

Classification of the quality of estimates (see also WP1)

I. High quality	II. Medium quality	III. Low quality	IV. Low quality with plausibility warning
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Abbreviations

IFR: Irregular Foreign Residents	IFW: Irregular Foreign Workers	Incl. EU: Estimate includes EU-citizens	FTE: Full-time equivalents	Abs.: Estimate of absolute numbers	Rel.: Estimate of subgroup in % of total
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<u>Groups</u>	<u>Definition</u>	<u>Year</u>	<u>Estimate</u>			<u>Main data source</u>	<u>Short explanation</u>	<u>Reference</u>
			minimum	central	maximum			
<u>Total stocks of irregular foreign residents</u>								
<u>IFR – estimate 1</u>	IFR	2002	80 000		100 000	enforcement data	Ministry expert estimate based on data on apprehensions of illegal persons on the border and in the interior, assumed multiplier of 2	BMGF 2003
<u>IFR – estimate 2</u>	IFR	2003		70 000		multiple sources	Academic expert estimate: 80% of IFW 3 incl. EU plus assumed numbers for non working irregular foreign residents and persons with fake papers and identities	Jandl 2003
<u>IFR – estimate 3</u>	IFR	2001	39 456	77 572	115 687	enforcement data	Academic expert estimate: using multiplier method based on police apprehension data	Jandl 2009
		2002	29 660	58 312	86 964			
		2003	28 934	56 886	84 837			
		2004	30 934	62 980	95 027			
		2005	25 174	49 506	73 838			
		2006	22 905	45 442	67 978			
		2007	22 981	43 243	63 504			
		2008	18 439	36 252	54 064			

Groups	Definition	Year	Estimate			Main data source	Short explanation	Reference	
			minimum	central	maximum				
Total stocks of irregular foreign workers									
IFW – estimate 1	IFW incl. EU	2000	50 000		70 000	economic data	Scientific study estimate based on estimates of shadow economy with assumptions about share of foreign employees in shadow economy and their working hours	Biffi 2002	
IFW – estimate 2	IFW incl. EU	2000		47 000		multiple sources	Scientific study estimate for subgroups of different residence and employment status with different residual and multiplier methods, partly plausibility calculations	Biffi 2002	
IFW – estimate 3	IFW incl. EU	2003		57 000		multiple sources	Academic expert estimate for subgroups of different type of irregular employment: companies (apprehension data with expert-suggested multiplier), private households (plausibility calculations) and foreign prostitutes (police assessment)	Jandl 2003	
IFW – estimate 4	IFW incl. EU/ FTE	2000		99 000		economic data	Scientific study estimate based on econometric estimate of shadow economy with assumptions about share of foreign employees in shadow economy and their working hours	Schneider 2007	
		2004		114 000					
		2007		97 000					
IFW – estimate 5	IFW incl. EU	2006		165 000		expert survey	Scientific study estimate: share estimate of 10 experts in the framework of a Delphi study on irregular work, total number from this share calculated by CLANDESTINO Austria	MIGIWE 2007	
Total stocks for specific cities or regions									
Gender composition									
abs.	/								
rel. 1	m	IFR	2006			56%	enforcement data	CLANDESTINO country expert presented Federal Criminal Police Office data on apprehended persons entering or residing illegally as indicator for gender composition, assessment as min/ max by HWWI	CLANDESTINO Austria 2008 WP1 2008
	f			44%					
rel. 2	m	IFW incl. EU	2006		50%		expert survey	Scientific study estimate based on Delphi method, most experts indicate “a balanced gender ratio”, quantified by HWWI	MIGIWE 2007
	f				50%				

Groups	Definition	Year	Estimate			Main data source	Short explanation	Reference
			minimum	central	maximum			
Age composition								
abs.	/							
rel.	Children	IFR	2006	1%		enforcement data	CLANDESTINO country expert presented Federal Criminal Police Office data on apprehended persons entering or residing illegally as indicator for age composition, assessment as min/ max by HWWI	CLANDESTINO Austria 2008 WP1 2008
	Youths and adults				97%			
	Aged people			2%				
Nationality composition								
abs.	/							
rel. 1	Serbia and Montenegro	IFR incl. EU	2007		14%	enforcement data	CLANDESTINO country expert presented Federal Criminal Police Office data on apprehended persons entering or residing illegally as indicator for nationality composition by countries, calculation of percentages by HWWI	CLANDESTINO Austria 2008
	Ukraine				8%			
	Romania				7%			
	Turkey				5%			
	Other				66%			
rel. 2	EU/ new members	IFW incl. EU	2007		57%	enforcement data	CLANDESTINO country expert estimate presented Agency for the Control of Illegal Employment (KIAB) data on apprehended persons working illegally as indicator for nationality composition by regions	CLANDESTINO Austria 2008
	Remaining Europe				22%			
	Asia incl. Middle East				9%			
	EU-15				6%			
	Other				6%			

Groups	Definition	Year	Estimate			Main data source	Short explanation	Reference	
			minimum	central	maximum				
Economic sector composition									
<u>abs.</u>	Private household	IFW incl. EU	2006	35 000	50 000	90 000	expert survey	Scientific study estimate for two subgroups (care workers and housekeepers), based on Delphi study	MIGIWE 2007
	Private care – estimate 1	IFW incl. EU	2006 / 2008			40 000	multiple sources	Expert opinions in federal states; residual method: comparison of persons receiving care benefits and persons recorded in institutions and legal services	CLANDESTINO Austria 2008
	Private care – estimate 2	IFW incl. EU	2005		20 000		economic data	Academic expert estimate based on residual method: assessment of size of sector and number of registered foreign care workers	Schmid/ Prochazkova 2006
<u>rel.</u>	Construction	IFW incl. EU	2005 to 2007			27%	enforcement data	CLANDESTINO country expert presented Agency for the Control of Illegal Employment (KIAB) data on apprehended illegally employed persons as indicator for economic sector composition, assessment as min/ max by HWWI	CLANDESTINO Austria 2008 WP1 2008
	Accommodation, food and service activities				25%				
	Private households			10%					
	Real estate activities, leasing of movable objects, company related service				10%				
	Other				28%				
Other subgroups									
<u>Foreign prostitutes</u>	IFW		2003		3 000		expert opinion	Academic expert estimate based on police estimation on prostitutes in Vienna	Jandl 2003

References

- Biffi, Gudrun (2002): Illegale Beschäftigung. In: Biffi, Gudrun (Koord.) (2002): Arbeitsmarktrelevante Effekte der Ausländerintegration in Österreich, WIFO, Vienna, pp. 346-365.
- BMGF (Bundesministerium für Gesundheit und Frauen) (2003): Quantitative und qualitative Erfassung und Analyse der nicht-krankenversicherten Personen in Österreich. Endbericht. Study conducted by the European Centre for Social Welfare Policy and Social Research., available at: http://www.bmgfj.gv.at/cms/site/attachments/6/6/3/CH0620/CMS1192607321880/quantitative_und_qualitative_erfassung_und_analyse_der_nicht-krankenversicherten_personen_in_oesterreich.pdf.
- CLANDESTINO Austria (2008): Kraler, Albert, Reichel, David and Christina Hollomey, Country report Austria: Undocumented Migration Counting the Uncountable. Data and Trends across Europe, final version, November 2008.
- Jandl, Michael (2003): Schätzung illegaler Migration: Methoden und Ergebnisse, Presentation in working group on Social and Economic Statistics, Austrian Statistical Society, 26 June 2003.
- Jandl, Michael (2009): A multiplier estimate of the illegally resident third-country national population in Austria based on crime suspect data, Hamburg Institute of International Economics (HWWI), Database on Irregular Migration, Working paper No.2, http://www.irregular-migration.hwwi.net/Working_papers.6113.0.html.
- MIGIWE (2007): Jandl, Michael, Hollomey, Christina und Anna Stepien: Migration and Irregular Work in Austria: Results of a Delphi-Study. Vienna: International Centre for Migration Policy Development (ICMPD). (Forthcoming).
- Schmid, Tom and Lucie Procházková (2006): Pflege und Betreuung im Spannungsfeld zwischen Nötigem, Wünschenswertem und Finanzierbarem. In: Sozial Sicherheit 11/2006, pp. 454-464.
- Schneider, Friedrich (2007): Nach drei Jahren Rückgang erstmals wieder steigende Schattenwirtschaft in Deutschland für das Jahr 2007 prognostiziert – Fluch oder Segen? Available at: <http://www.econ.jku.at/Schneider/publik.html>.
- WP1 (2008): Vogel, Dita and Vesela Kovacheva (2008): Classification report: Quality assessment of estimates on stocks of irregular migrants, Hamburg Institute of International Economics (HWWI), Database on Irregular Migration, Working paper No.1, http://www.irregular-migration.hwwi.net/Working_papers.6113.0.html.

Annotations**Total stocks of irregular foreign residents:** [back to table](#)

IFR – estimate 1: Low quality due to a lack of documentation, multiplier seemingly not empirically founded (CLANDESTINO Austria Report: 36).

IFR – estimate 2: Low quality due to a lack of empirical basis for important components (CLANDESTINO Austria Report: 35).

IFR – estimate 3: Careful estimate; medium quality due to lack of empirical foundation for crucial assumptions (Jandl 2009: 10).

Total stocks of irregular foreign workers: [back to table](#)

IFW – estimate 1: Low quality due to a lack of empirical basis for several relevant relations, particularly share of foreigners' in shadow economy and working hours in shadow economy (CLANDESTINO Austria Report: 27).

IFW – estimate 2: Careful estimate, a lack of empirical basis for several subgroups. Illegally working family migrants and thus a relevant subgroup is missing (CLANDESTINO Austria Report: 28).

IFW – estimate 3: Careful estimate, a lack of empirical basis for a substantial part of estimate. Calculation of irregular foreign workers in private households based only on plausible assumptions (CLANDESTINO Austria Report: 29).

IFW – estimate 4: Low quality due to a lack of documentation, namely a lack of transparency of used indicators and of used methods, no transparency of calculation of the share of foreigners (CLANDESTINO Austria Report: 30).

IFW – estimate 5: Low quality due to inadequate method. A Delphi study with general migration expert estimates of employment shares is not adequate for getting valid indications of the size of irregular migrant work. Warning: There are indications that the estimate is implausibly high in relation to regular employment. Scientific dialogue: Experts challenged the classification of this estimate. One could also argue that the estimate is not implausible due to relatively wide definition of irregular work. However, we prefer to keep the plausibility warning for the table in order to discourage misuse of the estimate (CLANDESTINO Austria Report: 34).

Gender composition: [back to table](#)

Relative estimate 1: For minimum and maximum assessment logic, see WP1. Low quality due to mixed internal and border enforcement data; no information on degree of under- and overestimation (CLANDESTINO Austria Report: 36).

Relative estimate 2: Low quality as a very rough verbal assessment (CLANDESTINO Austria Report: 37).

Age composition: [back to table](#)

Relative estimate: For minimum and maximum assessment logic, see WP1. Low quality due to mixed internal and border enforcement data; no information on degree of under- and overestimation (CLANDESTINO Austria Report: 37).

Nationality composition: [back to table](#)

Relative estimate 1: Low quality due to mixed internal and border enforcement data; low quality due to unclear bias (no information whether there are unequal apprehension likelihoods for different nationalities) (CLANDESTINO Austria Report: 40).

Relative estimate 2: EU 15: member states until 2004, EU/ new members: 12 member states since 2004 or 2007, Remaining Europe: other European countries outside the EU. Low quality due to unclear bias (no information whether there are unequal apprehension likelihoods for different nationalities) (CLANDESTINO Austria Report: 41).

Economic sector composition: [back to table](#)

Absolute estimate/ Private household: Low quality due to an inadequate method. A Delphi study with general migration expert estimates on a specific sector is not adequate in regard to the experts' expertise for this area (CLANDESTINO Austria Report: 45).

Absolute estimate/ Private care – estimate 1: Low quality due to inadequate application of residual method (CLANDESTINO Austria Report: 44).

Absolute estimate/ Private care – estimate 2: Low quality due to a lack of documentation, in particular on method application: The derivation of the number is not fully specified. Weak empirical basis due to not fully clear distinction among caretakers, housekeepers and cleaners (CLANDESTINO Austria Report: 45).

Relative estimate: Low quality due to a lack of reliability assessment; for min/ max assessment of construction sector and private households see WP1 (CLANDESTINO Austria Report: 43).

Other subgroups: [back to table](#)

Foreign prostitutes: Low quality due to a lack on documentation, mainly about estimation method (CLANDESTINO Austria Report: 47).

Comments on the table are welcomed by the HWWI-team: [Dita Vogel](#) and [Vesela Kovacheva](#).

Suggested quotation: HWWI (2009): Stocks of Irregular Migrants: Estimates for Austria, last change October 2009, Hamburg Institute of International Economics (HWWI), Database on Irregular Migration.

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