# A Demographic Profile of the Greater Lancaster County, Pennsylvania, Amish<sup>1</sup>

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**Abstract:** This article provides a demographic profile of the Amish in the Greater Lancaster County settlement, the oldest extant community and the largest in the world today. A dataset, based on a sample of about one in five households (N = 1,494), was developed from the 2015 directory for the Greater Lancaster settlement. The data is summarized along 10 major topics, including widows and widowers, ordained men, occupations of men, age at first marriage, most popular months for weddings, most popular days for weddings, number of children, birth intervals, stillbirths and infant deaths, and age and sex distribution of the population. The results are compared with the findings from a study of the Lancaster County Amish by Elmer Lewis Smith, published in 1960, that includes selected population statistics from the first half of the twentieth century and information that goes back to the final decade of the nineteenth century. The findings show a great deal of demographic stability; that is, trends in such demographic features as family size show only small, incremental changes. Only infant mortality and the occupations of men have shifted significantly. The article concludes by discussing the need for additional demographic research utilizing directories from other communities, large and small, old and new, and of different Amish groups based on the relative conservatism vs. progressivism of their church disciplines.

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In a pioneering demographic research report titled *Studies in Amish Demography*, Elmer Smith  $(1960)^2$  estimated the 1951 population in the Greater Lancaster County settlement at somewhere

<sup>&</sup>lt;sup>2</sup> Smith alternates between the phrases "the Amish of Southeastern Pennsylvania" and "the Amish of Lancaster County." There appears to be no clear differentiation of the two phrases; that is, they are used synonymously. Hence, it can be concluded that Smith was not referring to two or more settlements in the southeastern region of Pennsylvania, but to only one. Historical accounts indicate that other settlements were founded in the southeastern region, some even before the Lancaster County settlement, but were



<sup>&</sup>lt;sup>1</sup> The author acknowledges the contribution of Annette Mackay, PhD candidate in the Department of Sociology and Anthropology at West Virginia University, for development and design of both age-sex pyramids in Figure 1, additional help from Henry Troyer, who is cited frequently in this article, and the comments of Tom Meyers, professor emeritus, Goshen College. The author also appreciates information about the Greater Lancaster County settlement and the 2015 directory for that settlement from Steve Nolt, Edsel Burdge Jr., and Don Carpenter. Finally, the author is most grateful for the assistance given to him by Marcus Yoder, Wayne Miller, and Adam Hershberger at the Ohio Amish Library, in Berlin, Ohio.

between 5,500 and nearly 5,900 persons and growing steadily (pp. 44–45). Yet, a contrasting statement can be found in the foreword to Smith's publication with a rather dire observation made by Grant M. Stoltzfus (p. ii) of the Research Council at Eastern Mennonite College:

Sociologists who refer to the "rise and fall of the American rural community" will find in these studies abundant material on a people who will probably be among the very last to surrender rural values and agrarian primary group relations. One sociologist has referred to the Amish as an "archeological find." Dr. Smith has explored this "find" and recorded it before the devastating forces of social change has destroyed all the "evidence."

It is possible to debate the extent to which the Lancaster County Amish community has changed in its social organization, its cultural and religious values, and its economics since Smith's (1960) study was published, and whether or not those rural and agrarian values referred to by Grant Stoltzfus have since been abandoned with the adoption of many new technologies by the Amish there and in the 625-plus other settlements spread across North America (and in the two settlements in South America) today. There is no denying, however, that the Greater Lancaster settlement has experienced continual growth and is certainly not an archaeological find. Today, the size of the settlement is estimated by the Young Center for Anabaptist and Pietist Studies (2022b) to be slightly over 43,000 individuals, about a seven-fold increase over a 60-year period. The settlement itself has spread into several adjacent counties; hence, the title of this article refers to the *Greater* Lancaster County Amish, not merely to the Lancaster County Amish.

This article presents a series of demographic facts about the Greater Lancaster County Amish based on information from the second-most recently published directory for this settlement, specifically the first volume, which contains the essential demographic information (*Church Directory*, 2015).<sup>3</sup> Whenever possible, it compares the results with the findings of Smith (1960), who reports on various demographic statistics for the Lancaster County Amish during the 1950s and earlier, plus briefer reports of population statistics found in more comprehensive treatments of the Amish, such as in Hostetler (1993), Kraybill et al. (2013), and other scholarly works.

extinct (Hostetler, 1993) at the time Smith researched and published his demographic scholarship. The settlement of Lebanon (Stoltzfus, 2022) in Lebanon County, which adjoins Lancaster County, was started in 1941, but there would have been little data for inclusion in Smith's study. We can therefore conclude that even though Smith never defines exactly what he means by "the Amish of Southeastern Pennsylvania," his narrative suggests it is only the Greater Lancaster County community, and that the difference between the two phrases has more to do with the source of the data he uses—first, applications for marriage in Lancaster County and, second, genealogical records of families from "Southeastern Pennsylvania." Besides, given the size of the Greater Lancaster County Amish community, even back then, compared to any other Amish settlement that might have been close by, his statistics would still be greatly dominated by Lancaster County cases, even if a few households from smaller, nearby settlements were included.

<sup>&</sup>lt;sup>3</sup> Data collected for this article, its analysis, and its preparation in narrative form spanned a nearly threeyear period, from mid-year 2019 to 2022. Volume 1 of a new edition of the Lancaster County directory was released in January 2022 (*Church Directory of the Lancaster County Amish*, 2021).

## Methods

*Church Directory of the Lancaster County Amish and Outlying Daughter Settlements: Volume 1* was published in 2015 after many years of preparation. It includes slightly over 10,670 entries for households (both families and singles) in the Greater Lancaster County settlement and its daughter settlements. (A daughter settlement is a community whose first families came from a founding, or "mother," settlement and who still mostly shares the same church discipline.)

The Lancaster directory is one of the oldest for any Amish community, being first published in 1965, and again in 1973, 1980, 1988, 1996, 2002, 2015, and 2021. The 1965 version was not much more than a list of names, but succeeding editions began to include a great deal of information that is useful for population research.<sup>4</sup> Households in the 2015 directory are listed in alphabetical order. Included is a code number locating the household in the directory, a code number for the church district to which the household belongs, the names of the household head and the spouse, their address, their birth dates, their marriage date, the names of their parents, the occupation of the household head, and the names and birth dates of every child. If an offspring is now an adult, remained Amish, and lives either in the Greater Lancaster County settlement or one of its daughter settlements, a directory code number is also listed for that child. This code number directs the reader to the location of that person's information elsewhere in the directory.

Historically, directories were offshoots of pioneering research on genetics and health by Harold Cross, Victor McKusick, John and Beulah Hostetler, and many other researchers during the midtwentieth century (Nolt, 2020). The need for genealogical information for medical research by specialists at Johns Hopkins University and the University of Michigan, among others, led to the compilation of families' names, addresses, and other vital statistics. As the number of Amish settlements grew rapidly (Donnermeyer, 2021), the directories became increasingly important for record-keeping and to aid in the location of families in far-flung communities for a variety of social purposes, such as letter writing and visiting, and in many cases, for the documentation of a settlement's history (Nolt, 2020).

No one knows how many directories there are today—likely more than 100 were published in the past 10 years—but a best guess would be that over 80% of Amish settlements and over 90% of Amish households can be accounted for if a complete collection of directories was housed in a single library.<sup>5</sup> The directories vary greatly in size—from several-inches-thick volumes for the largest settlements to directories for small settlements that contain only a few dozen pages. Some directories report on a single settlement, others report on numerous settlements with similar church

<sup>&</sup>lt;sup>4</sup> A directory was also published in 1990; however, it included households' postal addresses only.

<sup>&</sup>lt;sup>5</sup> The Ohio Amish Library's collection of directories is one of the most extensive anywhere, even though it is still far from complete. A count of its directories shows 62 with publication dates between 2010 and 2021, many of which include information for multiple settlements. Some directories for specific settlements were published more than once during this time period. A count of the number of settlements in the Ohio Amish Library directory collection published since 2010 includes family information from 348 settlements, which is more than half of all the settlements in existence today.

disciplines, and still others report on settlements within a single state or region.<sup>6</sup> Almost all directories have an alphabetical listing of households within each church district, maps locating households in the same church district, plus the marriage date of the parents and the names and birth dates of all family members. Other information, including the occupation of the head of household, baptism status of offspring, and current location of adult offspring is common but not included in every directory. It depends upon editorial decisions made by those who oversee specific directory projects. There is no standard format.

Typically, directories are created by each family filling out a form that asks for birth and marriage dates, plus other pertinent information. Usually, the forms are distributed to each family within a church district by a member who then collects the completed forms and sends them to the person creating the directory. In return, the information collector receives a free copy of the completed directory.

All directories are susceptible to omissions and mistakes. Some families refuse to participate, thinking that displaying their family information is too prideful, and some fail to return the form out of disinterest. The Greater Holmes County directory, for example, has never contained information about any of the conservative Swartzentruber church districts (which represent slightly over 6% of the settlement's total number of church districts). Swartzentruber nonparticipation in other directories is also frequent, although there are some in which Swartzentruber family information can be found, such as the statewide directory of nearly all settlements in Missouri. As well, sometimes information is incorrect, such as a birth date for a firstborn that is more recent than the birth date for a second-born child.<sup>7</sup>

*Church Directory of the Lancaster County Amish and Outlying Daughter Settlements: Volume 1, 2015* (2015) contains 612 pages of household data. It includes family information from 205 church districts in the Greater Lancaster County settlement and from 156 church districts in the associated daughter settlements.<sup>8</sup> There are slightly over 7,400 entries for families in the Greater

<sup>&</sup>lt;sup>6</sup> Here is a sampling of directory variety: in addition to the Greater Lancaster County directory, there are directories for the other big communities, such as the Greater Holmes County settlement (Wengerd, 2020), the Elkhart-LaGrange-Noble County settlement (J. Miller, 2022), and the Greater Geauga County settlement (A. Miller, 2018). All are hundreds of pages in length. For example, the Greater Holmes County directory is nearly 1,100 pages and includes 15 other Ohio-located settlements with Holmes County connections. In contrast, the Carroll County, Ohio, Amish directory (S. Troyer, 2019) is for a single small settlement and is only 62 pages in length. The 2019 Kentucky Amish directory (Schwartz & Schwartz, 2019) is a compilation of families living in 11 settlements who are from affiliations that are more conservative than the Old Order Amish, such as Swiss, Troyer, and Andy Weaver. The Michigan Amish directory (D. Miller, 2019) includes 45 Amish communities of various affiliations and one horse-and-buggy Mennonite group. The Western States Amish directory (Weaver, 2020) is a compilation of all Amish settlements in Idaho, Montana, and Wyoming.

<sup>&</sup>lt;sup>7</sup> Entering directory data into the spreadsheet occasionally revealed dates that were obviously incorrect, but these errors seemed to be less than 0.1% of all information.

<sup>&</sup>lt;sup>8</sup> The Young Center for Anabaptist and Pietist Studies (2022a) estimates the number of church districts in the Greater Lancaster County community for mid-year 2022 to be 252, a 23% increase since the 2015 directory was published. This includes five church districts in York County, which, for this study, was considered a separate settlement (Delta), based on short accounts of daughter settlements written by C. J.

Lancaster County settlement alone. A typical entry in the directory looks like this (all names in this example are fictitious):

365. Wengerd, Edsel, (72-19), 2193 Gray Horse Road, Keystone, PA 17540, b Sept. 27, 1952 Wolfville, son of Donald X. Wengerd and Cynthia S. Hershberger, m Nov. 14, 1984 to Melissa Nolt b May 19, 1954, dau of Stephen N. and Kay Nolt. Farmer. <u>Children</u>: Ruby L. b Nov. 27, 1985; Marcus J. b Feb. 15, 1986; Wayne R. b July 2, 1989; Adam J. b Apr. 1, 1991; Titus D. b Dec. 9, 1993.

Information for 1,494 (20.15%) households was randomly selected and entered into an Excel spreadsheet. An attempt was made to enter at least two households in the Greater Lancaster County settlement from each directory page. (Households in daughter settlements were excluded.) After data for 1,400 households was entered, a count of the number of entries per church district was made. This showed that 23 church districts had four or fewer households in the sample. Additional households were then entered from these districts, bringing the total sample size to 1,494 households. The minimum number of households selected per church district was five.

The birth date of the household head, his occupation, the birth date of the spouse, the marriage date, and the birth date and sex of each child were entered into the spreadsheet. If the household head or the spouse had died and the surviving spouse had remarried, the birth date of the second husband or wife and their marriage date was also included, plus the birth dates of any children created from this marriage. If an offspring was stillborn or had subsequently passed away, this information was also entered, along with the date of death. If a directory code for adult offspring was listed (indicating that they are Amish and live either in the Greater Lancaster County community or one of the daughter settlements), that number was entered. Family members' names and addresses were not entered into the spreadsheet to assure an additional layer of anonymity.<sup>9</sup>

#### Results

## Widows and widowers

Of the 1,494 entries, 11 were single females and six were single males. Altogether, only 1.14% of households were single individuals. The remainder were married couples' households, including those in which one of the partners had died. The results were similar to those reported by both Hostetler (1993) and Smith (1960) for this settlement. Among the 1,477 married-couple

Stoltzfus in *Church Directory Maps of the Lancaster County Amish: Volume 2* (2016) and the more recent publication of Amish and horse-and-buggy groups in North America by Jacob Stoltzfus (2022).

<sup>&</sup>lt;sup>9</sup>A request for exemption from human subjects' protocols to the Office of Responsible Research Practices at The Ohio State University was made a number of years ago, largely on the basis that the directories are publicly available. Approval was granted. The exclusion of names and addresses from the dataset used for this research was not necessary under the guidelines for an exemption, but nonetheless strengthens the principle of anonymity when research involves human subjects. As well, there is no geocoding (latitude and longitude) of individual household addresses in the database, which the author considers to be a serious violation of scientific standards for the protection of the rights of privacy of human subjects.

households, both a birth date and a death date were included for 63 husbands; that is, there were 63 women who had been widowed. This is 4.27% of all married-couple households at the time the data for the 2015 Lancaster County directory was collected. Fifty-one wives had passed away, leaving behind 51 men who were widowers, 3.45% of all married-couple households.

An analysis of widows and widowers that relied on the same dataset used for this article was published by Beachy (2021) in an earlier issue of the *Journal of Plain Anabaptist Communities*. It was a comparative analysis that also included sample data from the *Amish Mennonite Directory*, 2019 (Miller & Miller, 2019), and Amish marriage data from 1876 to 1900 from the Anabaptist Genealogy Database, as reported in a study by Seifter et al. (2014).

In his study, Smith (1960, p. 23) observed that, from 1900 to 1955, "of those persons involved in remarriages, 98.7% of the males but only 44.2% of the females had been married before." What this indicates is that most widowers remarry, while a majority of widows remain single. As reported by Beachy (2021), this same pattern holds today, based on his analysis of data from the 2015 directory. Only one of the 63 widows had remarried, but 24 (47.1%) widowers had remarried. However, a direct comparison with Smith (1960) is not possible, especially for widows, because they may eventually marry again.

Smith (1960, p. 23) found that "remarried males averaged 46.4 years of age and females 38.8, a difference of 7.6 years, as compared with 1.5 years for Amish first marriages, during the period from 1890–1956." Beachy's (2021, p. 101) results are similar (widowers only), finding an average age gap of 8.2 years for second marriages, with men being older, compared to an average age gap of 2.4 years for first marriages.

Beachy (2021) also noted motivations for remarriage—namely, (a) companionship; (b) reestablishing a married-couple household; (c) raising children from a previous marriage; and (d) possibly having more children. Finally, although not mentioned by Smith (1960), Beachy (pp. 101–102) found that the average waiting time between the death of a spouse and remarriage was 2.2 years, and that the waiting time decreased with the number of children still living at home.

#### **Ordained Men**

There were 230 ordained men in the sample, 15.39% of all household heads in the sample. Of these, 34 were bishops, 143 were ministers, and 53 were deacons (see Table 1). Of special note, the ratio of bishops to ministers is lower than is typically found in other settlements. Usually, leaders for a single church district include one bishop, two ministers, and one deacon (Hostetler, 1993). However, in the Greater Lancaster settlement, the ratio is one bishop for about every four ministers. There is apparently a more deliberative and conservative approach to the selection of a bishop in this settlement. One bishop supervises two church districts, with the two districts meeting on alternate Sundays (Kraybill, 1989, pp. 83–85).<sup>10</sup> Hence, the expected ratio is not one bishop to two ministers, but one bishop to four ministers. In the sample data from the 2015 directory, the ratio is one bishop to 4.206 ministers.

<sup>&</sup>lt;sup>10</sup>Acknowledgement to Steve Nolt for providing additional information about the selection of ordained men in the Greater Lancaster County settlement.

Steve Nolt, director and senior scholar at the Young Center for Anabaptist and Pietist Studies (personal communication, November 28, 2021), indicated that the preference for selection of a bishop in the Greater Lancaster County settlement is for the candidate to be a minister who is at least 40 years old and has at least one child who has joined the church. In some cases, ordination for a new bishop may be delayed if the minister candidates are considered to be too young. This preference is confirmed in Table 1. The average age at the time of ordination was 44.48 years for bishops, with an average age of 21.85 years for the oldest child in the bishop's family at the time of ordination. Comparatively, the average age for ministers and deacons was 36.85 and 37.34 years, respectively. The average age of firstborn children at the time of the father's ordination was 16 years for ministers and 12.63 years for deacons. Even though one bishop's family had a firstborn child who was only 9 years old, nearly all other bishops had children who were at least 20 years old. In contrast, both ministers and deacons were as likely to have school-age children and teenagers at the time of their ordination as they were to have adult children.

Table 1 also includes the occupations of ordained men. About half of all ordained men were farmers. Carpentry showed more variation: it was the occupation of a greater percentage of ministers than of bishops or deacons. Only one man worked at a sawmill. Overall, the distribution of occupations across the five categories was similar for the three types of ordained men.

	Bishops	Ministers	Deacons
	( <i>n</i> = 34)	( <i>n</i> = 143)	( <i>n</i> = 53)
At the time of ordination:			
Average age	44.48	36.85	37.34
Range of ages	35 to 65	23 to 63	26 to 56
Average age of firstborn	21.85	16.00	12.63
Range of ages of firstborn	9 to 45	<1 to 32	1 to 34
Average age as of 6/30/2015	60.42	52.76	54.75
Range of ages as of 6/30/2015	44.39 to 84.50	29.60 to 79.16	27.87 to 79.16
Occupation:			
Farming	17 (53.13%)	76 (53.15%)	24 (48.00%)
Carpentry	5 (15.63%)	36 (25.17%)	10 (20.0%)
Sawmill	0 (0.00%)	1 (0.70%)	0 (0.00%)
Traditional	1 (3.13%)	4 (2.80%)	3 (6.00%)
Other nonfarm occupations	9 (28.13%)	26 (18.18%)	13 (26.00%)
Total	32 (100.0%)	143 (100.0%)	50 (100.0%)
Missing data	2	0	3

#### Table 1

Age and Occupation of Ordained Men

<sup>a</sup> Traditional occupations are those associated with a horse-and-buggy lifestyle. These include blacksmithing, buggy-making and repairs, and leather-working associated with saddles, harnesses, and other tack products.

# **Occupations of Men**

As a source of data for population statistics, directories are a type of secondary data.<sup>11</sup> This means that the information was collected by somebody other than the researcher. As a result, there are limitations to what the researcher can do based on the quality of the previously gathered information. This is nowhere more apparent than with the occupation data for male heads of households in the 2015 directory.<sup>12</sup> After men retire, they frequently do not list their former occupation; hence, that becomes missing data. As well, sometimes the name of the employer for which an Amish man works is listed, but not the type of work he actually does. For example, if an occupation is listed as "Yoder's Lumber," at least we know that it is a nonfarm job likely associated with working at a sawmill. Mention of a company, whether Amish- or non-Amish-owned, may hint at what the business does, but not the job duties of the head of household.

A peculiarity of the 2015 directory adds another challenge to the examination of trends over time for head-of-household occupations. As Table 2 shows, not only is the number of missing cases large for men born before January 1, 1950, but it is even larger for married men born after 1979.<sup>13</sup> Of the 192 cases with occupational data missing in the sample, all but 25 are for men born either before January 1, 1950, or since December 31, 1979.

The actual percentages of men employed in farming by birth cohort in the Greater Lancaster County settlement would seem to suggest that agriculture rose in occupational preference and is now declining again. However, previous analyses of occupational trends (Kreps et al., 1994; Kraybill et al., 2013; Meyers & Nolt, 2005) in various Amish settlements invariably show a steady decline of farming over the past several decades. The Greater Lancaster settlement likely is no different. In regard to the large number of missing occupations for men born before January 1, 1950, they are likely retired farmers because that is what the majority of men did for a living at that time. For example, based on counts of all men's occupations from previous Greater Lancaster County settlement directories, the proportion of men who made a living through agriculture declined from nearly 68% in 1973 to almost 42% by 2015 (Donnermeyer, 2017) and slightly over 34% by 2021 (Donnermeyer, 2022). A future study of the occupation of men from the Greater Lancaster settlement could trace back occupations of retired men to when they were younger and appeared in an earlier directory as employed.

<sup>&</sup>lt;sup>11</sup> In the social sciences, including population studies, sources of data can be divided into two types. Primary data is data collected by the researcher, such as through interviews or focus group discussions. Secondary data is previously collected information that is acquired by the researcher for the purposes of analysis.

<sup>&</sup>lt;sup>12</sup> The occupations of single female-headed households—and for a few Amish women who are widows are also listed. However, the number of cases is very small, preventing a more thorough analysis of female occupations, either from the Greater Lancaster County settlement directory or the directories of most other settlements.

<sup>&</sup>lt;sup>13</sup> An analysis of missing occupational information for men married since January 1, 1980, found that for 89 of the 101 cases of missing data in Table 2, the men had married between 2010 and 2014. Inquiries were made to several individuals knowledgeable about the Greater Lancaster County settlement and the 2015 directory, but no one could offer a reason for the missing occupational data of recently married men.

	Birth cohort										
Occupational category	Born before Jan. 1, 1950	Born in 1950s	Born in 1960s	Born in 1970s	Born Jan. 1, 1980, and later	Total					
Agriculture	40	61	122	178	128	529					
	22.60%	36.31%	50.00%	51.15%	36.16%	40.98%					
Carpentry	57	42	51	105	125	380					
	32.20%	25.00%	20.90%	30.17%	35.31%	29.43%					
Sawmill	0	2	1	1	4	8					
	0.0%	1.19%	0.41%	0.29%	1.13%	0.62%					
Traditional non-	12	7	6	4	10	39					
farm occupations	6.78%	4.17%	2.46%	1.15%	2.82%	3.02%					
Other nonfarm occupations	68	56	64	60	87	335					
	38.42%	33.33%	26.23%	17.24%	24.58%	25.95%					
Total	177	168	244	348	354	1,291					
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%					
Missing data	66	13	9	3	101	192					

# Table 2

Occupations of Men by Birth Cohort

Donnermeyer's (2017) statistics from both the 1973 and 2015 directories were based on simple counts of men's occupations. Table 2 shows the distribution of men's occupations (including the six single-male households) by birth cohort from the sample used for this study. The percentage of men who said they were involved in farming was 40.98%, which is very close to the actual count in the earlier study (Donnermeyer, 2017). Unfortunately, the amount of missing data for the youngest and the oldest birth cohorts makes is difficult to interpret a trend any more accurately.

#### Age of First Marriage

Smith (1960, p. 11) reported that the average age of first marriage for Amish females ranged from 20.4 years for those married during the final decade of the nineteenth century to 20.7 years for those married between 1950 and 1956. In between these two time periods, the average age remained virtually the same.<sup>14</sup> Table 3 demonstrates that very little has changed over the 60-plus years since Smith's analysis, based on information from the 2015 directory. For women married before 1960, the average age was 20.95 years. Over the next four decades, the average age remained below 21 years, but did increase to 21.45 years for those married during the first decade of the twenty-first century and increased again to 22.09 years for those married between 2010 and 2014. Are these incremental upticks harbingers of sustained change? This is something only a future study can ascertain.

<sup>&</sup>lt;sup>14</sup> Smith's (1960) statistics for age of Amish females at first marriage: 1890–1899: 20.4 years; 1900–1909: 22.1 years; 1910–1919: 21.4 years; 1920–1929: 20.8 years; 1930–1939: 20.9 years; 1940–1949: 20.7 years; 1950–1956: 20.7 years.

Smith (1960, p. 12) found a similar level of consistency in the average age of Amish males at first marriage. During the period from 1890 to 1899, the average age was 23.4 years. From 1950 to 1956, the average age had declined to 22.1 years.<sup>15</sup> The consistency in age of first marriage for males continued through the remainder of the twentieth century and the first 15 years of the twenty-first century (Table 3). For males married before 1960, the average was 22.54 years, and for every decade since, the average age of first marriage rose slightly but consistently. By the period 2010–2014, the average was 23.86 years.

Table 3 also displays the age differences between husbands and wives in three distinct ways. Similar to Smith's (1960) findings, Amish males were consistently older than females at first marriage. The average age difference was 1.77 years for couples married between 2010 and 2014, but the average age across all of the cohorts never varied by more than about a half year from each other. Also, the percentage of marriages where the husband is older ranges from 74.7% for marriages before 1960 to 83.5% during the period 2010–2014. The final row of Table 3 displays the largest age differences of husbands and wives for first marriages. Since these are individual cases, it should not be surprising to find considerable variability from one time period to the next.

0	0 / 1	0								
	Marriage period									
Age at first	Before 1960	1960— 1969	1970– 1979	1980– 1989	1990— 1999	2000– 2009	2010– 2014	Total		
marriage	( <i>n</i> = 91)	( <i>n</i> = 120)	( <i>n</i> = 160)	( <i>n</i> = 217)	( <i>n</i> = 335)	(n = 366)	( <i>n</i> = 176)	( <i>N</i> = 1,465) <sup>a</sup>		
Average age										
Men	22.54	22.78	22.84	22.99	23.02	23.12	23.86	23.08		
Women	20.95	20.72	20.88	20.87	20.90	21.45	22.09	21.16		
Difference	+1.59	+2.06	+1.96	+2.12	+2.12	+1.67	+1.77	+1.92		
Age										
difference <sup>b</sup>	68	109	149	199	322	315	147	1,311		
Husband is	74.7%	90.8%	93.7%	91.7%	96.4%	86.1%	83.5%	89.5%		
older	23	11	10	18	12	51	29	154		
Wife is older	25.3%	9.2%	6.3%	8.3%	3.6%	13.9%	16.5%	10.5%		
Largest age difference										
Husband is older	8.38	13.14	7.65	10.35	13.14	1.66	14.39			
Wife is older	8.96	2.08	7.69	11.06	1.33	7.75	11.63			

# Table 3

Age at First Marriage, by Marriage Period

<sup>a</sup> Twelve households for which the birth date of either of the husband or the wife was missing were omitted from the analysis.

<sup>b</sup> Two sets of husbands and wives with the same birthday were omitted from the analysis of age difference.

<sup>&</sup>lt;sup>15</sup> Smith's (1960) statistics for age of Amish males at first marriage: 1890–1899: 23.4 years; 1900–1909: 23.3 years; 1910–1919: 22.3 years; 1920–1929: 22.8 years; 1930–1939: 22.4 years; 1940–1949: 22.1 years; 1950–1956: 22.1 years.

## The Amish Wedding Season

The title of this section is identical to the title used by Smith (1960) in his demographic study, and it is a term still used today by some scribes who report community events in such Amish periodicals as *Die Botschaft, The Diary*, and *The Budget*. Smith observed that the popular month for weddings among the United States population was June, but the Amish of southeastern Pennsylvania held its weddings in the fall. To quote Smith (p. 2): "Most writers merely claim that the Amish wedding season is a tradition, without giving any reason for it, while others have attributed the practice to an assortment of reasons, ranging from convenience related to agricultural work to superstition." As well, Hostetler (1993, p. 192) remarked that "weddings are usually held in November and December, since this is a time when the work year allows community-wide participation," echoing Scott's (1988, p. 9) observation, "It is inconvenient to hold weddings before the last of the harvest work—corn picking—is completed."

Dismissing superstition completely, the real reasons are most likely a combination of tradition and the seasonality of agriculture; that is, the tradition of scheduling weddings for post-harvest times reflects longstanding practice in the region. Fischer (1989) found that "marrying time" in the seventeenth and eighteenth century in the Delaware Valley (as well as in New England) was concentrated in the late autumn. Smith (1960) found that, over the period 1890-1959, weddings in the Greater Lancaster County settlement overwhelmingly occurred in either November or December, but with a considerable shift from one month to the other over that time period. For example, 73.7% of weddings during the period 1890-1899 were scheduled in December and only 10.5% in November. By the time period 1950–1959, November accounted for 81.9% of weddings and December for only 10.1%.<sup>16</sup> This reversal of wedding months is difficult to explain since both months are post-harvest. Perhaps new crop variations and improved harvesting technologies adapted for horse-and-buggy farming moved the harvest time more squarely into the earlier weeks of autumn, hence moving weddings away from December, when winter cold more likely sets in and travel becomes more difficult, to November, when temperatures are generally a bit warmer. Speculatively speaking, perhaps it is a manifestation of climate change that has brought about earlier harvest times. Essentially, however, autumn as the wedding season for the Greater Lancaster County settlement remains the same, despite November's gain and December's loss.

Table 4 displays the months for weddings by marriage cohort from the 2015 directory data. There were 10 entries with the marriage date missing. It is quite evident from the sample data that nothing has changed. For those married before 1960, 77.78% of the weddings were in November, and by the 2010–2014 period, 75.42% took place in November. December remained a distant second, with the percentages across marriage cohorts never larger than 13.33% (for weddings before 1960).

<sup>&</sup>lt;sup>16</sup> Smith's (1960) statistics from page 3 of his report show the following: 1890–1899: 10.5% in November and 73.7% in December; 1900–1909: 29.4% in November and 58.8% in December; 1910–1919: 39.3% in November and 53.6% in December; 1920–1929: 50.4% in November and 41.1% in December; 1930–1939: 70.6% in November and 20.4% in December; 1940–1949: 72.1% in November and 19.2% in December; and 1950–1959: 81.9% in November and 10.1% in December.

Table 4

	Marriage period								
Month	Before 1960	1960– 1969	1970– 1979	1980– 1989	1990– 1999	2000– 2009	2010– 2014	Total	
January	1	2	1	2	3	2	3	14	
	1.11%	1.67%	0.63%	0.92%	0.90%	0.55%	1.67%	0.95%	
February	2	0	2	1	0	2	6	13	
	2.22%	0.00%	1.25%	0.47%	0.00%	0.55%	3.35%	0.89%	
March	0	0	1	0	1	2	6	10	
	0.00%	0.00%	0.63%	0.00%	0.30%	0.55%	3.35%	0.68%	
April	0	0	0	0	0	1	0	1	
	0.00%	0.00%	0.00%	0.00%	0.00%	0.27%	0.00%	0.07%	
Мау	0	1	0	0	0	0	1	2	
	0.00%	0.83%	0.00%	0.00%	0.00%	0.00%	0.56%	0.14%	
June	1	0	0	0	0	0	0	1	
	1.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.07%	
July	0	0	1	0	0	0	0	1	
	0.00%	0.00%	0.63%	0.00%	0.00%	0.00%	0.00%	0.07%	
August	1	0	0	0	0	0	0	1	
	1.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.07%	
September	0	0	0	0	1	0	1	2	
	0.00%	0.00%	0.00%	0.00%	0.30%	0.00%	0.56%	0.14%	
October	3	8	5	23	36	38	9	122	
	3.33%	6.67%	3.13%	10.60%	10.75%	10.38%	5.03%	8.32%	
November	70	97	133	164	255	279	135	1,133	
	77.78%	80.83%	83.13%	75.58%	76.12%	76.23%	75.42%	77.23%	
December	12	12	17	27	39	42	18	167	
	13.33%	10.00%	10.63%	12.44%	11.64%	11.48%	10.06%	11.38%	
Total	90	120	160	217	335	366	179	1,467	
	99.99%	100.00%	100.03%	100.01%	100.01%	100.01%	100.00%	100.00%	

# Month of Wedding for First Marriage, by Marriage Period

Note. The analysis does not include 10 households with the marriage date missing.

Henry Troyer's (2021) analysis of the month for weddings in the Greater Holmes County settlement of northeastern Ohio found a very noticeable shift over time. Amish couples who wed in the later decades of the nineteenth century and throughout the first six decades of the twentieth century mostly married in November, December, or January. However, during the time period from 2008 to 2019, the wedding season in the Greater Holmes County community shifted to a wide span of warmer weather months, from April through October, with a noticeable dip in July. The peak months for weddings are now May and June, not November and December.

What accounts for these two very different patterns in the two largest Amish settlements? One reason is likely that the shift out of farming for men in the Greater Holmes County settlement started earlier and has gone farther. As mentioned, in the Greater Lancaster County settlement, the

proportion of men who listed their occupation as farming declined from nearly 68% in the 1973 Lancaster directory to almost 42% in the 2015 directory (Donnermeyer, 2017) and about 34% in the 2021 directory (Donnermeyer, 2022). Comparatively, in the 1965 Greater Holmes County directory, 74.3% of men were farmers, followed by 59.6% in the 1973 directory. The percentage of men who listed farming as their occupation declined steadily with each successive directory until it was down to 15.7% in the 2020 directory, about one-third the percentage in the Greater Lancaster County settlement, according to the 2015 directory (Donnermeyer, 2022).

Second, the increased number of settlements requires many more Amish to travel by van, train, bus, or other transportation modes to weddings of extended family members and friends. Schedules become more flexible for weddings when many of the invitees are not hemmed in by the seasonality of farming.

Finally, in several informal conversations, members of the Greater Holmes County Amish community mentioned that the ability to hold weddings and serve food to the hundreds of guests who typically attend them is easier to do now that the disciplines (i.e., *Ordnungs*) of many church districts there allow ownership or rental of freezers for cold storage. Hence, food preparations can commence days and even weeks before the wedding without the food spoiling in the warmer temperatures of late spring and summer. As well, in many settlements, a wedding wagon with all of the plates, utensils, and other essentials for weddings can be rented by parents for a child's wedding. This too adds flexibility in scheduling the preferred month.

Church disciplines in the Greater Lancaster County settlement around the ownership of freezers is mixed. Even if the adoption of freezers is now widespread in the community, it certainly has not resulted in a calendar shift in the wedding season. This suggests that, as Smith (1960) noted over 60 years ago, holding weddings during post-harvest times is a strongly held tradition, one that has shifted little over a 125-year period in the Greater Lancaster County settlement, resisting influences that have changed it in other places.

These results also demonstrate that what one Amish community does is not the same as what other communities do. Perhaps a future comparative study of wedding months for both large and small Amish settlements, and older and newer settlements as well, may uncover even more variations. For example, a study comparing wedding months and days of the Greater Lancaster County settlement with its daughter settlements could possibly show variations that would indicate how practices change over time as newer communities establish their customs and perhaps even adjust their church disciplines to reflect these developments.

#### The Wedding Day

Smith's (1960) demographic study did not include the day of the week when weddings were scheduled, but Henry Troyer's (2021) analysis of the Greater Holmes County settlement did. Using genealogical records and information from various directories for the Greater Holmes County settlement, Troyer (p. 100) was able to plot 150 years of wedding days. Even though the month weddings are held has shifted greatly in that settlement, the day of the week has not.

Overwhelmingly, it is Thursday (about 80%), with Tuesday a distant second. Troyer (p. 102), citing Scott (1988), observed:

A day's worth of work is required to prepare for a wedding, and another day is required after the wedding day for cleaning up and reestablishing a degree of normalcy. The main consideration was avoiding Sunday for pre-wedding preparation or post-wedding clean up.... Hence, the data demonstrated that the Thursday wedding day has not changed much, and mostly over the practicalities of hosting large crowds for a symbolically important rite of passage for newlywed couples.

The practice of avoiding Sunday as a day of either preparation or cleanup is supported by data from the 2015 Lancaster County directory. However, the results are slightly different from Troyer's (2021) findings. As Table 5 shows, Tuesday and Thursday are equally popular days to host weddings. Together, they account for over 90% of wedding days for every marriage cohort, and even though there is a noticeable shift over time from Thursday to Tuesday, the pattern primarily holds.

#### Table 5

	Marriage period							
Day	Before 1960	1960— 1969	1970– 1979	1980– 1989	1990– 1999	2000– 2009	2010– 2014	Total
Sunday	1	0	2	0	3	1	1	8
	1 11%	0.00%	1 25%	0.00%	0.90%	0.27%	0.56%	0.55%
Monday	3 33%	1	0	2	2	2	2	12 0.82%
Tuesday	36	51	79	105	167	207	89	734
	40.00%	42 50%	49.38%	48.39%	49 85%	56 56%	49 72%	50.03%
Wednesday	0	1	0	1	2	2 0.55%	4	10 0.68%
Thursday	48	66	78	107	157	151	81	688
	53.33%	55.00%	48.75%	49.31%	46.87%	41.25%	45.25%	46.90%
Friday	1	1	1	2	2	0	1	8
	1.11%	0.83%	0.63%	0.92%	0.60%	0.00%	0.56%	0.55%
Saturday	1	0	0	0	2	3	1	7
	1.11%	0.00%	0.00%	0.00%	0.60%	0.82%	0.56%	0.48%
Total	90	120	160	217	335	366	179	1,467
	99.99%	99.99%	100.01%	100.00%	100.02%	100.00%	99.99%	100.01%

Day of Wedding for First Marriage, by Marriage Period

Note. The analysis does not include 10 households with the marriage date missing.

Scott's (1998) observations, though sound, along with the findings for both the Greater Lancaster County and the Greater Holmes County communities, do not fully explain the reasons why Wednesday or Friday are not also preferred days for weddings. Scott (p. 9) speculates:

Wednesday is out because people involved in a Tuesday wedding would be cleaning up from the previous day and those preparing for a Wednesday wedding could not attend on Tuesday.... As for Friday, weddings have simply never been held on that day.

So, perhaps, like the wedding month, the reason(s) why certain days are not favored for weddings lies deep in collective decisions long since obscured by time, which is the stuff of which traditions are made. Hence, wedding day preferences are a matter of both practicality and tradition, at least in the Greater Lancaster County and the Greater Holmes County settlements, and likely in most others.

# Family

Smith (1960, p. 20) observed:

If one were asked to characterize the major Amish values in four words, those words would be: Faith, Family, Farming, and Fellowship. Any change in the values and attitudes of the Amish as they relate to the family would most certainly be sociologically significant.

Indeed, any change in various demographic dimensions of the Amish family is both a consequence of economic and sociological changes and a presentiment of change to come.

The average age of adult males in the 2015 directory sample is 45.83 years. The average age of adult females is slightly younger: 44.13 years. These averages include the 17 single-person households. Sixty-one married couples were childless; 29 of these couples were married in the years just prior to publication of the directory (2010–2014), and another 10 were married during the first decade of the twenty-first century.

The Amish have long been known as a high fertility group (Ericksen et al., 1979; Wasao & Donnermeyer, 1996; Kraybill et al., 2013). This has not changed much. The number of children born to the 1,477 married-couple households in the 2015 directory sample was 8,538. This is an average of 5.781 children per married Amish couple, regardless of age and including all childless couples. The average number of children for married women over the age of 50, almost all of whom (with perhaps a rare exception) would have completed fertility, was 7.598 (see Table 7).

Smith (1960, p. 18) also calculated the average number of children by marriage cohort. Although not directly comparable with the sample data from the 2015 directory, the results are interesting nonetheless. He found that the average number of children per married couple for the 50-year period from 1890 to 1939 was 7.5.<sup>17</sup> In other words, with the relatively safe assumption that there were few premarital conceptions and virtually no single-parent Amish households except for widows and widowers who have not yet remarried and may never remarry, the results from the 2015 directory indicate very little reduction in fertility.

Comparatively, the average number of children (<18 years old) per household in the U.S. population is today slightly below two, and the 2019 total fertility rate in the United States was 1,705 children per 1,000 women (World Bank, n.d.).<sup>18</sup> Assuming that the figure of 7.598 per 1,000 women (Table 7) is equivalent to a total fertility rate from the sample data for the Greater Lancaster County settlement, the difference with the U.S. population is considerable. As Smith (1960, p. 20) noted from his study, "Although in the United States the large-size family has continuously decreased among rural as well as urban people, we have little evidence to support the claim that the Amish family is smaller." Based on data from the 2015 directory, Smith's claim largely holds over 60 years later.

Table 6 shows the frequency distribution of births for Amish mothers 50 years and older from the 2015 directory. (Often, either 45 or 50 is used in demography as a proxy age for when a woman's fertile years have ended.) The results indicate that a majority of Amish women bore six or more children.

Number of births	None	One	Two	Three	Four	Five	Six	Seven	Eight
n	13	2	6	18	39	32	59	63	74
%	2.71	0.42	1.25	3.75	8.13	6.67	12.29	13.13	15.42
Number		_						<b>0</b>	
of births	Nine	Ten	Eleven	Iwelve	Thirteen	Fourteen	Fifteen	Sixteen	Iotal
n	53	42	30	22	17	6	3	1	480
%	11.04	8.75	6.25	4.58	3.54	1.25	0.63	0.21	100.00

# Table 6

Births for Women 50 Years and Older

*Note.* Since it is impossible to differentiate between children listed as stillborn and children listed with the same date for both birth and death in the 2015 directory, both were excluded from these counts. See Table 11 for counts of stillbirths, deaths within the first week of life, and deaths within the first year of life.

<sup>&</sup>lt;sup>17</sup> Decade-by-decade averages for the number of children calculated by Smith (1960) for the Amish in Lancaster County: married 1890–1899: 7.4; married 1900–1909: 7.8; married 1910–1919: 7.8; married 1920–1929: 8.2; married 1930–1939: 7.0. Smith notes that the 1930–1939 marriage cohort may include couples who have not yet completed fertility.

<sup>&</sup>lt;sup>18</sup> Bogue (1969, p. 659) defines the total fertility rate as "an estimate of the number of children a cohort of 1,000 women would bear if they all went through their reproductive years exposed to the age-specific fertility rates in effect at a particular time.... Also, because it assumes that all women survive from birth to the end of the childbearing period, it is independent of mortality. This is the measure that demographers generally regard as the most sensitive, and yet meaningful with which to measure fertility."

Table 7 shows how little fertility has changed in the Greater Lancaster County settlement. The average number of births varies little by age cohort, although it is noticeably higher for women who are 75–79 years of age. This blip in the consistency of the averages may likely be due to the smaller number of cases in that age group; that is, with a larger sample size, a breakdown of the data by age would likely show more statistical stability. Nonetheless, the results in Table 7 show no real reduction in fertility and family size over time. The lower average number of births for women 50–54 years of age may reflect the possibility that some of these women have not yet completed their fertility.

# Table 7

Age cohort	Number of cases	Average number of births
50–54	113	7.224
55–59	83	7.759
60–64	78	7.744
65–69	74	7.270
70–74	54	7.796
75–79	38	8.579
80 and older	40	7.318
Total	480	7.598

Average Number of Births by Age Cohort for Women 50 Years and Older

*Note.* Since it is impossible to differentiate between children listed as stillborn and those listed with the same date for both birth and death in the 2015 directory, both were excluded from these counts. See Table 11 for counts of stillbirths, deaths within the first week of life, and deaths within the first year of life.

One direct comparison of 2015 directory data and the information reported by Smith (1960) is the average number of births by marriage period (Table 8).<sup>19</sup> The Smith study included information for five decades of marriages and the data from the 2015 directory displays four decades of averages, a total span of time that is just one decade shy of 100 years. Only information from the 1940s is missing. This is a gap that perhaps can be filled with a future study that samples families from an earlier edition of the Greater Lancaster County directory.

<sup>&</sup>lt;sup>19</sup> "Marriage period" rather than "age cohort" is the phrase used by Smith (1960).

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Marriage period	Number of cases	Average number of births
1890–1899	50	7.4
1900–1909	95	7.8
1910–1919	157	7.8
1920–1929	148	8.2
1930–1939 ª	236	7.0
1950–1959	63	8.109
1960–1969	120	7.669
1970–1979	158	7.952
1980–1989	132	7.231

Table 8Average Number of Births by Marriage Period for Women 50 Years and Older

*Note*. Number of births per marriage from 1890–1899 through 1930–1939 as reported by Smith (1960). Number of births per marriage from 1950–1959 through 1980–1989 from 2015 directory data. (Seven cases were excluded from the 2015 directory data: one where marriage date was not given; two marriages in the 1940s; and four women 50 years and older married in the 1990s.)

<sup>a</sup> Smith (1960, p 18) notes that "some of the couples reported in the marriages of the period 1930–1939 have not yet completed their reproductive age, thus the average for that decade is lower than the final figures will eventually be."

There are slight fluctuations in the averages from one decade to the next, but no clear pattern that would indicate either a decline or an increase in the average number of births. Hence, what Smith (1960, p. 17) observed six decades ago remains true today. As fertility and family size have declined in the general U.S. population, they have changed little among the Amish of the Greater Lancaster County settlement.

Another direct comparison with the findings from the Smith (1960, pp. 20–22) study is the percentage of "large" families (Table 9). Even though Smith does not refer to either the percentage of married couples with five to nine children or 10 or more children by the demographic term "parity" (Wasao & Donnermeyer, 1996), it is parity that he is essentially measuring. Of the nine marriage periods or decades reported over a nearly 100-year stretch of time, there is only a small change in the percentage of married couples with five to nine children. In this case, there is an uptick in the percentage for couples married during the 1960s, 1970s, and likely the 1980s with five to nine children, once all women married during this time period have completed their fertility. Offsetting this increase is a corresponding decrease in the percentage of married couples with 10 or more children during the decades 1950–1959 through 1980–1989. The conclusion is that fertility and family size have not changed in any significant way for the Amish in the Greater Lancaster County settlement, even though fewer families have had 10 or more offspring in recent times.

Marriage period	% with 5–9 children	% with 10 or more children
1890–1899	39.1	35.7
1900–1909	55.7	29.5
1910–1919	43.5	32.1
1920–1929	52.8	35.8
1930–1939	56.8	20.0 ª
1950–1959	47.6	33.3
1960–1969	60.0	25.0
1970–1979	62.8	26.4
1980–1989	55.3	22.0

Table 9Percentage of Married Couples with Five to Nine Children and 10 or More Children

*Note*. Number of children per marriage from 1890–1899 through 1930–1939 as reported by Smith (1960). Number of children per marriage from 1950–1959 through 1980–1989 from 2015 directory data. (Total number of cases from 2015 directory data was 473 after seven cases were excluded from the analysis: one where marriage date was not given; two marriages in the 1940s; and four women 50 years and older married in the 1990s.) <sup>a</sup> Smith (1960, p 18) notes, "In that couples who have large families use the major portion of the fertility period, the figure of 20.0% is lower than the final report will be." In other words, some women in this marriage group have not yet completed their fertility.

## **Birth Intervals**

Table 10 shows intervals in days between marriage and the first birth and between each subsequent birth, by marriage period. The average number of days between consecutive births for the twelfth through the sixteenth birth is not shown by marriage period due to the small number of cases.

The rightmost column of Table 10 shows that the average interval between marriage and first birth is slightly over 512 days.<sup>20</sup> There is very little variation in the average number of days by marriage period, except for those married very recently (2010–2014), which is a mere 352.21 days. Given the consistency of number of days between marriage and the first birth for every other marriage cohort, this large drop is likely an artifact of the fewer number of cases in this cohort rather than an actual shift that represents a real demographic change. Now that the 2021 directory has been published, it will be possible in a future study to see if there is a real downward shift.

The number of days from first to second birth increases to 648.57 days (about 1 year and 9.5 months), with some fluctuation from one marriage period to the next but no discernable trend. The

<sup>&</sup>lt;sup>20</sup> Smith (1960), cites Hostetler (1952) who observed that premarital conception rates among the Amish were not higher than the national average. Smith's (p. 27) own analysis was based on the percentage of first births before eight months of marriage from 1890 to 1956, which was 4.1%. Based on the 2015 directory, only 21 (1.49%) of 1,416 births occurred before the eighth month. Fourteen (1.06%) occurred before the seventh month. However, these results must be viewed with caution because the author noticed entries where there was either no marriage date or no birth date for firstborns in cases when the second child is born within two years of the marriage date. Perhaps not publishing the birth date of the first child is a way of moving on and reintegrating the wayward-but-now-married couple back into the church and community.

number of days between the second and third child increases to 773.91 days or about 2 years and 1.5 months. Again, there is no noticeable upward or downward trend in the number of days by marriage period. The birth interval continues to increase across all marriage cohorts up to the time between the fifth and sixth child, and then remains relatively steady for births exceeding six.

#### Table 10

Average Ir	ntervals in	Days	Between	Births,	by	Marriage	Period
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				Marriag	je period			
Birth order <sup>a</sup>	Before 1960	1960– 1969	1970– 1979	1980– 1989	1990– 1999	2000– 2009	2010– 2014	Overall average
Marriage to 1st birth	539.58 (n = 89)	487.03 ( <i>n</i> = 119)	511.37 ( <i>n</i> = 158)	526.23 ( <i>n</i> = 216)	514.86 ( <i>n</i> = 327)	539.11 ( <i>n</i> = 359)	352.21 ( <i>n</i> = 148)	512.07 ( <i>n</i> = 1,416)
1st to 2nd birth	672.57 ( <i>n</i> = 89)	557.62 ( <i>n</i> = 119)	624.54 ( <i>n</i> = 158)	652.44 ( <i>n</i> = 214)	667.17 ( <i>n</i> = 318)	659.49 ( <i>n</i> = 350)	617.51 ( <i>n</i> = 83)	648.57 ( <i>n</i> = 1,331)
2nd to 3rd birth	778.48 (n = 86)	732.14 ( <i>n</i> = 117)	742.92 ( <i>n</i> = 157)	744.89 ( <i>n</i> = 211)	804.94 ( <i>n</i> = 309)	795.47 ( <i>n</i> = 318)	660.13 ( <i>n</i> = 8)	773.91 ( <i>n</i> = 1,206)
3rd to 4th birth	872.22 ( <i>n</i> = 84)	834.14 ( <i>n</i> = 111)	839.02 ( <i>n</i> = 152)	856.51 ( <i>n</i> = 206)	902.79 ( <i>n</i> = 297)	799.13 ( <i>n</i> = 241)	_	852.99 ( <i>n</i> = 1,091)
4th to 5th birth	911.93 ( <i>n</i> = 74)	841.33 ( <i>n</i> = 102)	869.25 ( <i>n</i> = 144)	901.50 ( <i>n</i> = 189)	927.26 ( <i>n</i> = 279)	858.92 ( <i>n</i> = 147)	_	887.94 ( <i>n</i> = 935)
5th to 6th birth	822.34 ( <i>n</i> = 66)	885.35 ( <i>n</i> = 93)	946.83 ( <i>n</i> = 133)	875.64 ( <i>n</i> = 176)	939.34 ( <i>n</i> = 240)	817.28 ( <i>n</i> = 83)	_	947.45 ( <i>n</i> = 791)
6th to 7th birth	955.59 ( <i>n</i> = 55)	911.71 ( <i>n</i> = 78)	919.73 ( <i>n</i> = 113)	962.39 ( <i>n</i> = 148)	936.86 ( <i>n</i> = 182)	772.83 (n = 29)	_	930.60 ( <i>n</i> = 605)
7th to 8th birth	867.65 ( <i>n</i> = 49)	968.84 ( <i>n</i> = 62)	1,003.95 ( <i>n</i> = 89)	960.36 ( <i>n</i> = 122)	913.94 ( <i>n</i> = 117)	695.2 ( <i>n</i> = 5)	_	942.67 ( <i>n</i> = 444)
8th to 9th birth	940.36 ( <i>n</i> = 36)	944.85 ( <i>n</i> = 41)	897.45 ( <i>n</i> = 59)	962.25 ( <i>n</i> = 93)	909.78 ( <i>n</i> = 65)	_	_	932.64 ( <i>n</i> = 294)
9th to 10th birth	800.76 ( <i>n</i> = 31)	739.23 ( <i>n</i> = 35)	879.90 ( <i>n</i> = 47)	1,033.18 ( <i>n</i> = 42)	852.94 ( <i>n</i> = 40)	_	_	891.15 ( <i>n</i> = 195)
10th to 11th birth	1,113.50 ( <i>n</i> = 20)	878.89 ( <i>n</i> = 21)	793.30 ( <i>n</i> = 27)	978.69 ( <i>n</i> = 29)	788.47 ( <i>n</i> = 15)	_	_	918.42 ( <i>n</i> = 112)
11th to 12th birth	746.1 ( <i>n</i> = 10)	1,356.72 (n = 15)	930.53 ( <i>n</i> = 17)	804.13 ( <i>n</i> = 15)	825.00 ( <i>n</i> = 7)	_	—	1,261.31 ( <i>n</i> = 64)
12th to 13th birth	1,099.47 ( <i>n</i> = 35)	13th to 14th birth	755.07 ( <i>n</i> = 14)	14th to 15th birth	606.17 ( <i>n</i> = 4)	15th to 16th birth	716.00 ( <i>n</i> = 1)	

<sup>a</sup> Counts and averages exclude the second child in the cases of twin births and the second and third children in the three cases of triplets. Also, averages are restricted to first marriages; they do not include children from second marriages.

Families grow fast after marriage (excepting childless couples and ignoring stillbirths and infant deaths): the first child is born less than a year and a half after the couple is married. On

average, the second child is born early in the fourth year of marriage (3 years and slightly over 2 months). The third child comes along during the sixth year (5 years and 3.5 months), and the fourth is typically born in the eighth year of marriage (7 years and slightly over 9 months). The fifth child is born about three weeks after the tenth wedding anniversary is celebrated. By the time the sixth child arrives, the couple will have not yet observed their thirteenth anniversary (on average, 6 children in 12 years and 8 months). This progression continues until couples in the Greater Lancaster County settlement who bring into the world 12 children will have completed the task, on average, in about 28 years and 9 months.

## **Stillbirths and Infant Deaths**

Based on his analysis of infant mortality, which used records from 1890 through 1959 and included both stillbirths and deaths of infants less than 1 year old, Smith (1960) found lower rates for the Amish when compared to national rates. He considered this finding to be remarkable because rates were historically higher for rural and farm populations in the United States.

Table 11 shows stillbirths and infant deaths by birth order from the 2015 directory data. Altogether, 2.34% of babies born to Amish families died before the age of 1 (including stillbirths). About half died within the first week (1.08%), followed by stillborn babies (0.68%), and children who died before their first birthday (0.59%). There is no obvious pattern based on birth order, either as an incremental increase or decrease in the three categories. Cause of death cannot be ascertained from the 2015 directory data; however, it is likely that children who died after their first week of life but before they turned 1 year old died from health-related maladies or accidents.

	Stillborn		Died within 7 days		Died within first year		Total number
Birth order	n	%	n	%	n	%	of births
1st	8	0.06%	18	1.27%	5	0.35%	1,416
2nd	15	1.13%	9	0.68%	7	0.53%	1,331
3rd	4	0.33%	11	0.91%	3	0.25%	1,206
4th	5	0.46%	10	0.92%	6	0.55%	1,091
5th	8	0.86%	9	0.96%	5	0.53%	935
6th	7	0.89%	12	1.52%	11	1.39%	791
7th	3	0.50%	7	1.16%	4	0.66%	605
8th	1	0.23%	3	0.68%	4	0.90%	444
9th	1	0.34%	8	2.72%	1	0.34%	294
10th	2	1.03%	3	1.54%	2	1.03%	195
11th	2	1.79%	1	0.51%	1	0.51%	112
12th	0	0.00%	1	1.56%	1	1.56%	64
13th to 16th	2	3.7%	0	0.00%	0	0.00%	54
Total	58	0.68%	92	1.08%	50	0.59%	8,538

#### Stillbirths and Infant Deaths, by Birth Order

The total number of deaths before age 1 was 200, a rate of death of 23.42 per 1,000 births. When the number of stillborn infants is subtracted, the total number of deaths was 142, a rate of 16.63 deaths per 1,000 live births.<sup>21</sup> Comparatively, Smith (1960, p. 47) calculated a rate of 32 infant deaths per 1,000 live births for those born during the decade of the 1950s. According to Smith, in the time period 1890–1899, the Amish rate was 92 deaths per 1,000 live births, which had declined to 27 deaths per 1,000 live births for infants born in the 1940s. It is impossible with the sample size from the 2015 directory and the small percentage of babies who died before their first birthday to examine infant mortality by birth cohort. However, compared to the results from Smith's study, it would appear that there is a continued downward trend, likely the result of steady improvements in infant health, prenatal screening, and various safety precautions around the home, farm, and other home-based workplaces.

## Age and Sex Distribution

Table 12 displays information on the age and sex distribution of the sample from the 2015 directory. Males make up a slight majority of the total population, a finding consistent with other demographic studies of the Amish in the Greater Lancaster County settlement and elsewhere (Smith, 1960; Ericksen et al., 1979; Hostetler, 1993).

However, what is most immediately obvious from Table 12 and other tables (see previous discussion of family and birth intervals) is the youthfulness of the Amish population in the Greater Lancaster County settlement (Smith, 1960; Hostetler, 1993). The rightmost column of Table 12 shows that 54% of the population is younger than 20 years. About 29% of the population are 9 years of age or younger and slightly less than 15% are younger than 5 years old. Comparatively, in the United States today (U. S. Census Bureau, n.d.-a), about 6% of the population are under 5 years of age.

In reference to the adult portion of the sample (the other 46%), there is an incremental decrease in the percentages by each age group. For example, 26.24% of the sample are young adults; that is, 20–39 years old. About one in eight (13.08%) is in the 40–59 age range, and 6.69% are 60 years of age and older. The U.S. population is much older, with an estimated 16.5% of Americans 65 years and older (U. S. Census Bureau, n.d.-c) compared to only 4.76% of the Greater Lancaster County Amish population.

<sup>&</sup>lt;sup>21</sup> There is a shortcoming in the listing of children in the 2015 Lancaster County directory, a shortcoming common to almost all of the other directories: only some families clearly note that their child was stillborn. It is impossible to discern from directory data if babies listed with the same day for both birth and death were stillborn or lived for several hours before their passing.

	Female		Male		Total	
(in years)	п	%	n	%	n	%
0–4	611	15.29	606	14.49	1,217	14.88
5–9	517	12.94	617	14.75	1,134	13.87
10–14	497	12.44	544	13.01	1,041	12.73
15–19	488	12.21	535	12.79	1,023	12.51
20–24	339	8.48	346	8.27	685	8.38
25–29	276	6.91	297	7.10	573	7.01
30–34	241	6.03	239	5.71	480	5.87
35–39	221	5.53	187	4.47	408	4.99
40–44	184	4.60	167	3.99	351	4.29
45–49	171	4.28	144	3.44	315	3.85
50–54	108	2.70	118	2.82	226	2.76
55–59	85	2.13	93	2.22	178	2.18
60–64	74	1.85	84	2.01	158	1.93
65–69	72	1.80	73	1.75	145	1.77
70–74	45	1.13	58	1.39	103	1.26
75–79	29	0.73	32	0.77	61	0.75
80–84	18	0.45	21	0.50	39	0.48
85–89	10	0.25	12	0.29	22	0.27
90 and older	10	0.25	9	0.22	19	0.23
Total <sup>a</sup>	3,996	100.00	4,182	100.00	8,178	100.00

Table 12Age and Sex Distribution

<sup>a</sup> Due to rounding error, not all percentages add up precisely to 100%.

Not only are the Amish of the Greater Lancaster County settlement young today, but this same youthfulness is evident in Smith's (1960, pp. 57–63) summary from the first half of the twentieth century, which can be found in Table 13. In this table, the 2015 percentages are rounded to one decimal point, as was Smith's data. Despite the 64-year difference in the age and sex profiles of the two populations, there are no dramatic changes. However, a comparison of the percentages does reveal that the sample population from the 2015 directory is slightly older. Particularly, there are lower percentages for the 0–4 and 5–9 age groups and higher percentages for the four oldest age groups. Whereas about 28.8% in the 2015 directory dataset are less than 10 years of age, that age group is 34.7% of the total population in the data compiled by Smith. This suggests a small decrease in fertility; however, it may simply be a product of the higher percentage in the elderly age categories based on the 2015 directory, which most likely reflect improvements in health care. The 2015 sample data shows that 3.0% of the population is 70 years and older, compared to 2.61% in the Smith study.

Та	ble	ə 13	,

Age group	% Fe	male	% N	lale	Total %	
(in years)	12/31/14	12/31/50	12/31/14	12/31/50	12/31/14	12/31/50
0–4	15.3	17.9	14.5	20.2	14.9	19.0
5–9	12.9	14.6	14.8	16.7	13.9	15.7
10–14	12.4	12.2	13.0	12.3	12.7	12.2
15–19	12.2	9.0	12.8	9.2	12.5	9.1
20–24	8.5	7.7	8.3	8.2	8.4	7.9
25–29	6.9	7.7	7.1	6.3	7.0	7.0
30–34	6.0	6.6	5.7	6.1	5.9	6.4
35–39	5.5	5.5	4.5	4.2	5.0	4.8
40–44	4.6	4.1	4.0	3.3	4.3	3.7
45–49	4.3	3.0	3.4	2.7	3.9	2.8
50–54	2.7	2.8	2.8	2.8	2.8	2.8
55–59	2.1	2.7	2.2	2.5	2.2	2.6
60–64	1.9	1.8	2.0	2.0	1.9	1.9
65–69	1.8	1.4	1.8	1.4	1.8	1.4
70–74	1.1	1.4	1.4	1.3	1.3	1.3
75–79	0.7	0.6	0.8	0.6	0.8	0.6
80–84	0.5	0.6	0.5	0.3	0.5	0.5
85–89	0.3	0.3	0.3	0.1	0.3	0.2
90 and older	0.3	0.03	0.2	0.0	0.2	0.01
Total <sup>a</sup>	100.0	100.0	100.0	100.0	100.0	100.0

Age and Sex Distribution: A Comparison of the 2015 Directory Data (as of 12/31/14) and Elmer Smith's Data (as of 12/31/50)

*Note.* There appears to be a mistake in Smith's (1960) presentation of data in the table on page 62. The label "under age 5" is actually the percentages of males and females for the 20–24 age group. The "20–24" label is for those 25–29 years old, the "25–29" label is for those 30–34 years old, the "30–34" label is for those 35–39. The final label, "40-44" is correct. In addition, the column total for the percent of females in the population adds up to only 99.93%, which is a small mistake contained in the original report by Smith (see Tables I through IV on pages 61 and 62).

<sup>a</sup> Due to rounding error, not all percentages add up precisely to 100%.

Two age-sex pyramids of the Amish population have been constructed from Table 13: one from the sample data and the other from Smith's (1960) data (see Figure 1). This allows for a visual comparison across nearly two-thirds of a century. Before a comparison can be made, however, there are two methodological points to be made. First, the age-sex pyramid from the 2015 data is a "snapshot" of the population, while Smith's (1960) statistics are derived from Amish marriage records from 1939 through July 1, 1954, and genealogical records of Amish families from 1890. Thus, these different ways of collecting data could account for possible differences in the appearance of the pyramids.

Second, there is a possible source of error in an age-sex distribution that is based on directory data. For example, in reference to the 2015 directory dataset, in order to count the number of females and males in each adult age group, especially the 20-24 and 25-29 groups, it was necessary to first screen out offspring who were assigned a directory number. A directory number indicates that the person is an independent household (likely married) and living either in Lancaster County or one of its daughter settlements. Only those without a directory number can be presumed to still live at home. However, it is possible that the absence of a directory number means that the individual is no longer Amish or has moved to an Amish settlement that is not considered a daughter settlement, or that the data is simply missing. All three could inflate the numbers if not accounted for, particularly in these two age groups, because this is the age range (especially the 20-24 age group) when many individuals get married and set up new households. For example, 39.42% of the individuals who were 20-24 years old have their own directory numbers, indicating (except for a few single-person households) that they are married and live either in the Greater Lancaster County settlement or one of the daughter settlements. Further, 11.48% of those in this age group with a directory number and presumably married now live in a daughter settlement. For the 25–29 age group, fully 81.85% are married and, of those, 16.06% live in a daughter settlement.

With these caveats in mind, a glance at Figure 1 shows two remarkably similar age-sex pyramids. A similarly shaped age-sex pyramid for the Elkhart-LaGrange County population of northern Indiana can be found in Hostetler (1993, p. 105). The Elkhart-LaGrange settlement in northern Indiana was at the time, and remains today, the third largest, behind the Greater Lancaster County and Greater Holmes County communities.

# Figure 1

Age-Sex Pyramids Based on Sample Data from the 2015 Lancaster County Directory (top) and the Elmer Lewis Smith 1960 Study (bottom)





The similarities in the structures of both age-sex pyramids visually display how minimal change over time exists in the Greater Lancaster County settlement population by age and sex. Yet, there are two differences worth pointing out. The first noticeable difference between the two pyramids is on the base. Even though infant mortality rates had declined by the time Smith's (1960) report was published, they continued to decline after his study was published. This can be seen in the 2015 pyramid for the 0–4 and 5–9 age groups. The two age groups are closer in size to each other, even with the smaller size seen on the female side of the pyramid based on the 2015 sample data. The slightly higher percentage of males in the 5–9 age group from the 2015 directory data likely is a consequence of the fact that it is a sample, not a full count.

The second difference is more dramatic. It is the large difference in the size of the bars for both males and females between the 15–19 and 20–24 age groups. As already alluded to, the decline is likely a combination of marriage and out-migration. At the time of the Smith (1960) study, there were only two daughter settlements linked to the Greater Lancaster County settlement. One is known today as the St. Mary's/Charles, Maryland, settlement, founded in 1940, and the other is the Myerstown, Pennsylvania, community, which began a year later, in 1941. After considering if the greater number of males in the Amish population would encourage out-of-settlement marriage, Smith (p. 31) concludes, "Amish people tend to marry someone who lives relatively near their own place of habitation, for residential propinquity is a very substantial element in the choice of a mate."

Today, there are many more daughter settlements, and opportunities for moving to a daughter settlement are greatly increased. Counts of households living in either the Greater Lancaster County settlement or one of its daughter settlements shows this pattern clearly. The various editions of the directories include both maps of each church district and lists of the households in each church district for the Greater Lancaster County settlement and all its daughter settlements. In the 1996 directory, there were 26 daughter settlements in which lived 22.05% of all households. In the 2002 directory, there were 30 daughter settlements in which resided 25.17% of all households. The 2015 directory shows that 30.56% of all households live in one of the 34 daughter settlements. The recently released 2021 directory (*Church Directory of the Lancaster County Amish*, 2021) shows that the percentage rose to 39.15% of all households located in 44 daughter settlements.<sup>22</sup> As the number of daughter settlements grows, so too does the percentage of all households in these directories.

The daughter settlements provide more opportunities for young men and women living in the Greater Lancaster County settlement to meet and consider marriage with those from a different locality but with a shared history and likely similar church disciplines, plus the likelihood that members of the same extended family (especially cousins) live in both. Furthermore, even if both newlyweds were raised in the Greater Lancaster community, they can decide to start their married

<sup>&</sup>lt;sup>22</sup> 1996 directory: 1,194 households living in daughter settlements from a total of 5,416 households; 2002 directory: 1,670 households in daughter settlements from a total of 6,635; 2015 directory: 3,264 households in daughter settlements from a total of 10,679; 2021 directory: 5,135 households in daughter settlements from a total of 13,115.

life by moving to one of these other locations. The Greater Lancaster County settlement is large, and the number of tourists who flock to Lancaster County (Kraybill et al., 2013), as well as the size of the county itself—a large metropolitan area with a population exceeding 550,000 (U.S. Census Bureau, n.d.-b)—means crowded conditions and expensive land. With many daughter settlements available in which a young married couple can begin their life together, there are plenty of alternative localities that offer cheaper land and less crowded conditions. Yet, through dense extended family and friendship networks, roots in the Greater Lancaster County settlement are maintained, not lost (Kraybill et al., 2013). This makes the sociological dynamics of Amish migration patterns distinctive and suggests a future research project that would document this pattern with greater statistical precision.

Nonetheless, these dynamics can be seen in the noticeable decrease in the size of the horizontal bars on both the male and female sides of the 2015 pyramid for those in the 20–24 age range when compared to the 15–19 age group. From there and up through the older age groups, the 2015 pyramid and the pyramid based on Smith's (1960) data are again similar in structure.

Migration itself is now (and, it can be argued, was always) a regular part of Amish society. For example, as Kraybill et al. (2013, p. 181) observed from an analysis of migration reports in *The Diary*, an Amish periodical published monthly, from 2006 to 2010, over 2,300 households moved across state lines, from one community to another. Although the conclusion about marriage and out-migration to daughter settlements remains speculative, it suggests a testable hypothesis for future research, perhaps using directories other than the one for the Greater Lancaster County settlement that provide specific information about both the baptism status and location of adult offspring.

## **Summary**

Here is a summary of the numerical patterns that collectively make up a demographic profile of the Amish in the Greater Lancaster County settlement, and of comparisons to the one presented by Smith (1960) over 60 years ago.

First, nearly 8% of households experienced the death of either the husband or wife. Beachy's (2021) study, which utilized the same dataset employed in this study, found that widowers are much more likely to remarry than widows, and that for widowers, the time between death of the wife and remarriage was about 2.2 years. Beachy's findings are similar to Smith's (1960) results from six decades prior, indicating little change in the pattern of remarriage.

Second, about one in six men in the sample from the Greater Lancaster County settlement are ordained (Table 1). Ministers far outnumber both bishops and deacons. The disparity comes about for two reasons. It is common in nearly all Amish settlements that each church district includes two ministers and one deacon. However, one bishop oversees two church districts in the Greater Lancaster County settlement. About half of ordained men, regardless of position, are farmers or retired farmers.

Third, despite the missing occupational data for recently married men in the 2015 directory, the results in Table 2 do not contradict a steady downward trend in farming as the primary

occupation of males in the Greater Lancaster County settlement. This trend is similar to what is happening in most other settlements. Nonetheless, farming remains the most common occupation of men in the Greater Lancaster community.

Fourth, based on both the analysis by Smith (1960) and the data displayed in Table 3, there is a remarkable similarity over the 110-year period in the average age of both women and men when they marry for the first time. Only for women married in the twenty-first century is there a small uptick in the average age of marriage. A similar incremental increase in the average age of first marriage for males is also reflected in Table 3. Smith's findings combined with the results from the 2015 directory data show that age differences at first marriage have barely changed over the span of twelve-plus decades.

Fifth, the wedding season in the Greater Lancaster County settlement remains the late autumn, a tradition that can be documented back to the 1890s from the Smith (1960) demographic profile (Table 4). There was a shift from December as the favored month to November, a minor but still noticeable change. In contrast, in the Greater Holmes County Amish community, weddings have shifted from the autumn months to the spring and summer months (H. Troyer, 2021). It is a valuable lesson for researchers: what happens in one Amish settlement may not be true for other settlements.

Sixth, like the months for weddings in the Greater Lancaster County community, the days for matrimonial ceremonies have changed very little over time (Table 5). Tuesday and Thursday are the preferred weddings days, which likewise was found by Henry Troyer (2021) in his analysis of data for the Greater Holmes County settlement. There was a slight shift in the Greater Lancaster County settlement, with more weddings held on Tuesdays than on Thursdays in more recent decades.

Seventh, the number of children in a household has certainly gone down in the general U.S. population, but not among the Amish in the Greater Lancaster County settlement. As so many other demographic analyses of the Amish have found (Smith, 1960; Ericksen et al., 1979; Wasao & Donnermeyer, 1996; Kraybill et al., 2013), the Amish remain a high fertility group no matter how the data is examined—by women who have completed fertility (Table 6), by age cohort (Table 7), by marriage period (Table 8), or by the percentage of families with 5–9 or 10 and more children (Table 9).

Eighth, the length of time between marriage and first birth and all subsequent intervals of time between births in Amish families have remained steady by marriage period (Table 10). In other words, there has been little change. The average time from marriage to first birth is about 1 year and 9 months, which increases to 2 years and 1.5 months for the interval between the first and second birth. For a typical Amish family in the Greater Lancaster County settlement, a couple celebrating their tenth wedding anniversary will have at least four and likely five children to share in the anniversary festivities (plus many friends, extended family, and neighbors, of course).

Ninth, by birth order, there is no discernable pattern in the percentage of Amish babies who passed away before their first birthday, based on the 2015 directory data (Table 11). However, by comparing data from the 2015 directory with Smith's (1960) data over the period from 1890

through 1949, a significant downward trend in infant mortality is indicated. The decrease is likely due to improvements in health care.

Tenth, the Amish population in the Greater Lancaster County settlement is very young. Nearly three out of five Amish persons in that settlement are 19 years old or younger (Table 12). A comparison with Smith's (1960) age and sex distribution from 60-plus years earlier shows that over time, the differences are not large (Table 13). There is a much lower percentage of people in the 20–24 age group in the 2015 sample, likely due to marriage and out-migration to daughter settlements.

## **Discussion, Conclusion, and Recommendations**

The preface to What the Amish Teach Us, the most recent book by Don Kraybill (2021), is titled "When Old Is New Again." An analysis of data from the 2015 Lancaster County directory and its comparison with population information from Smith (1960) and other scholarly sources certainly confirms the accuracy of the title. Even though it appears that the Amish in the Greater Lancaster County settlement, like the Amish in most other settlements, are shifting out of agriculture, so many other demographic dynamics are either changing slowly or not at all. If Elmer Lewis Smith could view the tables in this article, I think he would say that the most sociologically significant thing is that not much has changed about the Amish living in the Greater Lancaster County settlement in regard to most of their demographic characteristics, despite the diversification of their economy and the growth of their population. For example, it took many decades for the month of marriage to shift from December to November and for the most popular day to shift from Thursday to Tuesday. Today, there may be fewer babies who do not survive to their first birthday as compared to Smith's findings, but rates were already declining, as can be seen in his decadeby-decade analysis of data from the 1890s through the 1940s. Finally, there is a decrease in the percentages of males and females in the 20-24 age group compared to the total population, likely a consequence of crowded conditions in Lancaster County and the number of daughter settlements in which new families can now establish themselves.

Accompanying the boom in both the Amish population and the number of settlements (Donnermeyer, 2021) are the number of directories with important demographic information. A growing number of demographic databases developed by various Anabaptist scholars now exists, which promises a flourishing period of population studies about the Amish and other Plain Anabaptist communities that hopefully builds on the earlier work of Smith (1960), Cross, McKusick, and the Hostetlers (Nolt, 2020) and expands more recent work by scholars as found in the first five issues of the *Journal of Plain Anabaptist Communities*, such as Beachy (2021), Greksa (2021), and Meyers (2022).

It is important to work toward two goals. The first is to engage in both longitudinal and comparative studies, based on available directory data. For example, by developing a larger database from samples of directories published over time for the same settlement, it will be possible to examine incremental change over many, many decades by breaking down the data into birth cohorts or marriage cohorts. In this article, this was possible due to the extraordinary

statistical presentation of population characteristics by Smith (1960), whose analyses occurred in the olden days of paper, pencil, and perseverance.

Comparing demographic change across different kinds of Amish communities is also part of this goal. The most obvious is the need for someone to take up the analysis of Swiss-Amish communities, such as the large one in Jay and Adams counties of eastern Indiana and the Seymour settlement of southern Missouri. There is also a sufficient amount of information from directories of various other conservative affiliations, such as the many Swartzentruber, Nebraska, Byler, and Troyer settlements. As well, there is a directory that provides demographic information for almost all New Order Amish communities and an array of directories for conservative Anabaptist groups, such as various horse-and-buggy Mennonites. Are the demographic patterns different in various affiliations of Amish and conservative Mennonite groups; that is, what can these statistics tell us about economic and social change within different kinds of Anabaptist communities? How does minor and incremental change—as well as larger and more rapid change—help us to understand the past and the possible futures of the Amish and other Plain Anabaptist groups?

Yet researchers should not focus on statistics alone, which is the second goal. There are clear limits to what the quantitative information in directories can provide. Why are Tuesdays and Thursdays almost exclusively the days on which weddings are held, for example? The statistics may pose the question, but the scholarship of Scott (1988) and others, qualitative in nature, is necessary to fully answer it.

Directories also have their limitations, shortcomings that scholars who rely on secondary data—data collected by someone else—cannot always resolve. The 2015 Lancaster directory shows some of these. The listing of an employer rather than the actual job of an Amish head of household complicates an analysis of the data relative to the shifting occupations of Amish men, as does the large amount of missing occupational data for recently married men. The absence of baptism codes means an analysis of retention in the Amish faith cannot be done for this settlement. Finally, there are the typical errors found in these directories that are more occasional—an obviously wrong date for a birth or marriage, data that is missing for a particular household, and so on.

Population data should be viewed as like standing at the base of a pyramid on which to gaze up to the social organization and cultural practices of any human group, and to gauge the future impact of possible demographic changes as well. That is why using directories to examine population characteristics is so important in developing a deeper understanding of the Amish. Directory data offers an opportunity to combine what is statistical with other types of information—archival, ethnographic, and historical. In this article, the pattern of results clearly shows that there are many aspects of Amish society that have not changed. To understand the cultural and social patterns that have created this stability requires, however, a great deal more fieldwork, including interviews and focus groups with the Amish themselves.

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