

## Online Appendix A: Measurement and calibration

### Survey conducted in Swiss cantons

1) Für Asylsuchende gilt laut Art.43 des Asylgesetzes generell ein Arbeitsverbot von drei Monaten, welches die Kantone um weitere drei Monate verlängern können. Wie lange gilt für Asylsuchende ein Arbeitsverbot in Ihrem Kanton?

- Drei Monate
- Sechs Monate
- ..... Monate

2) In Art. 7 der BVO ist das Prinzip verankert, dass inländischen Arbeitnehmern ein Vorrang zukommt. Die Kantone können dieses Prinzip in unterschiedlicher Intensität anwenden. Wie wird dieses Prinzip in Ihrem Kanton angewendet?

- integral
- teilweise
- gar nicht

3) Weiter können die Kantone generell oder nur für gewisse Branchen verlangen, dass die Arbeitgeber Bemühungen ausweisen, alle zumutbaren Anstrengungen unternommen zu haben, um eine Arbeitskraft auf dem inländischen Arbeitsmarkt zu finden. Wie wird dies in Ihrem Kanton gehandhabt?

- für alle Branchen verlangt
- für gewisse Branchen verlangt
- nicht verlangt

4) Die Kantone können die Erteilung von Arbeitsbewilligungen an Asylsuchende auf einzelne Branchen beschränken. Gibt es in Ihrem Kanton bei der Erteilung von Arbeitsbewilligungen für Asylsuchende für gewisse Branchen Einschränkungen?

- Branchenregelung ist vorhanden
- Branchenregelung ist nicht vorhanden

5) Die Kantone bestimmen, wie lange die Zeitperiode sein muss, bis ein Arbeitnehmer die Berufsbranche wechseln kann. Ist ein Branchenwechsel in Ihrem Kanton möglich und falls ja, wie lange ist die Zeitperiode, die dazwischen verstreichen muss?

- Branchenwechsel ist nicht möglich
- Branchenwechsel nach 24 Monaten möglich
- Branchenwechsel nach 12 Monaten möglich
- Branchenwechsel sofort möglich

Schenkel, R (2005) *Kantonale Vollzugsstrategien der Asylpolitik im Vergleich. Eine Analyse anhand der Aspekte der Rückführung und der arbeitsmarktlichen Bestimmungen für Asylsuchende*. Bern: Lizentiatsarbeit, Universität Bern, 70-71.

To calibrate the indicator variables underlying our causal conditions (Table A2), if not stated otherwise, we employ the direct method of calibration for fuzzy sets, which ‘uses a logistic function to fit the raw data in-between the three qualitative anchors at 1 (full membership), 0.5 (point of indifference), and 0 (full non-membership). (...) Because a logistic function is used, the actual anchors are 0.95, 0.5, and 0.05’ (Schneider and Wagemann, 2012: 35). We outline for each indicator and the outcome set whether alternative crossover points, which determine qualitative differences, are plausible (see online appendix B, robustness test). Table A1 resumes the calibration of the outcome, Table A2 does the same for the indicator sets, and Table A3 presents the descriptive statistics.

#### *Enabling labour market integration (INT)*

Pigué and Misteli (1996) define three degrees of restriction based on the index, namely low restriction (1-5.5), medium restriction (6-8.5) and high restriction (9–15) (see Figure 1). Because the numerical distances between the scores do not continuously have the same qualitative meaning, we introduce a 6-value fuzzy set of “Enabling labor market integration” (Ragin, 2008: 90ff). We set the difference for cases being rather in or rather out of the set at 7.25, i.e. exactly in the middle of the “medium restriction” category. However, it could also be argued that enabling labour market integration should be conceived of more restrictively, i.e. only if low restriction is given (new crossover point: 5.75, INT2); or more inclusively, coding all cases of medium restriction as “rather enabling integration” (new crossover point: 8.75, INT3).

*Table A1: Measurement and calibration of outcome*

<i>Outcome</i>	<i>Measurement</i>	<i>Calibration</i>		
		<i>Index value</i>	<i>Fuzzy set score</i>	<i>Verbal label</i>
Enabling integration (INT)	Openness of cantonal labour market regulation for the integration of pending asylum seekers (Labour market restriction index by Piguët and Misteli (1996), as applied in Spörndli et al. (1998); Min=1, Max=15; newly collected data)	0-2.75	1	Enabling integration
		2.76-5.5	0.8	Rather enabling integration
		5.51-7.25	0.6	More enabling than restricting integration
		7.26-8.5	0.4	More restricting than enabling integration
		8.51-12	0.2	Rather restricting integration
		12.1-15	0	Restricting integration

*Strong parties (L, R)*

A party, either left-wing (L) or right-wing (RM), is fully strong if it holds a decisive majority of 50 per cent or more in the cantonal executive and fully weak if its share of seats is below 10 per cent. In Switzerland's multi-party consensual system, a seat share above 25 per cent is already considered as relatively rather strong (crossover point). In addition, a more restrictive calibration is thinkable, where the parties' share has to be at least a decisive majority of 50 per cent for being more strong than weak (crossover point 50, L2 and RM2). Alternatively, these sets could be calibrated adopting a relative / comparative perspective, where the crossover point expresses whether the parties' shares are above or below average (crossover points 16.9, L3, and 36.07, RM3). The relative calibration scenario would result in a less skewed set for L; however, basing the calibration on descriptive statistics not only contradicts recommendations

of good practice in the presence of a theoretically plausible criterion – it also eliminates the comparability of the two sets, L and RM (see online appendix B).

In addition, for the political right to be strong (R), the SPP must have at least as many seats as the Radicals (SPP = 1). The unambiguous theoretical criterion is that decisively right-wing votes can compete with more centrist positions.

### *Strong bureaucracy (B)*

In the absence of a meaningful theoretical criterion, a relative perspective is taken when measuring the size of the cantonal bureaucracy as the share of public employees per thousand inhabitants. The distribution of the values shows a pattern of cantons with low shares below 30 (threshold of full non-membership) and another group with high values clearly above 50 (threshold of full membership) (crossover point in-between: 40). Alternatively, the calibration could be based on the descriptive statistics, using the mean (B2; 38.53) or the median (B3; 37.77) as a crossover point. The resulting set expresses whether the cantonal bureaucracy is relatively strong, as compared to other cantons. Calibration B3 produces a model which is a subset of the original model for INT, while differing slightly regarding the role of 1 condition on path 2 for int, and covering 1 additional case. However, using the median as a crossover point does not provide a meaningful set: It would express “a bureaucracy which is as strong as 50 per cent of the other bureaucracies”.

### *Unfavourable attitude towards asylum-seekers (A)*

The German-speaking population represents either a clear minority or a clear majority in all Swiss cantons. Cantons are hence defined as predominantly German-speaking (G) if the German-speaking share of the population is above fifty per cent (crisp set). There is no

meaningful alternative calibration scenario for this set. Cantons are considered as fully urbanised (U) if more than three-quarters of the population live in urban areas and as fully rural if less than a quarter does so (crossover point 50 per cent). Alternatively, the crossover point could be set more restrictively, based on a clear gap in the empirical values between 58.7 and 71.2 (new crossover point 60, U2), or more inclusively, based on another clear gap in the values between 37.8 and 50.5 (new crossover point: 45, U3). The “Against asylum abuse” initiative gained percentages of votes (V) between, roughly, a little less than 40 per cent (full membership) in liberal cantons and little more than 60 per cent (full non-membership) in very conservative cantons (crossover point: decisive majority of 50 per cent). No meaningful alternative cross-over point is thinkable.

#### *High saturation of the labour market (S)*

There is no such thing as an objectively high or low unemployment rate, or share of seasonal workers; rather, whether these shares are high or low depends on the specific context. Cantonal unemployment rates (UR) are generally quite low (between 0.3 and 4.1 per cent, with the outlier Grison). Within the Swiss context, we consider unemployment rates above 2 per cent as *comparatively* high (full membership), the Swiss mean of 1.51 per cent is the crossover point to distinguish relatively high from relatively low unemployment rates, and shares of 1 per cent or less are low (full non-membership). In the absence of either a meaningful theoretical criterion or clear “gaps” in the data structure, we do not test alternative crossover points (basing the calibrating on the median would produce a set that cannot be interpreted as regards content, see above).

The calibration of the share of seasonal workers (SW) follows a similar logic. With the exception of the very touristic canton of – again - Grison, the shares are below 1.5 per cent. We therefore consider a share of above 1 as comparatively high (full membership), whereas

values of 0.6 (= mean) are comparatively neither high nor low (crossover point) and 0.2 (adding an identical distance of 0.4) or below is comparatively very low (full non-membership). For the same reason as for unemployment rates, no alternative calibration is tested.

### *Reintegration-oriented policy path (P)*

Battaglini and Giraud (2003: 289-290) measure the degree of reintegration-orientedness of cantonal policy paths through three indicators. These are (a) the level of development of the active labour market programme (ALMP) logistics; (b) experimental programmes or cantonal initiatives, indicating a certain amount of diligence as regards unemployment policy; and (c) the cantonal fulfilment rate of ALMPs demanded by the Confederation for the year 1999. Applying a family resemblance structure (Goertz 2006), we consider a canton to have a reintegration-oriented policy path if Battaglini and Giraud (2003: 291) have classified it as reintegration-oriented – i.e., as having scores which are above average – on at least two out of these three indicators (crossover point 1.5). Missing data leads to a dropout of two cantons, namely Schaffhausen and Thurgau (N = 24). Alternatively, a more restrictive calibration would require a canton to have above average scores on all three indicators (crossover point 2.5; P2). Conversely, policy paths can be conceived of more inclusively, where it suffices for a canton to score on at least one indicator (crossover point 0.5; P3).

Table A2: Measurement and calibration of indicator sets

Set	Measurement and data sources	Calibration thresholds for sets		
		Full non-member-ship (0)	Crossover point (0.5)	Full membershi p (1)
Strong leftist parties (L)	Seat share of left-wing parties (Social Democrats, Green Party) in the cantonal government (2001) Source: BADAC	10	25	50
Strong right-wing parties (RM)	Seat share of right-wing parties (People's Party, Radicals) in the cantonal government (2001) Source: BADAC	10	25	50
Significant SPP (SPP)	Swiss People's Party holds at least 50 per cent of the right-wing seats Source: BADAC	0	--	1
Strong cantonal bureaucracy (B)	Number of full time public employees per 1000 inhabitants (bureaucratic density) (2001) Sources: BADAC, SFSO	30	40	50
Predominantly German-speaking (G)	Share of German-speaking persons in per cent of resident population (2000) Source : SFSO	--	50	--
High degree of urbanisation (U)	Percentage of population living in municipalities with more than 10,000 inhabitants (2001) Source: BADAC	25	50	75
Anti-asylum seeker dominant political attitude (V)	Acceptance rate of popular initiative "Against asylum abuse" at the ballot box, 24.11.2002 Source: SFC	40	50	60
High share of seasonal workers (SW)	Share of seasonal workers in per cent of resident population in the year 2001 Sources: FOM, SFSO	0.2	0.6	1
High unemployment rate (UR)	Number of unemployed residents in per cent of economically active population, mean of the year 2000 Source: SFSO	1	1.51	2
Reintegration-oriented policy path (P)	Scores above average on: a) level of development of ALMP logistics b) experimental programmes or cantonal initiatives c) cantonal fulfilment rate of ALMPs (1999) Source: Battaglini and Giraud (2003: 291)	0	1.5	3

Key: BADAC: Banque de données des cantons et des villes suisses, SFSO: Swiss Federal Statistical Office, FOM: Federal Office for Migration, SFC: Swiss Federal Chancellery.

*Table A3: Descriptive statistics for indicators*

<i>Variable</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Median</i>	<i>Standard deviation</i>
INT	0	14	6.88	6	3.92
L	0	40	16.19	14.29	10.65
RM	0	85.72	36.07	34.28	21.66
SPP	0	1	0.25	0	0.44
B	18.4	59.03	38.53	37.77	10.13
G	3.9	93.5	65.03	85.45	35.73
U	0	100	54.44	57.8	31.77
V	38.6	63	50.11	50.45	6.86
UR	0.3	4.1	1.52	1.4	0.93
SW	0.04	4.1	0.65	0.41	0.82
P	0	3	1.71	2	1.16

N = 24.



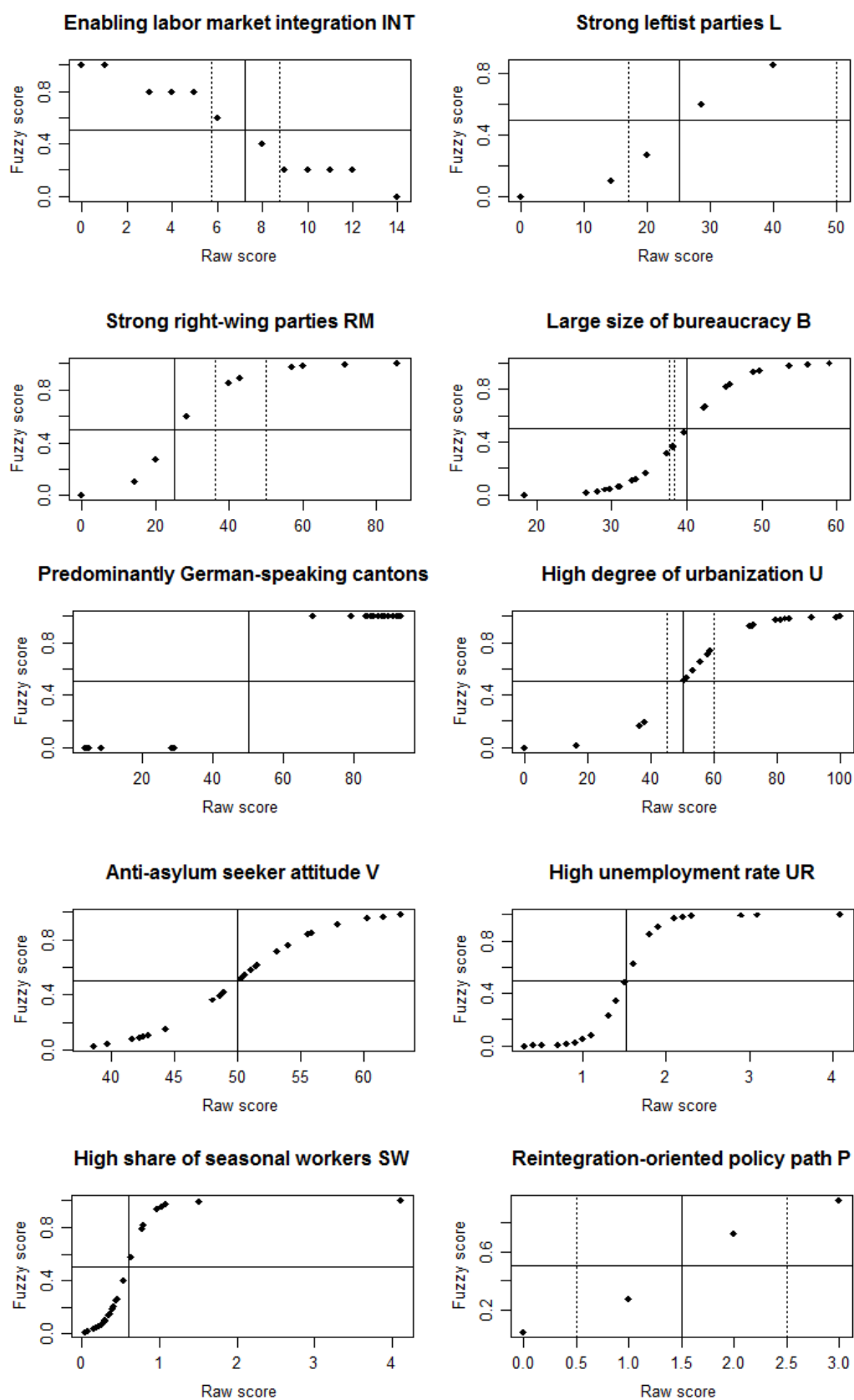
## Online Appendix B: Robustness test of calibration

We use the QCA and SetMethods packages of the R software for performing robustness tests. The most important anchor is the crossover point (0.5): If a change in this anchor leads to a case displaying a qualitatively different membership in the set, then this can change its membership in the truth table rows, and hence, the results (Schneider and Wagemann 2012: 287-291). Conversely, changing the thresholds for full (non-)membership is unlikely to affect the results when applying the raw consistency criterion of no contradictions (Skaaning, 2011). We calibrated the indicator variables using the criteria outlined in online appendix A. We also plotted the raw data against the calibrated fuzzy scores (Figure B1). For complexity reasons, robustness tests are restricted to the conservative solution. They involved the following steps for each indicator set and the outcome set (see Table B1):

1. Do the theoretical / conceptual criteria leave room for doubt in defining the crossover point?
2. If yes, what is the meaningful range of possible crossover points that still comply with the theoretical argument (Skaaning, 2011: 395)?
3. Are there empirical cases that are situated within this range (Figure B1), and how many?
4. If yes: Does changing the crossover point to the upper and the lower end of this range, *ceteris paribus* applying the calibration in Tables A1 and A2, alter
  - a) The cases' qualitative membership in the composed condition sets (if applicable)? If no, then the substantial results will not change.
  - b) If yes: The cases' distribution in the condition or outcome set such that the set is so skewed that it poses severe analytical problems (see Schneider and Wagemann, 2012: 232-250)? We consider this as given if the proportion of cases with membership  $> 0.5$  is  $\leq 25\%$ , or  $\geq 75\%$ ; or if the new set is much more unfavourably skewed, as compared to the original set.
  - c) If no: The results of the analysis of necessity (in terms of a new necessary condition, or a previous one disappearing)?

- d) One or several cases' membership in the truth table rows?
  - e) The setting of the raw consistency threshold, in terms of different truth table rows being coded as (not) sufficient for the outcome? The detailed decisions for setting the raw consistency thresholds are documented in the attached R code.
5. If yes: How does this affect the results of logical minimisation?
- a) Does this yield a different conservative solution? For the sake of simplicity, we do not assess the robustness of the intermediate solution or parsimonious solution.
  - b) If yes: Are the new solution terms in a super- or subset relation with the original solution terms? If the new conservative solution term is not a subset of the original intermediate or parsimonious solution term, then the new intermediate and parsimonious solution terms will be different, too. The deviant results are reported in Table B2.
  - c) Which calibration scenario is to be preferred? See the criteria in legend of Table B1.

Figure B1: Calibration and raw scores distribution



Dotted lines indicate alternative crossover points that were tested.

Table B1: Step-wise robustness check

Step	1: Alternative crossover points plausible	2: Crossover point	3: Empirical cases within new plausible range	4a: Qualitative changes in composed condition sets	4b: Skewedness (%)	4c: Different results necessity (single conditions)	4d: Different truth table row membership	4e: Different raw consistency threshold	5a: Different solution?	5b: Super- or subset relation with old solution	5c: Preferred calibration
INT	YES	7.25	YES		58.3						YES
INT2		5.75	7		29.1						
INT3		8.75	1		62.5	NO		YES	YES	YES	NO <sup>1</sup>
L	YES	25	YES		20.8						YES
L2		50	5		0						
L3		16.9	6		45.8	YES	YES	YES	YES	NO	NO <sup>1, 2</sup>
RM	YES	25	YES		70.8						YES
RM2		50	12	YES	20.8						
RM3		36.07	5	NO	50						
SPP	NO				25						YES
B	YES	40	YES		37.5						YES
B2		38.33	1		41.6	NO	YES	NO			
B3		37.77	3		50	NO	YES	YES	YES	NO	NO <sup>3</sup>
G	NO	50			70.8						YES
U	YES	50	YES		70.8						YES
U2		60	7	YES	41.6	NO	YES	NO			
U3		45	0		70.8						
V	NO	50			54.1						YES
UR	NO	1.51			70.8						YES
SW	NO	0.6			33.3						YES
P	YES	1.5	YES		58.3						YES
P2		2.5	6		33.3	NO	YES	YES	YES	NO	NO <sup>1</sup>
P3		0.5	5		79.1						

<sup>1</sup>The preferred calibration produces a greater coverage and consistency.

<sup>2</sup>The calibration that is not preferred unnecessarily contradicts recommendations of good practice (e.g., using descriptive statistics for calibration although theoretical criteria exist) (Schneider and Wagemann, 2010).

<sup>3</sup>The set resulting from the alternative calibration has a less meaningful interpretation than the original set.

Table B2: Deviant results of robustness tests (sufficiency)

	<i>Conservative solution</i>	<i>Consistency</i>	<i>Coverage</i>	<i>Super-/subset of old solution term</i>
int3	$l^*r^*b^*A^*P + l^*B^*A^*S^*p \rightarrow \text{int}$	0.873	0.485	YES
L3	$L^*r^*a^*S^*P + L^*r^*B^*a^*P + r^*B^*a^*S^*P + l^*r^*b^*a^*s^*P \rightarrow \text{INT}$	0.897	0.555	NO
L3	$l^*B^*A^*S^*p + l^*r^*b^*A^*s + r^*b^*A^*s^*p + L^*r^*b^*A^*S^*P + L^*R^*B^*a^*s^*P \rightarrow \text{int}$	0.893	0.624	NO
B3	$r^*B^*a^*P + l^*r^*a^*s^*P \rightarrow \text{INT}$	0.943	0.561	YES
B3	$l^*B^*A^*S^*p + l^*r^*b^*A^*s + l^*r^*b^*S^*P \rightarrow \text{int}$	0.870	0.703	NO
P2	$L^*r^*a^*S^*P + L^*r^*B^*a^*P + r^*B^*a^*S^*P + l^*r^*b^*a^*s^*P \rightarrow \text{INT}$	0.897	0.555	NO
P2	$l^*B^*A^*S^*p + l^*r^*b^*A^*s^*p + l^*r^*b^*A^*S^*P \rightarrow \text{int}$	0.907	0.509	YES

## Online Appendix C: Supplementary Tables

Table C1: Single necessary conditions for enabling and restricting labour market integration

Condition	Enabling labour market integration (INT)			Restricting labour market integration (int)		
	Consistency	Coverage	RON	Consistency	Coverage	RON
L	0.405	0.864	0.958	0.330	0.659	0.902
R	0.114	0.383	0.899	0.223	0.699	0.948
B	0.558	0.680	0.809	0.485	0.554	0.753
A	0.552	0.523	0.636	0.771	0.683	0.725
S	0.842	0.641	0.569	0.738	0.526	0.500
P	0.736	0.672	0.701	0.605	0.517	0.614
l	0.840	0.573	0.428	0.932	0.594	0.441
r	0.910*	0.556	0.291	0.803	0.459	0.252
b	0.568	0.568	0.630	0.719	0.604	0.650
a	0.665	0.756	0.831	0.461	0.491	0.702
s	0.377	0.606	0.843	0.497	0.747	0.893
p	0.471	0.560	0.748	0.616	0.686	0.806

Software: R packages QCA and SetMethods.

**Bold:** Condition passes consistency threshold of 0.9.

\*No necessary condition: AG and GR are deviant cases consistency in kind, and the condition is trivial.

All complex SUIN conditions (SuperSubset analysis) are trivial and/or display deviant cases consistency in kind.

Table C2: Truth table: Analysis of sufficiency for enabling labour market integration (INT)

Row No.	L	R	B	A	S	P	INT	N(INT)/ N(int)	Consistency
44	1	0	1	0	1	1	1	3/0	0.993
12	0	0	1	0	1	1	1	2/0	0.986
42	1	0	1	0	0	1	1	1/0	0.981
2	0	0	0	0	0	1	1	2/0	0.962
4	0	0	0	0	1	1	0	1/1	0.830
24	0	1	0	1	1	1	1	1/0	0.825
8	0	0	0	1	1	1	0	0/1	0.817
7	0	0	0	1	1	0	0	3/1	0.777
6	0	0	0	1	0	1	0	0/1	0.762
21	0	1	0	1	0	0	0	1/0	0.752
15	0	0	1	1	1	0	0	0/1	0.659
5	0	0	0	1	0	0	0	0/3	0.626
31	0	1	1	1	1	0	0	0/1	0.479
58	1	1	1	0	0	1	0	0/1	0.291

Software: R packages QCA and SetMethods. Row dominance was applied.

Raw consistency threshold: 0.824 (excluding all rows with deviant cases consistency in kind; the following rows contain at least 1 deviant case consistency in kind).

Row 4 excluded: deviant case consistency in kind.

The present data display tied logically redundant prime implicants, and hence, a certain degree of ambiguity. All solutions are reported below (Schneider and Wagemann, 2012: 108ff).

Conservative solution:  $L * r * B * a * P + r * B * a * S * P + l * r * b * a * s * P + l * R * b * A * S * P \Rightarrow INT$

(solution consistency 0.926, solution coverage 0.572).

Parsimonious solutions (PS):

M1:  $r * a * s + (l * R * P + r * B * a) \Rightarrow INT$  (solution consistency 0.860, solution coverage 0.643).

M2:  $r * a * s + (l * R * P + r * B * P) \Rightarrow INT$  (solution consistency 0.837, solution coverage 0.640).

M3:  $r * a * s + (R * A * P + r * B * a) \Rightarrow INT$  (solution consistency 0.860, solution coverage 0.643).

M4:  $r * a * s + (R * A * P + r * B * P) \Rightarrow INT$  (solution consistency 0.837, solution coverage 0.640).

M5:  $r * a * s + (r * B * a + R * b * P) \Rightarrow INT$  (solution consistency 0.898, solution coverage 0.622).

M6:  $r * a * s + (r * B * a + R * b * S) \Rightarrow INT$  (solution consistency 0.860, solution coverage 0.643).

M7:  $r * a * s + (r * B * a + R * S * P) \Rightarrow INT$  (solution consistency 0.876, solution coverage 0.643).

**M8:  $r * a * s + (r * B * P + R * b * P) \Rightarrow INT$  (solution consistency 0.873, solution coverage 0.619).**

M9:  $r * a * s + (r * B * P + R * b * S) \Rightarrow INT$  (solution consistency 0.874, solution coverage 0.625).

M10:  $r * a * s + (r * B * P + R * S * P) \Rightarrow INT$  (solution consistency 0.852, solution coverage 0.640).

No untenable assumptions. Directional expectations see Table 1.

The intermediate solutions display 1 multiple covered case, and the solution terms are all in subset relations to each other, hence not contradicting each other. We opted for model 8 for the following reason: Each IS model contains one path, describing the case of Grisons, which is theoretically implausible, always at least concerning

condition R. In Models 3 (and 4) and 8 (also model 5), R is the only factor in this path that is theoretically implausible. However, Model 8 is more parsimonious. Model 8 is also more illustrative for our analytic purposes than Model 5, since the corresponding parsimonious solution highlights the role of P.

Intermediate solutions (IS) (solution consistency 0.926, solution coverage 0.578):

M1:  $l^*R^*b^*P + r^*a^*s^*P + r^*B^*a^*P \Rightarrow INT$

M2:  $l^*R^*b^*P + r^*a^*s^*P + r^*B^*a^*P \Rightarrow INT$

M3:  $r^*a^*s^*P + r^*B^*a^*P + R^*b^*A^*P \Rightarrow INT$

M4:  $r^*a^*s^*P + r^*B^*a^*P + R^*b^*A^*P \Rightarrow INT$

M5:  $R^*b^*P + r^*a^*s^*P + r^*B^*a^*P \Rightarrow INT$

M6:  $r^*a^*s^*P + r^*B^*a^*P + R^*b^*S^*P \Rightarrow INT$

M7:  $r^*a^*s^*P + r^*B^*a^*P + R^*b^*S^*P \Rightarrow INT$

**M8:  $R^*b^*P + r^*a^*s^*P + r^*B^*a^*P \Rightarrow INT$**

M9:  $r^*a^*s^*P + r^*B^*a^*P + R^*b^*S^*P \Rightarrow INT$

M10:  $r^*a^*s^*P + r^*B^*a^*P + R^*b^*S^*P \Rightarrow INT$

Limited diversity: 50 out of 64 configurations are (arithmetic) logical remainders.

*Table C3: Simplifying assumptions for analysis of INT (M8)*

Row	L	R	B	A	S	P	Easy counterfactual (used for IS)?
1	0	0	0	0	0	0	
9	0	0	1	0	0	0	
10	0	0	1	0	0	1	x
14	0	0	1	1	0	1	
16	0	0	1	1	1	1	
18	0	1	0	0	0	1	x
20	0	1	0	0	1	1	x
22	0	1	0	1	0	1	x
33	1	0	0	0	0	0	
34	1	0	0	0	0	1	x
41	1	0	1	0	0	0	
46	1	0	1	1	0	1	
48	1	0	1	1	1	1	
50	1	1	0	0	0	1	x
52	1	1	0	0	1	1	x
54	1	1	0	1	0	1	x
56	1	1	0	1	1	1	x



Table C4: Truth table: Analysis of sufficiency for restricting labour market integration (int)

Row No.	L	R	B	A	S	P	int	N(int)/ N(INT)	Consistency
58	1	1	1	0	0	1	0	1/0	1.000
31	0	1	1	1	1	0	1	1/0	0.993
5	0	0	0	1	0	0	1	3/0	0.951
8	0	0	0	1	1	1	1	1/0	0.928
15	0	0	1	1	1	0	1	1/0	0.888
24	0	1	0	1	1	1	0	0/1	0.871
6	0	0	0	1	0	1	1	1/0	0.845
4	0	0	0	0	1	1	0	1/1	0.779
42	1	0	1	0	0	1	0	0/1	0.721
21	0	1	0	1	0	0	0	0/1	0.690
7	0	0	0	1	1	0	0	1/3	0.653
2	0	0	0	0	0	1	0	0/2	0.650
12	0	0	1	0	1	1	0	0/2	0.613
44	1	0	1	0	1	1	0	0/3	0.549

Software: R packages QCA and SetMethods. Row dominance was applied.

The present data display tied logically redundant prime implicants, and hence, a certain degree of ambiguity. All solutions are reported below (Schneider and Wagemann, 2012: 108ff). There is only one enhanced intermediate solution.

Raw consistency threshold: 0.844 (excluding all rows with deviant cases consistency in kind and untenable assumptions).

Row 58 excluded: contradicts statement of necessity.

Row 24 excluded: deviant case consistency in kind.

Conservative solution:  $1*r*b*A*s + 1*r*b*A*P + 1*B*A*S*p \rightarrow int$  (solution consistency 0.885, solution coverage 0.610).

Parsimonious solutions (excluding empirical rows 24 and 58, including all simplifying assumptions):

**M1:  $r*A*P + (B*A + r*A*s) \Rightarrow int$  (solution consistency 0.881, solution coverage 0.665)**

M2:  $r*A*P + (B*A + r*s*p) \Rightarrow int$  (solution consistency 0.873, solution coverage 0.671)

M3:  $r*A*P + (B*p + r*A*s) \Rightarrow int$  (solution consistency 0.859, solution coverage 0.668)

M4:  $r*A*P + (B*p + r*s*p) \Rightarrow int$  (solution consistency 0.852, solution coverage 0.673)

Untenable assumptions:  $L + R*b*P + r*B*P + r*a*s \rightarrow int$ .

Enhanced parsimonious solutions:

M1:  $1*r*A*P + 1*r*A*s + (1*B*A) \Rightarrow int$  (solution consistency 0.884, solution coverage 0.659)

M2:  $1*r*A*P + 1*r*A*s + (1*B*S*p) \Rightarrow int$  (solution consistency 0.868, solution coverage 0.654)

Intermediate solution:

$1*B*A*S*p + 1*r*b*A*P + 1*r*b*A*s \Rightarrow int$  (solution consistency 0.885, solution coverage 0.610)

Limited diversity: 50 out of 64 configurations are (arithmetic) logical remainders.

*Table C5: Simplifying assumptions for analysis of int (M1)*

Row	L	R	B	A	S	P	Easy counterfactual (used for IS)?
13	0	0	1	1	0	0	
14	0	0	1	1	0	1	
16	0	0	1	1	1	1	
29	0	1	1	1	0	0	
30	0	1	1	1	0	1	
32	0	1	1	1	1	1	

Table C6: Raw data matrix

<i>Canton</i>	<i>Labour restriction index</i>	<i>Asylum vote 2002</i>	<i>Leftist government</i>	<i>Right-wing government</i>	<i>SPP</i>	<i>German population</i>	<i>Urbanisation</i>	<i>Unemployment rate</i>	<i>Size of bureaucracy</i>	<i>Seasonal workers</i>	<i>Policy path</i>
AG	6.0	58	0	40	1	87.1	57.8	1.4	29.734	0.159	1
AI	6.0	60.3	0	0	1	92.9	0	0.3	18.398	0.781	0
AR	9.0	55.9	14.29	85.72	0	91.2	50.5	0.8	31.002	0.222	0
BE	12	48.6	28.57	71.43	1	84	58.7	1.3	56.094	0.414	2
BL	10.0	50.3	20	60	0	87.2	80.9	1.4	29.154	0.083	1
BS	6.0	43	28.57	14.29	0	79.3	100	2.1	59.032	0.191	3
FR	3.0	44.3	28.57	14.29	0	29.2	36.2	1.5	42.446	0.457	3
GE	1.0	38.6	28.57	0	1	3.9	98.6	4.1	53.717	0.298	2
GL	12	63	14.29	71.43	0	85.8	0	0.9	37.388	0.801	1
GR	6.0	51.5	20	40	1	68.3	37.8	1	39.726	4.103	2
JU	6.0	39.7	20	20	0	4.4	16.4	1.9	38.152	0.31	3
LU	4.5	48.1	14.29	28.57	0	88.9	51.1	1.3	38.177	0.401	3
NE	4.0	42.6	40	20	0	4.1	71.2	2.3	48.893	0.25	2
NW	0.0	54	0	28.57	0	92.5	79.5	0.4	31.059	1.084	0
OW	6.0	51.1	0	28.57	0	92.3	0	0.4	32.807	1.037	0
SG	7.5	51.6	14.29	42.86	0	88	55.5	1.4	34.622	0.219	1
SO	10.5	55.6	20	40	0	88.3	72	1.6	28.087	0.043	3
SZ	9.0	61.6	14.29	28.57	0	89.9	57.8	0.7	26.706	0.369	2
TI	6.0	48.1	20	40	0	8.3	82.4	3.1	45.781	0.641	3
UR	12	53.2	0	28.57	0	93.5	0	0.5	49.695	0.969	0
VD	0.0	41.7	14.29	42.86	0	4.7	72.5	2.9	42.24	0.544	3
VS	10.0	42.3	20	20	0	28.4	53.1	2.2	33.178	1.507	3
ZG	3.0	48.9	14.29	42.86	0	85.1	83.8	1.1	33.285	0.454	2
ZH	13.5	50.6	14.29	57.14	1	83.4	90.7	1.8	45.304	0.357	1

Table C7: Cantonal fuzzy scores (rounded to two decimals)

<i>Canton</i>	<i>INT</i>	<i>L</i>	<i>R</i>	<i>B</i>	<i>A</i>	<i>S</i>	<i>P</i>
AG	0,6	0,01	0,86	0,04	0,92	0,34	0,27
AI	0,6	0,01	0,01	0,00	1,00	0,8	0,05
AR	0,2	0,11	0,00	0,06	0,85	0,06	0,05
BE	0,2	0,61	1,00	0,99	0,4	0,23	0,73
BL	0,2	0,27	0,00	0,04	0,52	0,34	0,27
BS	0,6	0,61	0,00	1,00	0,11	0,97	0,95
FR	0,8	0,61	0,00	0,68	0,15	0,49	0,95
GE	1,00	0,61	0,01	0,98	0,03	1,00	0,73
GL	0,2	0,11	0,00	0,31	1,00	0,82	0,27
GR	0,6	0,27	0,86	0,48	0,81	1,00	0,73
JU	0,6	0,27	0,00	0,36	0,04	0,92	0,95
LU	0,8	0,11	0,00	0,37	0,47	0,23	0,95
NE	0,8	0,86	0,00	0,94	0,1	0,99	0,73
NW	1,00	0,01	0,00	0,06	0,77	0,97	0,05
OW	0,6	0,01	0,00	0,1	1,00	0,96	0,05
SG	0,4	0,11	0,00	0,17	0,62	0,34	0,27
SO	0,2	0,27	0,00	0,03	0,84	0,63	0,95
SZ	0,2	0,11	0,00	0,02	0,97	0,15	0,73
TI	0,6	0,27	0,00	0,85	0,36	1,00	0,95
UR	0,2	0,01	0,00	0,95	1,00	0,94	0,05
VD	1,00	0,11	0,00	0,66	0,08	1,00	0,95
VS	0,2	0,27	0,00	0,11	0,09	1,00	0,95
ZG	0,8	0,11	0,00	0,12	0,42	0,25	0,73
ZH	0,00	0,11	0,98	0,83	0,54	0,86	0,27

## Online Appendix D: Theory evaluation

Following Schneider and Wagemann's (2012: 295-305) refinement of Ragin's principles of theory evaluation, the theoretical hunches  $T$  can be evaluated by comparing them with the solution terms  $S$ . First,  $T$  and  $S$  are negated. The set  $\sim T$  denotes all of the scenarios that are not predicted by the theoretical propositions. The set  $\sim S$  denotes all of the scenarios that were not observed in the solution term. Based on this, three questions can be answered. First, which parts of the theory are supported by the findings? This is, on the one hand, the Boolean intersection  $T*S$  – the area in which theory and results overlap. On the other hand, the intersection  $\sim T*\sim S$  denotes those scenarios that neither theory nor the results deem sufficient for the outcome. Second, in which directions should theory be expanded? This is the intersection  $\sim T*S$ , the hitherto overlooked cases with regard to which the theory should be reformulated. Third, which parts need to be dropped? This is the intersection  $T*\sim S$ , namely the cases for which theory predicts the occurrence of the outcome, but which the solution does not capture, hence suggesting a delimitation of the theory.

Schneider and Wagemann (2012: 300ff) extend this framework by integrating the cases covered by these intersections. First, only cases that have membership in the intersection  $T*S$  and also display the outcome  $Y$  support the theory. Conversely, cases with  $\sim Y$  indicate that both theory and empirics predict the outcome which, however, does not materialise. Second, cases in  $\sim T*S$  that display the outcome  $Y$  suggest the direction in which theoretical expectations should be extended. Cases with  $\sim Y$ , however, weaken this need for modification of the theory. Third, only cases that display both  $T*\sim S$  and  $\sim Y$  indicate a delimitation of the theory. Low coverage indicates a low empirical importance to delimit theory. Cases with  $Y$  support theory and weaken the plausibility of the solution. Fourth, if all cases in  $\sim T*\sim S$  also

have  $\sim Y$ , then there is no evidence that contradicts both T and S. Conversely, cases with Y indicate that hitherto overlooked explanations for the outcome should be explored.

Since our results are based on the intermediate solution, we need to differentiate this procedure to ensure that the intersections with S do not contain logical remainders that lack empirical evidence. The “support” for T would then not be empirical, but owed to our theoretical expectations (Schneider and Wagemann, 2012: 305). We thus use the *conservative solution term*, which is not based on assumptions on logical remainders, for the theory evaluation. The conservative solution term S equals the intersection of the intermediate solution term I with the negation of the set of all logical remainders R:  $S = I * \sim R$ . As the conservative solution term is a subset of the intermediate solution term, the former is consistent with the latter. Using the conservative solution term for theory evaluation thus does not distort our discussion of the results’ consistency with the theoretical expectations. It has the crucial advantage of not making conclusions regarding our hypotheses that lack any empirical basis, i.e. are only backed by logical remainders. Doing so would amount to comparing theoretical expectations (hypotheses) exclusively to theoretical expectations (directional expectations) – which, although hypotheses and directional expectations are not identical, arguably bears the danger of introducing confirmation bias.

We apply this technique first for the hypotheses on enabling integration and second for the hypotheses on restricting integration (software: TOSMANA). For the sake of reader-friendliness, we use lower-case letter notation instead of the ‘ $\sim$ ’ sign to denote the negation of condition and outcome sets.

In formal terms, H1 and H2 are present in the following set relations, where the forward arrow ‘ $\rightarrow$ ’ reads as ‘is sufficient for’:

$$T(\text{INT}): L * b * a + L * b * P + B * r * s + B * r * P \rightarrow \text{INT}.$$

With the conservative solution obtained being

$$S(\text{INT}): L^*r^*B^*a^*P + r^*B^*a^*S^*P + l^*r^*b^*a^*s^*P + A^*l^*R^*b^*P^*S \rightarrow \text{INT}.$$

We obtain the following set negations:

$$\sim T(\text{INT}): l^*R + l^*b + R^*B + A^*b^*p + A^*p^*S + B^*p^*S + A^*R^*p + l^*p^*S$$

$$\sim S(\text{INT}): A^*r + a^*R + a^*b^*S + r^*b^*S + l^*B^*s + A^*L + A^*B + L^*b + L^*R + R^*B + A^*s + R^*s + p$$

The resulting intersections are

$$T(\text{INT})^*S(\text{INT}): a^*L^*r^*B^*P + a^*r^*B^*P^*S$$

$$\sim T(\text{INT})^*S(\text{INT}): a^*l^*r^*b^*P^*s + A^*l^*R^*b^*P^*S$$

$$T(\text{INT})^*\sim S(\text{INT}): a^*L^*b + L^*b^*P + l^*r^*B^*s + r^*B^*p^*s + A^*r^*B^*s + A^*r^*B^*P$$

$$\sim T(\text{INT})^*\sim S(\text{INT}): A^*r + a^*R + a^*b^*S + r^*b^*S + l^*B^*s + A^*L + A^*B + L^*b + L^*R + R^*B + A^*s + R^*s + p$$

These intersections are represented in Table 4.

Furthermore, H3 and H4 are formally represented as:

$$T(\text{int}): R^*b^*A^*p + B^*l^*S^*p \rightarrow \text{int}.$$

The conservative solution has yielded

$$S(\text{int}): l^*r^*b^*A^*s + l^*r^*b^*A^*P + l^*B^*A^*S^*p \rightarrow \text{int}.$$

$$l^*r^*b^*A^*s + l^*r^*b^*A^*P + l^*B^*A^*S^*p$$

Both sets are then negated:

$$\sim T(\text{int}): a^*L + a^*b + a^*s + L^*r + r^*b + r^*s + L^*B + B^*s + P$$

$$\sim S(\text{int}): R^*b + R^*P + R^*s + B^*P + B^*s + b^*p^*S + a + L$$

Based on this, the following intersections are calculated:

$$T(\text{int}) * S(\text{int}): A * I * B * p * S$$

$$\sim T(\text{int}) * S(\text{int}): A * I * r * b * s + A * I * r * b * P$$

$$T(\text{int}) * \sim S(\text{int}): A * R * b * p + a * I * B * p * S$$

$$\sim T * (\text{int}) \sim S(\text{int}): a * b + a * s + L * r + r * b * p * S + L * B + R * P + B * P + a * P + L * P + a * L + B * s$$

These intersections are represented in Table 5.