# FAMILY ECONOMICS

#### 48-Hour Take-Home Exam

13 January 2018 (10:00 a.m. CET) — 15 January 2018 (10:00 a.m. CET)

This exam question consists of 5 pages in total (including this cover page).

The language of this exam is English. Your exam paper and additional material must be written in English.

Your exam must be uploaded to Digital Exam before Monday, 15 January 2018, at 10:00 a.m. Central European Time.

The paper must be uploaded as one PDF document. The PDF document must be named with exam number only (e.g. '1234.pdf') and uploaded to Digital Exam.

#### Focus on Exam Cheating

In case of presumed exam cheating, which is observed by either the examination registration of the respective study programmes, the invigilation or the course lecturer, the Head of Studies will make a preliminary inquiry into the matter, requesting a statement from the course lecturer and possibly the invigilation, too. Furthermore, the Head of Studies will interview the student. If the Head of Studies finds that there are reasonable grounds to suspect exam cheating, the issue will be reported to the Rector. In the course of the study and during examinations, the student is expected to conform to the rules and regulations governing academic integrity. Academic dishonesty includes falsification, plagiarism, failure to disclose information, and any other kind of misrepresentation of the student's own performance and results or assisting another student herewith. For example failure to indicate sources in written assignments is regarded as failure to disclose information. Attempts to cheat at examinations are dealt with in the same manner as exam cheating which has been carried through. In case of exam cheating, the following sanctions may be imposed by the Rector:

- 1. A warning
- 2. Expulsion from the examination
- 3. Suspension from the University for a limited period of time or permanent expulsion.

The Faculty of Social Sciences The Study and Examination Office October 2006

## PRACTICAL INFORMATION

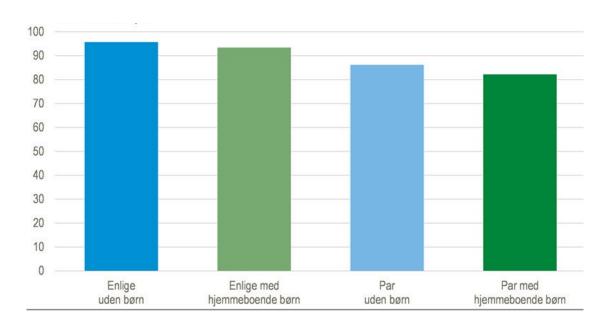
Note the following formal requirements:

- This is an *individual* examination. You are not allowed to cooperate with other students or other people. Student collaboration is considered to be cheating.
- This exam consists of 5 questions. Please answer all questions.
- You must follow the following formal requirements:
  - The written part of the exam paper, including all headers but excluding additional figures, should not exceed 10 standard pages: DinA4, font size set to 12, line spacing set to 1.5, margins (left/right/top/bottom) of at least 2 cm. All pages must be numbered consecutively.
  - You may use up to 2 DinA4 pages for additional figures.
- Tables and figures displayed in the exam paper should be formatted appropriately (i.e., they should have captions, axes should be labelled, a legend should be added when required, a note describing the source, variables and the sample, etc.).
- You should not write your name on the material you submit (exam paper, computer program, supporting material).

#### FEMALE WAGES: RELATIONSHIP STATUS AND FAMILY TYPE

In 2016, the average wage earner in Denmark (excluding individuals under the age of 18 and students) had a monthly wage income of 40,950kr. There were significant differences of average wages by gender, and by family status. Men's average wage was 43,647kr, whereas women's average wage was 37,895kr. Figure 1 shows average gender differences in different demographic groups: The average wage difference between men and women was largest among couples with resident children (i.e., children living with them in the same household), and smallest among childless single men and women. Women with resident children and who lived in a relationship earned on average 82 pct of men in the same category. Women who lived in a relationship but had no children earned on average 86 pct. of men men in a relationship and without children. Single women with and without children earned on average 93 pct. and 96 pct. of single males' monthly wages (with and without children), respectively.

Figure 1: Female/Male Monthly Wage Income, by Relationship Status and Family Type, 2016.



Source: http://www.dst.dk/da/statistik/nyt/NytHtml?cid=24968&place=twitter (Statistics Denmark).

**Notes:** Shown is the ratio of average female monthly wage income as a percent of male wages (100), for males with the same relationship status category.

#### Translations:

<sup>&</sup>quot;Enlige uden børn" = Single without children;

<sup>&</sup>quot;Enlige med hjemmeboende børn" = Single with resident children;

<sup>&</sup>quot;Par uden børn" = Couple without children;

<sup>&</sup>quot;Par med hjemmeboende børn" = Couple with resident children.

## QUESTIONS

Note: Not all questions require equal amounts of work. A very rough guide to the time you may want to spend:

Question 1) 5%, Question 2) 10%, Question 3) 35%, Question 4) 25%, Question 5) 25%.

## Question 1

Describe what you need to know about the data entering this graph to be able to interpret it. Be both precise and exhaustive.

## Question 2

Are women living with a partner *absolutely* worse off than single women? Why can we not conclude this from Figure 1? Think of both income and consumption in the household.

## Question 3

Relate the graph to the following two theories covered in Becker's "Treatise on the Family." How do they explain the larger gender wage gap in couples vs singles?

#### **Question 3.1:** Specialization within the household.

- (a) Lay out the basic structure.
- (b) What can the theory say about a gender gap favoring males?
- (c) Then move to the *larger* gender gap in two-person households versus singles. Evaluate the model's ability to explain the gap considering appropriate empirical facts.

#### Question 3.2: Negative assortative mating.

- (a) Describe the basic structure and theorems for assortative mating (positive or negative).
- (b) How could negative assortative mating explain the larger gender gap in couples than in singles? Again, evaluate whether this explanation corresponds to reallife facts.

Note that you may start with how these theories explain a gender gap, but this question is ultimately about the **larger** gap in **dual-person households** vs singles. (The next question (4) will address differences between families with and without children.)

## Question 4

The family gap: The gender wage gap is larger for couples with children than for couples without children. Discuss potential explanations for this finding based on relevant existing empirical research (cite and discuss explicitly). Also comment on the magnitude of the family gap in Figure 1. Pick at least 3-4 relevant studies and discuss their empirical challenges, their strategies and findings.

## Question 5

Describe 1-2 additional pieces of data that would allow you to assess Figure 1 in light of the previously discussed theories. You may either add 1-2 tables or graphs (be sure to carefully read the requirements stated in "Practical Information" on page 2), or describe what type of data you would like to have to explore implications of the theory. In the second case, give a precise expectation on the basis of prior knowledge, empirical and theoretical. Choose data that is relevant: does it support the theory as an explanation of the observed gaps? Or would it indicate that the theory is not a prime explanation? Does it help us understand the topic in a more nuanced way? Discuss the data in relation to the theory and the course material.

(If necessary, you may draw on data from policy briefs presented during the course, but you should acknowledge the source, and provide independent analysis. Mere repetition will not be sufficient, and you are encouraged to extend the analysis with new data or interpretation angles.)