

## Socioeconomic and cultural determinants of fertility transition:

a comparative micro-level study from Western and Southern Transdanubia (Hungary), 19th and 20th centuries

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### **Outline**

- 1. Introduction
- 2. The area under study
- 3. Data and methods
- 4. Descriptive statistics
- 5. Multivariate analysis
- 6. Conclusion



### Introduction

- Little attention paid to non-agregated data and to micro level
- Two major groups of research:
  - 1) macro-level analyses of aggregated census data or vital statistics
  - 2) family reconstitution studies
- Results of macro-level studies:
  - A. Kovács, L. Thirring, R. Andorka and others tried to identify the regional, cultural (mother tongue, religion) and socio-professional differences in fertility decline
  - The analysis of the data of census 1930 (Kovács 1936, Thirring 1936, 1941) showed important differences between socioprofessional groups at the time of the census
  - Comparative analysis of censuses 1930 and 1949 (Thirring 1959) showed a convergence process in fertility by socio-professional groups
  - => Our knowledge is rather limited on the fertility differences by socioeconomic group prior to demographic transition and how these differences were modified during the decades of fertility transition



### Introduction

- Main results of Hungarian family reconstitution studies:
  - Early family limitation among the land-owning peasantry one of the characteristic feature of the initial chapter of H. fertility transition
  - Rudolf Andorka (1981, 1987, 1991, 1998): in rural settings the birth control of land-owning peasantry could have been a logical response to impoverishment and to avoid the fragmentation of properties and pauperization
  - the "characteristics" hypothesis: religious differentials will disappear once the proper socioeconomic and demographic variables are taken into account
  - Criticism:
    - Denominational and ethnic background as main explanatory hypothesis
    - Marital fertility and other demographic indicators not detailed by socioeconomic groups
    - Focus on the pre-transitional fertility (until 1895)
    - While the socioeconomic differences were phrased as hypothesis, the actual testing was not carried out



### **Communities**

### Bük (W. T.)

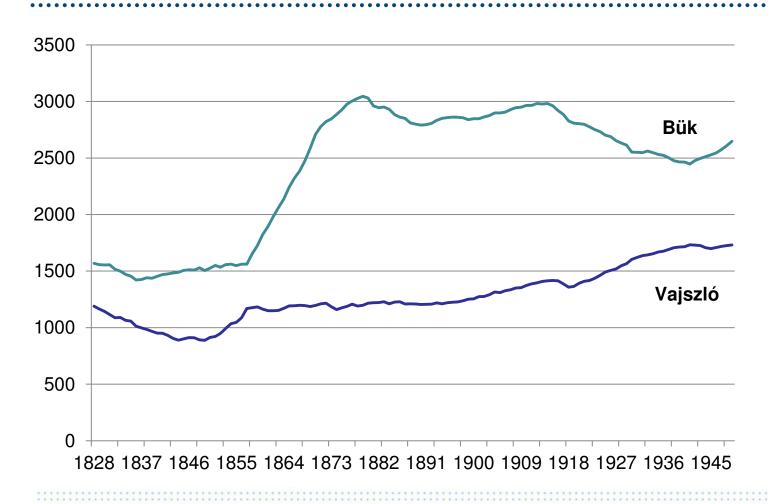
- Three villages that united in 1902
- Heterogeneous in terms of religion (Roman Catholics and Lutherans)
- Separate elementary schools maintained by the Lutheran and R. Catholic Ch. up until the end of WWII.
- Modernization of the agriculture in the second half of the 19th c. (1865 railway, 1867-69 sugar factory)
- Population increase due to immigration
- Process of social differentiation and growing social inequalities
- End of WWI. (1917-burning of the s.f.) the plant breeder part of the factory functioning until 1930

### Vajszló (S. T.)

- "Cultural" center of the "Ormánság" region (about 45 small villages) known from the literature as a region where "one-child system" was dominant
- Heterogeneous in terms of religion (Roman Catholics and Calvinists)
- Elementary schools maintained by the state and R.C. Ch. from 1871 onwards
- Privilegious settlement (country town) until 1871
- Roman Catholic Church Fund as big landowner
- Economic stagnation up until the end of the 19th c.
- Railway 1912

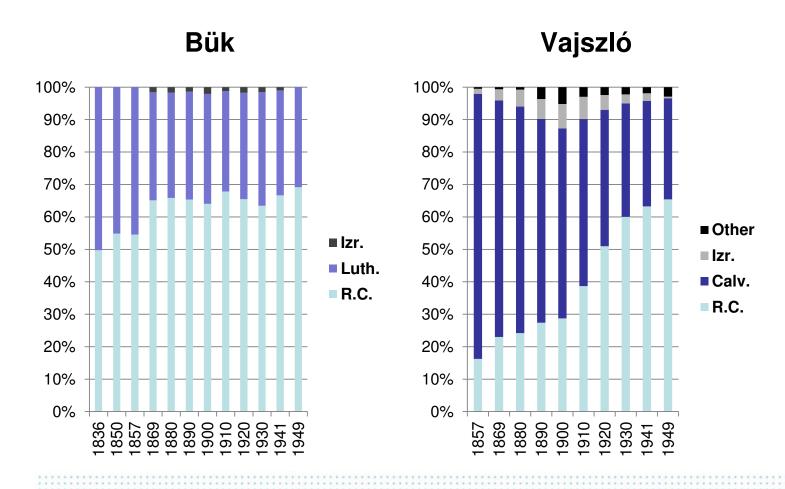


## Population development in Bük and Vajszló, 1828-1949



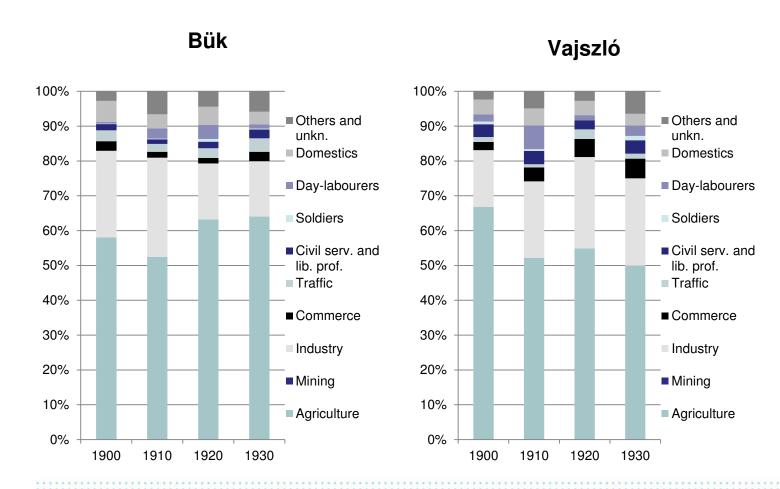


### Religious composition in Bük and Vajszló



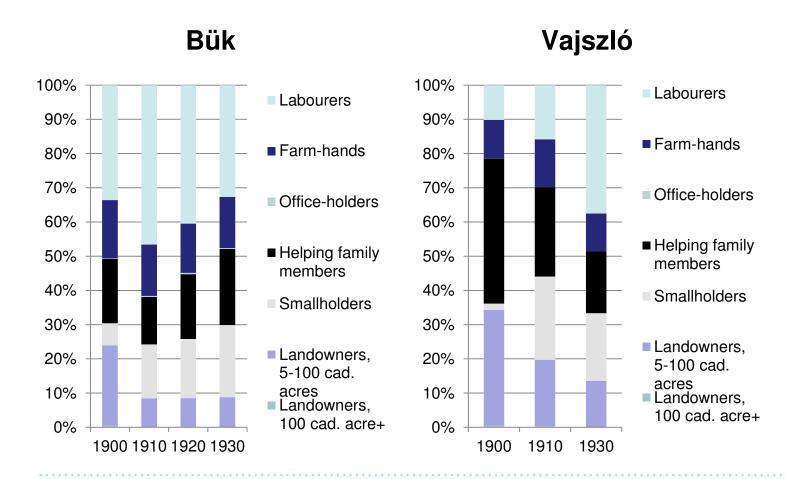


# Distribution of breadwinners by broad occupational groups in Bük and Vajszló, 1900-1930





## The distribution of breadwinners in agriculture in Bük and Vajszló, 1900-1930





### **Data**

- Family reconstitution database
  - Record linkage of baptism, marriage and death records from Lutheran, Calvinist and Roman Catholic parish registers (1800-1895) and civil registers (1895-1980)
  - Individual records of census 1850 and 1857 (Bük)
  - Individual records of the electoral registers (1861-1949)
  - 1890 family histories reconstructed for the period 1840-1940 (Bük)
  - Database is under construction in case of Vajszló
- SES reconstructed from occupational informations of parish and electoral registers and censuses

HISCLASS	SES	Exemples
1-6	High status	Higher managers, higher professionals, lower professionals, clerical and sales, lower clerical and sales
8	Farmer	
7	Artisan/skilled	Craftsmen, blacksmith, crofters, carpenters etc.
9-12	Labourer	Day labourers, workers, farm servants etc.

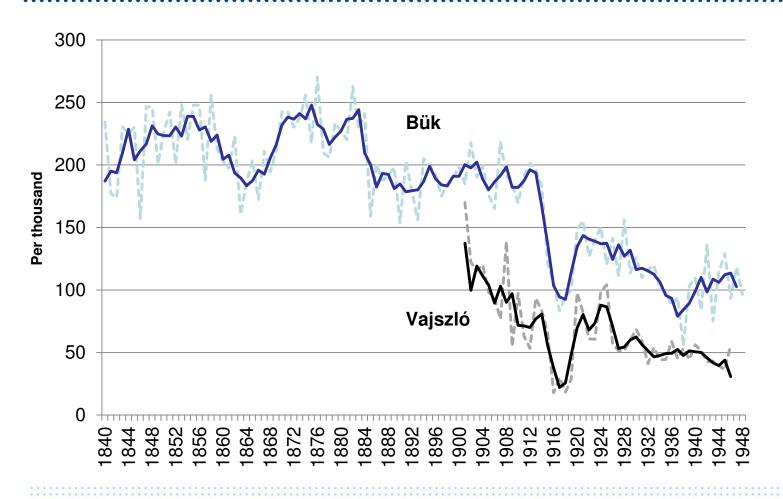


### **Methods**

- Descriptive statistics
  - General marital fertility rates, age specific marital fertility rates, mean birth intervals etc. taking into account differences by period, SES and religious group
- Event History (Piecewise Constant Exponential) models with shared frailty at the individual (women) level, separately for the first-, and second and higher order births
  - Basic and extended model (including interaction term between SES\*time period)
  - Control variables: age of woman, time period, SES, religious group, life status of pr. born child

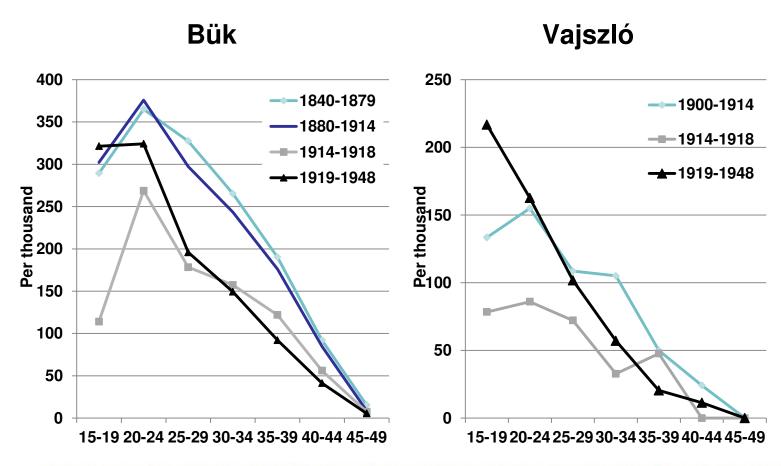


## General marital fertility rates (births to married women divided by the person years at risk for married women 15-49 years) in Bük (1840-1948) and Vajszló (1900-1946)



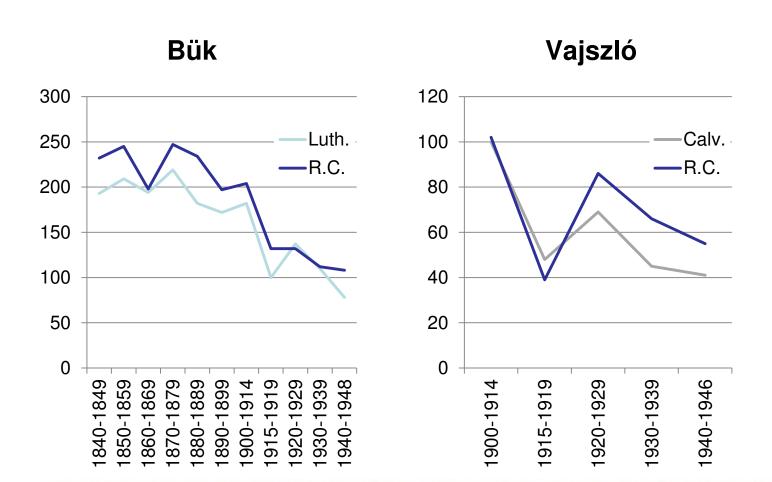


## Age specific marital fertility rates by period in Bük (1840-1948) and Vajszló (1900-1946)



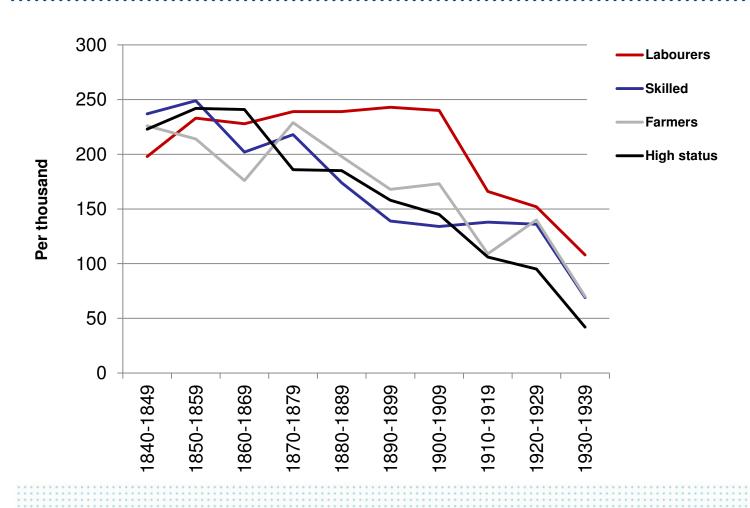


## General marital fertility by religious groups in Bük (1840-1948) and Vajszló (1900-1946)





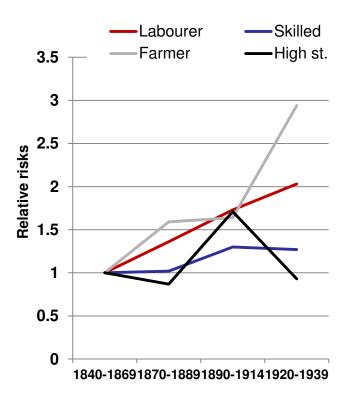
## General marital fertility (15-49) by SES in Bük (1840-1948)



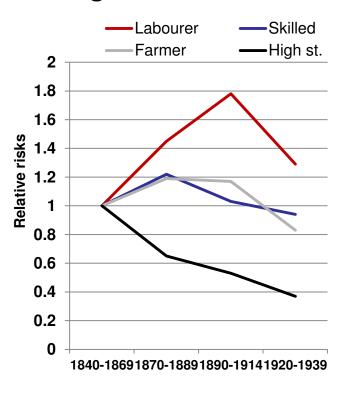


### Net effects of period on fertility outcomes by socioeconomic status, Bük 1840-1940

### First births



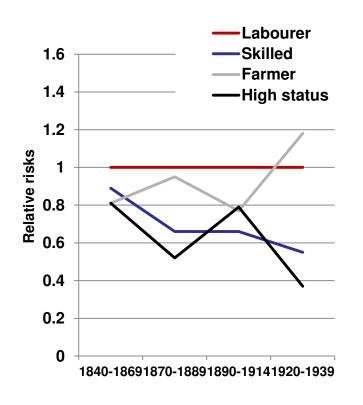
### **Higher order births**



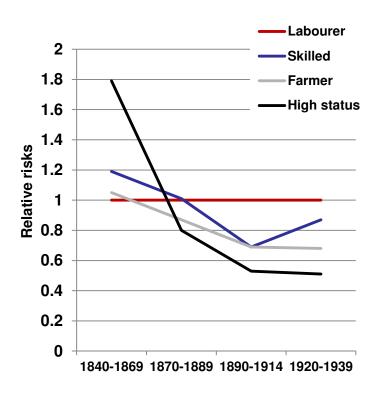


## Net effects of socioeconomic status on fertility outcomes by period, Bük 1840-1940

#### First births



### **Higher order births**





### Conclusion

- SES more important than religious affiliation
- The "characteristics" hypothesis confirmed
- Fertility transition as an innovation-diffusion process: early elite decline followed by the other social groups
- High fertility differences existed at the end of the study period between higher and lower social strata
- In the future: interaction of religious group and SES in order to test in a more effective way the innovation – diffusion hypothesis

