Student Capability and Intimate Relationships

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Explanation and Motivation

Capability as a middle term

Berea College, like many schools, collects a lot of data on its students. Socioeconomic and other demographic data, depression/anxiety and other wellness data, and GPA, post-graduate employment, and other achievement data seem to be among the most important sets. Unlike many elite colleges, but perhaps like community colleges, Berea has long presented itself as a vehicle for increasing the socioeconomic mobility of its students — a goal the college implicitly argues rests on wellness, the liberal arts curriculum, and GPA.

If pre-college or first-year socioeconomic status, wellness, and achievement are seen as inputs, and these metrics post-college are outputs, what are the metrics for the middle term? What precisely does Berea and similar programs (such as community colleges) change in students' lives during the years of college?

This seems like the type of question the solution of which is approachable only with qualitative methods, or with distant proxy measures. However, recent work in health economics has produced a relatively short survey instrument for measuring the capability of respondents across domains that reflect common sense understandings of what, when possible, opens the door to a good life, and when impossible produces human misery.

Ten such domains were defined by Nussbaum (2013), based on Sen (1992)'s capabilities approach, which is used by the United Nations Development Programme to

produce annual Human Development Reports. Nussbaum's domains are life, health, bodily integrity, senses/imagination/thought, emotion, practical reason, affiliation, species, play, and control over one's life. She insisted that they remain open-ended to allow addition or removal of items, based on the common sense of people being assessed. Consideration of human capability in these domains is intended to support just policy that maximizes the freedom of people to live good, dignified lives.

Lorgelly, et. al. (2008) operationalized Nussbaum's domains of capability, developing and validating the 18-question OCAP-18 survey for public health research with adults in the UK. Unlike wealth, OCAP-18's measure is normally distributed, so statistical means can be used. The OCAP-18 instrument was modified by Simon et.al. (2013) as the OCAP-MH for use with adults with mental illness.

The OCAP surveys allow for discovery of individual or population capability. For example, if an OCAP respondent is completely capable within the health domain, then their health does not limit their daily activities and their home is very suitable for their current needs. If a respondent is completely capable within the emotion domain, then they find it very easy to enjoy love, care and support, and they never lose sleep over worry.

The short question sets of the OCAP surveys were produced by a process that began with Nussbaum's areas of inquiry in each domain, operationalized into a large question set, which was administered to a diverse sample of the UK population and shortened through factor analysis and focus-group qualitative methods.

The instrument was found to supply a measure that did not transparently proxy for zipcode, SES, or subjective quality of life. One possible critique of the resulting instrument is that the domains are no longer open to modification to fit common-sense local understanding of the capability necessary for a good life.

The capability approach was designed to discover the middle terms between the *means* to achieve (material and social determinants such as socioeconomic status and discrimination) and successful achievement of what people value (such as a good life or happy family). Assessed capability is intended to be a value-neutral measure of the freedom to achieve, which depends on the dynamic web of material means, social context, capability, and choice. This is the area I noted above remains unassessed at Berea College.

Review of the literature

Sex, intimate relationships like marriage, and birthrate have declined in all developed countries including the United States over the last thirty years (Fisher, 2018). People in their teens, twenties, thirties, and the first half of their forties were particularly affected (Martin et al., 2019). Markers of teen independence decreased. Parents and children increasingly live together into the children's thirties (Twenge 2017). Adults report wanting more children than they have (Sussman, 2019). Over the last thirty years, adolescent anxiety, depression, and feeling overwhelmed markedly increased (Eagan et al., 2016; Stolzenberg, Eagan, Aragon, et al., 2019; Romo & Jacobo, 2020).

There are no known clinical or policy interventions that successfully increase or even check the decline in population rates of sex, intimate relationships like marriage, or birthrate in developed countries (Julian, 2018; Sussman, 2019). Demographic and economic trends, technological change, and other factors may influence the poorly understood changes in intimate relationships (Twenge 2017). A better understanding of the relationship between what people *can* do and what they *actually* do may lead to the discovery of policy interventions that promote intimacy and interpersonal well-being.

The potential for the discovery of such levers is illustrated by interventions that successfully reduce county suicide rates (O'Hagan, 2019). Suicide has long been understood to be a demographic problem of similar complexity to birthrate and marriage (Durkheim, 1897, Rosen 2015). Demographically successful antisuicide interventions described by O'Hagan are driven by good data, assume that people want to live, and remove impediments to continued life at points when it seems impossible.

Interventions to prevent suicide and promote family-formation (with family broadly defined) rest on the assumption that these are outcomes that individual people, freed from misery, want. A non-coercive approach to promoting sex, marriage, and childbearing in developed countries would perhaps depend on understanding whether intimate relations are indeed desired and what impediments prevent their realization. The next section addresses this question.

Who achieves intimate relationships?

A study on the sexual desire of young women by Weitzman (2019) analyzed a panel dataset of 925 eighteen and nineteen-year-old women. The women were randomly selected from a diverse Michigan county and surveyed about their sexual history, desire, and milieu, then polled weekly for 2.5 years. Using logistic regression analyses, Weitzman found that sexual desire significantly associated with social factors, other desires, and sexual intercourse and contraceptive use. 77% of young women reported some sexual desire at baseline. The strength of their desire typically increased over time, most dramatically in the first year of the study and among the women who began with the lowest desire levels. Desire for sex strongly positively associated with wanting to get pregnant, the weeks following sexual debut, being the daughter of a mother who had completed college (a proxy for socioeconomic class), and being in any kind of relationship. The strongest positive association with sexual desire was being married. Desire for sex did not significantly associate with relationship duration, sexual debut at or under 14 years, or cumulative number of sex partners. Sexual desire negatively associated most strongly with being highly religious, cumulative number of births, and African American race. The chance that participants would have sexual intercourse (involving vaginal penetration with a penis) increased with the strength of their desire and increased more when they were using hormonal contraception than when they were not. 82% of the women identified as straight (n=485) and 6% as bisexual (n=35). Analysis of only these groups yielded similar results.

Pinquart et al. (2010) looked for value judgement and sociodemographic associations with ambivalence about having children in a survey of 267 twenty-five to

thirty-year-olds in a large German city. 64% of the sample were women, 80% were currently in an intimate relationship, and 29% were parents. 9% were strongly ambivalent about having children. Using stepwise multiple regression, the authors found significantly more ambivalence in participants who considered parenthood less important, prosperity more important, and children more costly. Women were more ambivalent about having children than men, as were people with ambivalent partners and people with lower educational attainment. More ambivalent participants postponed having children and had fewer children than less ambivalent participants.

In a study of survey data from 1,467 single U.S. women aged eighteen to twenty-four, Manning et al. (2019) found that despite cohabitation being the most common union experience among young adults, more young women expect to marry than expect to cohabit. 95% of their sample had been married or expected to marry, 64% had cohabited or expected to cohabit. Two-thirds of those who expected to marry expected to cohabit before marriage. Participants with a college-educated mother (a proxy for socioeconomic class) were 1.6 times more likely to expect to marry than participants with mothers who did not graduate from high school. Logistic regression modeling showed other characteristics with significant strong associations. Single mothers, Hispanic women, women in big cities, women who grew up without two parents, and women who were not religious were less likely to expect they would marry when compared with, respectively, non-single women, non-Hispanic women, women not in big cities, women who grew up with other then two parents, and women who were religious. African Americans, women raised by two parents, and more religious women

were significantly less likely to expect that they would cohabit than non-Hispanic White women, women raised in other arrangements, and less religious women.

Addo (2014) analyzed U.S. national survey data from 6,749 twenty to twenty-nine-year olds. 52% of women and 62% of men remained single over the study period (1997-2009). Cohabitation was twice as likely as marriage in both men and women. Women are likely to cohabit beginning at a younger age than men, and for both men and women, the likelihood of cohabitation and marriage increase with age. Regression models demonstrated significant sociodemographic associations with cohabitation and marriage. Most notably, advanced education, assets, a full-time job, and zero debt increased the likelihood of marriage. Being raised in a rural area also increased the chance of marriage. Participants with less education were more likely to cohabit than marry. Current enrollment in college decreased the odds of cohabiting or being married. Current residence in a rural area decreased the chance of cohabitation, and black participants were less likely to marry or cohabit than non-Hispanic White participants.

Each of the relations under investigation is socially produced, constrained, or stratified: desire for sex and actually having sex, decisions about having children and actually conceiving and birthing, expectations of cohabitation and marriage and actually forming those durable partnerships. Desire, decision, expectation, and achieved functioning appear to reflect one's available economic resources, geographic mobility, and race (which may proxy for some combination of racial culture and antiblack material or affective misery). The associations revealed by this review of the literature are unsurprising, but ultimately unhelpful to the problem of increasing access to sexual,

reproductive, or marital relations. After all, birth rate is higher in developing countries, in which less people can access economic resources, was higher in the U.S. historically, despite *de jure* antiblackness, and has decreased in more equal developed nations with strong employment protections, maternity leave, and social spending concurrently with less equal developed nations (Sussman, 2019).

What is useful to note is that people who likely had more freedom to live good, dignified lives generally were also more likely to desire and achieve intimate relationships.

Variables

This study attempts to explain the chance that a person will form adult intimate family relationships. Families usually involve sex, usually involve marriage or cohabitation, and sometimes involve having and/or raising children. Ninety-five percent of the study sample was under 22 years old, and 100% of study participants were undergraduates in a residential college. I measured three self-reported behaviors that are elements of adult family relationships: history of sexual intercourse, current serious intimate relationship, and duration of longest intimate relationship. Each of these behaviors was chosen to indicate age-appropriate milestones in family formation. Regressions will be run with models explaining each of these behaviors.

The dependent variable sex_ever is a dummy indicating participants who have ever had sex, according to their own definition of the word. The omitted condition is participants who have never had sex. The dependent variable rel_now is a dummy

indicating participants who are currently in serious relationships or married. It includes

nonmonogamous students and omits single students and students who reported they

are "talking to" (i.e. courting) someone but not dating. The dependent variable

rel_longest indicates the length in years of each participant's longest intimate

relationship. This study does not attempt to assess the quality of sex or relationships.

Perhaps a study focused on sexual or relationship wellness would find significance

where this study, focused on the presence and duration of intimate relations finds none.

Independent variables

Fischel (2019) suggested six of Nussbaum's capability domains as relevant to

undergraduate sexual health: the domains of health, bodily integrity,

senses/imagination/thought, emotion, affiliation, and play. These variables were

constructed for the present study of questions developed for the OCAP surveys

(Lorgelly, et. al. 2008, Simon et.al. 2013). They are special interest variables and are

expected to have main effects.

------------table 1: questions in each domain------------

Other expected main variables include year in college, race, and gender.

Firstyear is a dummy variable indicating students in their first year at Berea College. As

students continue at college (and grow older), they are expected to encounter more

opportunities to enter intimate relationships. Omitted conditions are non-first years,

including second-year, third-year, fourth-year, and fifth-year students. *Black* is a dummy

race variable omitting participants who did not identify themselves as black. Race is

expected to have a main effect due to literature reviewed above which indicated that

black women were less likely to desire sex than non-black women, and black people

were less likely to marry or cohabit than non-Hispanic white people. *Notmale* is a

dummy gender variable. It includes students who identified themselves as female or any

gender description other than male. Male is the omitted condition. Gender is expected

to have a main effect due to high prevalence of heterosexuality and the presence of

more female than male students decreasing the opportunity of non-males for intimate

relationships.

Variables expected to have marginal effects include notfirstgen and ruralonly.

Notfirstgen is a dummy variable indicating participants whose parents or grandparents

attended college. First generation students are omitted from this condition. *Ruralonly* is

a dummy variable indicating that a participant only lived in rural areas during high

school. Any student who indicated living in a town, suburb, or city of any size was

omitted, even if the student had also lived in a rural area. There is no evidence in the

literature that rural origin or first generation status has an effect on intimate

relationships. These variables are included because they are important to the college,

and emerged from informal focus groups as possibly relevant.

Regression equations and expected sign of coefficients

$sex\_ever = \beta 0 + \beta 1\, health\_domain + \beta 2\, bodilyintegrity\_domain + \beta 3\, senseimaginthought\_domain + \beta 4\, emotion\_domain + \beta 5\, affiliation\_domain + \beta 6\, play\_domain - \beta 7\, firstyr - \beta 8\, black + \beta 9\, notfirstgen + \beta 10\, ruralonly - \beta 11\, notmale + u$

$rel\_now = \beta_0 + \beta_1 health\_domain + \beta_2 bodilyintegrity\_domain + \beta_3 senseimaginthought\_domain + \beta_4 emotion\_domain + \beta_5 affiliation\_domain + \beta_6 play\_domain - \beta_7 firstyr - \beta_8 black + \beta_9 notfirstgen + \beta_{10} ruralonly - \beta_{11} notmale + u$

$rel\_longest = \beta_0 + \beta_1 health\_domain + \beta_2 bodilyintegrity\_domain + \beta_3 senseimaginthought\_domain + \beta_4 emotion\_domain + \beta_5 affiliation\_domain + \beta_6 play\_domain - \beta_7 firstyr - \beta_8 black + \beta_9 notfirstgen + \beta_{10} ruralonly - \beta_{11} notmale + u$

Data Set and Data Sources

The data set is 61 observations. Each observation constitutes a Berea College student. The data set is a cross-section, collected by paper survey from 26-28 February 2020. About 28% of participants were first-year students, about 19% were black, about 54% were not male, about 58% were not first-generation, and about 30% were rural-only residents during high school. Ages of participants ranged from 18-31 (xbar=20.4). Almost 30% of the sample was 21 years old. About 57% of participants had ever had sex. About 38% were currently in relationships. One participant was married, one was engaged, none were divorced, and none had children.

All variables in the models have some variation. The variable with the greatest range of values relative to its mean is length of longest relationship. Its distribution does

not justify putting it in nonlinear functional form. Participants' longest relationships

ranged from 0 to 5.2 years (xbar=1.43 years, range relative to mean 3.8). The dummy

variable turned on for the least observations is black (on=11). The highest correlation

coefficients are notmale with bodilyintegrity_domain (–50.2) and rel_longest with

sex_ever (45.9).

Regression Results: Iterating to the "Best" Equation

The first iteration of the regression model was limited to variables expected to have

main effects, and used composite measures assembled from capability domain scores

and intimacy measures:

$intimacy = .5409053(.9359882) + .004477(.0101691)capab + .5409053(.9359882)age - .0838715(.1625311)firstyr - .4290657(.1767258)black$

SSR = 10.7682104   R2 = 0.1341   N = 55

Signs were as expected in this limited model, and heteroscedasticity was not

found. A subsequent regression also modeled the composite intimacy and capability

variables but included all expected main and marginal variables. R-squared increased

from 0.1341 to 0.2220 from regression 1 to regression 2, so the second model

explained more of the data variance. Adjusted R-squared increased from 0.0649 to

0.0982. The expanded model was not penalized for adding the additional variables. The

F-statistic decreased from 1.94 to 1.79, meaning the complete group of variables was

more jointly significant. Black was the only coefficient with statistical significance at a

p<10% level.

The age variable was found to contain limited variation. Age correlated moderately with student classification status (coefficient of .61) and its dummy variable first-year (.40). The age variable was discarded. It was thought that composite variables hid important information in the model, so composite variables were broken out into their component measures and domain scores to produce the three regression models above. Each model was run in seven variations: six sub-models each limited to assessing the effect of a single capability domain without the others, and a seventh holding all six domains equal. See tables 2-4 for results.

VARIABLES	(1) Model 1	(2) Model 2	(3) Model 3	(4) Model 4	(5) Model 5	(6) Model 6	(7) Model 7
firstyr	-0.171	-0.281*	-0.214	-0.196	-0.141	-0.167	-0.178
	(0.159)	(0.157)	(0.161)	(0.159)	(0.161)	(0.148)	(0.164)
black	-0.174	-0.345*	-0.199	-0.216	-0.260	-0.260	-0.369*
	(0.188)	(0.189)	(0.188)	(0.187)	(0.187)	(0.175)	(0.192)
notfirstgen	-0.140	-0.172	-0.161	-0.141	-0.153	-0.0944	-0.143
	(0.138)	(0.132)	(0.143)	(0.138)	(0.136)	(0.128)	(0.142)
ruralonly	0.0368	0.0253	0.0167	0.0187	0.0149	0.0171	0.0251
	(0.156)	(0.149)	(0.155)	(0.155)	(0.156)	(0.145)	(0.149)
notmale	-0.257*	-0.169	-0.223	-0.204	-0.270*	-0.0992	-0.175
	(0.142)	(0.153)	(0.139)	(0.140)	(0.142)	(0.135)	(0.159)
health_domain	-0.0413						-0.0737
	(0.0608)						(0.0637)
bodinteg_domain		0.0368					0.0419
		(0.0453)					(0.0495)
senimagtho_domain			0.0257				0.0186
			(0.0414)				(0.0441)
emotion_domain				0.0116			-0.000678
				(0.0386)			(0.0429)
affiliation_domain					-0.0309		-0.0375
					(0.0352)		(0.0379)
play_domain						0.183***	0.156*
						(0.0666)	(0.0784)

Constant	0.960***	0.616*	0.698***	0.751***	1.143***	0.289	0.680
	(0.255)	(0.333)	(0.237)	(0.258)	(0.356)	(0.232)	(0.455)
Observations	54	54	55	55	54	55	52
R-squared	0.158	0.217	0.147	0.142	0.168	0.257	0.346

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

------------table 2: sex_ever as dependent variable------------

VARIABLES	(1) Model 1	(2) Model 2	(3) Model 3	(4) Model 4	(5) Model 5	(6) Model 6	(7) Model 7
Firstyr	-0.548	-0.541	-0.568	-0.525	-0.428	-0.426	-0.383
	(0.460)	(0.483)	(0.477)	(0.465)	(0.482)	(0.416)	(0.498)
black	-0.159	-0.353	-0.151	-0.178	-0.247	-0.339	-0.483
	(0.544)	(0.576)	(0.550)	(0.547)	(0.553)	(0.490)	(0.570)
notfirstgen	-0.452	-0.350	-0.393	-0.362	-0.346	-0.194	-0.197
	(0.391)	(0.394)	(0.414)	(0.397)	(0.397)	(0.352)	(0.417)
ruralonly	0.534	0.458	0.433	0.440	0.452	0.433	0.524
	(0.438)	(0.439)	(0.442)	(0.442)	(0.451)	(0.394)	(0.433)
notmale	0.203	0.474	0.146	0.203	0.0590	0.562	0.610
	(0.401)	(0.456)	(0.399)	(0.398)	(0.412)	(0.368)	(0.463)
health_domain	0.219						0.113
	(0.171)						(0.185)
bodinteg_domain		0.178					0.105
		(0.134)					(0.144)
senimagtho_domain			0.0551				0.00372
			(0.121)				(0.129)
emotion_domain				0.0547			-0.0605
				(0.110)			(0.124)
affiliation_domain					-0.0770		-0.108
					(0.103)		(0.110)
play_domain						0.639***	0.606**
						(0.181)	(0.227)
Constant	0.797	0.382	1.324*	1.267*	2.334**	-0.268	0.0397
	(0.720)	(0.998)	(0.677)	(0.734)	(1.032)	(0.635)	(1.319)
Observations	53	53	54	54	53	54	51
R-squared	0.109	0.105	0.076	0.077	0.076	0.266	0.280

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

------------table 3: relationship_longest as dependent variable------------

VARIABLES	(1) Model 1	(2) Model 2	(3) Model 3	(4) Model 4	(5) Model 5	(6) Model 6	(7) Model 7
firstyr	-0.132	-0.123	-0.139	-0.134	-0.109	-0.122	-0.0587
	(0.161)	(0.167)	(0.163)	(0.160)	(0.166)	(0.159)	(0.183)
black	-0.229	-0.224	-0.211	-0.216	-0.208	-0.235	-0.230
	(0.191)	(0.201)	(0.191)	(0.189)	(0.192)	(0.188)	(0.215)
notfirstgen	-0.0567	-0.0817	-0.0929	-0.0890	-0.100	-0.0681	-0.0199
	(0.140)	(0.140)	(0.145)	(0.140)	(0.140)	(0.138)	(0.158)
ruralonly	0.0669	0.0964	0.0936	0.0947	0.0698	0.0937	0.0286
	(0.158)	(0.158)	(0.157)	(0.157)	(0.160)	(0.155)	(0.167)
notmale	0.173	0.210	0.165	0.173	0.179	0.215	0.289
	(0.144)	(0.163)	(0.141)	(0.141)	(0.146)	(0.145)	(0.178)
health_domain	-0.0408						-0.0948
	(0.0615)						(0.0713)
bodinteg_domain		0.0226					0.0296
		(0.0482)					(0.0554)
senimagtho_domain			0.00786				0.0147
			(0.0420)				(0.0493)
emotion_domain				0.00786			-0.00464
				(0.0390)			(0.0481)
affiliation_domain					0.0212		0.0180
					(0.0363)		(0.0424)
play_domain						0.0756	0.122
						(0.0715)	(0.0877)
Constant	0.543**	0.240	0.361	0.354	0.218	0.180	-0.0270
	(0.259)	(0.354)	(0.240)	(0.261)	(0.367)	(0.250)	(0.509)
Observations	54	54	55	55	54	55	52
R-squared	0.111	0.090	0.096	0.096	0.097	0.116	0.166

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

------------table 4: relationship_now as dependent variable------------

The strongest model combined the six capability domains proposed by Fischel to

predict the probability that a student had ever had sex. This model (sex_ever model 7 in

figure 2) had a significant total predictive value of $F(11,40)=1.93$ (p=0.06), R2=.35.

Model 7 for rel_longest picked up some of its effect, as the correlation coefficient of

rel_longest with sex_ever was 45.9.

Conclusions

This study found that six capability domains were found to predict the chance that a student had ever had sex, with the strongest effect coming from the play capability domain (p=0.05) when holding all other capability domains and demographics equal. The play domain was estimated from a single question, "In the past 4 weeks, how often were you able to enjoy your recreational activities?" A higher play capability score indicated that a participant was able to enjoy recreational activities more frequently, and predicted that the participant had ever had sex, as well as that the participant had been in a longer relationship than students with lower capability scores. The play domain variable did not, however predict whether a student was currently in an intimate relationship.

Non-males had drastically lower bodily integrity capability scores than men (coefficient=−1.70, p<.001), indicating that they feel less safe walking alone near their residence hall and felt they were more likely to be assaulted in the future. Holding all other demographic variables equal, non-males were less likely to have ever had sex than men (coefficient=−.21, p=.13). However, non-males were only significantly less likely than males to have ever had sex when the health domain or the affiliation domain were singly held equal, and the effect disappeared when all domains were held equal, as shown in table 2.

Other than bodily integrity capability, two other domain scores were found to differ at 5% significance between demographic groups when other capability domains

were not held equal. Non-males had lower play capability domain scores than males when demographic variables were held equal (coefficient=−.61, p=0.03) and first-generation students had lower senses, imagination, and thought capability domain scores when other demographic variables were held equal (coefficient=−1.01, p=.04). The latter difference ranks students by how strongly they feel they are able to use their imagination and express themselves creatively and how strongly they feel they are able to express their views, including political and religious views. It was not picked up by any of the models predicting intimacy.

While this study began with assumptions that affiliation, emotion, and bodily integrity domains would most strongly predict intimacy, play was in fact the decisive variable for this sample of students. Further research should investigate whether this domain is similarly decisive in student bodies with more family income diversity.

References

Addo, F. R. (2014). Debt, Cohabitation, and Marriage in Young Adulthood. *Demography*, 51(5), 1677--1701. doi:10.1007/s13524-014-0333-6

Durkheim, E. (1897). *Le Suicide*. Paris: G. Baillière & C. [Trans. by Simpson, G. (1952) as *Suicide*. London: Routledge].

Eagan, K., Stolzenberg, E.B., Ramirez, J.J., Aragon, M.C., Suchard, M.R., & Rios-Aguilar, C. (2016). *The American Freshman: Fifty-Year Trends, 1966-2015*. Los Angeles: Higher Education Research Institute & U.S.: Cooperative Institutional Research Program, web. www.heri.ucla.edu/monographs/50YearTrendsMonograph2016.pdf

England, P. (2005--2011). Online College Social Life Survey [Questionnaire, data, and code book]. Available from *Online College Social Life Survey* web site: www.nyu.edu/projects/england/ocsls/

Fischel, J. (2019). *Screw Consent: A Better Politics of Sexual Justice*. Oakland: University of California Press.

Fisher, H. (2018). *Match.com Annual Singles in America Survey*, web. www.match.com/dnws/cpx/en-us/singlesinamerica/2018/

Julian, K. (2018). Why are Young People Having So Little Sex? *The Atlantic*, Dec 2018,

    web. www.theatlantic.com/magazine/archive/2018/12/the-sex-recession/573949/

Keller, A.G. (2019). *Sexual Activity at Berea College: A Small Cross-Sectional Study*

    with Implications for Wellness Promotion. Capstone Paper, Health and Human

    Performance Department, Berea College.

Lorgelly P., Lorimer K., Fenwick E., and Briggs A. (2008). *The Capability Approach:*

    Developing an Instrument for Evaluating Public Health Interventions. Section of

    Public Health and Health Policy: University of Glasgow.

Manning, W.D., Smock, P.J., \& Fettro, M.N. (2019). Cohabitation and Marital

    Expectations among Single Millennials in the U.S. *Population Research and*

    Policy Review. doi:10.1007/s11113-018-09509-8

Martin, J.A., Hamilton, B.E., Osterman, M.J.K., & Driscoll, A.K. (2019). Births: Final Data

    for 2018. *National Vital Statistics Reports*, 68(3), 1--47.

    www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_13-508.pdf

Nussbaum, M.C. (2013). *Creating capabilities: The human development approach*.

    Cambridge, Mass: The Belknap Press of Harvard University Press.

O'Hagan, M. (2019). Want To Reduce Suicides? Follow The Data--To Medical Offices,

    Motels And Even Animal Shelters. *Kaiser Health News*, Sep 2019, web.

    khn.org/news/want-to-reduce-suicides-follow-the-data-to-medical-offices-motels-

    and-even-animal-shelters/

OIRA [Office of Institutional Research and Assessment]. (2019). *2018--2019 Fact Book*.

Berea, KY: Berea College.

Pinquart, M., Stotzka, C., & Silbereisen, R.K. (2010). Ambivalence in Decisions about

Childbearing. *Journal of Reproductive and Infant Psychology*, 28(2), 212--220.

doi:10.1080/02646830903295034

Reed, A.L., & Chowkwanyun, M. (2012). Race, Class, Crisis: The Discourse of Racial

Disparity and its Analytical Discontents. *Socialist Register*, 48, 149--175.

Robeyns, I. (2005). The Capability Approach: A Theoretical Survey. *Journal of Human

Development* 6:1, 93--114.

Romo, E., & Jacobo, S. (2020). *Research Brief: 2019 Your First College Year Survey*.

Los Angeles: Higher Education Research Institute & U.S.: Cooperative

Institutional Research Program, web. heri.ucla.edu/briefs/YFCY/YFCY-2019-

Brief.pdf

Rosen, G. (2015). *A History of Public Health*. Baltimore: Johns Hopkins Univ. Press.

Sen, A. (1999). *Development as freedom*. Oxford: Oxford University Press.

Simon J, Anand P, Gray A, Rugkåsa J, Yeeles K, Burns T. (2013). Operationalising the

Capability Approach for Outcome Measurement in Mental Health Research.

Social Science & Medicine 98: 187--196.

Sussman, A.L. (2019). The End of Babies. *NY Times*, Nov 16, web.

    www.nytimes.com/interactive/2019/11/16/opinion/sunday/capitalism-children.html

Stolzenberg, E.B., Eagan, K., Romo, E., Tamargo, E.J., Aragon, M.C., Ludeke, M., &

    Kang, N. (2019). *The American Freshman: National Norms Fall 2018*. Los

    Angeles: Higher Education Research Institute & U.S.: Cooperative Institutional

    Research Program, web.

    www.heri.ucla.edu/monographs/TheAmericanFreshman2018.pdf

Stolzenberg, E.B., Eagan, K., Aragon, M.C., Cesar-Davis, N.M., Jacobo, S., Couch, V.,

    & Rios-Aguilar, C. (2019). *The American Freshman: National Norms Fall 2017,*

    Expanded Version. Los Angeles: Higher Education Research Institute & U.S.:

    Cooperative Institutional Research Program, web.

    www.heri.ucla.edu/monographs/TheAmericanFreshman2017-Expanded.pdf

Twenge, J.M. (2017). *iGen*. New York: Atria International.

Weitzman, A. (2019). The Social Production and Salience of Young Women's Desire for

    Sex. *Social Forces*, 1--32. doi:10.1093/sf/soz049