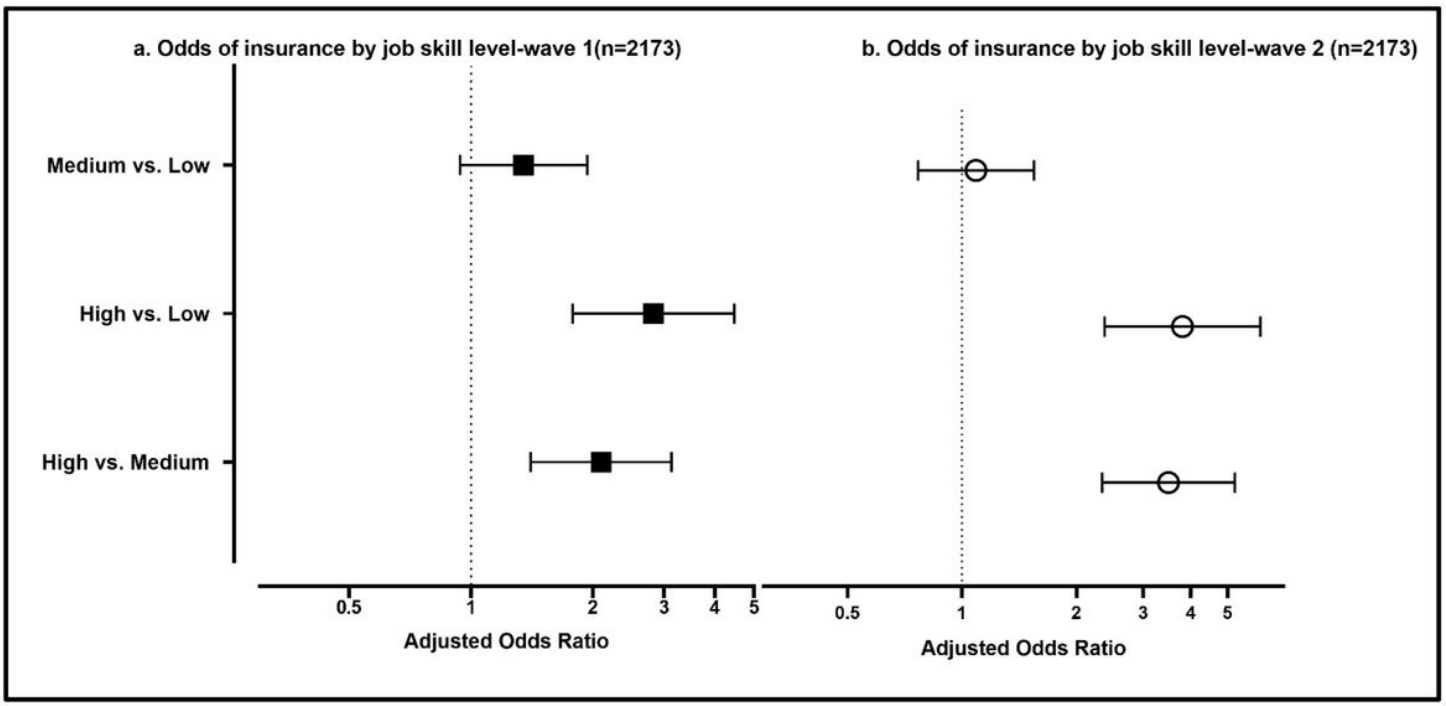

Figure 4

Pairwise comparison of odds of insurance by job skill level-wave 1 and wave 2

Supplementary Files

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- Appendix.docx