

# CONSIDERING OCCUPATIONAL FLEXIBILITY IN NURSING PROFESSIONS

**“Health Workforce Planning and Management  
in OECD Countries”**

**Expert Group Meeting**

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# Summary of structure

- ▶ „Projection of demand and supply in nursing professions until 2025“
  - Anja Afentakis (German Federal Statistical Office)
  - Tobias Maier (Federal Institute for Vocational Education and Training)
  
- 1. Components of the supply forecast of FTE nursing professions
- 2. Forecast of demand and supply in FTE nursing professions in Germany
- 3. Occupational mobility of nursing professions
- 4. Conclusion

# 1. Components of the supply forecast I

- Qualification and Occupational field projections of the BIBB and IAB ([www.qube-projekt.de](http://www.qube-projekt.de))
  
- Demand: IAB-Inforge
  - Data: microcensus, national accounts
  - Influencing factors: economic structural change, globalisation, growth, technological change
  
- Supply: BIBB-DEMOS and BIBB-FIT
  - Data: microcensus, population forecasts
  - Influencing factors: demographic development, educational participation, participation in employment

# Structure of the BIBB-IAB-Qualification and Occupational Field Projections:

➤ Supply-model  
 BIBB-DEMOS  
 (BIBB-FIT):

Forecast of the economically active population according to the trained occupation (specialization)

			<b>Labour demand within 59 economic sectors, 54 Occupational Fields and 4 skill levels</b>					Unemployed		
			1	2	3	...	48		...	53
<b>Supply of labour force by age cohorts, gender and qualification</b>	VET within 54 OF (ISCED 3b-6)	1	<b>occupational flexibility matrix</b>							
		2								
		3								
		...								
		48								
	...	"Health care professionals without license"								
	54									
	No VET (ISCED 0-3a)									
In training										
<b>By definition: (labour force) - (persons in employment)</b>										

# 1. Components of the supply forecast II

- Health care professions without licence to practice medicine:
  - Allied health professions
  - Non-medical practitioners
  - Certified masseurs / medical bath attendants / physiotherapists
  - **Nurses / midwives**
  - **Auxiliary nurses**
  - Assistant dieticians
  - **Doctor's assistants / dental assistants**
  - Medical laboratory assistants
  - Pharmaceutical-technical assistants
  - Therapeutically professions n.m.e.
  - **Geriatric nurses / auxiliary geriatric nurses**
  - Occupational therapists

# 1. Components of the supply forecast III

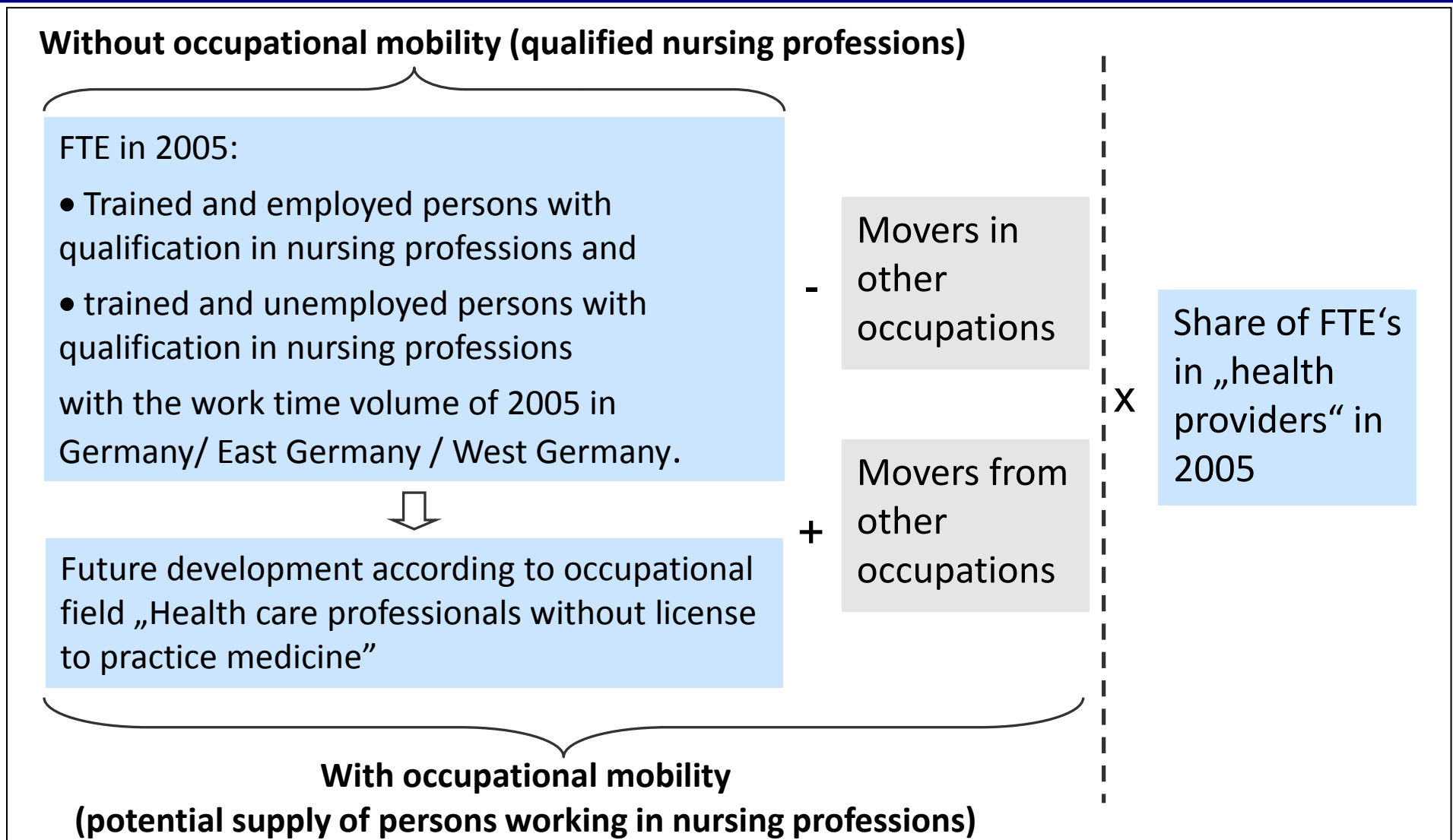
## ➤ Qualificational structure:

- Microcensus 2005 (-2007) of German Federal Statistical Office
  - => Labour Force Survey

## ➤ Reconstruction of the „trained occupation“ by combining qualification level and „major field of study“ e.g.:

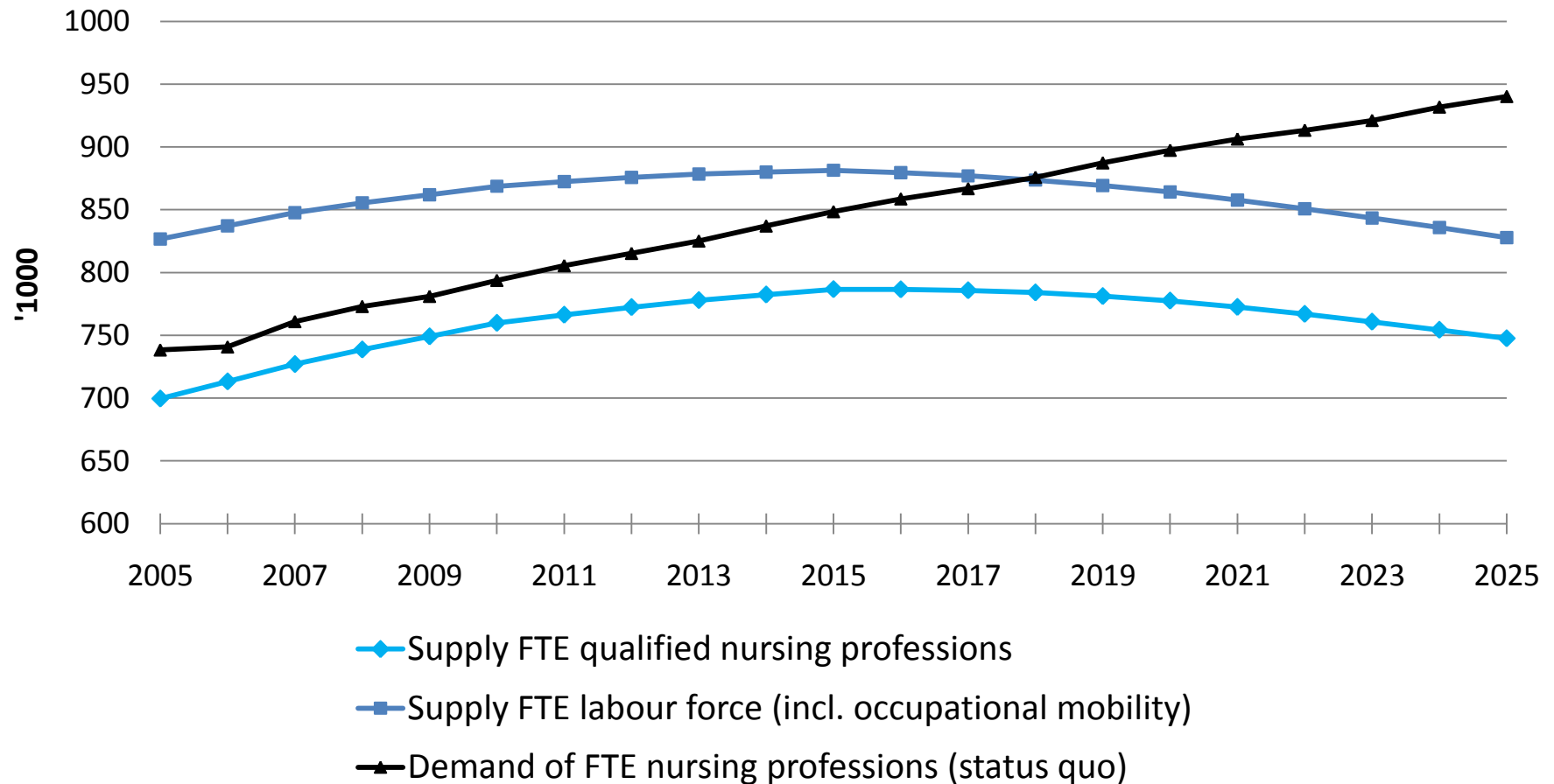
- (qualification level :”ISCED 5b“) + (major field of study: ”nursing“)  
= (Classification of occupation: BO 853 ”nurses / midwives“)
- (“ISCED 3b/4“) + (“nursing“ or ”rescue service“) = (BO 854 “auxiliary nurses“)
- (“ISCED 5b”) + (“geriatric care“) = (BO 864 “geriatric nurses“)

# 1. Components of the supply forecast IV



## 2. Forecast of demand and supply in FTE nursing professions in Germany

Demand and supply in FTE nursing professions with and without considering occupational mobility in "health providers"





### 3. Occupational mobility of nursing professions

3-digit-level of occupational classification: "trained occupation"		Mover out of 3-digit Occ.	Stayer in 3- digit Occ.	Mover out of OF 48	Stayer in OF 48	N
853	Nurses / midwives	24%	76%	14%	86%	6182
854	Auxiliary nurses	50%	50%	30%	70%	363
864	Geriatric nurses / auxiliary geriatric nurses	26%	74%	13%	87%	1623
-	Total nursing professions	25%	75%	15%	85%	8168
OF 48: "Health care professionals without license"		34%	66%	25%	75%	16999

3-digit-level of occupational classification: "occupation exercised"		Mover in 3- digit Occ.	Stayer in 3- digit Occ.	Mover in OF 48	Stayer in OF 48	N
853	Nurses / midwives	25%	75%	19%	81%	6255
854	Auxiliary nurses	85%	15%	71%	29%	1274
864	Geriatric nurses / auxiliary geriatric nurses	63%	37%	53%	47%	3222
-	Total employed in nursing professions	44%	56%	36%	64%	10751
OF48: "Health care professionals without license"		43%	57%	35%	65%	19577

Source: Federal Statistical Office: microcensus 2005; own calculations.

### 3. Occupational mobility (by work time)

3-digit-level of: "trained occupation"		Full time			Part time			Marginal employment		
		Mover out of OF 48	Stayer in OF 48	N	Mover out of OF 48	Stayer in OF 48	N	Mover out of OF 48	Stayer in OF 48	N
853	Nurses / midwives	12%	88%	3723	12%	88%	1946	39%	61%	513
854	Auxiliary nurses	29%	71%	250	_*	_*	_*	_*	_*	_*
864	Geriatric nurses / aux. geri. nurses	11%	89%	1011	12%	88%	496	36%	64%	116
-	Total nursing professions	12%	88%	4984	13%	87%	2523	39%	61%	661
OF 48: "Health care professionals without license"		22%	78%	9865	23%	77%	5177	43%	57%	1895

Source: Federal Statistical Office: microcensus 2005; own calculations.

### 3. Occupational mobility (by age cohorts)

3-digit-level of: "trained occupation"		Age 15-34			Age 35-49			Age 50-99		
		Mover out of OF 48	Stayer in OF 48	N	Mover out of OF 48	Stayer in OF 48	N	Mover out of OF 48	Stayer in OF 48	N
853	Nurses / midwives	7%	93%	1658	15.3%	84.7%	3214	21%	79%	1310
854	Auxiliary nurses	30%	70%	144	33.8%	66.2%	147	24%	76%	72
864	Geriatric nurses	11%	89%	444	13%	87%	831	14%	86%	348
-	Total nursing profess.	10%	90%	2246	16%	84%	4192	20%	80%	1730
OF 48: "Health care profes- sionals without license"		18%	82%	5370	37%	73%	8434	30%	70%	3163

3-digit-level of: „occupation exercised"		Age 15-34			Age 35-49			Age 50-99		
		Mover in OF 48	Stayer in OF 48	N	Mover in OF 48	Stayer in OF 48	N	Mover in OF 48	Stayer in OF 48	N
853	Nurses / midwives	31%	69%	2231	18%	88%	2941	15%	85%	1083
854	Auxiliary nurses	71%	29%	498	86%	33%	484	75%	25%	292
864	Geriatric nurses	56%	44%	925	59%	52%	1445	57%	43%	852
-	Total employed in nursing professions	43%	57%	3654	28%	72%	4870	39%	61%	2227
OF 48: "Health care profes- sionals without license"		40%	60%	7347	37%	73%	8476	38%	62%	3609

## 4. Conclusion

### ➤ Advantage

- Identification of qualification needs
- Possibility of different scenarios

### ➤ Disadvantage

- Occupational mobility can change over time
  - More data needed

### ➤ Transferability

- Segmentation of health care sector
- “major field of study” available in Labour Force Survey

# Thank you very much for your attention!

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