Supplementary Table 1: Description and major findings of included studies on health outcomes (N = 19)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Source** | **Outcome measures** | **Description of sample** | **Number of study participants** | **Data source and study design** | **Status of refugees** | **Major findings** |
| MENTAL HEALTH STATUS | | | | | | |
| Denmark | | | | | | |
| Montgomery & Foldspang 2007 | Interaction between perceived discrimination, mental problems and social adaptation. | Refugees aged 11-23 from the Middle East who were registered as asylum-seekers from 1 Feb 1992 to 30 Apr 1993 and had been granted residency at time of study. | N = 131 | Survey  Longitudinal | Accompanied | Results from structural equation model:  Discrimination was associated with internalizing behaviour (β = 0.057\*\*\*) but not with externalizing behaviour.  Male gender (β = 2.134\*, Iraqi nationality (β = -2.814\*), and Kurdish ethnicity (β = 2.609\*) was associated with externalizing behaviour a,f,i.  Enhanced social adaptation was negatively correlated with discrimination (partial r = -0.195\*) and with internalizing (partial r = -2.586\*\*\*) and externalizing behaviour (partial r = -2.103\*\*\*) |
| Montgomery 2008 | Mental health 8-9 years after immigration to Denmark | Refugees aged 11-23 from the Middle East who were registered as asylum-seekers from 1 Feb 1992 to 30 Apr 1993 and had been granted residency at time of study. | N = 131 | Survey  Longitudinal | Accompanied | 78.6% fell within the normal, 6.1% fell within the borderline and 15.3% fell within the clinical range for externalizing symptoms. 70.2% fell within the normal, 11.5% fell within the borderline and 18.3% fell within the clinical range for internalizing symptoms.  Results from linear and multiple logistic regressions: Social context in Denmark was associated with poor mental health after 8-9 years in Denmark more than traumatic experiences before arrival. Witnessing attack on others in Denmark (β = 0.19\*) and high school mobility (OR = 1.38\*) were associated with more externalizing behaviour. Attending school or work (β = -0.21\*), longer education in mothers (β = -0.23\*) and higher age (OR = 0.82\*) were associated with less externalizing behaviour. Number of types of traumatic experiences before arrival (β = 0.16\*), stressful experiences in Denmark (β = 0.17\*) and discrimination (β = 0.23\*) were associated with more internalizing symptoms. Longer education in mothers (β = -0.23)\*, number of Danish friends (β = -0.18\*), being Muslim or Christian (OR = 0.25\* and 0.05\* respectively), Danish proficiency (OR = 0.037\*) and male gender (β = -0.19\*) were associated with less internalizing behaviourh,i,m,n |
| Montgomery 2010 | Long-term psychological problems after 8-9 years in exile | Refugees aged 11-23 from the Middle East who were registered as asylum-seekers from 1 Feb 1992 to 30 Apr 1993 and had been granted residency at time of study. | N = 131 | Survey  Longitudinal | Accompanied | At arrival, 68.7% of the children were anxious, 32.8% suffered from sleep disturbances, and 29% were sad and depressed. 74.8% suffered from one or more of these conditions.  Follow-up: With the group with symptoms in both studies (traumatised) as a reference category, the number of types of traumatic experiences before arrival distinguished between the traumatised and those with no symptoms in any study (OR = 0.79\*). Number of types of stressful events after arrival distinguished between the traumatised and those with symptoms in the initial study but none at follow-up (OR = 0.54\*\*)a,b,g,h,j  Those whose mental health had improved from first to second study were more likely to be attending school or work (OR = 6.78\*) and to have fathers with longer education (OR = 1.13\*) than those who were traumatised. Those who were unproblematic at both assessments were more likely to discuss their problems with their mothers (OR = 3.72\*). |
| Barghadouch et al. 2016 | Having a first-time in- or outpatient hospital diagnosis with a psychiatric disorder | All refugees from non-western countries aged 18-29 who were granted residence permit from 1993 to 2010 and were <18 years old at time of residence permit. Matched 1:6 on sex and age with a Danish-born control group. | N = 114,577 individuals  N = 15,264 refugees  N = 99,313 Danish-born peers | Registry  Longitudinal | Accompanied and unaccompanied | No difference in overall RR for having any psychiatric disorder between refugees and Danish-born control group.  Refugees had a higher RR of having psychotic (RR: 1.81, 95% CI: 1.41-2.32) and nervous disorders (1.28, 95% CI: 1.14-1.43) than the Danish-born group. Refugees had a lower RR of having affective disorders than the Danish group (RR: 0.74, 95% CI: 0.60-0.90)a, b, c.  Being female, being from North Africa or the Middle East, being a quota refugee, lower household income, older age at residence permission, and being unaccompanied upon arrival to Denmark were associated with high psychiatric morbidity. |
| Finland | | | | | | |
| Liebkind 1993 | Depressive symptoms | Vietnamese refugees aged 14-24 who arrived in 1979-1989 | N = 159 | Survey  Cross-sectional | Accompanied | Vietnamese Depression Scale (VDS): Girls had higher scores than boys – 2.56 for boys and 4.05 for girls\*\*\*.  Results from linear regression: HSCL-25: For the group aged 16-24, depressive symptoms increased with length of stay (β =0.19\*). |
| Liebkind 1996 | Depressive symptoms and anxiety and their relation to migration contingencies, acculturation attitudes, and acculturation | Vietnamese refugees aged 14-24 who arrived in 1979-1989 | N = 159 | Survey  Cross-sectional | Accompanied | More girls than boys had HSCL-25 total scores above the cut-off value of 1.75: 5.95% of the boys, and 16.22% of the girls.  Results from hierarchical linear regression:  Girls: Community support was associated with lower HSCL-25 total scores (β =-0.30\*\*) and lower HSCL-25 anxiety score (β =-0.38\*\*\*). Positive acculturation attitudes in practice was associated with higher HSCL-25 total score (β = 0.26\*).  Boys: Premigration traumatic experiences was associated with higher HSCL-25 total score (β = 0.28\*\*) while solidarity and tightness of family bonds were associated with lower score (β = -0.23\*). |
| Kosonen 2008 | Association between depressive symptoms and mental health earlier in life as well as acculturation | Refugees aged 8.5-20.5 in 1992 (T1) and 21-31 in 2004 (T2) who arrived in 1979-1991, matched with Finnish classmates. | N = 194 individuals  N = 97 refugees in T1  N = 97 Finnish classmates in T1  N = 59 refugees from T1 in T2 | Survey  Longitudinal | Accompanied | At T1, refugees were more depressed than their Finnish peers with a mean score of 12.18 vs. 6.84, p<.001 (cutoff value ≥11). 51% of the refugees were depressed at T1 compared to 19% at T2\*\*\*.  Results from hierarchical regression: Perceived discrimination (β = .23\*), greater Vietnamese proficiency (β = .23\*) and adherence to receiving country values (β = .24\*) were associated with depression in childhoods,t,u  More perceived discrimination in childhood (β = .31\*) and depression in childhood (β =.29\*) were associated with depression in adult lifer,s  Greater Finnish proficiency as an adult (β = -.38\*\*) and higher educational attainment (β = -.28\*) were associated with less depression in adult life while identifying more as Vietnamese-Finnish as an adult (β = .37\*\*\*) and adherence to traditional Vietnamese family values in adult life (β = .22\*) were associated with more depressionv |
| Norway | | | | | | |
| Oppedal et al. 2009 | Depressive symptoms | Resettled unaccompanied refugees, aged 11-26 (mean 18.9) and a ‘low-risk’ comparison group of students with ethnic minority background (parents born abroad) and students with a majority background (parents born in Norway), aged 16-23 (mean 16.8) | N = 749 individuals  N = 325 unaccompanied refugees  N = 273 ethnic minority students  N = 151 ethnic majority students | Survey  Cross-sectional | Unaccompanied | 52% of unaccompanied boys and 60% of unaccompanied girls had depressive symptoms above the cut-off value. 39% of the boys and 42% of the girls in the ethnic minority comparison group and 17% of the boys and 45% of the girls in the majority group had severe depressive symptoms.  Among the unaccompanied refugees who had not experienced war, 20% had severe depressive symptoms. For those who had war experiences but did not have PTSS, the proportion was 18%. Of those with war experiences and PTSS, 62% had severe depressive symptoms.  Unaccompanied refugees living with family have fewer depressive symptoms than others.  Mean depressive symptom score for those with close contact with family in Norway was lower than it was for those whose closest contacts were social workers. |
| Seglem et al. 2011 | Depressive symptoms in relation to demographic factors, post-traumatic stress and community factors | Refugees aged 11-27 who were granted residency in 2000-2009. | N = 414 | Survey  Cross-sectional | Unaccompanied | The mean Centre for Epidemiological Studies-Depression scale score for depressive symptoms was 20.28, SD = 9.13. Females had a higher mean score (M = 23.29, SD = 10.47) than males (M = 19.46, SD = 8.56).   Depressive symptoms and post-traumatic stress symptoms due to war experiences were related, r = 0.29\*\*. Depressive symptoms were not associated with length of stay.  Results from hierarchical linear regression: Fewer depressive symptoms were associated with male gender  (β =-4.78\*\*\*), Somali nationality (β = -5.68\*\*\*) and living in a municipality with a high mean income (β = -4.43\*)l.  Living in a municipality with higher proportion of people with a higher education and suffering from PTS were associated with more depressive symptoms on average (β = 0.45\*\* and β =3.02\*\*\*, respectively)a,e,k,i |
| Oppedal & Idsøe 2012 | The effect of pre-migration trauma and acculturation on depressive symptoms and conduct problems and | Refugees aged 11-27 who had been granted residency at the time of study. Mean length of stay 3.7 years. | N = 556 | Survey  Cross-sectional | Unaccompanied | Results from structural equation model:  Culture competence and ingroup/outgroup hassles in combination with intrusive war-related traumatic experiences was not associated with outcomes in conduct problems. Only ingroup hassles were associated with increased conduct problems (β = 0.16\*\*).  Depressive symptoms were associated with ethnic competence (β = -0.16\*\*), ingroup hassles (β = 0.19\*\*), outgroup hassles (β = 0.21\*\*), intrusive war-related traumatic experiences (β = 0.24\*\*) and Norwegian culture competence (β = -0.11\*)a,b,n. |
| Jensen et al. 2014 | Long-term development in mental health | Refugees aged 13-20 and aged <15 at the time of arrival | N = 75 refugees | Survey  Longitudinal | Unaccompanied | 59.6% remained above the clinical cut-off value of the Child PTSD Symptom Scale and 50% remained above the clinical cut-off value of HSCL-37A from T1 to T2.  No increase in mean symptom scores from T1 to T2. Reported number of stressful life events increased significantly (M change =0.8\*)  In a multiple regression model, increase in number of stressful life events was associated with increased PTSS (β =1.481, 95% CI 0.552-2.411)a,h,k.  Length of stay, change in the Stressful Life Events measure or length of education were not associated with changes in HSCL-37Aa. |
| Seglem et al. 2014 | Depressive symptoms and their association with daily hassles and coping dispositions | Refugees who had been granted residency at the time of study (mean age 20 years).  Comparison groups of upper secondary school students with an ethnic minority background from non-Western countries and upper secondary school students with a majority background (mean age 17 years) | N = 1259 individuals  N = 223 refugees  N= 609 ethnic minority youth  N = 427 ethnic majority youth | Survey  Cross-sectional | Unaccompanied | Unaccompanied refugees reported higher levels of depressive symptoms than ethnic minority and majority youth: Mean scores on the Centre for Epidemiological Studies-Depression scale 10 were 10.44\*\*\*, 8.46\*\*\*, and 8.43\*\*\*, respectively.  When adding daily hassles, engagement coping and disengagement coping as mediators in a multiple mediation model, the direct effect of group on depressive symptoms decreased, from β = 0.40\*\*\* to β= 0.26\*\* for unaccompanied refugees vs. ethnic minority youth, and from β = 0.50\*\*\* to β = 0.24\*\* for unaccompanied refugees vs. ethnic majority youtha,b |
| Oppedal & Idsøe 2015 | Intrusive post-traumatic stress symptoms (PTSS) and depressive symptoms in relation to social support, acculturation and discrimination | Refugees aged 13-28 who were granted asylum in 2000-2010 | N = 895 | Survey  Cross-sectional | Unaccompanied | Of the 79% who reported first-hand war experiences, 52% had current PTSS associated with the events.  Those who had contact with their family abroad reported more social support and fewer depressive symptoms than those without contact (mean score for social support 3.37 vs. 2.95\*\*\* and depression scores 20 vs. 21.7\*).  Results from structural equation model:  None of the forms of social support were associated with PTSS. PTSS was associated with more depressive symptoms (β = 0.25\*\*) while social support from family was associated with fewer depressive symptoms (β = -0.14\*\*). Support from family and co-ethnic friends both had a positive effect on ethnic culture competence, which in turn was associated with less discrimination (β = -0.13\*\*). Discrimination itself was associated with depressive symptoms (β *=* 0.20\*\*)a,b,k.  Female gender was associated with more depressive symptoms (β = 0.11\*\*) and less PTSS (β =-0.13\*\*\*). Older age was associated with more PTSS (β =0.20\*\*\*) Length of stay was associated with fewer depressive symptoms (β =-0.14\*\*) and lower scores on the Impact of War-Related Traumatic Events measure (β =-0.16\*\*). |
| Keles et al. 2016 | Depressive symptoms and their relation to general and acculturation-specific daily hassles | Refugees aged 13-28 who were granted permanent residency in 2000-2010. | N = 895 | Survey  Cross-sectional | Unaccompanied | Results from structural equation model: High exposure to war-related trauma and sequels of trauma were positively related with depressive symptoms (β = 0.16\*\*\*).  General and acculturation-specific hassles were significantly associated with depressive symptoms (β = 0.36\*\*\* for general hassles, and β = 0.33\*\*\* for acculturation-specific hassles)b, d  Age and length of stay did not have a significant effect on depressive symptoms. |
| Sweden | | | | | | |
| Almqvist & Brandell-Forsberg 1997 | Prevalence and stability of post-traumatic stress | Iranian refugee children aged 4-8 in initial study and 6-10 who were granted residency in 1987-1988. | N = 50 in initial study  N = 39 at follow-up | Clinical data, observations condensed into scores by researchers  Longitudinal | Accompanied | Amount of exposure to traumatic events was strongly related to the prevalence of PTSD in the initial study: Children who had been severely exposed to traumatic events were more frequently diagnosed with PTSD (38%) than less severely exposed children (0% for non-exposed, 11% of less exposed children).  At follow-up 2½ years later, 7 (21%) of the 34 children exposed to traumatic events still met the full criteria for PTSD. |
| Almqvist & Broberg 1999 | Mental health after 3½ years in receiving country | Iranian refugee children aged 4-8 in initial study and 6-10 who were granted residency in 1987-1988. | N = 50 in initial study  N = 39 at follow-up | Clinical data, observations and interview data condensed into scores and codes by researchers  Longitudinal | Accompanied | Initially, 26% of the children had good emotional well-being. At follow-up 38% had good emotional wellbeing while 26% displayed minor psychological disturbances, 18% suffered from severe posttraumatic stress symptoms, and 18% fulfilled all criteria for a PTSDdiagnosis.  At follow-up, vulnerability and exposure to traumatic events were positively correlated with mental ill health (r = 0.35\* and 0.36\*, respectively). Having a peer to play with was negatively correlated with mental ill health (r = -0.31\*)  Mother’s emotional wellbeing (Wald: 4.98\*) and no reported signs of vulnerability in the child before the experience of war (Wald: 6.24\*\*) most strongly determined emotional well-being in children at the follow-up. |
| Hjern & Angel 2000 | Mental health of refugee children with a focus on possible long-term effects of organized violence in country of origin | 49 Chilean and Middle Eastern refugee children who settled in South-west Stockholm during 13 months in 1986-87. Ages 8-20. | N = 49 refugee children | Survey, interviews condensed into scores by researchers  Longitudinal | Accompanied | 22% were rated by parents as having poor mental health vs. 47% in earlier study. 18% percent were rated by their teachers as having deviant classroom behaviour vs. 32% in earlier study.  No children reported suffering from startle reactions or trauma-related fear compared to 40% and 42% respectively in earlier study.  Results from multiple linear regression:  Recent family stress (β=0.40\*\*) and having been exposed to organised violence in the country of origin (β =0.36\*) were associated with poor mental health, including PTSDa,b,o. |
| Angel et al. 2001 | Psychological problems resulting from specific kinds of war stress after 6 years in the receiving country | Refugees from Bosnia-Hercegovina aged 6-16 who were granted residency and resettled in Växjö 1993-Nov. 1994. | N = 99 refugee children | Clinical data, interviewer rating scales  Cross-sectional | Accompanied (children in one family lived with relatives, not parents) | Clear relation between total amount of war stressors and children’s total amount of problems (r(98)=.34\*\*\*)  Results from multiple linear regression:  Having been exposed to threats was associated with generalized anxiety (β =0.33\*\*\*); having been exposed to violence was associated with phobic and depressive symptoms (β =0.38\*\*\*); resistance was associated with war preoccupations (β =0.21\*)j.  Talking about the war exacerbated effects of war stress (t(97)=2.26\*) |
| Daud et al. 2005 | Mental health in refugee children with traumatized parents compared with children with non-traumatized parents | 15 families with traumatized parents from Iraq and Lebanon and a comparison group of 15 families with non-traumatized parents from similar ethnic and cultural backgrounds. Refugee children aged 6-17. | N = 76 individuals  N = 45 children of traumatised parents  N = 31 children of non-traumatised parents | Survey, interviews condensed into scores by researchers, clinical data  Cross-sectional | Accompanied | In unadjusted comparisons of means, children of traumatized parents have a significantly higher rate of the following than children of non-traumatized parents at the *p* <0.001 level: Behavioural disturbances, adjustment problems with signs of depression, PTSD/PTSS, anxiety, somatisation, and psychosocial stress factors.  Among the children of traumatized parents, 38% of the boys and 71% percent of the girls displayed PTSD symptoms, 69% of the boys and 71% percent of the girls had symptoms of anxiety, 46% of the boys and 43% of the girls displayed somatisation symptoms. |
| Goldin et al. 2008 | Mental health | Refugees aged 7-20 from Bosnian-Serbian-Croatian-speaking families assigned to Umeå and surrounding municipalities in 1994-95. | N = 48 school-aged refugee children | Survey, clinical data  Cross-sectional | Accompanied | According to clinician, 23% of all children displayed PTS reactions. 31% were rated as depressive while 14% suffered from inward behavioural problems.  According to teachers, 10% were depressive and 13% suffered from anxiety. According to parents, 33% suffered from anxiety.  Primary school children: 29% had PTS “demanding attention” according to clinician. 21% of children reported PTS “demanding attention”.  Teenagers: 13% had PTS “demanding attention” according to clinician. 53% of teenagers reported PTS “demanding attention”. Clinicians reported 50% as suffering from inward distress and 6% as suffering from outward distress. Teenagers reported more equally – 33% reported inward and 22% reported outward distress. 33% were rated depressive by clinician, 28% rated themselves to be depressive. |

\**p* ≤ 0.05, \*\**p* ≤ 0.01, \*\*\**p* ≤ 0.001

Adjusted for: aage, bsex, chousehold income, dtrauma, edemographic characteristics of municipality, freligion, gparents’ health at follow-up hsocial and demographic background, ipresent social life variables, jwar experiences, klength of stay, ltrauma, mpsychological problems at arrival in receiving country, nstressful experiences in receiving country, ocountry of birth, page at arrival, qfirst language proficiency, rNordic language proficiency, sschool achievement in childhood, tadherence to the values of the country of origin, uself-categorized ethnic identity, vperceived discrimination in adulthood

Supplementary Table 2: Description and major findings of included studies on education and employment

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Source** | **Outcome measures** | **Description of sample** | **Number of study participants** | **Data source & study design** | **Status of refugees** | **Major findings** |
| EDUCATION | | | | | | |
| Finland | | | | | | |
| Kosonen 2008 | Educational attainment | Refugees aged 8.5-20.5 in 1992 (T1) who arrived 1979-1991, matched with Finnish classmates. | N = 97 refugees in T1  N = 97 Finnish classmates in T1  N = 59 refugees in T2 (2004) | Survey  Longitudinal | Accompanied | At T1, refugees had a lower grade point average than Finnish peers (M = 7.8 vs. 7.35\*\*\*).  Results from hierarchical regression: Perceived discrimination (β = -0.34\*\*\*) was associated with poorer school achievement while better Finnish proficiency was associated with better school achievement (β = 0.61\*\*\*)a,b. Adherence to traditional Vietnamese family values (β = -0.24\*) also had a negative impact on school achievementa,c d  At T2, Finnish proficiency as an adult (β = 1.56\*), adherence to receiving country values as an adult (β = 2.57\*), and less of a Finnish self-identity as an adult (β = -0.99\*) were associated with higher educational attainmentc,e.  Perceived discrimination in childhood was associated with poorer educational attainment as an adultb,f |
| Norway | | | | | | |
| Eide 2000 | Educational attainment | Refugees from Asia and Africa aged 21-27 who were resettled during 1989-1992. Mainly between 21 and 27 years of age. | N = 511 | Registry  Cross-sectional | Unaccompanied | 44% of the total sample had completed high school  Of those aged 18 or older, 38% had high school as their highest attained education in 1998 while 5% had undergone post-secondary education.  For those younger than 15 years of age at resettlement, 45% had completed high school, compared to 34% of those who were 16-17 years old at resettlement. |
| Aalandslid & Enes 2012 | Educational enrolment | Refugees aged 4-35 resettled from 1996 to 2009 residing in Norway as of January 1st 2010. Comparison groups of accompanied refugees, the general population in Norway and descendants of immigrants aged 18-29. | N = 3,159 unaccompanied refugees | Registry  Cross-sectional | Unaccompanied (comparison group accompanied) | 11% of the unaccompanied refugees and 22% of accompanied refugees who arrived in the same time span were undergoing education. In the same age group in Norway as a whole, for all immigrants, and for descendants, the proportion undergoing education was 14%, 10% and 20%, respectively.  Proportion undergoing education decreases with length of stay. The group with a 2-year stay in Norway had the highest proportion of students (24%) while of those who had stayed for 13 years, none were studying.  15% of female unaccompanied refugees are undergoing education compared to 10% males.  More unaccompanied refugees from Africa (14%) than from Asia (8%) are studying |
| Wiggen 2014 | Educational enrolment | Refugees aged 4-35 resettled from 1996 to 2011 residing in Norway as of January 1st 2012. Comparison groups of accompanied refugees and the general population in Norway as a whole aged 18-29. | N = 4,783 unaccompanied refugees | Registry  Cross-sectional | Unaccompanied  (comparison group accompanied) | 22.7% of unaccompanied refugees, 43% of accompanied refugees and 38.3% of the general population in the same age group (18-29 years) were undergoing education.  Looking only at the refugee groups who have stayed in Norway for 4 years or longer, the proportions undergoing education are 23.9% for unaccompanied refugees and 42.8% for accompanied refugees. 46.8% of accompanied women, 33,1% of unaccompanied women, 39.3% of accompanied men and 20.7% of unaccompanied men are studying.  The highest proportion of unaccompanied refugees undergoing education (24%) was found among those who had been in Norway for 4-5 years. The youngest group (ages 18-22) had the highest proportion of students, about 20%.  Sri Lankans, Eritreans, and Ethiopians are the nationalities with the largest proportions of students. |
| Sweden | | | | | | |
| Çelikaksoy & Wadensjö 2015a | Educational attainment and enrolment | Refugees aged 16-27 resettled in 2003-2012 | N = 9,897 | Registry  Cross-sectional | Unaccompanied | Highest level of completed education in whole sample (16-27 years of age): Compulsory school <9 years: 20.9% for men, 14.4% for women; compulsory school 9 years: 20% for men, 18.3% for women; upper secondary school: 23.3% for men, 27.6% for women; short tertiary education: 2.8% for men, 2.1% for women; long tertiary education: 2.9% for men, 3% for women; unknown: 30.4% for men, 34.8% for women.  51.1% were undergoing education. The highest proportion of students is found among those aged 20 or younger, with a higher proportion of men than women (73% of the women and 79.8% of the men). In the group aged 21 years or older, the proportion undergoing education is higher among women (36.9%) than among men (29.3%). |
| LABOUR MARKET | | | | | | |
| Norway | | | | | | |
| Eide 2000 | Labour market participation and reception of social welfare in relation to education and labour market status. | Refugees from Asia and Africa aged 21-27 who were resettled during 1989-1992. Comparison groups of other first-generation immigrants, other immigrants from Asia and Africa, and the total Norwegian population. | N = 511 | Registry  Cross-sectional | Unaccompanied | Of those aged 18 years or older in August 2000, 47% were employed while 9.7% were registered as unemployed. By comparison, Norway as a whole had an unemployment rate of 2.5% in August 2000. For immigrants, the unemployment rate was 8.1% and for immigrants from Asia and Africa, the unemployment rate was 11.3% and 15.2%, respectively.  In 1998, the proportion receiving social welfare in Norway as a whole was 7.8% and 11% for individuals holding foreign citizenship. Of unaccompanied refugees aged 18 or older in 1998, 40% (179 individuals) were on social welfare and 28% had social welfare as their main source of income.  Of the 179 individuals on social welfare, 78 were unemployed, followed by 46 persons undergoing education. 32 people were not registered as unemployed or seeking employment. |
| Aalandslid & Enes 2012 | Labour market participation among unaccompanied refugees compared with the Norwegian population as a whole | Refugees aged 4-35 resettled from 1996 to 2009 residing in Norway as of January 1st 2010. Comparison groups of accompanied refugees, the general population in Norway and descendants of immigrants aged 18-29. | N = 3,159 unaccompanied refugees | Registry  Cross-sectional | Unaccompanied  (comparison group accompanied) | 53% of the unaccompanied refugees and 52% of accompanied refugees who arrived in the same time span were employed. In the same age group in Norway as a whole, for all immigrants, and for descendants, the employment rates were 71%, 59% and 63%, respectively.  Employment rate among unaccompanied refugees increased with length of stay. After six months in Norway, 10% were employed. For those who had stayed for 12 years, the employment rate was 60%.  8% of unaccompanied refugees are registered as unemployed compared to 3% in the total Norwegian population in the same age group. The labour market status of 25% of unaccompanied refugees is unknown. 5% have social welfare as their only source of income compared to 1% of the total population.  Employment rate differed by country/region of birth:  56% for Asia and 49% for Africa, 75% for Sri Lanka, 39% for Somalia and 36% for Russia. |
| Wiggen 2014 | Labour market participation and distribution in different employment niches among unaccompanied refugees | Refugees aged 4-35 resettled from 1996 to 2011 residing in Norway as of January 1st 2012. Comparison groups of accompanied refugees and the general population in Norway aged 18-29. | N = 4,783 unaccompanied refugees | Registry  Cross-sectional | Unaccompanied  (comparison group accompanied) | 49.9% of unaccompanied refugees, 53.4% of accompanied refugees and 71.4% of the total population in the same age group (18-29) were employed. For those who had stayed for 4 years or longer, 63.2% of unaccompanied refugees and 55.7% of accompanied refugees were employed. 65.6% of the unaccompanied refugee men were employed compared to 46.6% of the women. A little more than half of the 18-22-year-olds and nearly 65% of the 23-25-year-olds and 26-29-year-olds were employed.  The employment rate is highest among unaccompanied refugees from Sri Lanka (67%). It is lowest for Somalis (40%).  4% of unaccompanied refugees, 4.7% of accompanied refugees and 1.8% of the total population in the same age group were registered as unemployed. For those who have stayed for 4 years or longer, 6.7% of the unaccompanied and 4.9% of accompanied refugees are registered as unemployed.  7.6% of accompanied refugees, 10.9% of unaccompanied refugees and 4.6% of the general population were outside the labour force.  Unaccompanied refugees are primarily employed in retail (16%) and service occupations (a little more than 15%)  About 40% of the income of unaccompanied refugees is social welfare. For Somalis and Eritreans, the proportion is about 50% while it is about 20% for Sri Lankans and about 30% for Ethiopians. |
| Sweden | | | | | | |
| Çelikaksoy & Wadensjö 2015a | Labour market participation and distribution in different employment niches | Refugees aged 16-27 resettled in 2003-2012. | N = 9,897 | Registry  Cross-sectional | Unaccompanied | 32.5% of unaccompanied refugees were employed. Average proportions in employment are 29.9% for all women and 35% for all men.  Women are predominantly employed in service, care, and sales jobs (64%). Men are employed in more diverse niches such as un-skilled construction work or manufacturing (9.3%), machine operator work, transport work etc. (12.6%) and work that does not require special training (20.6%), but also service, care, and sales work (18.3%). Of both women and men, few have jobs that require higher education (2.5% of men and 2.8% of women). Many are employed in unknown niches (28.9% of men and 22.8% of women).  Many more women than men are neither working nor studying (avg. 27.3% women vs. 15.6% men). The proportion of women in this category is especially high among Iraqis and Somalis. |
| Çelikaksoy & Wadensjö 2015b | Labour market participation for unaccompanied refugees compared with accompanied peers from the same countries and Swedish-born peers with Swedish-born parents. | Refugees aged 16-27 resettled in 2003-2012. Comparison groups of accompanied refugees and Swedish peers. | N = 9,897 unaccompanied refugees | Registry  Cross-sectional | Unaccompanied  (comparison group accompanied) | Among unaccompanied minors, 25.1% of the women and 34.9% of the men were employed. Among accompanied peers, 34% of women and 36.9% of men were employed. For Swedish-born peers, the proportions were 52.1% and 51.9% for women and men, respectively.  Probit estimation of employment probability in average marginal effects (AME): Compared to Swedish-born peers, unaccompanied refugees and accompanied peers have a lower employment probability (AME = -0.102\*\* for unaccompanied, AME = -0.153\*\* for accompanied). For both refugee groups, employment was positively associated with all levels of education and negatively associated with being under education or having no education at allg,h,i,j  For unaccompanied minors, being female was negatively associated with employment (AME = -0.033\*\*). Employment probability increases with length of stay (AME = 0.004\*\*\*) and age (reference category age 16-18)(AME = 0.074\*\* for age 19-21, AME = 0.078\* for age 27-30). Upper secondary school was the only level of education that was significantly associated with employment positively (AME = 0.051\*\*). With Afghans as the reference category, Somalis (AME = -0.027\*\*) and Europeans (AME = -0.029\*\*) had lower employment probabilityi,j,k |

\**p* ≤ 0.05, \*\**p* ≤ 0.01, \*\*\**p* ≤ 0.001

Adjusted for:  aage at arrival, bfirst language proficiency in childhood, cperceived discrimination, dadherence to “Finnish values”, eadherence to “traditional Vietnamese family values”, fdepression in childhood, gage, heducational status, irelationship status, jcounty of resettlement, khaving moved across counties