Inequality among Working Households in Europe, 1890-1960

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University of Sussex

Sussex Global Income Inequality Project

Funded by ESRC: £1.1m 'Global Income Inequality, 1880-1960', February 2014- January 2018

Objectives:

1. Construct relational database for all surveys where households >100 (now relaxed)
2. Extract data from published returns, use these to estimate time-path of inequality
3. Compare estimates of income inequality with other indicators from surveys (e.g. nutrition)

Relational Database

- Currently 1244 household surveys 1890-1960 from many countries.
- Work in progress; expect *n* to increase significantly as we move through project.
- Includes all of Zimmermann (where households > 100 outside of WE), plus results of extensive library searching.

Relational Database 2

- Records characteristics of each survey record
- Link to pdf of original published survey report.
- Link to excel workbook of extracted data.
- Database will be deposited in public domain at conclusion of the project (after first use).
- Example UK Board of Trade 1904: eight screen shots from database relating to this survey

Survey Detail Report

Single Survey Print

1) United Kingdom, 1903 - 1904 — Survey ID: **1054** *vew survey*

1,944 households **Sample Duration:** 1 Week(s) ProjectCodes:

GII Comments: This uses a previously digitised dataset from the British Living Standards project.
KPR:
It currently is accurately descriptive as _conteporaneously_ the 'United Kingdom' in that it includes pre-liberation Ireland; a currently 'discounted' Irish subset exists that can be enabled if we decide to exclude Irish households here (in order to include them in the 'Ireland' surveys proper). The important thing is to avoid double-counting.
KPR:

Outfacing Notes: The largest British enquiry of the pre-First World War period was undertaken by the Board of Trade in 1904. Details of income, rent and items of food expenditure were collected from workmen and their families for one week during July-September 1904. There are some households from a previous 1903 survey included.

Ref ID: 1387 **Got:** ☑ *vew ref*

Dataset: British Living Standards Project, 1904 Board of Trade Survey

Table: BLS dataset	File: 1904_BoT_data_vUKDA-01c.xlsx	Individual Data	Validated

Countries: ***Non-Budget Attributes:***

United Kingdom

Library ***Sublocation*** ***Shelfmark***

Ref ID: 1386 **Got:** ☐ **Europe\United Kingdom\1904_BoT_Codebook_vUKDA-01.pdf** *vew ref*

I. Gazeley and A. Newell, Codebook: British Living Standards Project - 1904 Board of Trade Survey

Countries: ***Non-Budget Attributes:***

United Kingdom

Survey Editor

Survey ID: 1054

Country: United Kingdom

Year(s): circa 1903 - 1904 References:

Households: 1944

Project Codes:

Sample Duration: 1 Week(s)

Provinence: Government - Other Dept./Office

Board of Trade

GII Comments | Outfacing Notes

hit Control-Return to add lines within text boxes

The largest British enquiry of the pre-First World War period was undertaken by the Board of Trade in 1904. Details of income, rent and items of food expenditure were collected from workmen and their families for one week during July-September 1904. There are some households from a previous 1903 survey included.

o	Reference	pdf file
1	Dataset: British Living Standards Project, 1904 Board of Trade Survey	
2	Codebook: British Living Standards Project - 1904 Board of Trade Survey	1904_BoT_Codebook_vUKDA-01.pdf
3	Great Britain Board of Trade, British and Foreign Trade and Industry. I. Consumption and Co	BOT_1905 - Britain.pdf
*		

Save/Refresh

Tables / Data | Locations

Dataset: British Living Standards Project, 1904 Board of Trade Survey

o	Table Title (English)	Pages	Households	DataType	DigiStatus	Priority	Details	Excel_File	View XLS
	BLS dataset		1038	Individual Data	Validated		Details	1904_BoT_data_vUKDA-C	Open
*					Not Assessed		Details		Open

Multi-table clipboard: 0-0

Change All / [Only Not Assessed] to: Inappropriate

Font resize:

Survey ID: 1054

Child | Discount

Survey Editor

Survey ID: 1054

Country: United Kingdom

Year(s): circa 1903 - 1904 References:

Households: 1944

Project Codes:

Sample Duration: 1 Week(s)

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*					Not Assessed				Open

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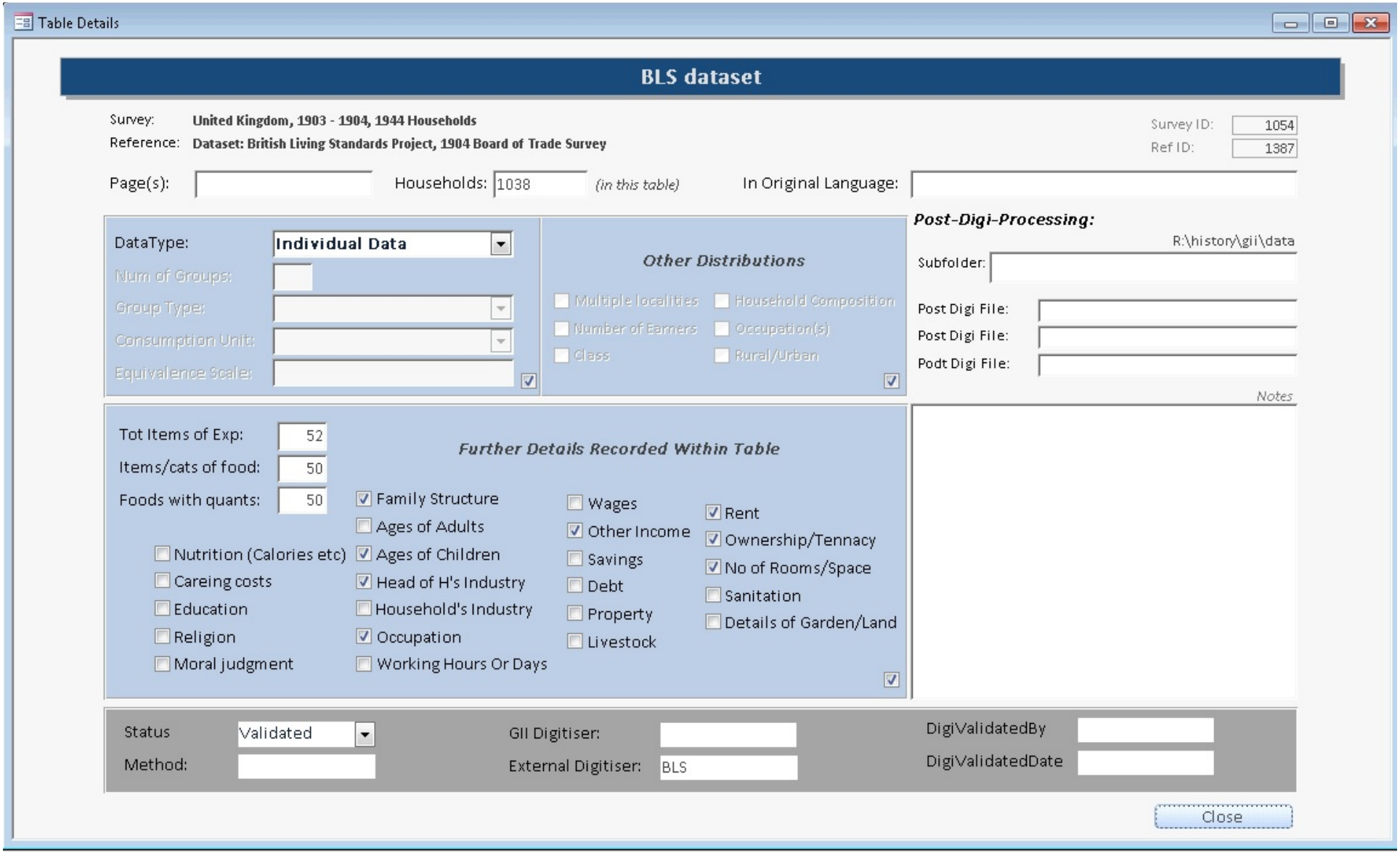
Font resize:

Survey ID: 1054

Child | Discount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Survey: United Kingdom, 1903 - 1904, 1944 Households
Reference: Dataset: British Living Standards Project, 1904 Board of Trade Survey
Survey ID: 1054
Ref ID: 1387
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Households: 1038 (in this table)
In Original Language:
DataType: Individual Data
Num of Groups:
Group Type:
Consumption Unit:
Equivalence Scale:
Other Distributions
Multiple localities
Household Composition
Number of Earners
Occupation(s)
Class
Rural/Urban
Post-Digi-Processing:
R:\history\gii\data
Subfolder:
Post Digi File:
Post Digi File:
Podt Digi File:
Notes
Tot Items of Exp: 52
Items/cats of food: 50
Foods with quants: 50
Further Details Recorded Within Table
Family Structure
Ages of Adults
Ages of Children
Head of H's Industry
Household's Industry
Occupation
Working Hours Or Days
Wages
Other Income
Savings
Debt
Property
Livestock
Rent
Ownership/Tennacy
No of Rooms/Space
Sanitation
Details of Garden/Land
Nutrition (Calories etc)
Careing costs
Education
Religion
Moral judgment
Status: Validated
Method:
GII Digitiser:
External Digitiser: BLS
DigiValidatedBy
DigiValidatedDate
Close

Survey Editor

Survey ID: 1054

Country: United Kingdom

Year(s): circa 1903 - 1904 References:

Households: 1944

Project Codes:

Sample Duration: 1 Week(s)

Provinence: Government - Other Dept./Office

Board of Trade

GII Comments | Outfacing Notes

hit Control-Return to add lines within text boxes

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3	Great Britain Board of Trade, British and Foreign Trade and Industry. I. Consumption and Co	BOT_1905 - Britain.pdf
*		

Save/Refresh

Tables / Data | Locations

Great Britain Board of Trade, British and Foreign Trade and Industry. I. Consump [...]

o	Table Title (English)	Pages	Households	DataType	DigiStatus	Priority	Details	Excel_File	View XLS
	Avg exp by inc	5	1944	Group Data	Validated		Details		Open
*					Not Assessed		Details		Open

Multi-table clipboard: 0-0

Change All / [Only Not Assessed] to: Inappropriate

Font resize:

Survey ID: 1054

Child | Discount

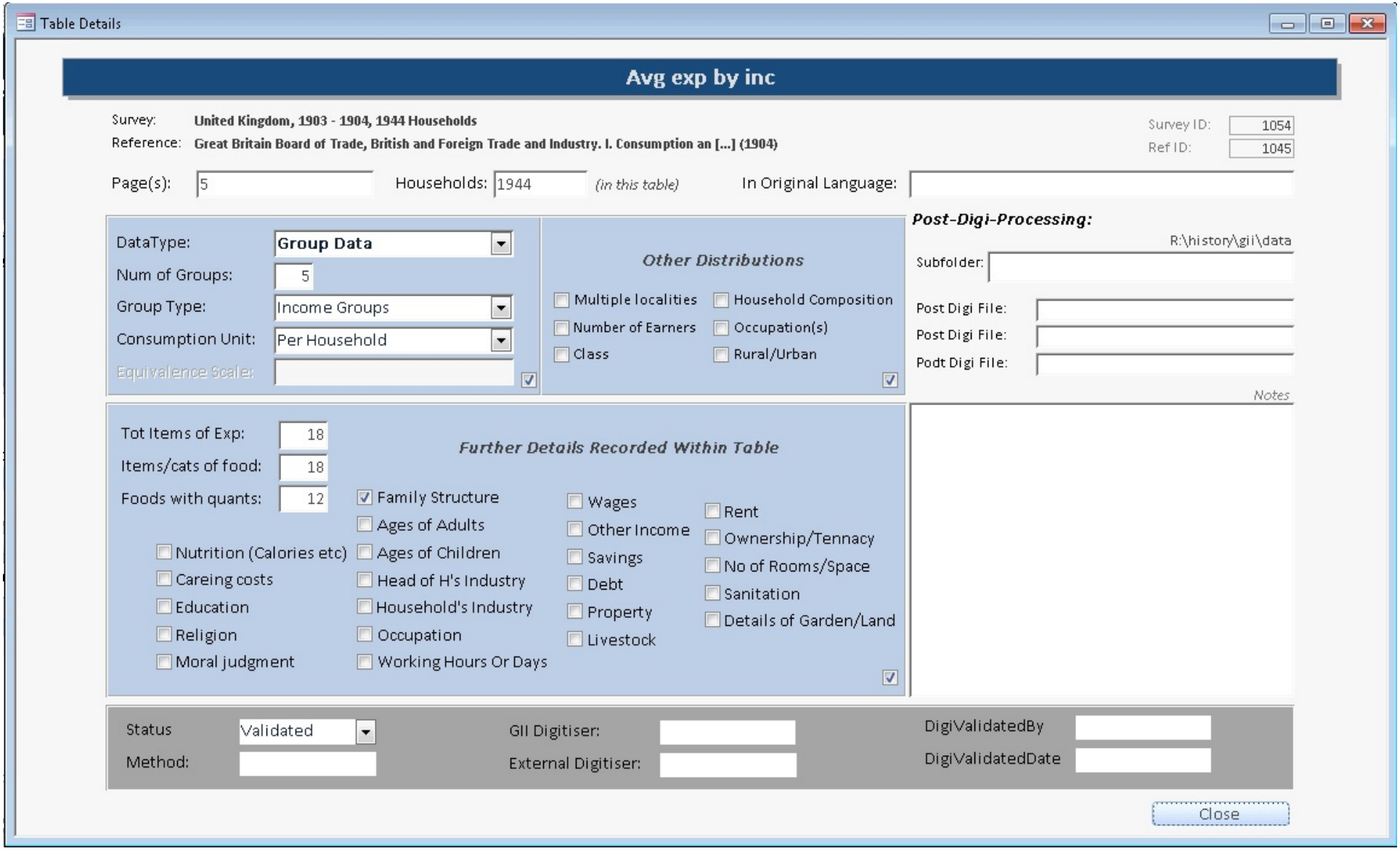


Table Details
Avg exp by inc
Survey: United Kingdom, 1903 - 1904, 1944 Households
Reference: Great Britain Board of Trade, British and Foreign Trade and Industry. I. Consumption an [...] (1904)
Survey ID: 1054
Ref ID: 1045
Page(s): 5
Households: 1944
(in this table)
In Original Language:
DataType: Group Data
Num of Groups: 5
Group Type: Income Groups
Consumption Unit: Per Household
Equivalence Scale:
Other Distributions
Multiple localities
Household Composition
Number of Earners
Occupation(s)
Class
Rural/Urban
Post-Digi-Processing:
R:\history\gii\data
Subfolder:
Post Digi File:
Post Digi File:
Podt Digi File:
Notes
Tot Items of Exp: 18
Items/cats of food: 18
Foods with quants: 12
Further Details Recorded Within Table
Family Structure
Ages of Adults
Ages of Children
Head of H's Industry
Household's Industry
Occupation
Working Hours Or Days
Wages
Other Income
Savings
Debt
Property
Livestock
Rent
Ownership/Tennacy
No of Rooms/Space
Sanitation
Details of Garden/Land
Nutrition (Calories etc)
Careing costs
Education
Religion
Moral judgment
Status: Validated
Method:
GII Digitiser:
External Digitiser:
DigiValidatedBy
DigiValidatedDate
Close

Average Weekly Cost and Quantity of Certain Articles of Food Consumed by Urban Workmen's Families in 1904.

Limits of Weekly Income	Under 25s.	25s. and under 30s.	30s. and under 35s.	35s. and under 40s.	40s. and above.	All Incomes.
Number of returns	261	289	116	382	866	1,944
Average weekly family income	s. d. 21 4½	s. d. 26 11¾	s. d. 31 11¼	s. d. 36 6¼	s. d. 52 0½	s. d. 36 10
Average number of children living at home.	3·1	3·3	3·2	3·4	4·4	3·6
	Cost.					
Bread and flour	s. d. 3 0½	s. d. 3 3¾	s. d. 3 3½	s. d. 3 4¼	s. d. 4 3¾	s. d. 3 7
Meat (bought by weight)	2 8	3 4¾	4 3½	4 5½	5 10½	4 5½
Other meat* (including fish)	0 7½	0 8¾	0 10	1 0	1 4	0 11¾
Bacon	0 6¾	0 9	0 10¼	0 11½	1 3¾	0 11½
Eggs	0 5¾	0 8½	0 11	1 0	1 4¾	1 0
Fresh milk	0 8	0 11¾	1 3¼	1 4¼	1 7¾	1 3¼
Cheese	0 4¾	0 5½	0 6	0 6	0 8	0 6½
Butter	1 2	1 7	1 10¼	2 0	3 0½	2 1½
Potatoes	0 8¾	0 9¾	0 10½	0 10¼	1 1¾	0 11
Vegetables and fruit	0 4¾	0 7	0 10	0 11¾	1 3¾	0 11
Currants and raisins	0 1½	0 1¾	0 2¼	0 3	0 3¾	0 2¾
Rice, tapioca, and oatmeal	0 4½	0 5	0 6	0 5¾	0 7	0 6
Tea	0 9¼	0 11¼	1 0¾	1 1¼	1 5	1 1½
Coffee and cocoa	0 2	0 3¼	0 3½	0 4¼	0 5½	0 3¾
Sugar	0 8	0 10	0 10¾	0 11¼	1 3	0 11¾
Jam, marmalade, treacle and syrup	0 4¼	0 5¼	0 6	0 6½	0 8¾	0 6½
Pickles and condiments	0 2	0 2¼	0 3¼	0 3½	0 4¼	0 3¼
Other items	1 0½	1 3¾	1 6½	1 10½	2 6¼	1 9½
Total expenditure on food	14 4¾	17 10¼	20 9¼	22 3½	29 8	22 6

Survey Detail Report Order

Report Filters (optional)

World Region: ☐ CheckFor Non-Assigned Countres

Sub Region:

Country:

Year from:

Year to:

Project(s):

only surveys with 1+ table(s) with the following:

Data Type:

DigiStatus:

... other than Not Assessed or Irrevevant: ☐

... either Entered or Validated: ☐

Nutrition: ☐ ---------*if both ticked, 'either'*------- Nutrition: ☐

Food Items >= 0

Food Quants >= 0

only surveys with a Reference having:

Got status: got: ☐ not got: ☐

PDF attachment: ☐ No PDF attachments: ☐

Display:

Survey Detail

☑ GII Comments

☑ Outfacing Notes

Reference Detail

☑ Show References with:

☐ Ref Notes

☑ Tables

☑ Non-Budget Attributes

☑ Library Holdings

☑ PDF Filename

Close Go

Inequality among European Working Households, 1890-1960

- Recall that most international data sets on inequality peter out as we go back in time. WIDER offers very little before 1960, for instance
- Recognise they are not representative of the rich nor maybe of the very poor: deal with that later as we move to estimating national and then international inequality
- But they are interesting as they allow us to study, for instance, how changes in the distribution of wage earnings played out among households

Inequality among European Working Households, 1890-1960

- Two broad sources have been found: (1) grouped tables from survey reports (2) individual household data sets.
- The technical challenge is how to deal with the grouped data
- The grouped data, like the British Board of Trade table, vary in the reported measures: income/ expenditure, per household/per capita/ per equivalent adult/ by grouping, though, crucially, income/expenditure is the most common. We decided to collect all types.

Inequality among European Working Households, 1890-1960

- How to generate inequality measures from grouped data that reliably tell us about the original individual household data?
- Packages exist, like Ravallion and Chen's POVCAL, but all are limited
- However, a well-programmed procedure should get very closed to the inequality in an original survey…

Inequality among European Working Households, 1890-1960

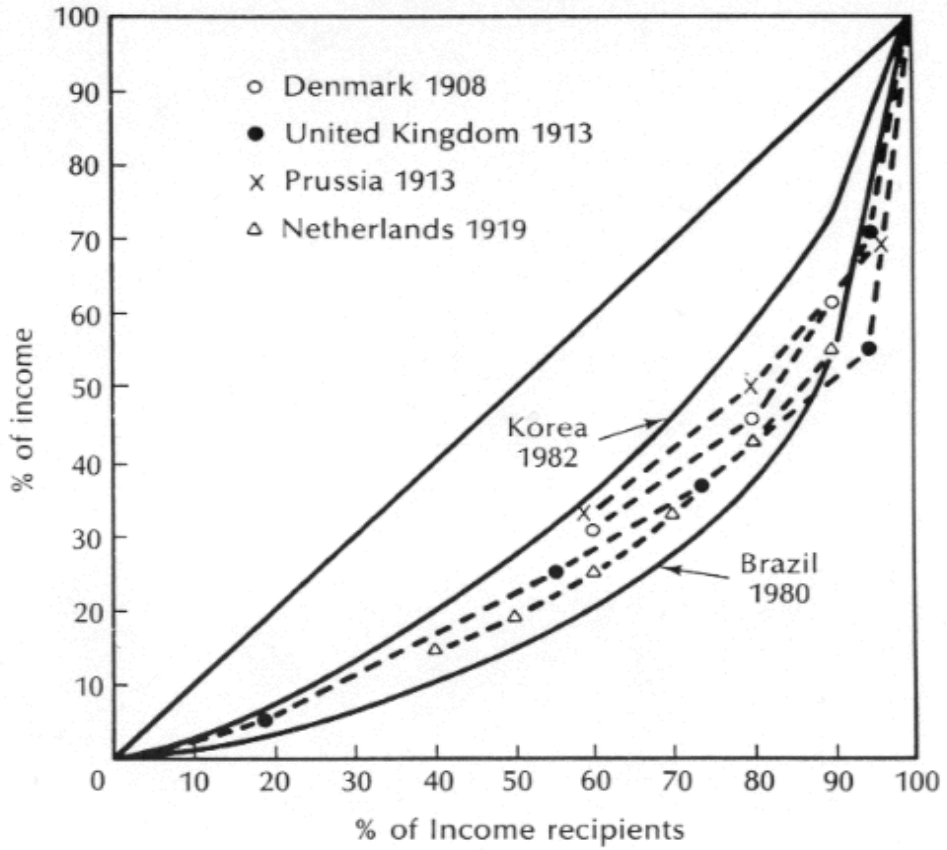
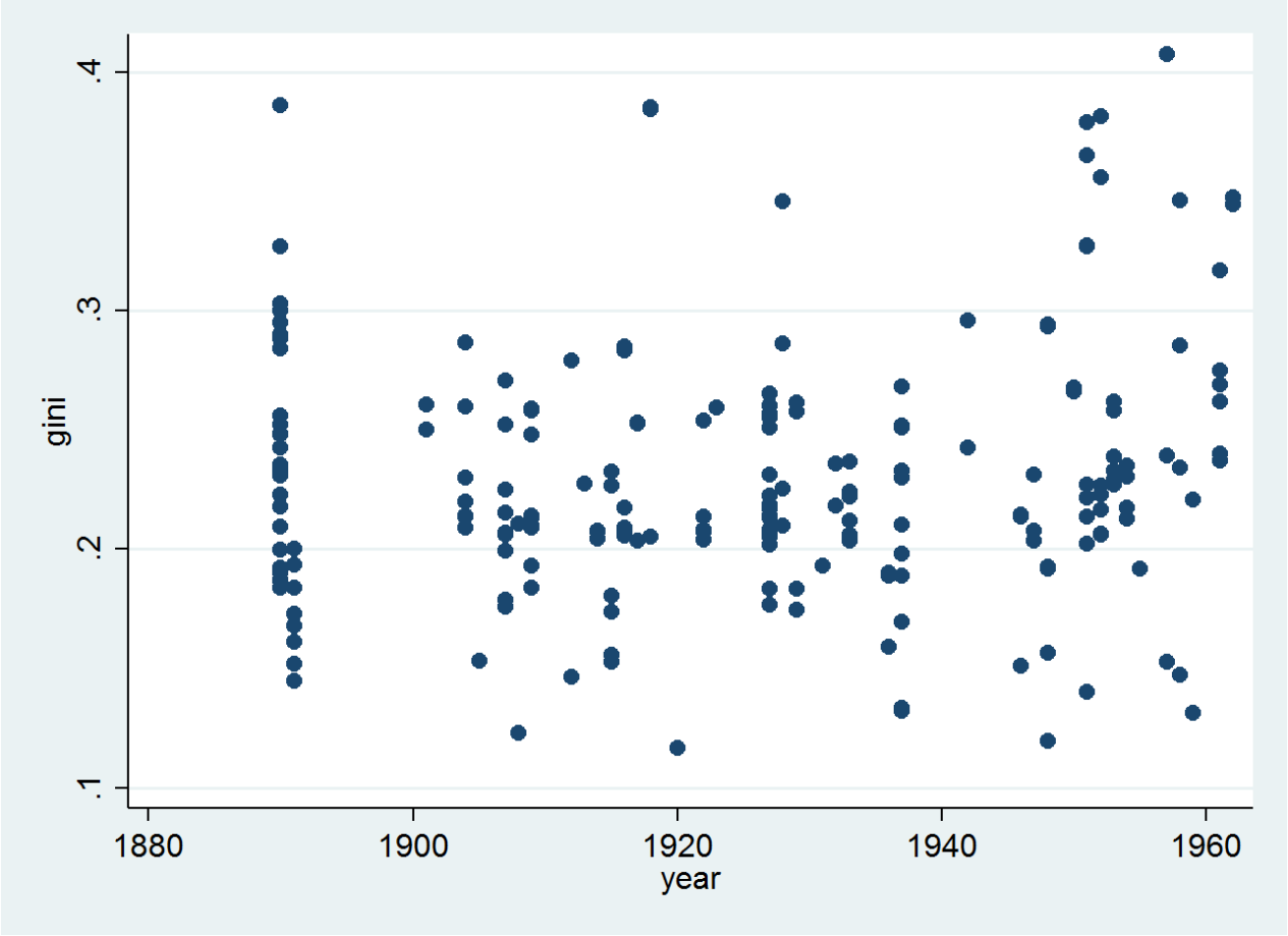


Figure 1.2 Income inequality among the NICs then and now: contemporary Korea and Brazil compared with four European nations around World War One.
Source: Polak and Williamson (1989, Figure 2)

Inequality among European Working Households, 1890-1960

- The minimum set of information required is (a) the number of cases in each group and (b) **either** the group mean **or** the values of the group boundaries.
- We have developed and tested a number of approaches
- For tables like the BoT example, Kakwani's Beta-Lorenz and lognormal interval regression both work well
- Here are 250 Gini estimates, made from 86 studies, that we use to test our methods

Inequality among European Working Households Gini coefficients, 1880-1960



- How to proceed to inference about the international distribution of inequality and its movement over time?
- We treat each survey as an observation, rooted in time, place and the interests of the investigators
- We take the econometric approach to meta-analysis as our starting point [See, for instance, Card, Kluve, Weber (2015) NBER Working paper 21431]
- We can control for known biases: in sampling; in the measure (income/expenditure, per household, per cap. etc.) ; in the method of estimation, and we can cluster standard errors and weight appropriately

Inequality among European Working Households, 1890-1960

Understanding the variations in European working household inequality 1890-1960

Dependent variable:	50/10	90/50	Gini %
Explanatory factors:			
Expenditure-based (vs income)	-0.15	-0.05	-0.02
Per capita (vs aggregate)	-0.01	0.17**	0.03***
1914-1945 (vs pre-1914)	0.36	0.05	-0.01
Post-1945	-0.43	0.08	-0.02
Beta-Lorenz (vs individual data)	-0.29	-0.08	-0.03*
Hermite Beta-Lorenz	1.22***	-0.12**	0.04*
Lognormal Regression	-0.51	-0.86***	-0.01
Interval Lognormal Regression	0.10	-0.16**	0.02
Unit=individual (vs household)	-0.02	-0.03	0.003
R-Sq	0.47	0.56	0.26

Notes: Sample of 250 estimates from 86 studies. Other controls include: country controls; survey sample size. Standard errors are clustered at the level of the study.

Inequality among European Working Households, 1890-1960

- Conclusions
- We can utilise our group data to generate estimates of within-survey inequality. Some grouped data are sensitive to the method chosen, but the techniques work very well on the most common groupings.
- Trends in measured inequality are bound to be sensitive to differences in the type of survey, thus must be are taken into account.
- Our first estimate is that inequality among working households is unchanging in Europe 1890-1960
- This is based on controlling for method of estimation; and for survey type.