Women’s position in poor societies has attracted increasing attention in recent years, reflecting both a concern for women’s own welfare and a recognition that better opportunities for women often generate wider social and economic benefits.1 But we still know very little about women in one important group of preindustrial societies, those that experienced the “second serfdom.” This is the name historians give to the enormous growth in the institutional power of great landlords to regulate rural people’s economic, social, and demographic decisions, which occurred between about 1500 and 1750 throughout Eastern and Eastern Central Europe.2 Moreover, for few areas of preindustrial Europe, east or west, have prevailing hypotheses about the nature or causes of variations in women’s position been tested quantitatively. This study examines women’s position in one Eastern Central European society—Bohemia, now part of the Czech Republic—between the late fourteenth and mid-eighteenth centuries. It identifies a quantitative measure of women’s opportunities that is comparable across communities,
societies, and time periods, and uses it to test prevailing hypotheses about the effect on women of different economic and institutional characteristics of poor economies.

Broadly speaking, hypotheses about women's economic position in pre-industrial Europe fall into two main groups. "Technological" explanations regard women's position as determined by their relative productivity in different economic activities, arising from their reproductive roles and physical attributes. Childbearing and relatively slight build are held to have reduced female productivity in activities (such as arable cultivation) requiring spatial separation from the home and upper-body strength. Conversely, female productivity is supposed to have been higher in activities (such as pastoral agriculture, cottage industry, services, and petty trading) that required dexterity instead of strength, and could be more easily combined with household tasks. Where the prevalent economic activities were those in which female labor productivity was high relative to male, female independence is supposed to have been greater.3

"Institutional" explanations, by contrast, regard women's position as determined chiefly by social rules and standards. The most widely held version regards economic development, both in today's poor countries and in the European past, as involving a transition from subsistence production in a traditional framework of feudal, communal, and corporate institutions (the "family economy") to commercial production within the "market economy." According to this view, the growth of the market economy reduced women's economic opportunities compared to their relatively advantageous position under the traditional institutions surrounding the "family economy." This argument that women's position declined with the growth of markets necessarily implies that the traditional institutions that markets displaced were more favorable to women. A number of studies go so far as to state explicitly that traditional economic institutions were more favorable to women than "capitalist," "commercial," or "market" institutions. Alice Clark argues that the "family economy" of medieval English village communities and craft guilds was favorable to women, whereas the "individualism" of "capitalist organization" diminished women's role after about 1600.4 Caroline Barron claims that traditional institutions such as guilds created a "golden age" for English women, one destroyed by the transition to markets: "women lost ground in the sixteenth century . . . which has still to be recovered."5 Susan Cahn argues that the replacement of traditional economic institutions by the "market system" in sixteenth-century England led to

3 Kriedte, Medick, and Schlumbohm, Industrialization, pp. 51, 56, 61–63, 70; Eder, Geschlechterproportion, pp. 124–28; for a thorough but skeptical survey see Mitterauer, "Als Adam grub."
5 Barron, "Golden Age," p. 49.
“women’s descent from paradise.”  Ivy Pinchbeck claims that in eighteenth-century England, market orientation harmed women’s previously favorable position under the traditional, subsistence-oriented organization of agriculture and the “domestic” and “guild” systems in industry. Bridget Hill concludes that when the “family economy,” operating within the framework of traditional economic institutions, was replaced by market-oriented agriculture in eighteenth-century England, “there seems little doubt that women lost out as far as opportunities for work are concerned.”

These views are not restricted to English history. In eighteenth-century Germany, according to Christina Vanja, the breakdown of the old manorial and communal regulation of agriculture, and its replacement by market-oriented wage labor and “professionalization,” reduced the economic and social valuation (though not the volume) of women’s work outside the home. In seventeenth- and eighteenth-century New England, Jeanne Boydston contends, the dissolution of the “dense social networks of the colonial village” and the replacement of communal regulation by market transaction devalued women’s work. A similarly rosy view is taken of women’s position under different economic institutions in premodern Eastern Europe. Barbara Engel argues that the communal institutions of the nineteenth-century Russian village, still operating under strong landlord control even after Emancipation, “protected and looked after women”; for all but the most marginal rural females, these were preferable to the “capitalist wage economy” of the town, which exploited females and “favoured men more commonly than women.” Thus “when she moved from village to city, the marriageable woman left behind a patriarchal way of life that . . . protected her from the vagaries of the marketplace . . . .” Jane McDermid likewise contrasts nineteenth-century Russian women’s exploited situation in urban capitalist production with their secure status under traditional rural institutions. Christine Worobec portrays nineteenth-century Russian peasant women as resisting the “individualism” of urban market society because traditional rural institutions, however oppressive, “compensated them, allowing them . . . to be actors in their society.”

A weakness of many works in this tradition is that they focus on economies already characterized by market activity, and merely assume the existence, prior to the period under study, of a “golden age” characterized

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6 Cahn, Industry, pp. 9 (quotation), 19–23.
8 Hill, Women, p. 263.
9 Vanja, “Zwischen Verdrängung.”
11 Engel, Between the Fields, pp. 239, 241.
12 Engel, quoted in Worobec, Peasant Russia, p. 145.
14 Worobec, Peasant Russia, pp. 13, 204.
by less market activity and more female autonomy. In recent years, a
more skeptical light has been cast on this nostalgic view by closer atten-
tion to how traditional, premarket institutions actually affected women’s
work and independence; this skepticism is borne out by evidence in the
present study.15

Early modern Bohemia provides an excellent context in which to test both
the “technological” and “institutional” hypotheses. There was considerable
economic variation across Bohemian rural communities after about 1550,
with some concentrating on arable cultivation, others on animal husbandry,
and others on rural industry and supplying urban markets. Institutions also
varied, with different villages and estates characterized by a different bal-
ance of power between markets, landlords, and peasant communes. Finally,
there was change over time, with the advance of the “second serfdom.”
Regional studies provide rich evidence that during the early modern period
Bohemian landlords expanded demesne operations, increased labor rents and
extended them to the rural substrata of smallholders and cottagers, levied
new dues on protoindustry, set up market monopolies, regulated demo-
graphic choices, and curtailed serfs’ legal rights.16 Aspects of communal
village administration were also strengthened, to ensure effective local en-
forcement of this heightened manorial pressure.17 The precise timing is
debated, some claiming that Bohemia followed a Western trajectory until the
Thirty Years’ War (1618–1648), while others argue that the decisive growth
in landlord power took place during the sixteenth century or even earlier, as
elsewhere in Eastern Europe. Recent research supports this latter view.18

This article uses data for preindustrial Bohemia to explore women’s posi-
tion and the factors influencing it during this period. We first posit that in
early modern Europe the incidence of households headed by women was a
positive indicator of their economic and social position. Data are presented
on female headship for Bohemia between 1381 and 1722, and compared
with a dataset compiled for other European societies between 1400 and
1900. We then describe a unique and extraordinarily rich database covering
65 Bohemian villages between 1591 and 1722, and identify a set of hypothe-
ses about the factors affecting female opportunities in poor economies that
can be tested using these data. We then specify a regression model of the
determinants of female headship, and compare the resulting estimates

(on guilds); Quataert, “Shaping”; and Glickman, Russian Factory Women, for instance p. 56.
16 Hroch and Petráň, 17. Jahrhundert; Klima, Economy; Cerman, “Gutsherrschaft”; and Cerman,
“Proto-industrialisierung,” pp. 81–149.
17 Ogilvie, “Staat.”
18 For the former view, see Hroch and Petráň, 17. Jahrhundert. For a survey of both views, Maur,
“Vrchnosti.” On the estates of Frýdlant and Liberec see Cerman, “Proto-industrialisierung,”
against the hypotheses. Finally, we explore manorial court records for direct evidence of the social pressures underlying our statistical findings.

HEADSHIP AS A MEASURE OF WOMEN’S POSITION

Before the advent of modern statistical records, women’s economic position was rarely, if ever, documented in a manner amenable to quantification. One exception is the proportion of women recorded as household “heads.” To begin, we must ask whether this statistic tells us anything interesting. It could be argued that female headship reflected not socioeconomic opportunity but demographic accident: the woman’s lack, or loss, of a husband. But this ignores what we know from censuses and ethnographic studies. In preindustrial Europe, including Bohemia, a woman without a husband had several options. She could marry, or remarry. She could live with her parents. She could be a live-in servant. She could dwell as kin in a household headed by relatives. She could lodge as an inmate in a household of relatives or nonrelatives. She could enter a hospital, poorhouse, or other institution. Or she could maintain her own household. On the Bohemian estates of Frydlant and Liberec in 1651, for instance, there were 407 rural widows, of whom 1.5 percent lived in their parents’ households, 2.5 percent worked as servants, 5 percent lived as coresident kin, 60 percent lived as inmates in households headed by kin or nonkin, and 30 percent headed their own households.19 That is, the demographic event of losing (or lacking) a husband made a female-headed household possible; whether this possibility was realized depended on other factors.

But did a high female headship rate mean that women’s position was good or bad? Or, to put the question differently, would a development that improved women’s position have increased or decreased female headship? The literature harbors two schools of thought on this question. One argues that an improved economic and social position made women more attractive as marriage partners (or as other dependent household workers such as daughters, maidservants, resident relatives, or inmates), reducing the number left to head their own households. The other argues that improved economic and social opportunities expanded women’s nonhousehold options, diminishing the attractiveness of marriage and other dependent household roles, and increasing female headship.20 The former view ignores female agency; the latter, male. Economic theory suggests that both forces should have operated: a factor that improved women’s position would have increased the demand for women as marriage partners or household workers but, by improving women’s outside options, would also have reduced the supply.

19 Authors’ calculations from SÚA SPPV, Herrschaft Frydlant and Herrschaft Liberec, as recorded in machine-readable form in WDEF/SSB.

20 On these differing views of widow remarriage, see Boulton, “London Widowhood”; McIntosh, Urban Decline, pp. 148–57; and Todd, “Demographic Determinism.”
Whether the demand or the supply effect predominated is theoretically indeterminate, and can only be resolved empirically.

Empirical findings do cast some light on this question. For one thing, in certain preindustrial European societies—among them Bohemia, as we shall see—some women insisted on maintaining independent households in the face of pressure to enter dependency as a wife, daughter, maid, relative, or inmate. In societies such as medieval and early modern England, periods of rising demand for female labor have also been identified as ones in which women delayed or avoided marriage because of favorable outside options. Such findings demonstrate that supply decisions were important: female household heads were not simply those left behind once the demand for household dependents had been exhausted; they often chose this over other options.

A second set of findings, which applies throughout Europe, suggests that factors improving female productivity reduced the supply of wives and other female dependents more than it increased the male demand for them, and hence increased female headship. Towns, with their specialization in industry, commerce, and service activities, had a much more intense demand for female workers than did the countryside, as shown by strong female inmigration and much higher ratios of women to men, both among servants and in the urban population at large. In theory, the higher female productivity in the urban economy could have decreased female headship by increasing male demand for female household workers, or increased it by reducing the supply of women willing to marry or work in dependent positions. In practice, however, female headship was significantly higher in towns than in villages, implying that high female productivity affected women’s supply more than men’s demand. These considerations support the view that, for preindustrial Europe at least, female headship can be interpreted as a positive indicator of the extent to which women were able and willing to manage an independent household, and thus of female options more generally.

**FEMALE HEADSHIP IN BOHEMIA AND EUROPE**

A detailed comparative view of Bohemian households can be obtained from a 1651 religious census of some 400,000–500,000 people, about half the total population. A cooperative Czech-Austrian-British research project
has created a machine-readable database of this census for a sample of eight different estates, scattered throughout Bohemia and differing in ecological characteristics, economic specialization, history, and language. Together they encompassed more than 200 villages, comprising over 4,600 households and over 23,000 individuals. Concerns that the 1651 situation was atypical due to the Thirty Years' War, which had ended just a few years before, can be allayed through comparison with surviving censuses of 1585/86 and 1670–1704, and with family reconstitutions from the eighteenth century; these reveal long-term continuities, particularly with regard to marriage patterns and female headship rates. The 1651 census, the only one enabling comparisons across settlements and regions, therefore provides insight into Bohemian family patterns over the longer period of the "second serfdom" between the sixteenth and the mid-eighteenth century.

It is evident from the 1651 census that the Bohemian "holding" (Stelle) was occupied by a coresident group that corresponded to the standard definition of the "houseful" (head, spouse, offspring, other kin, servants, and inmates), as analyzed in studies of family forms in the European past. A distinctive characteristic was the high proportion of inmates: on the estates of Frydlant and Liberec, for instance, 28 percent of all housefuls contained inmates. Many inmates were related to the household head, with 26 percent sharing the head's surname, and some explicitly described as kin. As a result partly of the system of retirement contracts (výměnek, Ausgedinge), whereby the new owner of a holding provided lodging to the previous owner's family, about 18 percent of households contained groups of two or more inmates who were related to one another. However, as inmate groups were not distinguished from the main household in any way save by their internal relationships, were described using the same term as individual inmates (podruh, Hausgenosse), and were sometimes mixed in with unrelated individual inmates, kin, and servants, they cannot reliably be identified as separate households, and thus are not included in the calculation of female headship rates. This approach also ensures comparability with other European societies, where inmate groups, however numerous, are not conventionally counted as separate households.

The characteristics of female-headed households in Bohemia can be elucidated on the basis of a detailed analysis of the 65 villages belonging to the estates of Frydlant and Liberec. In 1651 the approximately 10,000 inhabitants of these estates lived in 2,172 households, only 6 percent of them headed by females. All female heads were widowed (or, in a few cases, deserted by their spouses), compared to only 3 percent of male heads. Unlike

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24 See especially Grulich and Zeithofer, "$\text{"}Lebensformen\text{"}$," pp. 28, 30–32, 42; and Cerman, "$\text{"}Bohemia\text{"}$," pp. 161, 164, 166, 168–69, and passim.

England, here no households were headed by spinsters (and only one by a bachelor). Not surprisingly, female-headed households were significantly smaller, but by less than a single person on average (mean household size of 3.8, compared to 4.7 for their male-headed counterparts), suggesting that the crucial difference was simply the loss of a spouse. In particular, there was no statistically significant difference between female- and male-headed households in the mean number of resident offspring (1.6 for female heads, 1.8 for male) or the proportion lacking offspring altogether (20 percent for female heads, 22 percent for male). Given that—as discussed in greater detail later—female heads were disproportionately drawn from the lower social strata, it is unsurprising that they had significantly fewer servants on average (0.17 to the male heads' 0.29), although the percentages lacking servants altogether did not differ significantly (87 percent for female heads, 81 percent for male ones). Female heads lived with coresident kin and in-mates to a significantly greater extent (36 percent to the male heads' 27 percent), and had significantly more of them (1.04 on average, compared to the male heads' 0.65). They also had inmate groups attached to their households significantly more frequently (29 percent of female-headed households, only 17 percent of male-headed ones). In summary, while females headed smaller households, this was mainly accounted for by the loss of a spouse: they had the same number of resident offspring as male heads, and compensated wholly for their lack of servants, and partly for their loss of a spouse, by living much more frequently with inmates and kin. Although there were significantly more "solitaries" among the female heads (13 percent to the male 1 percent), most of them had the labor supply of other household members to allocate, and their consumption needs to satisfy.

How prevalent were female-headed households in Bohemian rural society? Table 1 presents information on female headship for eight different estates at nine dates between 1381 and 1722. To examine such a long period, it is necessary to use not just censuses (which are available only for 1585/86 and 1651), but also manorial registers and tax cadasters. Are we justified

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26 In the discussion that follows, "significant" indicates a result significant at the 5 percent level in a test of differences between means or proportions.

27 The sources are: for 1381 (16 villages of Fryd'lanter estate), Hallwich, "Friedland," pp. 368–99; for 1560 Liberec estate, Gierach, "Das älteste Urbar" (original archival source SOA Liberec, AM Liberec, Kniha 64, fol. 11–25); for 1560 Fryd'lanter estate, SOA Děčín HS, Karton č. 12a; for 1591/92 Liberec estate, Hawelka, "Die Urbare" (original archival source SOA Děčín, HS, Karton č. 281); for 1591/92 Fryd'lanter estate, SOA Děčín, HS, Karton č. 12a; for 1651 (both estates) SÚA SPPV, Herrschaft Fryd'lanter and Herrschaft Liberec, as recorded in machine-readable form in WDEF/SSB; for 1654 (both estates) SÚA BR, as recorded in machine-readable form in WDEF/SSB; for 1677 Liberec estate, SÚA Praha, Revisitace Berní ruly 1677, as recorded in machine-readable form in WDEF/SSB; for 1677 Fryd'lanter estate, SOA Děčín, HS, Karton č. 478; for 1722 (both estates), SÚA Praha, TK, as recorded in machine-readable form in WDEF/SSB.
TABLE I
FEMALE HEADSHIP RATES IN VILLAGES ON EIGHT BOHEMIAN ESTATES, 1381–1722
(percentage of all households)

<table>
<thead>
<tr>
<th>Villages of the Estate of:</th>
<th>1381</th>
<th>1560</th>
<th>1586</th>
<th>1591</th>
<th>1592</th>
<th>1561</th>
<th>1654</th>
<th>1677</th>
<th>1722</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frýdlant mean</td>
<td>8.5</td>
<td>2.3</td>
<td>—</td>
<td>6.0</td>
<td>5.9</td>
<td>6.2</td>
<td>1.4</td>
<td>4.7</td>
<td>2.2</td>
</tr>
<tr>
<td>N</td>
<td>16</td>
<td>17</td>
<td>21</td>
<td>21</td>
<td>38</td>
<td>36</td>
<td>23</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>Liberec mean</td>
<td>—</td>
<td>4.0</td>
<td>2.9</td>
<td>2.9</td>
<td>5.2</td>
<td>2.5</td>
<td>3.1</td>
<td>4.4</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>22</td>
<td>24</td>
<td>24</td>
<td>27</td>
<td>27</td>
<td>26</td>
<td>27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Děčín mean</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.6</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>59</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poděbrady mean</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>5.4</td>
<td>—</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rychnov mean</td>
<td>—</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td>3.3</td>
<td>—</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Třeboň mean</td>
<td></td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.2</td>
</tr>
<tr>
<td>Chýnov mean</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>5.5</td>
<td>—</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>Vyšší Brod mean</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>0.0</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7</td>
</tr>
</tbody>
</table>

* The sample consists of seven Gerichte, each containing several villages.

Sources: Třeboň and Vyšší Brod from Grulich and Zeitlhofer, “Lebensformen,” table 17; otherwise authors’ calculations from documents cited in the text.

in regarding these diverse sources as comparable? A first reason for doing so is the fact that in Bohemia the “holding” was simultaneously the unit of residence, of manorial exaction, and of state taxation, and hence each of these sources records, for each village, every holding by the name and social stratum of its head. A test of whether the state tax cadasters recorded the same unit as the census is provided by the procedure of record-linkage between the 1651 census and the 1654 cadaster for the estates of Frýdlant and Liberec, which finds that virtually all households listed in 1651 were recorded as holdings in 1654, save for those abandoned by emigrants, which were marked as “deserted”; the cadasters of 1677 and 1722 followed identical conventions to that of 1654.28 Comparison of the number of holdings of each social stratum in particular villages over time, moreover, provides grounds for regarding the definition of the “holding” in the manorial lists of 1591 and 1592 as very close to that in the later state tax cadasters.29 Finally, as can be seen from Table 1 itself, the female headship rates derived from these diverse sources are remarkably similar, providing further support for viewing the sources as comparable.

28 On the comparability of the cadasters with the 1651 census, see Cerman, “Bohemia,” especially p. 153; for detailed discussion of the sources, see Cerman, “Proto-industrialisierung,” pp. 169–83.
29 As in Cerman, “Proto-industrialisierung,” pp. 188–325.
The most striking feature of the findings for these eight Bohemian estates is that female headship was very rare on average, and hardly varied across estates or time periods. Although individual villages might have had female headship rates as high as 50 percent, the average for entire estates (the unit of analysis in Table 1) was always much lower, and at any one time between 33 and 100 percent of all villages contained no female heads. In no estate did the mean female headship rate exceed 9 percent during the three-and-a-half centuries covered by all the lists, or 8 percent for the 162 years of the early modern period.30

This raises the question whether these low rates reflect a small number of very long-lasting female-headed households, or a larger number of shorter duration. Preindustrial sources are almost invariably cross-sectional in nature, and thus do not enable us to calculate the persistence of female households over time. However, demographic and epidemiological analysis of current-status data has shown that there is a stable proportional relationship between cross-sectional prevalence and average duration, and that in many situations the former is an excellent predictor of the latter.31 This is confirmed to some degree by Hermann Zeitlhofer’s detailed micro-study of the south Bohemian parish of Kaplicky, which finds that in 1651 female-headed households were very rare, and that in the first decade of the eighteenth century they were extremely short-lived.32 These considerations suggest that the low prevalence of female-headed households in our eight estates also reflected a short average duration.

How representative was the Bohemian situation of that in preindustrial Europe at large? In isolation, such low percentages may seem normal. A farm not headed by a married couple is often portrayed as unviable, whether in actuality or in peasant mentalities, as reflected in the German term *Rollenergänzungszwang* (the obligation that certain household niches always be filled).33 To test this hypothesis, we have compiled all available data on rural female headship rates across Europe, a total of 278 observations spanning the period 1427 to 1895, summarized by country and century in Table 2. These show that Bohemian female headship rates were extraordinarily low. Female headship rates varied widely across preindustrial European villages, between zero and about 45 percent, but the average lay between 13 and 18 percent in each of the five centuries. For the 147 European observations in the period covered by the Bohemian figures (1381–1722), the mean was 14.3 percent. At each date, 30 to 70 percent of the Bohemian

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30 The changing composition of the sample of villages over time does not affect these results.
<table>
<thead>
<tr>
<th>Country</th>
<th>Fifteenth Century</th>
<th>Sixteenth Century</th>
<th>Seventeenth Century</th>
<th>Eighteenth Century</th>
<th>Nineteenth Century</th>
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</thead>
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<td></td>
<td>N</td>
<td>mean</td>
<td>N</td>
<td>mean</td>
<td>N</td>
</tr>
<tr>
<td>Austria</td>
<td></td>
<td></td>
<td>7</td>
<td>3.6</td>
<td>8</td>
</tr>
<tr>
<td>Corsica</td>
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<td>1</td>
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<td>Denmark</td>
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<td></td>
<td>1</td>
</tr>
<tr>
<td>England</td>
<td></td>
<td>2</td>
<td>15.4</td>
<td>20</td>
<td>18.2</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
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<td></td>
<td>1</td>
<td>17.7</td>
<td>5</td>
<td>14.7</td>
</tr>
<tr>
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<td>19</td>
<td>10.0</td>
<td>1</td>
<td>14.7</td>
</tr>
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<td>3</td>
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<td></td>
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<tr>
<td>Portugal</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Russia</td>
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<td>Scotland</td>
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<td></td>
<td></td>
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<tr>
<td>Spain</td>
<td>2</td>
<td>21.0</td>
<td>16c</td>
<td>20.0</td>
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<tr>
<td>Wales</td>
<td></td>
<td></td>
<td></td>
<td>30</td>
<td>15.3</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>17.5</td>
<td>41</td>
<td>13.5</td>
<td>62</td>
</tr>
</tbody>
</table>

*Aggregated across 26 rural parishes, 1787–1801.*

*Consists of three observations of Mishino estate (4 villages), nine of Manuilovskoe estate (9 villages), and one of Pokrovskoe estate (unknown number of villages).*

*Each observation consists of a sample of between 7 and 14 villages.*

*Note: Unless otherwise noted, all observations are of individual rural settlements.*


villages contained no female heads, compared to only 2 percent of villages elsewhere in Europe over the whole period.* Bohemian female headship rates were not untypical of Eastern Central Europe, as shown by the figures for Hungary, Austria, and Serbia; but these were distinctly on the low end of the European spectrum. Moreover, the rates for Hungary and Austria increased over the early modern period, while those for Bohemia decreased.

*These were three Kentish mining hamlets in 1705; see CAMPOP B(B) 12, 14.1. Only about 10 percent of European villages had rates below 5 percent.*
What factors determined the rates of female headship observed in Bohemian villages? An exceptionally detailed database compiled for the north Bohemian estates of Frýdlant and Liberec for the period 1591–1722 allows us to investigate this question statistically. This database consists of quantitative information on a wide array of economic, geographical, institutional, demographic, and social-structural characteristics of 65 villages for the four years 1591, 1651, 1654, and 1722. It is exceptional in at least four respects. First, it covers a large cross-section of villages at each date, making it possible not just to describe individual villages but to explore differences among them. Second, these four dates span a 131-year period, during which the "second serfdom" is viewed as having made its greatest inroads into Bohemian society; the data thus hold out some hope of identifying the effects of this historical process. Third, it combines demographic with socioeconomic and institutional variables, making it possible not just to describe familial and demographic behavior, but to examine explanations of it. Finally, detailed census information is available on these villages for one of the observation points—1651—enabling us to check fiscal and manorial records of female headship against actual residence patterns. For no other preindustrial European society of which we are aware does there exist a database with these characteristics, ones which enable us to investigate the determinants of variations in female headship rates among communities and across time.

To analyze the influences on female headship using this database, it is necessary to formulate a general model of the determinants of female economic independence in poor societies, one that can be tested using the Bohemian data. Although no general theory of the determinants of female headship has ever been proposed, various hypotheses have been advanced about factors that increased or decreased female economic independence in preindustrial European societies. Hence a testable general model can be distilled from the literature.

A first set of explanations advanced in the literature focuses on endogenous demographic variables: female headship is high because the marriage rate is low (increasing spinsterhood), because the remarriage rate is low (increasing widowhood), because the age gap between spouses is wide (prolonging female widowhood), because the household system frowns upon extended families and inmates (so widows tend to live alone), because there are large numbers of coresident offspring of working age (compensating for loss of spousal labor), or because there is excess male emigration (reducing women's marriage and remarriage prospects). But marriage, remarriage,
spouse’s age, residence, and migration are not exogenous influences on female headship. Rather, they are the results of choices made (subject to exogenous constraints) by women and men, just as female headship is: they are endogenous rather than exogenous variables. Therefore, these variables do not belong in a general model of female headship, unless one is ready to attempt the highly problematic exercise of trying to estimate a system of simultaneous equations to explain all of them at once.

Turning to genuinely exogenous explanations of female headship, one demographic variable remains: mortality. Female headship may be higher if overall mortality is low, increasing the number of older women from whom female heads may be predominantly recruited. Elderly persons (over age 60) were certainly fewer in Bohemia in 1585/86 and 1651 than elsewhere in preindustrial Europe, at less than 5 percent of the population compared to a typical 5 to 10 percent.\footnote{36 For Europe, see Ehmer, \textit{Sozialgeschichte}, pp. 205–06. For Bohemia, see Cerman, “Bohemia,” p. 154; and Grulich and Zeitlhofer, “Lebensformen,” table 3.} But it is not the case that all female household heads were elderly: on the estates of Frýdlant and Liberec, the youngest female heads were aged 29. More revealingly, the percentages of female household heads in each age group also appear to have been lower in Bohemia than in Western and Southern Europe.\footnote{37 Among women aged 15 and over, less than 4 percent on the estates of Frýdlant and Liberec in 1651, over 11 percent in nine preindustrial English parishes, and over 7 percent in an eighteenth-century Italian village. Among women aged 60 and over, 18 percent on these Bohemian estates, 35 percent in England, and 25 percent in Italy. See Wall, “Introduction,” pp. 37–39.} Thus Bohemia’s low rates of female headship cannot be ascribed to a lack of elderly women.

A second mortality-related argument has greater importance. Female headship may be higher if male mortality exceeds female mortality, either overall or within marriageable age groups. Unfortunately, since only fragmentary parish registers survive from before 1700, no information on gender-specific mortality is available for the estates of Frýdlant and Liberec. This variable cannot, therefore, be included in our testable model, and must be regarded as a component of the village- and period-specific fixed effects discussed in the next section.

“Technological” hypotheses hold that female independence was greater where the prevalent economic activities were those in which women’s labor productivity was high relative to men’s. As mentioned in the introduction, arable cultivation is regarded as unfavorable to women, because of its heavy physical demands and spatial incompatibility with household production. Conversely, pastoral agriculture is supposed to have favored women, since care of animals involved less heavy labor and less spatial separation from the dwelling.\footnote{38 Ånkarloo, “Agriculture”; but see the skeptical remarks in Mitterauer, “‘Als Adam grub’,” pp. 27–29.} Protoindustry is also regarded as having enhanced female labor

\footnote{36 For Europe, see Ehmer, \textit{Sozialgeschichte}, pp. 205–06. For Bohemia, see Cerman, “Bohemia,” p. 154; and Grulich and Zeitlhofer, “Lebensformen,” table 3.}

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\footnote{38 Ånkarloo, “Agriculture”; but see the skeptical remarks in Mitterauer, “‘Als Adam grub’,” pp. 27–29.}
productivity, because of its domestic location, its need for dexterity rather than strength, and the flexibility of combining it with other work. The last two characteristics also favored female productivity in small-scale trading and services, including laundry, sewing, processing and serving foodstuffs and beverages, and casual day-labor.

For the estates of Frydlant and Liberec, data are available on a number of measures of the dominant economic activities in each village. The two main ecological determinants of arable productivity in early modern Europe were altitude and soil quality. In our testable general model we therefore include the village’s mean altitude and the percentage of good and medium-quality land reported in 1722. Dependence on pastoralism is reflected in the ratio between pasture land and arable fields in 1722. The availability of two of these measures at only a single date is unfortunate, but even if the soil quality and pastoral-arable ratio changed over time (for example, as a result of soil exhaustion or price changes), it seems reasonable to assume that differences among villages at any one time reflected stable underlying differences in resource endowments.

The effect of protoindustry on women would ideally be measured by spinning, in which female labor usually predominated. Unfortunately no spinning figures survive from before the mid-eighteenth century, but the number of linen-weaving holdings in each village was recorded in 1591/92, 1650, and 1722. We regard this as an acceptable proxy, for two reasons. First, in other European protoindustrial zones women comprised a nontrivial percentage of weavers. Second, given transport and transaction costs, women’s earnings in ancillary protoindustrial activities such as flax processing and spinning would probably have been greater in weaving villages.

Finally, women’s opportunities in small-scale trading and local services are likely to have been greater in larger villages with more differentiated patterns of demand (that is, in the ones more similar to small towns), so the model includes the number of holdings in the village. Such employments would also have emanated from urban markets, so the model includes the time required to walk from the village to the estate town, according to a nineteenth-century cosmography.

A third set of hypotheses about the influences on female economic independence are “institutional,” holding that women’s position is chiefly

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42 Weaver numbers for 1591 and 1722 derived from same documents as female headship; for 1651 and 1654, from separate list, SOA Děčín, HS, Karton č. 13 (1650).
43 In the Württemberg worsted industry, for instance, 17 percent of active weavers in the mid-eighteenth century were widows (Ogilvie, *State Corporatism*, p. 135).
44 Sommer, *Königreich*. 
determined by social constraints. As discussed in the introduction, the most widely held version of this view is that the growth of markets at the expense of traditional institutions reduces female economic independence. In most parts of Europe, women supposedly enjoyed greater economic autonomy and a higher social status when they worked within traditional corporate, communal, and manorial institutions than when they worked in the market. This view implies that those Bohemian villages and estates in which manorial and communal institutions more thoroughly regulated factor and product markets should have been characterized by greater female economic independence. Likewise, the Bohemian “second serfdom,” during which nascent rural markets were displaced by resurgent manorial institutions, should have been characterized by a rise in female economic independence.

For the estates of Frýdlant and Liberec, there is no way to measure differences in the strength of communal institutions across villages, but also no evidence suggesting that such differences existed. There were, however, three measurable respects in which the strength of manorial institutions may have varied among villages. Some villages had demesne farms, which implied not only the presence of a manorial official (the Vogt or demesne manager), but also greater incentives for manorial regulation of local labor and land markets. Second, some villages were fief-villages (Lehensdörfer), ruled by minor fief-nobles rather than directly by the Counts of Frýdlant, and hence subject to more intense manorial regulation of markets because of the local presence of the overlord. Third, the intensity of manorial regulation might have varied across estates, for example with the policies of different estate administrators: differences in personnel could matter, as shown by Steven Hoch’s study of a nineteenth-century Russian estate, where family fissions among serfs proliferated under one lax bailiff, but were strictly prevented by his predecessor and successor.

A final factor postulated as influencing female headship is social stratification: many studies have found that there were more female heads in lower social strata. Underlying this empirical association are four possible causal relationships, encompassing the “technological,” “institutional,” and “demographic” arguments. First, the “technological” view suggests that a large farm could not be efficiently farmed by a female head, who lacked the requisite strength, managerial skills, or complementary workers (and who was, presumably, unable to hire these on the labor market); smallholdings and cottager holdings, by contrast, could remain economically viable

45 For representative arguments to this effect, see notes 4–14 above.
46 Hoch, Serfdom, pp. 86–88 (with note 17), 156–57.
under female headship.\textsuperscript{48} Second, the “institutional” view argues that although larger holdings under female headship were economically viable, they were institutionally disadvantaged, either by markets or by communal and feudal authorities.\textsuperscript{49} Third, the “demographic” view argues that richer women were more attractive marriage partners, reducing their need to maintain independent households.\textsuperscript{50} Finally, the causation may be reversed, with female headship causing a previously richer farm or household to become poor (for example, because of family labor shortage or gender discrimination), rather than the poverty of the holding facilitating female headship.\textsuperscript{51}

The last two arguments can be excluded from consideration. The “demographic” view is simply a reprise of the notion that female headship is determined solely by men’s demand for wives; as discussed above, women’s supply also mattered, and richer women had better outside options, leaving the outcome indeterminate. For Bohemia, the fourth explanation can also be excluded, since the social stratum of a serf holding was defined exogenously, in terms of its land area (which was indivisible) and its fiscal and feudal liabilities. At the top were the “peasants” (Bauern), who held enough arable land to live entirely from farming, owed the highest feudal dues and state taxes, and had to perform labor services with draft animals. Beneath them was a stratum of smallholders (Gärtner), who held some arable land but not enough to subsist on, owed lower dues and taxes, and rendered labor services by hand. The meanest independent holdings were those of cottagers (Häusler), who held only their own cottages on the commons, owed some dues and taxes, and had to perform sporadic labor services on demand. Since social stratum in rural Bohemia was defined in terms of the arable area and fiscal liabilities of the landholding, not the personal characteristics (such as sex) of the holder, it was exogenous to female headship. We therefore include in our model the percentage of smallholders and cottagers in the village. This does not resolve the issue of whether any effect of social stratum on female headship emanated from “technological” or “institutional” sources. However, the qualitative data discussed in the last section of the article cast light on this question.

ECONOMETRIC ANALYSIS

Using these hypothesized influences on female headship distilled from the literature we now construct a regression model, with the percentage of fe-

\textsuperscript{50} The mixed evidence on this issue is discussed in Boulton, “London Widowhood”; and Todd, “Remarrying Widow.”
\textsuperscript{51} McIntosh, Urban Decline, pp. 28, 53–57, 268–69 (note 47).
male heads in the village in a particular year as the dependent variable, and
ten explanatory variables: the percentage of good- and medium-quality land;
the mean altitude; the pastoral-arable ratio; the percentage of linen-weavers;
walking-time to the town; the number of holdings or households; the pres-
ence of a demesne farm; present or former status as a fief-village; the estate
(Frydlant or Liberec); and the percentage of smallholders and cottagers
(whom we shall term collectively the "rural substrata").

From the database described above, it has proved possible to obtain
complete information on all regression variables for 44 villages in 1591,
50 villages in 1651 and 1654, and 63 villages in 1722, yielding a total of
207 observations. The data available to estimate the model therefore take
the form of an unbalanced panel. Because the dependent variable is by
definition bounded between zero and 100 percent, it is appropriate to esti-
mate a Tobit regression model by maximum likelihood. Of the 207 obser-
vations, 84 include no female-headed households; thus the feature of our
data requiring a Tobit model is the left-censoring of the dependent variable
at zero.52 Since six of the explanatory variables do not vary within villages
across time, the general regression model cannot be estimated using the
fixed-effects estimator for panel-data models. When the random-effects
estimator is used, the estimated variance of the village-specific disturbance
terms is negative, suggesting that the random-effects specification is inap-
propriate.53 As neither of these two standard specifications for a model to
be estimated on panel data can be used, the general model is estimated on
the full panel, with interactive variables included to test whether the effect
of each explanatory variable on female headship was constant over time.
The interactive variables are created by multiplying each explanatory
variable by three different dummy variables relating to three of the years
in which the variable was observed (1651, 1654, and 1722). These three
dummies are themselves included, to allow for possible shifts over time in
the intercept of the regression model. Columns 1 and 2 of Table 3 report
the results obtained using this method of estimation after the imposition of
a number of zero restrictions on the general model, which results in the
exclusion of seven of the ten explanatory variables (and the corresponding
interactive variables), as well as the three shift dummy variables. The zero
restrictions which result in the model in Table 3 are acceptable at the 5
percent level, according to a Wald test.

It is often at least as useful to reject hypotheses as to accept them. For this
reason, some of the most informative results from our econometric analysis
relate to those variables that were excluded from the model because they did

52 The highest value of the dependent variable is 20.69 percent. An OLS regression produces coeffi-
cient estimates (available on request) very close to the marginal effects estimated from the Tobit model.
<table>
<thead>
<tr>
<th>Regression Results</th>
<th>Implied Relationship¹</th>
</tr>
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<tbody>
<tr>
<td><strong>Intercept</strong></td>
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<tr>
<td><strong>PSUB</strong></td>
<td>0.162 (0.044)</td>
</tr>
<tr>
<td><strong>PSUB * YR1651</strong></td>
<td>-0.101 (0.050)</td>
</tr>
<tr>
<td><strong>PSUB * YR1654</strong></td>
<td>-0.153 (0.049)</td>
</tr>
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<td><strong>PSUB * YR1722</strong></td>
<td>-0.123 (0.046)</td>
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<tr>
<td><strong>ESTATE</strong></td>
<td>2.020 (2.173)</td>
</tr>
<tr>
<td><strong>ESTATE * YR1651</strong></td>
<td>-1.232 (2.697)</td>
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<tr>
<td><strong>ESTATE * YR1654</strong></td>
<td>-6.212 (2.912)</td>
</tr>
<tr>
<td><strong>ESTATE * YR1722</strong></td>
<td>-4.848 (2.633)</td>
</tr>
<tr>
<td><strong>DISTANCE</strong></td>
<td>-3.223 (1.043)</td>
</tr>
<tr>
<td><strong>DISTANCE * YR1651</strong></td>
<td>3.230 (1.316)</td>
</tr>
<tr>
<td><strong>DISTANCE * YR1654</strong></td>
<td>2.019 (1.570)</td>
</tr>
<tr>
<td><strong>DISTANCE * YR1722</strong></td>
<td>2.966 (1.337)</td>
</tr>
</tbody>
</table>

| N                | 207                  |
| Log-likelihood   | -429.148             |
| Pseudo-\(R^2\)   | 0.0774               |
| Scale factor for marginal effects | 0.628 |

* = Significant at the 10 percent level.
** = Significant at the 5 percent level.
*** = Significant at the 1 percent level.

\(PSUB\) = Percentage of smallholdings and cottage holdings (the “rural substrata”).

\(ESTATE\) = Estate (Frýdlant = 1, Liberec = 0).

\(DISTANCE\) = Hours walk from town.

\(PSUB * YR1651\) = interaction term between percent “rural substrata” holdings and 1651 dummy; other interaction terms follow same convention.

¹ As implied by the Tobit regression reported in Columns 1 and 2. The effect of the percentage of rural substrata in 1591, for instance, is given by the coefficient of \(PSUB\) in Column 2, while the effect of the percentage of rural substrata in 1651 is given by the sum of the coefficients of \(PSUB\) and \(PSUB * YR1651\) in Column 2. The significance of the effects in Column 3 results from a Wald test of the restriction that the coefficient sum was zero.

Sources: See the text.
not have any statistically significant effect, despite being widely theorized as influencing female economic independence. Five of the six “technological” variables included in the general model were rejected on these grounds. Women’s low productivity in arable agriculture did not reduce female headship in Bohemia, since a village’s soil quality and its altitude had no effect. Nor did pastoral agriculture or protoindustry apparently create opportunities for female independence, since neither the pastoral-arable ratio nor the share of households weaving linen had any significant impact. This is particularly striking given that in some villages one household in three paid a manorial licence fee for weaving linen in 1591, rising to two households in three in 1650 and 1722. Larger villages surely resembled towns in having more differentiated patterns of demand, but there is no evidence that this facilitated female headship there. It should be stressed that these “technological” factors may indeed have affected female labor productivity; but if so, then the more productive women remained in dependent household roles (as wives, daughters, maids, kin, and inmates) rather than, as in towns throughout Europe (including Bohemia), taking advantage of their wider options to maintain independent households. The fact that these 65 Bohemian villages varied so widely in their economic characteristics (which were exceptionally well-recorded by preindustrial standards), and yet almost none of these characteristics affected female headship, suggests that other factors were at work in Bohemian rural society which prevented higher female productivity from giving rise to more female-headed households.

Only one “technological” characteristic significantly affected female headship, and then only in 1591. As can be seen from Column 3 of Table 3, proximity to a town increased female headship in 1591, a result consistent with the theoretical prediction that opportunities in small-scale trading and services, in which women were relatively productive, were greater in villages located closer to urban markets, with their pool of richer customers and their more differentiated patterns of demand. This effect was quite large, especially relative to the low overall female headship rate: computed at the sample means, the marginal effect of a village’s being one hour’s walk nearer to the town was that its female headship rate was two percentage points higher. But the estimated effects of distance on female headship in 1651, 1654, and 1722 were not significantly different from zero. This finding suggests that while in the sixteenth century influences emanating from the towns into the surrounding countryside created openings for female economic independence, pressures at work in seventeenth-century Bohemian society eventually closed these opportunities.

The nine towns located on the eight Bohemian estates represented in Table 1 averaged about 10 percent female heads; a compilation of European towns analogous to the rural compilation in Table 2 averaged about 20 percent female heads.
Village social structure, a second variable affecting female headship, may be interpreted as either “technological” or “institutional.” As shown in Column 3 of Table 3, the estimated effect of the percentage of smallholders and cottagers (the rural substrata) on female headship is positive and significantly different from zero at conventional levels for 1591 and 1651; it is not significantly different from zero for 1654; and it is significant only at the 8.4 percent level for 1722. On the whole, the positive estimated effect for three of the four years of observation suggests that a greater predominance of the rural substrata structure did encourage higher female headship in Bohemian villages, although we do not know whether this was because female heads were more economically viable on smallholdings and cottager holdings, or because they were less subject to institutional pressures there. Furthermore, although a predominance of rural substrata did significantly encourage female headship in 1651 and 1722, the size of its effect was significantly smaller than in 1591. This suggests that the openings created for female headship by a larger rural substratum, as by proximity to towns, declined between the late sixteenth and the early eighteenth centuries. Possible reasons for this are revealed by the qualitative evidence discussed later.

The econometric estimation also sheds useful light—both negative and positive—on “institutional” explanations for female economic independence, at least as they apply to Bohemia. One “institutional” hypothesis is rejected by the regression results: that villages with demesne farms or administered by fief-nobles, and hence with stronger manorial institutions regulating the allocation of land and labor, created a “traditional” or “non-market” institutional environment in which female headship flourished. It may still be the case that such villages were characterized less by the “market economy” and more by the “traditional economy,” but this did not create significant openings for female economic independence.

The third “institutional” variable, the feudal estate to which the village was subject, did have an impact on female headship. As shown in Column 3 of Table 3, its effect was not significantly different from zero in 1591 or 1651, but was negative and significantly different from zero at conventional levels in 1654, and at the 5.6 percent level in 1722. The effect was also quite large: computed at the sample means, female headship was approximately two percentage points lower in 1654 and 1722 if a village was subject to the estate of Frýdlant rather than Liberec. Interpreting this finding is not straightforward, especially since the variable sprang to significance in the three-year gap between 1651 and 1654. The difference between the two estates was not caused by village characteristics included in the general model, since these are controlled for in the regression. It may reside in unmeasured ecological, socioeconomic, or demographic characteristics (such as gender-specific mortality) excluded from the model. It may also be linked
to differences in manorial administration since the two estates, though owned by the same landlord, were run by different officials. The most likely explanation, however, is that ESTATE suddenly became important between 1651 and 1654 because the mass emigration of those years created unprecedented administrative and fiscal challenges for overlords, to which different manorial officials devised differing responses. Any adult reported as non-Catholic in the 1651 religious census was ordered to convert or leave the country. The resulting emigration (estimated at 15 percent of the Bohemian population) affected our two estates differently: by 1654, half of all Frýdlant holdings lay abandoned, compared to only 7 percent of Liberec holdings. As late as 1722, Frýdlant still had more abandoned holdings than Liberec. Although one might expect abandonment to open more positions for women, as in other European societies during demographic crises, here it was the opposite: controlling for other village characteristics, the share of deserted holdings in a village in 1654 was negatively related to its female headship rate.55 The Liberec administrators may have been more liberal toward female heads because they regarded their less devastated villages as better able (or perhaps more willing) to bear the fiscal risks of having households headed by women—who, as we shall see in the next section, were not regarded as “full holders.” Whatever the underlying cause, subjection to one estate rather than another emerges as a major determinant of female headship in these Bohemian villages after 1651, even as proximity to town and the predominance of rural substrata were affecting it less.

The effect of proximity to the town disappeared after 1591, the effect of larger rural substrata declined after 1591, and the effect of estate emerged only after 1651. This raises the possibility of change over time, an important question given the “institutional” hypothesis that a transition from “traditional” to “market” institutions pushes women out of independent positions and back into domestic dependency. The period from 1591 to 1722 encompasses much of the Bohemian “second serfdom,” during which nascent rural markets were displaced by resurgent manorial institutions. If the “institutional” hypothesis is correct, one would expect this period to have been characterized by a resurgence in the female economic independence that nascent markets had begun to crush. Did female headship rates in these Bohemian villages change over time, independently of any changes in the explanatory variables? This question may be addressed by estimating a Tobit regression model with fixed village- and time-effects. Such a specification has the incidental advantage that, to the extent that there were village- or

55 A Tobit regression of female headship in the 50 villages observed in 1654, on all ten variables used in the analysis for Table 3 plus the percentage of abandoned holdings, yields an estimated coefficient on the percentage of abandoned holdings of −0.288 (with a t-statistic of −2.048, indicating significance at the 5 percent level).
time-specific effects on female headship that we have wrongly omitted from
the regression model because we cannot measure them (gender-specific
mortality, for instance), it will provide better estimates of the effects of those
variables which were included and which vary within villages across time.
The estimates of the effects of these variables resulting from this specifi-
cation are very similar to those provided by the previous estimation procedure,
suggesting that there is no omitted-variable bias in these estimates.56 Fur-
thermore, this specification yields estimated time-specific effects for 1654
and 1722 that are significantly smaller than those for 1591 and 1651, indi-
cating that female headship was lower after 1651 than before, for reasons
independent of the village characteristics included as explanatory variables
in the regression analysis. This result flatly contradicts the most widely held
"institutional" hypothesis, according to which women had better economic
opportunities under traditional than under market institutions. In Bohemia,
the period during which market institutions contracted and traditional insti-
tutions recovered their strength was characterized by a fall, not a rise, in
female economic independence.

Our econometric findings can be summarized as follows. There is no
evidence that female headship in rural northern Bohemia between the late
sixteenth and the early eighteenth centuries was affected by most of the
"technological" factors generally regarded as influencing women’s eco-
nomic independence in preindustrial Europe. Proximity to urban markets
does appear to have created opportunities for female independence in 1591,
but these opportunities disappeared thereafter. A larger rural substratum did
increase female headship (whether for technological or institutional rea-
sons), although its effect diminished between 1591 and 1722. In the same
period, for reasons which are not (yet) wholly clear, subjection to one feudal
estate rather than another emerged as an important influence on female
headship. Finally, for reasons unrelated to other measurable village charac-
teristics, the incidence of female-headed households declined over the period
associated with the most important set of institutional changes to affect early
modern Eastern Europe, namely the replacement of markets by strong manor-
rial institutions under the "second serfdom."

SOCIAL PRESSURES ON FEMALE HEADSHIP

The quantitative findings make a circumstantial case that the advance of
the "second serfdom" was associated with a decline in female headship and
may therefore have adversely affected women’s economic position in rural
Bohemia. But what were the precise conduits by which the growth in manor-
rial power and communal regulation could have influenced female headship?

56 Results available on request.
Qualitative sources can provide direct evidence bearing on this question. Although Bohemian village courts kept no records other than land transfers, the next higher jurisdiction, the manorial court (Amt), often did. Surviving records from the Amt of Frýdlant, for example, which cover scattered periods between 1583 and 1692, reveal that manorial officials regarded female heads as likely to default on rents, labor services, and state taxes (which landlords were responsible for collecting), and to reduce future rents by incurring debts and neglecting farm maintenance. In 1604, for instance, a widow in Horní Višňová (Oberweigsdorf) who claimed “that she had been keeping the farm in her children’s best interests until she could provide for her children” was ordered to “provide the farm with a capable holder [tüchtigen Wirt], sell it, or marry off the daughter, within a year and a day.” A year later, she was “granted as a favor in the manorial court, that she may retain her farm, on condition of no ruination to the fields, pastures and woods, for her eldest daughter, until the latter is betrothed, either until Whit-sun or at latest until Martinsmas this year.” In 1606, a widow from Bílý Potok (Weißbach) was granted permission to retain her cottager holding until she remarried, “in the best interests of the children,” but was threatened with penalties “if in the meantime she shall reduce anything on the holding or incur more debts.” In 1609, a peasant’s deserted wife tried to contract privately with neighbors to sow her barley and herd her cows, but the manorial court ordered that “the village elders shall look out for a good holder [guten Wirt] and a young man, and set him into the farm so that it may be maintained in a cultivable state . . . the horses shall remain with the village court so that the pastor’s labor rents may be rendered.” In 1685, the court ordered a widow in Heřmanice (Hermsdorf) to pay all feudal dues and military contributions, or else her cottager holding “shall be sold and a full holder [volliger Wirt] be secured for it.” Even a woman of the local fief-nobility had to petition the manorial court in 1650 to be “granted the favor of being allowed to cultivate and set right the farm of Tschernhausen”; although she promised to import cattle and not diminish the arable fields, the court ordered that a male purchaser (Kaufmann) be found within six weeks “to prevent further complete ruination of the fief and the interests the overlord has resting on it.” Manorial officials thus sought to replace female heads because they did not regard them as “capable,” “good,” or “full” holders. Whether they were justified in taking this view is a question we shall discuss shortly.

57 SOA Děčín, HS, Karton č. 77, 6 Mar. 1604, fol. 4v–5r.
58 SOA Děčín, HS, Karton č. 77, 26 Mar. 1605, fol. 29v.
59 SOA Děčín, HS, Karton č. 77, 18 Apr. 1606, fol. 45r.
60 SOA Děčín, HS, Karton č. 77, 5 Nov. 1609, fol. 15r.
61 SOA Děčín, HS, 2. část, pobátky (Frýdlant) č. 11, 8 May 1685, fol. 10v.
62 SOA Děčín, HS, Karton č. 79, 15 Nov. 1650, fol. 9v–10r.
To get rid of female heads, the landlord’s officials made a practice not only of ordering them to sell up or marry, but also of intervening in the terms of land transfers. Among these were retirement contracts, important pieces of property in their own right, which affected the price of the holdings to which they were attached and which changed hands for substantial sums. In October 1650, for instance, the manorial court ordered that a retired peasant widow in Raspenava (Raspenau) should henceforth be allowed to use only one field and a small excess plot, while “the remainder of the retirement contract shall be altogether abolished.” The explicit purpose was to enable her widowed daughter-in-law “the sooner to secure a [male] purchaser for the farm.”

Careful reading of the records, however, suggests that straightforward profit-maximization was not the only motive behind landlord pressure on women heading households. In many cases, female heads were reported to the court by village elders, who sought to manipulate seigneurial decisions for their own ends. That is, the landlord’s power to dissolve serf households and intervene in land transfers opened up the prospect of economic rents for various third parties, and hence created an incentive to engage in rent-seeking by persuading the manorial officials that a female-headed household was harming seigneurial interests. In 1645, for instance, one Hanß Hübner’s widow complained that “the community wanted to sell her farm for 6 Schock”; the manorial officials accepted the decision of the village court, despite the revelation that the proposed male purchaser was so poor that the community would have to grant him a year’s freedom from taxes and manorial burdens. In 1685, the “village court and community” of Heřmanice (Hermsdorf) complained to the Frýdlant manorial court that Anna, Jacob Schmied’s widow; “wishes to pay very little from her cottager holding on the commons.” The estate captain ordered that if she failed to pay up, “the holding shall be sold and a full holder obtained for it.” That same year, the village of Horní Řasnice (Bernsdorf) reported Rosina, Hans March’s widow, for fornication with another villager; the court ordered that “Hans Apelt with his wife shall move into the cottage with his daughter, the said Rosina, in order to prevent further whoring.”

From the perspective of the better-off males who dominated community offices, it was never advantageous for their village to contain independent female heads-of-household, whom they regarded as poor and sexually unruly. This was the case throughout preindustrial Europe; the difference in societies under the “second serfdom,” such as Bohemia, was that institu-

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64 SOA Děčín, HS, Karton č. 79, 18 Oct. 1650, fol. 3v–4r.
65 SOA Děčín, HS, Kart. č. 78, Amtsprotokolle 1645, fol. 58v, 1.7.1645.
66 SOA Děčín, HS, 2. cást, pobátky (Frydlant) č. 11, 8 May 1685, fol. 10v.
67 SOA Děčín, HS, 2. cást, pobátky (Frydlant) č. 11, 26 Mar. 1685, fol. 39v.
tional powers existed, and could be manipulated, to make it possible to get rid of female household heads rather than merely regretting their existence.68

Male relatives, too, tried to use the landlord’s powers to dislodge female heads. The prime mover in a series of attempts to eject “Old Widow Teschner” (die alte Teschnerin) from her farm in Horní Višňová (Oberweigsdorf) between 1604 and 1607 was her son-in-law Görge Döring, who went so far as to submit a written petition against her. Döring persuaded the court to order that the widow sell out or otherwise “equip the farm with a capable holder,” and that “the village bailiff and elders shall from now on inspect the exterior of the farm.” He also achieved his main aim, to compel her to pay the remaining inheritance share due him on behalf of his wife.69 Likewise, Georg Krause’s widow in Bílý Potok (Weiβbach) was only brought to the attention of the manorial officials when her husband’s brother Hans tried to dislodge her from the house and smallholding in 1606. Although unable to persuade the court to eject her outright, Hans succeeded in having her tenure declared strictly temporary and conditional: she might keep it only until Michaelmas, at which point she was to remarry, and her husband to apply to purchase the farm. Moreover, should Hans “find that she is keeping house poorly, he shall report it to the court, whereupon it shall be inspected by the village bailiff and elders.” Hans had undoubtedly improved his chances of getting his hands on the holding by reporting his brother’s widow to the landlord’s officials.70 In 1645 Görög Hübner actually succeeded in usurping his widowed sister-in-law’s holding, by persuading the community and then the manorial officials “that the surviving widow cannot manage this farm, let alone pay the debts,” and by promising—in the teeth of her furious protests and written petition to the lord—to compensate her with two cartloads of hay, half of that year’s grain, and the farm’s cows.71

It might be argued that these cases do not reflect the position of women in Bohemia, but rather the nature of inheritance custom and the manorial system. It could be held that the manorial court was merely enforcing North Bohemian inheritance practice, which favored the rights of orphans over those of widows, who were regarded as temporary trustees for their offspring.72 But gender was clearly an important criterion in the manorial officials’ choice of a temporary holder, and it is hard to judge whether this reflected the best interests of the orphans or of the landlord. On no occasion did the Frýdlant court order a widow’s second husband or son-in-law in

68 In Württemberg, for instance, communities could oppose settlement of non-citizen widows and order single women into service or out of the community, but could not prevent a citizen’s widow from conducting her own household; see Ogilvie, State Corporatism, especially chapter 3.
69 SOA Děčín, HS, Karton č. 77, 6 Mar. 1604, fol. 4v–5r.
70 SOA Děčín, HS, Karton č. 77, 18 Apr. 1606, fol. 45r.
71 SOA Děčín, HS, Karton č. 78, Amtsprotokolle 1645, fol. 58v, 1.7.1645.
72 On Bohemian inheritance customs, see Procházka, Česká poddanská.
temporary tenure of the farm during the rearing of minor heirs to sell up on the grounds that he was not a “capable” holder. Quite the contrary: the court oversaw the sale of one farm in Dětrichovec (Dittersbächel) in 1688 for 80 Schock, “although it would otherwise have been worth quite a lot more, and could have been sold for a higher price,” because the buyer had agreed to marry the widow, pay the farm’s debts, and rear the orphans as his own children. By underpricing the farm so as to get a male holder for it, were the manorial officials defending the interests of the orphans, or those of the landlord?

Likewise, it might be argued that dissolution of female-headed households had nothing to do with gender, since Bohemian landlords could order any unsatisfactory serf, male or female, to vacate a holding: this was merely part of the regional manorial system. But careful analysis shows that gender did play a role. From the surviving manorial court records, which provide scattered coverage of court business for 67 of the 109 years between 1583 and 1692, 53 cases of threatened or actual ejection from holdings have been found. The proportion of females among those ejected was 15.0 percent, significantly higher than the 4.0 percent female heads for the years 1591, 1651, 1654, and 1722 combined, and more than double the 6.2 percent for 1651, the highest in any one year. Likewise, although numbers are too small for statistical significance tests, the justification given for ejecting a householder also appears to have differed by sex. Nearly 40 percent of all males ejected stood accused of serious offences: resisting labor dues, disobeying the lord, fraud in office, outright rebellion, or severe and repeated conflict with kin, neighbors, or the village as a whole. No female heads were ejected for such serious offences. Conversely, debt and economic difficulties accounted for only 36 percent of male heads ejected, but fully 62 percent of female ones. Strikingly, no grounds whatsoever were given for ejection in 25 percent of cases involving females, but only 11 percent involving males. To eject a female head, it was enough simply to assert that she was not a “full” or “capable” holder. In principle, Bohemian landlords could eject any household head, but in practice women were likelier to be evicted for lesser transgressions—or for no stated reason at all.

This raises the question of who was right: the female heads themselves, who clearly thought their households were worth maintaining, or landlords, communes, and male relatives, who argued that they were not. Surely a farm

73 SOA Děčín, HS, 2. cást, pobátky (Frydlant) č. 11, 20 Jan. 1688, fol. 32v–33r.
74 These volumes contain more than 3,100 separate cases, and are the subject of a wider research project by Sheilagh Ogilvie; but internal evidence shows that they do not record all business of the court even for the 67 years covered (1583–1592, 1593–1610, 1604–1606, 1609–1611, 1611–1616, 1615–1616, 1616–1619, 1627, 1629–1630, 1630–1631, 1645, 1649–1655, 1650–1651, 1655–1656, 1656–1660, 1661–1664, 1685–1687, and 1687–1692).
75 Both differences are significant at the 5 percent level.
not headed by a married couple was headed for disaster in any case, and it was fortunate that these stubborn women were protected from their own folly by rational, profit-maximizing manorial administrators and the wise guidance of community elders? There are several arguments against this view. First, it is inaccurate to assume that female-headed households lacked male labor: in 1651, only 27 percent of female-headed households lacked males altogether. Even those households that did lack adult males did not rely solely on the labor of their own members: Bohemian rural society contained large numbers of cottagers and houseless inmates who survived partly by hiring out family members as laborers; it was a widespread practice for those with full peasant holdings to hire members of the rural substrata to work on their holdings, and even to carry out their manorial labor services. Third, smallholdings had little arable land to till, and cottager holdings none at all, which reduced or obviated the need for adult male labor; such holdings relied on other work such as protoindustry, rural crafts, and petty trading, in which women and children were relatively productive. Fourth, there is the fact that rural settlements elsewhere in Europe sustained a much higher proportion of female-headed households, even in regions characterized by much less nonagricultural activity than highly protoindustrialized northern Bohemia; the preindustrial European rural economy was capable of sustaining more female-headed households than were permitted to exist in Bohemia. Even in societies in which landlords and communes held views similar to those expressed in Bohemia, their lack of institutional powers meant that female headship rates were higher. Finally, there is the problem of explaining away women's own revealed preferences: we have no better grounds for believing that these women were irrationally optimistic in assessing their own economic viability than we have for believing that the landlords were irrationally pessimistic; indeed, one would expect the women themselves to have possessed better information than the manorial officials about their own capacities.

This apparent contradiction can be resolved by recognizing that female heads, landlords, communes, and male relatives had different interests and different information. They may all have been rational, but in pursuit of different ends. The women themselves preferred not to enter a dependent situation in a household headed by a male, and to keep their farm for their minor offspring. In return for these benefits, they were willing to accept higher risks, especially since, at a pinch, households too poor to pay taxes and dues were perforce supported by their communities or even forgiven their debts by the landlord, and since a few years of poor farm maintenance could be set right by the inheriting offspring. The manorial officials, by

76 See, for instance, the similar attitudes but higher female headship for western Finland in Moring, "Family Strategies," pp. 70–72; and for rural Salzburg in Eder, Geschlechterproportion, pp. 126, 246.
contrast, did not personally enjoy these benefits, and indeed incurred personal costs if they failed to collect revenues efficiently or endangered a delicate sociopolitical balance by provoking the more substantial members of rural society. The latter, who administered the communes, bore some personal liability when any of their economically marginal neighbors defaulted on taxes and dues. Moreover, as in Western Europe, they preferred specifically to exclude female heads, who might demand charity or prove sexually disruptive. Likewise, the brother-in-law or son-in-law of a widow had no reason to share her preference for independence or protecting her children's inheritance; his interest was in getting his hands on the farm or ensuring payment of his wife's inheritance share. Moreover, it is well known from economic studies of discrimination that, given imperfect information, gender (like ethnicity) can function as a screening device: if on average more female than male heads default on taxes, run down farm infrastructure, ask for neighbors' charity, or commit adultery, then even those female heads who would not do these things are expected to do so by other economic agents and, if institutional powers exist and can be manipulated to get rid of female heads, they may be used—even against women who would not in fact impose any of these costs on others. Within the Bohemian institutional system, the interests and perceptions of manorial administrators, communal officeholders, and male relatives dominated those of women themselves.

Direct evidence from court records thus helps us to interpret the circumstantial findings from regression analysis, which suggested that the "second serfdom"—by suffocating market developments, increasing fiscal pressures on villagers, and enhancing manorial power—adversely affected women's position. This circumstantial case is borne out by a variety of other evidence. It is consistent with local and regional studies showing that the period under analysis saw an expansion of landlords' regulatory powers and their fiscal incentives to extend regulation to the rural substrata. It is also borne out by direct evidence from the Frydlant manorial court records, which shows that manorial officials did eject serf householders, and that female heads were targeted disproportionately. Taken together, these facts may explain why, between 1591 and 1722, female headship declined significantly and responded less positively (if at all) to factors such as proximity to urban markets or a relatively large rural substratum. They may also explain why subjection to one feudal estate rather than another emerged as a major influence on female-headed households, as their survival depended more heavily on the discretion of manorial officials.

The fiscal motives for ejecting female heads revealed by the court records help explain why female headship was more common among the fiscally less important rural substrata. Yet the presence of smallholders and cottagers

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77 On this phenomenon of "statistical discrimination," see Arrow, "Theory of Discrimination."
among cases of ejected householders explains why, by European standards, even the rural substrata had very low female headship rates in Bohemia. Case numbers are too small to test whether the share of smallholders and cottagers among ejected householders rose over time, but if this were so it would explain why the gap in female headship rates between peasants and the rural substrata narrowed between 1591 and 1722. Finally, rent-seeking aggression against female heads by communities and male relatives helps explain how landlords were able to exert such thoroughgoing pressure. The “second serfdom” operated not merely through direct monitoring by manorial officials, but also through collaboration by serfs themselves, who sought to use seigneurial powers for their own ends.

CONCLUSION

Little is yet known about women’s position in those early modern Eastern European societies that underwent not the “transition to capitalism” experienced in the West, but rather the intensification of landlord powers under the “second serfdom.” This is an important lacuna, given the widely held view that women’s economic independence was impaired by the growth of the market economy and, conversely, furthered by the maintenance of the family economy within a framework of traditional nonmarket institutions.

Our investigation of women’s position in Bohemia under the “second serfdom” focuses on female household headship, which it argues to be a good indicator of women’s economic and social options. Female headship rates in rural Bohemia were extremely low by European standards between 1381 and 1591, and declined still further between 1591 and 1722. Whereas in the later sixteenth century proximity to urban markets and larger rural substrata created openings for independent female heads, during the seventeenth century various pressures caused these opportunities to contract or disappear altogether. That these pressures were primarily institutional in nature is indicated by the fact that, after 1651, it began to matter greatly to which estate a given village was subject.

Qualitative evidence helps to explain these patterns. By the late sixteenth century, at latest, landlords had the power to regulate who could head rural holdings. Motives of profit-maximization led manorial officials to eject female household heads, who were regarded as poor fiscal risks. But that was not all. The landlord’s power to regulate headship also constituted a source of economic rents, control of which was sought by other serfs. Village communities pursued the interests of better-off members by seeking seigneurial sanctions against female heads, whom they regarded as sexually disruptive and fiscally unreliable. Male relatives reported widows as “incapable holders,” hoping thereby to obtain control of their holdings or to force
payment of inheritance shares. Manorial officials had an interest in satisfying the more substantial elements of rural society, since even the “second serfdom” could not function without cooperation from the serfs themselves. Any favor that the landlord could costlessly grant to communes or influential individuals was a good political investment, given the ever-present threat of peasant revolt.

The power of Bohemian landlords to eject undesirable householders was only one aspect of the “second serfdom,” just as independent household headship was only one among women’s options. But our findings suggest that this landlord power, and its manipulation by village communes and male individuals, was decisive in constraining the options of women, to a degree even greater than that experienced by women in most other parts of preindustrial Europe. Whatever may have been the impact of markets on women, in Bohemia neither the feudal system nor the village commune created an institutional framework that favored female economic independence.

REFERENCES

Cambridge Group for the History of Population and Social Structure. Household Listings Analyses, Red Binders nos. 1–29b (Britain) (CAMPOP B(B)), Red Binders nos. 1–5 (other countries) (CAMPOP B(OC)).
Cavaciocchi, Simonetta, ed. La donna nell’economia secc. XIII–XVIII. Prato: Istituto “F.
Datini,” 1990.


Hoch, Steven L. *Serfdom and Social Control in Russia: Petrovskoe, a Village in Tambov.*
Ogilvie, Sheilagh. *State Corporatism and Proto-Industry: The Württemberg Black Forest,*


Státní Oblastní Archiv Litoměřice, Pobočka Děčín (SOA Děčín), Fond Rodinný archiv Clam-Gallasů, Historická sbírka (HS).

Státní Okresní Archiv Liberec (SOA Liberec), Archiv Město Liberec (AM Liberec).

Státní Ústřední Archiv Praha (SÚA), Soupis Poddaných Podle Víry 1651 (SPPV), Berní Rula 1654 (BR), Tereziánský katastr 1722 (TK).


“Introduction” and “Does Owning Real Property Influence the Form of the House-

Wiener Datenbank zur europäischen Familiengeschichte, machine-readable files from research project “Soziale Strukturen in Böhmen” (WDEF/SSB).

