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The effects of social capital on welfare deservingness perceptions in the United States

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Introduction

Americans have been facing near half a century of stagnant wage growth, with many Americans facing the reality of being worse off than the prior generation (Gruijters et al, 2023). The stagnation of American real wages along with declines in quality of life has occurred during a period of supposed prosperity in the United States with strong GDP growth and

soaring markets. This discrepancy has led to many Americans believing the system is broken with increasingly radical and undemocratic alternatives threatening US democracy. A common solution for governments to rectify this wealth disparity comes through distributive policies such as public welfare (Abramowitz, 2001). Public welfare in the United States is a contentious issue with strong support for foundational programs such as social security, whilst other initiatives like food stamps and universal healthcare facing deeper scrutiny (Volden, 2002). Despite the worsening conditions Americans support keeping welfare where it is with only liberals seeking more investment into such programs (Brown, 1995; Fellowes & Rowe, 2004; Miller & Schofield, 2008). This lack of enthusiasm for further investment is despite 30% of Americans currently being on some form of welfare, a number that increasing (Moffit et al, 1998, Mcartney & Ghertner, 2023). This presents an issue in increasing welfare to redistribute wealth and rectify structural issues in the US economy.

Literature discussing public support for welfare centers on the idea of deservingness heuristic, with certain groups being more, or less deserving according to their perception and needs(Aaroe & Petersen, 2014; Feather, 2006; Van Oorschot, 2000). This deservingness heuristic is influenced by factors such as whether poverty is viewed individualistically, whether welfare is racialized, and whether there is competition between welfare recipients due to resource limitation(Christiani et al., 2024; Haselswerdt, 2022; Petersen et al., 2011). This discrimination of groups under welfare is heavily impacted by perception with media playing a large role in creating false perceptions of recipients. This idea is further reenforced through elite manipulation with elites the discrediting of welfare against individuals' interest despite them benefitting from welfare (Druckman & Nelson, 2003; Lee, 2023). The negative stereotypes associated with welfare further serve to decrease deservingness and further discredit public welfare, with migrants serving as a new marginalized group that is targeted (Garand et al., 2017).

The factors that delegitimize welfare has coincided with participation decreases in community groups, religious organizations, and labour organization, with Americans interacting less and less with strangers and disengaging from society (Putnam, 2000). This lack of interaction has resulted in decreases in vital bridging activities, essential for building trust and understanding of different groups in society (Rothstein, 2001). The declining trust has served to exacerbate the effect of media "demonization" and has reenforced individualistic tendencies that affect views on poverty (Tucker et al 2018).. The phenomena described follows Putnam's observation of social capital and its decline, a trend observed since the 1970s (Putnam, 2000). The decline in individuals' social capital has impacted their perception, and trust for society, therefore reenforcing the negative aspects that influence welfare perception. With strong links between factors in social capital and its effects on welfare, this research aims to link social capital to welfare support in the United States. This perspective is not new with theoretical links outlined by Putnam, and empirical studies conducted in India demonstrating this link (Garand et al., 2017; Hawes & McCrea, 2018; Rothstein, 2001; Yuliarmi et al., 2020). Therefore, this paper will analyse whether an observable link between the two is present through the question "*To what extent does social capital affect public welfare deservingness in the United States?".*

Drawing from research on social capital and welfare perception, I argue that individuals with higher social capital are more likely to support welfare policies in the U.S. The effects of a strong social network as described by Putnam, serve to increase the perceived deservingness of welfare recipients by creating more interaction between groups bridging connection (Putnam, 2000). The bonding aspect of social capital serving to improve group perceptions further, and allowing interactions between ideologically opposed groups (Newton, 1997; Rothstein & Stolle, 2003). Social capitals effect on welfare further comes through in the increase of trust in both society, and the institution that provide welfare (Daskalopoulou, 2019).

The increased trust in institutions providing welfare has downstream effects with individuals being more willing to support welfare as the perception is improved.

This paper conducts a complex sample general linear model using 14 waves of the General Social Survey from 1994-2022, indicators of social capital will be tested against individuals support for public welfare. Support for public welfare will be analysed through individuals support for welfare in the United States, and whether they believe it should be increased/improved. Additionally, the research will use controls such as whether their view of welfare differs on it is phrased as welfare, or assistance to the poor. Social capital is operationalized through Zmerli & Newton (2008) definition based on trust, however additionally indicators for the respondents social network will be used to broaden the scope of social capital.

The results of this analysis indicate a partial relation between social capital and welfare deservingness. The strongest aspect of social capital was trust demonstrating a small significant effect on model 1 asking about welfare, where individuals that did not have high trust did not support welfare. The frequency that individuals spend with their friend furthermore demonstrated to have a positive correlation with support for welfare. Despite this model two asking about assistance to the poor had no significant relationships where time with family had a small albeit insignificant correlation to support for assistance to the poor. In both models control variables such as political views and race were greater predictors of welfare support in both models. This follows Innis & Sittig (1996)'s finding where black individuals were more likely over 30% more likely to support welfare. The strength and significance of the social capital correlations are impacted by the use of variables that indicate social capital rather than measure them. Whilst the support for welfare may not be strongly influenced by social capital, future research into bonding social capital and its effects on racial relations and welfare

perceptions can provide further context to the observed differences by using true specific measures of social capital.

The following paper beings with a review of the literature on welfare perception and support with a focus on the deservingness heuristic. The paper outlines the key aspects that determine support for welfare between in groups and out-groups as outlined through Van Oorschot's (2000, 2006) CARIN model. Following this social capital's role in its potential effects deservingness is discussed analysing social capitals creation of trust, and the effects of trust on creating welfare support. Following this the research design and analysis are conducted with a discussion of this results implication on the wider literature.

Literature Review

Public Welfare

Public welfare is the process in which the government provides support and services to citizens to improve their lives materially, this is often done through redistributive economic policies. Whilst welfare existed prior to the industrial revolution in the form of grain doles and other basic support, our modern conception is based on programs fought for in the industrial revolution. These measures were fought for to provide the vulnerable in society a basic standard of life, in face of the extreme wealth disparity caused by industrialisation. American welfare originates separately, where due to the individualistic nature of the American culture, the idea of government welfare was resisted for longer than in industrial Europe. Whilst early adoption of programs such as education, public welfare got only implemented in 1935 as a result of the extreme poverty caused by the Great Depression. The different route to acquiring welfare affected Americas relation to welfare and its provision. Welfare given top down rather than fought for bottom up resulted in welfare being politicised for its costs as America grew wealthier and fewer people required welfare.

Welfare deservingness

The deservingness heuristic is essential in understanding modern discussions of public welfare policy and perception. Deservingness is a concept from political psychology in which one's support for welfare is based on whether the recipient of the welfare is perceived as deserving of receiving it. Feathers (1974) influential model outlines factors for determining deservingness: "(1) the person's perception of the other's personal responsibility for the outcome; (2) the person's subjective values assigned to actions and outcomes (positive actions deserve positive outcomes, negative actions deserve negative outcomes); (3) the other's likeability; (4) whether the other is a member of the person's in-group." Van Oorchot, (2000, 2006) expands on this creating the CARIN model of welfare deservingness: Control, Attitude, Reciprocity, Identity and Need. Control being whether the recipient can be blamed for their situation, Identity being whether the recipient is in the societal in-group, reciprocity being whether the recipient earned their share of welfare, and need being the hardship of the recipient (Geiger, 2021). Attitude differs slightly from the others as it is based on the gratitude that the recipient must show, this is often restricted to recipients that are seen as less deserving (Van Oorschot). Petersen (2012) argues that control and identity are the most important aspects, while Van Oorschot & Roosma (2017) emphasise that this varies case by case through different individuals and contexts.

Following this, variations in the support of welfare are analysed through this model of deservingness showing clear distinctions between groups and whether they are perceived as deserving. There is a general consensus in literature researching deservingness that finds that the elderly, and the disabled are often considered the most deserving of welfare (Van Oorschot, 2000; van Oorschot, 2006). This includes in the case of the United States and Scandinavian

states that agree on social support for vulnerable groups despite perceived differences (Aaroe & Petersen, 2014). When addressing poverty there are larger differences in perspectives on deservingness, despite relatively strong support for some assistance to the poor, more individualistic societies often view the poor as less deserving of welfare as poverty is seen as a personal responsibility and under ones control (van Oorschot, 2006). Perceptions of welfare to the poor can vary highly due to the larger narratives that are created in the provision of welfare, often highly politicised and sensationalised in the media. This perspective is not new with observations in the 1980s in the United States showing the public viewed most people on welfare as undeserving of it.(Will, 1993) A certain incongruency exists however, as when analysing support for welfare, survey questions explicitly asking support for welfare scored 39% lower than generally asking about assistance to the poor (Will, 1993). When observing the difference in support for welfare solely because of deservingness, outside factors such as media and narratives shapes and impacts welfare deservingness through negative coverage and misinformation. The negative coverage and misinformation serve to undermine the social trust and institutional trust necessary for supporting government welfare (Daskalopoulou, 2019).

This phenomena can be observed individuals receiving welfare finding others receiving welfare as less deserving despite their similar situations and requiring similar assistance (Volden, 2002). Volden, (2002) describes how due to perceptions of insufficient welfare and highlights of waste and abuse causes recipients to be more critical of others on welfare as way to protect their own access to welfare. Scholars and literature on this topic have outlined how out-groups are often blamed, which leads into how welfare is racialised to cause beneficiaries of welfare to find others underserving (Alesina et al., 2001; Garand et al., 2017; Geiger, 2021; Reeskens & van der Meer, 2017).

In the discussion of welfare deservingness importance must be placed on the highly racialised nature of welfare perception, as outlined by the identity aspect of the Carin model. When compared to factors such as gender, class, income, and education, race was had a stronger predictive capability in determining welfare support (Innis & Sittig, 1996). Welfare in its nature assists is utilised by marginalised groups more, due to economic and social discrimination affecting economic opportunity. The media therefore can attack these vulnerable groups, decreasing outside support for welfare, as it is seen as wasteful(Christiani et al., 2024; Ellis & Faricy, 2020). This can be seen in the United States through the discreditation of food stamps and planned parenthood, due to the created stereotype of "welfare queens" and abusers (Alesina et al., 2001; Hawes & McCrea, 2018; Lee, 2023). Whilst not explicitly stated in Will (1993) the large differences in support for the poor and "welfare" support the idea of welfare racialisation and discreditation. The targeting of vulnerable groups in the discreditation of welfare has largely evolved, with previous stereotypes of welfare recipients blamed for welfare waste have been supplanted by migrants (Negash & van Vliet, 2024; Piccoli & Perna, 2024; Reeskens & van der Meer, 2017).

When analysing the reasons for the success of the delegitimization of welfare to certain groups media can be seen as a fundamental factor in the creation of these views. Discreditation of support programs disproportionately focusing on waste, without outlining the benefits decreases support for such programmes (Daskalopoulou, 2019). This also targets the attitude aspect in the Carin model, as immigrants can be shown as ungrateful increasing tension between the in-group and vulnerable welfare recipients (Negash & van Vliet, 2024; van Oorschot, 2006). Social media has exacerbated this divide by providing echo chambers in which the mean-world perspective is amplifies, and counter examples to the misinformation

are not seen (Park et al., 2020). The result of this process serves to diminish social trust and institutional trust key aspects in the support for welfare deservingness (Daskalopoulou, 2019).

Social Capital

Social Capital is a term used in social scientists to assess an individual's social network group relations, with a high social capital indicating a strong position, relationships, and trust inside their community and society (Putnam, 2000). Social capitals importance has been supported by sociologists and psychologists which find the effects on mental and social health to be essential for individuals and society (Daskalopoulou, 2019; "Generating Social Capital," 2003; Newton, 1997; Rothstein, 2001). Putnam (1995) sets a foundational literature outlining social capital's role in legitimizing and supporting democratic cooperation. Rahn and Trausue (1998) expand on this, outlining how social capital has declined in the US since the 1970s with drastic consequences, with increasing polarization, and decreasing civic engagement damaging the foundations of American democracy. The reasons for such a decline are multifaceted, Ulsnaer (1998) brings up media's role in decreasing social capital with television decreasing social group participation, whilst portraying a "mean world" which further decreases trust. Critics of the social capital construct argue that it is an ill-defined term with much research using it as a catchall term to blame societal issues (Durlauf, 1999; Satyanath et al, 2017). It is further explained how social capital has been used maliciously such as the enforcement of segregation in the United States which relied on social capital groups cooperating to enforce superiority. Stolle & Hooghe (2005) further outline how the alarm in the decline in social capital may be an overreaction, with future generations having the ability to create social capital through non-traditional forms. This has largely manifested in the opposite direction with declining social capital gaining increased credibility as society in the United States becomes more isolated. Zmeleji & Newton (2008) empirically support Putnam's claim discussing how there is strong

evidence supporting Putnam's idea of social capitals effect on democracy. Furthermore, the decline in traditional social capital has not been equally replaced by new forms by the current generation. The rise of social media has created methods of socializing for the modern generation, yet its effect on social capital has been negative (Claridge, 2018; Hooghe & Oser, 2015). This is caused by the insulation of communities online further isolating individuals, allowing for the creation of a 'mean world' to be perpetuated more effectively (Tucker et al 2018).

Social trust and social capital.

Studies on social trust and social capital follow this observation of the media's role in creating harmful divisive narrative, with the negative consequences on trust. As a result, media increases individuals' political isolation as the creation of echo-chambers- and a mean world result in lower trust, and participation in group activities. The isolation of individuals deprives them of the essential effects of social capital in the bridging and bonding activities that provide inter-group trust, and solidarity(Claridge, 2018). Bonding social capital has the potential of connecting groups of different backgrounds providing access to group information previously unknown, however often restricted to groups closer in background or geography to the individual (Edwards, 2004). This has the potential effect of exposing individuals to the benefits of welfare and dispelling common lies about welfare. Bridging function of social capital has a much stronger effect on inter-race religion and socio-economic group backgrounds (Pelling & High, 2005). The increased interaction, information and idea transfer, allows for stronger consensus building and increased societal trust (Stone and Hughes 2002). Therefore, high social capital is fundamental to building a inclusive and effective welfare state (Newton, 1997; Rothstein, 2001; Rothstein & Stolle, 2003). Strong social capital can have dangerous consequences, as a focus on only bonding social capital has the potential to be exclusionary

and creation of a harmful ingroup (Edwards, 2004). Satyanath et al, (2017) and Edwards (2004) provide examples of high social capital societies such as the Nazis and the KKK enforcing and harming the outgroup as a result of lacking bridging capital.

When connecting social capital to perception of welfare using the theory described above social capitals downstream effects of trust building and consensus building provide a structure for successful wide and effective welfare regimes. Empirical studies in India have demonstrated how the construction of welfare is greatly assisted with the building of social capital through bonding and bridging allowing for welfare to reach more people, and increasing public support for the programs (Christoforou, 2022; Yuliarmi et al., 2020). In the United States, literature describing the decline of social capital have coincided with increasing political success of political advocacy against social welfare(Hawes & McCrea, 2018; Putnam, 2000). Whilst support for deservingness of certain groups may not vary greatly, the perception of welfare is worse as demonstrated in table 1. This paper suggests that the negative perception of welfare is the result of low social trust and bridging social capital, therefore resulting in less effective welfare. This less effective welfare along with lack of trust increasing the requirements for welfare deservingness results in the hypothesis.

Hypothesis

Hypothesis: The higher the respondent's social trust the more supportive the respondent is for public welfare.

Hypothesis 2: The stronger the respondent's social network the most supportive the respondent is for public welfare

Research Design

Data

To test the relationship between social capital and support for public welfare, a model using data from the General social survey (GSS) is used. The GSS is a large-n cross-sectional survey study on the social characteristics and attitudes of the U.S. population. The GSS has been a continuous study since 1972 and has attempted to retain methodological consistency throughout its life. An important change occurred in 1994 where from that year onwards surveys were conducted every other year, as opposed to the annual surveys used previously. Each wave of surveys uses random geographic sampling to obtain select who to contact, with the surveys themselves being conducted through a mix of online surveys, and in-person and telephone interviews. Each wave of survey is comprised of three ballots with a replicating core of demographic behavioural and attitude questions consistent throughout, each ballot themselves discusses different topical issues relevant in America at the time.

Due to the long running nature of the GSS many issues with its validity stem from the difficulties in maintaining consistent methodology throughout. The GSS has been complemented for its long running consistency, however when creating new questions, criticism over confusing and incorrect wording of new issues such as social media are present (Lameck, 2013). Furthermore, the GSS faces an issue that many surveys do, as having a potential for self-selection biases for the respondents, with online surveys being vulnerable to this area of self-selection (Merckelbach et al., 1998). This does not appear to be as large an issue with the GSS as due to the need for methodological consistency with pre internet data, a large portion of respondents come through in person interviews.

These issues do not appear to affect this research as the sample selected includes 18 waves of survey over 33 years, with all the variables selected being present in in all questionnaires of the ballot selected. Further methodological issues stemming from survey bias can be controlled for as GSS data allows for weighting for age, gender, education level, and region.

These assurances along with the strong methodological approach of the GSS survey along with its cross-sectional data allows for the data to be representative of the American public, validating the external validity of the results of this papers analysis.

Dependant variable

An individual's attitude towards public welfare can be measured through different methodological approaches, from direct support for programs, to inference in deservingness. This paper primarily operationalises welfare deservingness through two variables that ask about support for welfare. The variables were part of a largey set of survey questions structured in this manner "We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. First (READ ITEM A) . . . are we spending too much, too little, or about the right amount on (ITEM)?". Both questions ask about welfare however NATFARE uses welfare as the item, whilst NATFAREY uses assistance to the poor as the question item

Both variables are in a Likert scale with 1 being too little money is spent on poverty assistance, 2 being about right, and 3 being too much money. These codes were reversed to provide a negative to positive scale of support for welfare, assisting in the interpretation of the results as the research question for welfare support rather than lack of support. The key difference between the two variables is the wording of the question, as Will (1993) explained the word welfare has strong connotations to it has influenced responses for public welfare by over 30 percent. The wording of NATFARE asks explicitly about welfare, while NATFAREY uses

support for the poor as its survey wording. The difference in support can be seen in the descriptive frequencies of the response for the question with NATFARE receiving significantly lower support than NATFAREY. Therefore, the implicit biases and racialisation of welfare can be observed at this level, and must be controlled for in the model.

Table 1:Welfare perception differences

	Support for Welfare	Assistance to the poor
Too little	23.2% (4625)	66.7% (13505)
About right	34.3% (6843)	23.3% (4720)
Too much	42.4% (8454)	4.7% (2014)
N	19922	20239

Table of percentage of welfare support, with response N in brackets

An attempt to supplement the analysis welfare deservingness is operationalised by combining welfare and other variables into two index variables. The variables selected were NATRACE, NATRACEY, NATSOC, and NATCHLD, the question structure remains the same as above replacing the item with: Improving conditions for blacks, assistance to blacks, social security, and assistance for childcare. Whilst using a combination of these and the welfare variable may provide a more comprehensive picture of a respondent's welfare deservingness the creation of the index faces methodological issues. The secondary issues stem from reliability analysis of the index creation with the variables having a unsatisfactory Chronenbach alpha score of 0.45. However, using McDonald's Omega as a method of analysis the index score increases 0.78 when excluding social security, with social security decreasing reliability for both indexes. A

Mcdonalds omega of 0.78 was not sufficient for this investigation therefore NATFARE and NATFAREY were selected to be use as they provide the general support for welfare, without potentially requiring further controls when observing welfare through a narrower scope of NATRACE.

Independent variable

Literature discussing social capital struggles in finding a strict measure to operationalise it due to its broad definition. Durlauf critiques this where overly broad definitions for social capital can be used to explain all sorts of phenomena despite the merit of such associations. This paper sues trust as a measure of social capital as has been used in a multitude of quantitative studies using social capital (Zmleji & Newton 2006, Daskalopoulou, 2019). Social trust in the data is coded with the variable TRUST, in which the survey asks whether people can be trusted. The scale of the variable went from: 1 = people can be trusted, 2 depends, and 3 can't be too careful, this was recoded in reverse for simplicity in analysis.

Alternative methods to measure social capital exist in the survey with questions asking how often the responded sees relatives, friands, neighbours, and goes to bars. Using these survey questions a focus on the social network aspect of social capital is increased, potentially providing stronger insight on whether individuals are isolate, and or participate in bridging and bonding activities. The survey asked respondents "Would you use this card and tell me which answer comes closest to how often you do the following thing (Item)": 6 "ONCE A YEAR", 5 "SEV TIMES A YEAR", 4 "ONCE A MONTH", 3 "SEV TIMES A MNTH", 2 "SEV TIMES A WEEK", 1 "ALMOST DAILY". The items were how often they spent time

with relatives, neighbours, friends, and at the bar labelled SOCREL , SOCOMUN, SOCFREND, and SOCBAR accordingly.

To gain a overall social capital score these variables were combined into an index to provide a social capital score for the individual, with more sociable individuals having a higher score on the index. In the creation of the index the variables combined failed Chronenbach's alpha test with a score of 0.54 with all the variables combined. When testing through McDonald's Omega a score of 0.64 is obtained this value is an improvement but not sufficient to be used in the main regression model. Therefore the variables were kept separate to provide greater context and prevent a loss of internal validity that an index would create.

Model

The variables measured for the dependant and independent variables are measured in a Likert-scale out of three making them ordinal. Whilst consensus of ordinal variables of at least five categories can be considered and treated as continuous, the data does not fulfil this (Jamieson, 2004). This paper treats them as continuous regardless, as other research encompassing social capital using GSS data has used three category variables as continuous for a regression (Enns, 2015; Soroka & Wlezien, 2008; Wlezien & Soroka, 2021). Therefore, the main model to analyse the relationship will be a Complex sample General linear model, to measure the relationship between walfare support, and support for assistance to the poor, by trust and social network indicators

Control variables for this study were included to reduce potential bias of the data, and clarify results following ideas expressed in the literature review. Following research on social capital, and welfare perception, race was controlled for as it was shown to significantly effect perception of welfare (Innis & Sittig, 1996). Respondents race was recoded into two dummy

variables of black, white, and other, with 0 indicating not the race and 1 indicating whether they were of the dummy's race. In the model the two dummy variables of black and other were used as the controls due to white being the largest category comprising over 70% of respondents (see appendix a). Literature discussing social capital and trust also includes Gender, income, education and Age as variables to control, due to differing factors in each that can influence social capital, and support for welfare(van Oorschot, 2006). Gender was recoded to a dummy variable where 1 is male, and 0 is female. Age was treated as a continuous variable from 18-89 with 89 serving as 89 or older. Income as a control variable was coded with responses being in increments of 1000 up till 25000 in monthly income, with 25000 and above being coded as the upper limit Education was coded from 1-4 with 1 being no degree and 4 being a graduate degree. The final control variable is the year of the survey which will be used in a supplementary model to observe any correlation with literature observing the decline in social capital over time, allowing for conclusions (Putnam, 2000). The variable YEAR is recoded into dummy variables comprised of every wave of the survey in the analysis from 1994-2022, with 1994 being the dummy selected to be excluded from the analysis. Further information into control variable operationalisation is outlined in appendix a.

Results

Two Complex sample general linear models (CSGLM) were created, each analysing the interaction between respondents' perception of welfare deservingness and their social capital. The models below use social trust as an indicator for social capital, as well as social interaction variables serving as measures for the social network aspect of social capital. The outcome of the two general linear models is show in table three below. See appendix C for the full results with controls.

The hypothesis states that higher levels of social trust would indicate higher support for welfare in both conceptualisations as described in model one and two. Model 1 shows welfare support regressed by social trust has a positive statistically significant coefficient ($P < 0.001$). The regression demonstrates respondents with lower levels of trust reduces support for welfare by -0.073. Model 2 differs in this aspect where trust was shown to be insignificant as a predictor for support for the poor ($P > 0.05$). This partially confirms the hypothesis with public welfare being influenced by the trust aspect of social capital, whilst assistance to the poor remains consistent irrespective of trust. The small size of the coefficient however demonstrates an overall weak effect on welfare support when compared to other factors such as the controls of political views and respondent race (appendix c). Despite, this trusts impact on the model is reenforced by a Wald f score of 6.085 ($p < 0.01$) demonstrating that trust has an significant impact on welfare support in model 1 rejecting the null hypothesis. Hence the results in table three partially support hypothesis 1.

Hypothesis two states that stronger social networks as would increase welfare deservingness in both models. Model 1 found that the only significant aspect of social network that affects support for welfare was the amount of time spent with friends, with individuals who spend less time with friend's having a coefficient of -0.202 (95% CI -0.119* , -0.211* , -0.233**, -0.22** , -0.248**, -0.183*). The relationship is significant as the despite a low f test score of 2.1 this score is acceptable for the models degrees of freedom ($df1 = 6$, $df2 = 579$) Therefore the null hypothesis is rejected for hypothesis 1. In model two support for assistance to the poor was only influenced by the familial aspect of respondent's social network (SOCREL). Respondents who spend time with their family less than daily had a coefficient of 0.109 (CI 95%, -0.106, -0.127, -0.095, $p < 0.05$). The relationship between SOCREL as a variable is insignificant however as with a f score of 1.74 ($p < 0.01$, $df1 = 6$ $df2 = 579$) therefore SOCREL is unable to

reject the null hypothesis. The hypothesis is therefore partially accepted, as the significance of the relationship between social relation variables and welfare deservingness was strong enough for SOCFREND in model 1. The hypothesis is being rejected for model two as despite significant results with SOCREL the variable is unable to adequately explain the relationship with model 2.

Table 3: Regression

Parameter	Model 1		Model 2	
(Intercept)	5.2	(0.603)	3.048	(0.483)
Trust				
[TRUST=1]	-0.073**	(0.027)	0.027	(0.027)
[TRUST=2]	0.121	(0.069)	0.069	(0.048)
[TRUST=3]				
Spend evenings with Relatives				
[SOCREL=1]	-0.111	(0.088)	-0.039	(0.067)
[SOCREL=2]	0.066	(0.063)	-0.05	(0.054)
[SOCREL=3]	0.003	(0.052)	-0.088	(0.044)
[SOCREL=4]	0.037	(0.052)	-0.106*	(0.045)
[SOCREL=5]	-0.021	(0.048)	-0.127**	(0.044)
[SOCREL=6]	0.024	(0.049)	-0.095*	(0.041)
[SOCREL=7]				
Spend evenings with neighbours				
[SOCOMMUN=1]	-0.031	(0.078)	0.062	(0.06)
[SOCOMMUN=2]	-0.025	(0.085)	0.02	(0.067)
[SOCOMMUN=3]	-0.017	(0.081)	0.039	(0.068)
[SOCOMMUN=4]	-0.007	(0.079)	0.037	(0.064)
[SOCOMMUN=5]	-0.01	(0.083)	-0.003	(0.064)
[SOCOMMUN=6]	0	(0.081)	0.085	(0.061)
[SOCOMMUN=7]				
Spend evenings with friends				
[SOCFREND=1]	-0.119*	(0.096)	-0.051	(0.077)
[SOCFREND=2]	-0.211*	(0.097)	-0.079	(0.076)

[SOCFREND=3]	-0.233**	(0.085)	0.006	(0.066)
[SOCFREND=4]	-0.22**	(0.085)	-0.02	(0.063)
[SOCFREND=5]	-0.248**	(0.083)	-0.013	(0.063)
[SOCFREND=6]	-0.183*	(0.089)	-0.002	(0.064)
[SOCFREND=7]				
Spent evenings at bar				
[SOCBAR=1]	0.179	(0.096)	-0.11	(0.09)
[SOCBAR=2]	0.162	(0.098)	-0.128	(0.089)
[SOCBAR=3]	0.152	(0.098)	-0.076	(0.094)
[SOCBAR=4]	0.189	(0.104)	-0.147	(0.092)
[SOCBAR=5]	0.196	(0.106)	-0.161	(0.095)
[SOCBAR=6]	0.046	(0.105)	-0.161	(0.094)
[SOCBAR=7]				
R Squared	0.14		0.118	
N	3380		3445	

Note: CSGLM regression coefficients with standard errors in brackets
*** p < 0.001, ** p < 0.01 * p < 0.05

General Discussion and conclusion

The aim of this paper was to clarify existing theory on social capital and welfare, and to find a empirical link between the two in the united states. Using data from multiple waves of the GSS two CSGLRs were conducted with an supplementary CS ordinal logistic regression.

The results provide insight on a potential link between the two concepts that should be explored further. The first model observing the effect of trust on respondents' perception of welfare demonstrated the influence of social capital on welfare deservingness, with Trust and how often respondents saw their friends emerging as the significant factors affecting deservingness. Lower trust scores resulted in a reduced support for welfare when compared to respondent's who responded high on the trust measure. Following this, individuals who saw their friends almost daily had much more support for welfare than those who saw them infrequently. It is

important to highlight that individuals who almost never saw their friends has a higher coefficient than other respondents who saw them more often. The reason for increased support for welfare may be attributed to poorer individuals having to work more, and thus not having the time or ability (Hjalmarsson & Mood, 2015), observed this effect in children, yet in adults' studies demonstrate that hours worked do not have significant effects on time spent socialising (Estevão & Sa, 2006; Saffer & Lamiraud, 2008). Explaining this difference is outside of the scope of this research, yet should be investigated to observe why support for welfare is higher amongst people that interact with friends less than those in the who see friends occasionally.

In the second model analysing the link between social capital and support for assistance to the poor found that the only significant factor affecting support for assistance to the poor was the frequency that respondents saw their relatives. These results can be explained by Zhao et al., (2023)where charitable donations increased if other family members donated to charity. This may indicate that increased familial interaction causes respondents to be more likely to be influenced by charitable family members. This is an example of the benefits of bonding social capital in motivating individuals to participate, and care for their community with the pressure coming from close relationships.

The effects of trust were not statistically significant in the second model, demonstrating trust has no relation to supporting assistance to the poor, confirming prior literature finding that both high and low trust societies had relatively equal support for assisting the poor(Aaroe & Petersen, 2014; Andreß & Heien, 2001; van Oorschot, 2006). The reason that trust's significance in determining support for welfare in the first model, may stem from the use of the word "welfare" in the dependant variable, due to the strong negative associations with the word and the politicisation of the concept. The focus on the program itself than general

assistance may lend itself to (Daskalopoulou, 2019) research pointing out how government welfare programs are dependent on social trust and institutional trust as the two concepts are closely linked.

When observing the variables of respondents spending evenings with neighbours or in bars results demonstrated that there is no meaningful effect between the two and support for welfare deservingness in both models. The reasons for the lack of effect may be attributed to both being imperfect indicators of social capital, as it does not clarify the type of interaction that occurs. Furthermore social capital literature emphasises community based activities where spending time at a bar or with ones neighbour may not qualify as the same type of civic engagement as going to a bar, or being with neighbours (Putnam, 2000).

Overall certain aspects of social capital did have an effect on how individuals perceived welfare deservingness. This study has reenforced the perspective that bonding social capital can strengthen support for welfare as a way of assisting friends and relatives in their local community. Whilst trust was demonstrated to play a larger role in a the explicitly governmental aspect of welfare, it did not have any meaningful effect on the perception of assistance to the poor. This highlights the importance of fostering strong local communities in which individuals have an interest in uplifting everyone and supporting other efforts to improve the community as well. Hence, the findings support the idea of social capitals role in determining part of an individual's view on welfare deservingness, providing additional context and support to the idea that social capital is necessary and beneficial for a equal and fair society.

The primary limitations of this study stem from the difficulty in social capital measurement, as it is based on a variety of aspects such as trust, social network, quality of relationships that

combine into an individual's social capital. This presents a practical difficulty in this investigation where indicators of social capital are used, yet they are imperfect as the GSS was not designed to measure social capital, but to measure general attitudes and sentiments of the U.S. populations. Prior literature investigating social capital with the GSS used only trust as an indicator, this paper sought to use other sides of social capital as well, specifically the impact of individuals sociability and network. As these values stem from the GSS survey and are indicators they lack nuance in determining the quality r the type of social interaction happening, only observing the broader presence of a social network. Future research investigating social capital should use a survey specifically built to measure social capital allowing for a more accurate view of the quality of individuals socialisation and the causes and interactions that determine trust and social network.

Furthermore, after all the data was processed and cleaned the number of valid respondents in the regression went from over 40000 to 3000 for both models. The number of respondents excluded is because the design of the GSS has a core set of questions in each ballot with certain ballots not including all questions surrounding welfare, social capital, or the controls. As a result, the external validity is decreased through a smaller sample size, limiting the generalisability to the whole population. The fact that GSS assists in weighting the variable helps the internal validity, and despite 3000 being much lower it is still satisfactory for this study. Similarly, to above a survey specifically analysing social capital and welfare deservingness would have fewer invalid respondents and given enough waves it would provide a more robust analysis.

Finally, is the potential confounding effects between the independent variables, due to the potential interactions between each other in their process. An example is between the variables

SOCFREND SOCCOMMUN and SOCBAR. The question of whether or not an individual spends evenings with friends likely includes whether they spend evenings with neighbours, as it is not unreasonable that spending time respondent spending time with their neighbour would be friends with them or spending time at the bar would be done with friends than alone. This may explain why the results for SOCOMMUN and SOCBAR were insignificant as SOCFREND encompassed them and other situations where respondents were with friends. The exclusion of these variables should be done in future analysis, with ideally questions distinguishing the types of friendship activities being used to provide further context to results.

This paper focused on the poverty aspect of welfare deservingness, however other aspects of welfare deservingness merit research, such as minority, and migrant deservingness in welfare as other vulnerable groups in society. Marginalised groups often have disproportionately higher levels of poverty, and therefore the discourse around welfare and waste is heavily skewed against them(Inniss & Sittig, 1996; Piccoli & Perna, 2024; van Oorschot, 2006). Therefore, research into the effects of social capital one these may provide stronger results as support for welfare for the poor generally remains stronger than individuals in a an outgroup (Aaroe & Petersen, 2014; Petersen, 2012). Hence, social capital may play a larger role in bridging and hence, having a higher influence on welfare deservingness.

In spite of the limitations of the study the results have implications in the discussion of the importance of social capital, and the policy implications that it creates. The decline in social capital has resulted in individuals more detached from their community, losing important connections that facilitate individuals to empathise and support their communities (Putnam, 2000). As the American social system comes under increased strain policy makers will come under increased pressure to address concerns on how welfare is spent. The findings of this

research suggest trust to be a necessary aspect of public welfare policy, with strong friendship groups allowing for trust creation to occur (Daskalopoulou, 2019). When addressing on how support for poverty ss addressed, local initiatives appear to have a strong influence, with the findings potentially indicating increased friend and familial connection's role in resolving poverty perceptions (Chetty et al., 2022; Torjman & Leviten-Reid, 2003; Zhao et al., 2023). Addressing inequality through social capital improvement also concerns confronting the systemic issues that result in individuals being less social and trusting, rather than relying on solely community initiatives (Ahmadi, 2017). The conclusion of this is the addressing of social capital must be multifaceted, and encompass the different levels in society, otherwise the downstream effects to individuals interactions and initiatives may be diminished.

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Appendix A

Control variables

Sex: Sex was coded into a dummy variable of MALE where 0 = female, and 1 = male. Female was the modal sex 55.5% of respondents.

Age: Age was coded into a continuous variable from the age of 18 through to 89 and above (Mean = 47.65) (Standard Deviations = 17.447)

Race: Race was recoded into 2 dummy variables from the 3 races of Black, White, and Other. The two dummy variables were race_b 0 = not black, 1 = black, and race_o 0 = not other, 1 = other. White was the modal race 76.7% of respondents

Year: The year of the survey wave was coded into 15 dummy variables comprised of Biennial waves from 1994 – 2022.

Political views: Political views asks respondents if they think of themselves self as liberal or conservative, providing a scale for respondents to represent their position: 1 = Extremely Liberal, 2 = Liberal, 3 = slightly liberal, 4 = moderate, 5 = slightly conservative, 6 = Conservative, 7 = Extremely Conservative

RIncome: Income was measured by asking respondents their total monthly income after tax. The options provided were 1 = LT $1000, 2 = $1000 - $2999, 3 = $3000 - $3999, 4 = $4000 - $4999, 5 = $5000 - $5999, 6 = $6000 - $6999, 7 = $7000 - $7999, 8 = $8000 - $9999, 9 = $10000 - $14999, 10 = $15000 - $19999, 11 = $20000 - $24999, 12 = $25000 or more, 13 = refused.

Education: Education was measured by asking respondents to provide their highest attained degree. The options provided were: 1 = no degree, 2 = High school degree, 3 = bachelor's degree, 4 = Masters and above.

Appendix B:

Linear Regression Assumption checks

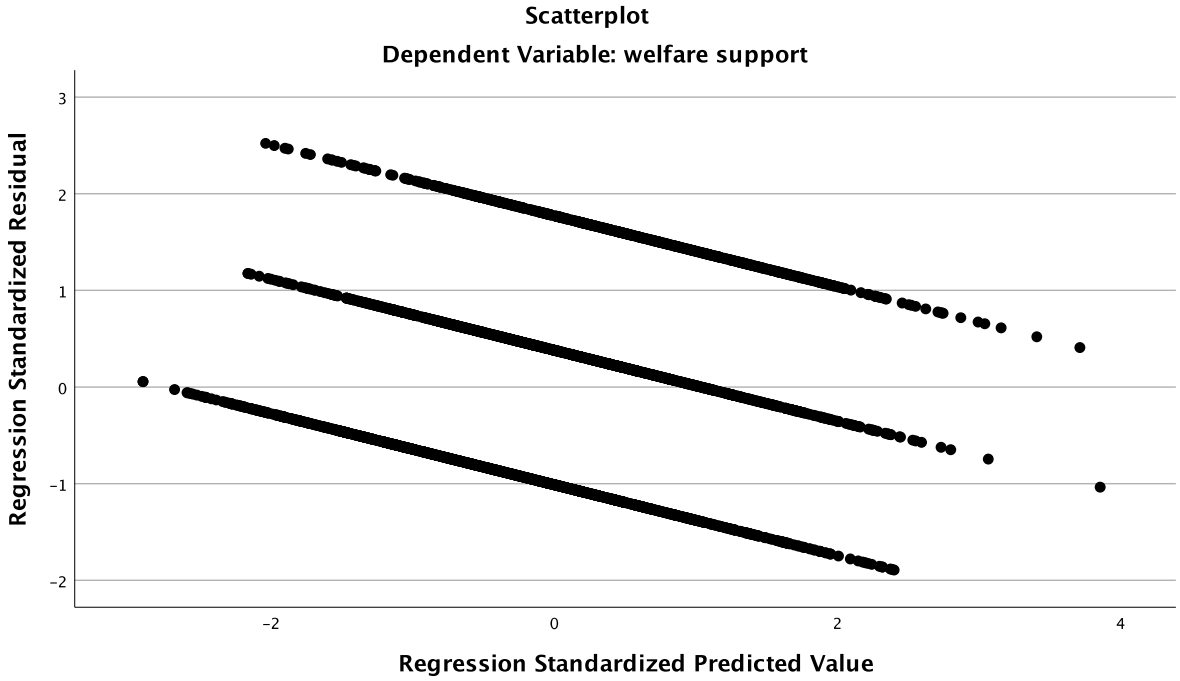
Independent Errors

The General social survey is comprised of multiple surveys across many different populations from the scale of small towns to large cities, presenting issues in independent errors and potential clustering of data. The GSS use geographic probability sampling which causes the potential for clustered data as the surveys come from multiple years and locations sizes. GSS provides stratum cluster and weight variables that were used accordingly to prepare the analysis for a Complex sample general linear model. Therefore, solving any potential issues regarding clustering and independent errors.

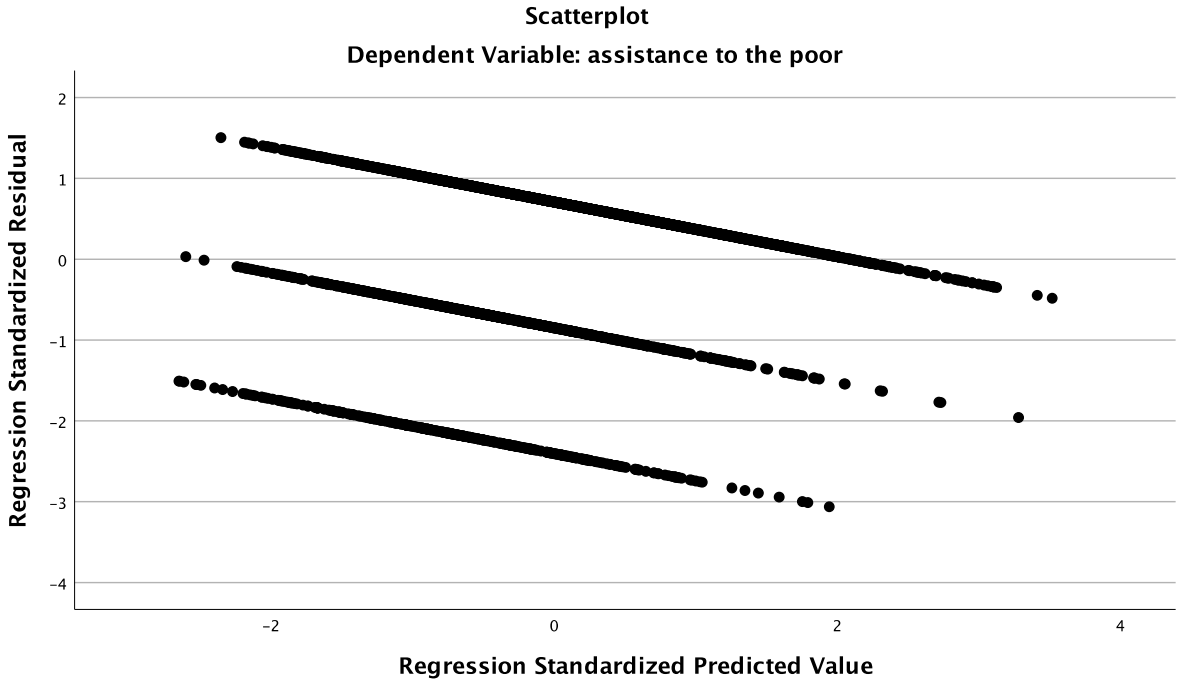
Linearity

To run an GLM regression the data should not demonstrate non-linear patters, this is tested through a scatter plot of standardized predicted values by standardised residuals.
Both models do not demonstrate non-linear relationships as demonstrated in the graphs below, therefore and GLM regression can be used.

Model 1:



Model 2:



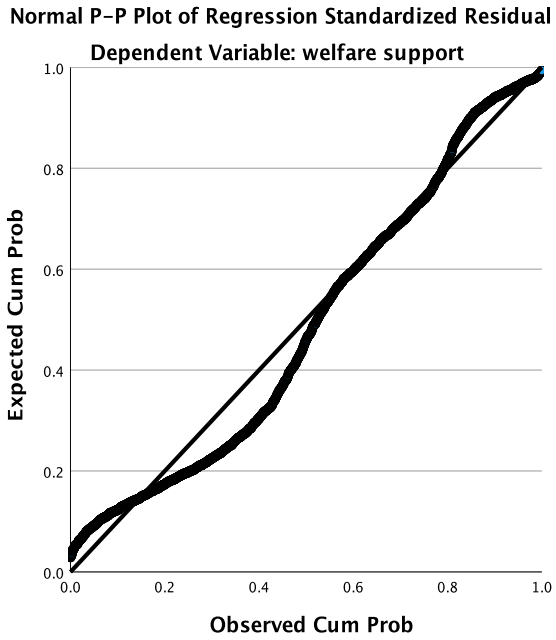
Homoscedasticity

To test for homoscedasticity the plots above of standardized residuals by predicted values demonstrate that homoscedasticity assumptions are not violated for model 1 and 2.

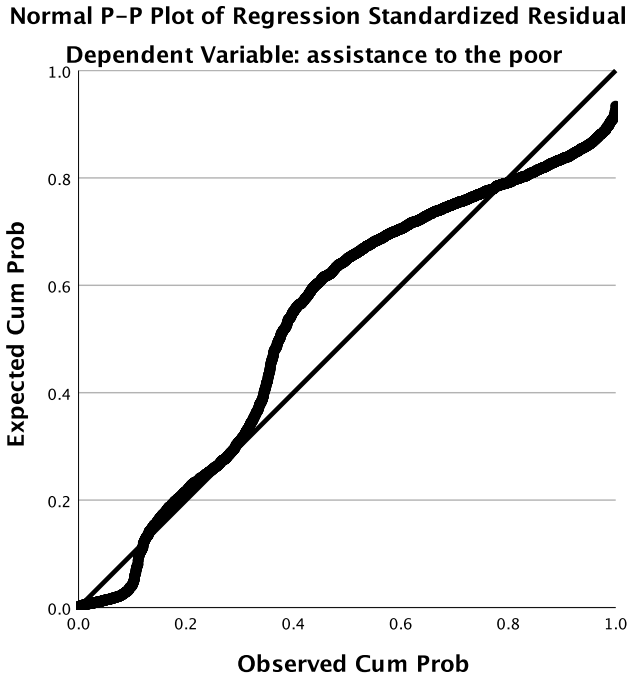
Normally distributed errors

Using a normal probability plot the distribution errors of the sample was tested. Both Regressions of NATFARE and NATFAREY follow the ideal line broadly, indicating that there normally distributed errors assumption is not violated for both.

Model 1:



Model 2:



Multicollinearity

For the multicollinearity assumptions to be met (VIF) should be less than 5 and tolerance statistics should be below 0.2. Both models do not have do not violate this assumption as tolerance for both models is well above the required threshold of 0.2, and VIF is well below the required threshold of 5 indicating no issues with both models.

Model 1:

Table X: Model 1 Tolerance and VIF Statistics

	Tolerance	VIF
Can people be trusted	0.948	1.055
spend evening with relatives	0.952	1.05
spend evening with neighbor	0.942	1.062
spend evening with friends	0.865	1.156
spend evening at bar	0.848	1.179
Respondents income	0.945	1.058
Political Views	0.948	1.055
Survey year 1996	0.572	1.748
Survey year 1998	0.488	2.049
Survey year 2000	0.571	1.75
Survey year 2002	0.73	1.37
Survey year 2004	0.735	1.36
Survey year 2006	0.484	2.066
Survey year 2008	0.65	1.539
Survey year 2010	0.643	1.555
Survey year 2012	0.646	1.547
Survey year 2014	0.604	1.656
Survey year 2016	0.593	1.685
Survey year 2018	0.624	1.603
Survey year 2022	0.718	1.393
Respondent sex is Male	0.936	1.069
Respondent race is Black	0.938	1.066
Respondent race is Other	0.944	1.059

Model 2:

Table X: Model 2 Tolerance and VIF Statistics

	Tolerance	VIF
Can people be trusted	0.948	1.055
spend evening with relatives	0.928	1.078
spend evening with neighbor	0.907	1.103
spend evening with friends	0.827	1.209
spend evening at bar	0.847	1.181
Respondents income	0.932	1.073
Political Views	0.935	1.07
Survey year 1996	0.527	1.897

Survey year 1998	0.44	2.271
Survey year 2000	0.539	1.856
Survey year 2002	0.681	1.468
Survey year 2004	0.718	1.394
Survey year 2006	0.43	2.324
Survey year 2008	0.61	1.64
Survey year 2010	0.6	1.667
Survey year 2012	0.64	1.564
Survey year 2014	0.578	1.729
Survey year 2016	0.533	1.878
Survey year 2018	0.611	1.638
Survey year 2022	0.598	1.672
Respondent sex is Male	0.932	1.074
Respondent race is Black	0.947	1.056
Respondent race is Other	0.933	1.072

Influential Cases

When testing for influential cases in the models the maximum Cooks distance value was used, with a value less than 1 being required to negate the presence of influential cases

Model 1: Model 1's maximum Cook distance is 0.03266 indicating that there is no problem with influential cases in this model

Model 2: Model 2's maximum cook distance is 0.04953 indicating that there is no problem with influential cases in this model

Outliers

Model 1: When observing model one's residual values no problem was observed concerning outliers. The maximum standardised residual value was 2.521 below the 3.29 value required to be an extreme outlier, with a standard deviation of 0.997 outliers are not a concern for model 1

Model 2: When observing model two's residual values no problem was observed concerning outliers. The maximum standardised residual value was 1.504 well below the 3.29 value required to be considered an extreme outlier, with a standard deviation of 0.997 outliers are not a concern for model 2.

Appendix C:

Linear Regression welfare deservingness by social capital indicators.

Parameter	Model 1		Model 2	
(Intercept)	5.2	(0.603)	3.048	(0.483)
Trust				
[TRUST=1]	-0.073**	(0.027)	0.027	(0.027)
[TRUST=2]	0.121	(0.069)	0.069	(0.048)
[TRUST=3]				
Spend evenings with Relatives				
[SOCREL=1]	-0.111	(0.088)	-0.039	(0.067)
[SOCREL=2]	0.066	(0.063)	-0.05	(0.054)
[SOCREL=3]	0.003	(0.052)	-0.088	(0.044)
[SOCREL=4]	0.037	(0.052)	-0.106*	(0.045)
[SOCREL=5]	-0.021	(0.048)	-0.127**	(0.044)
[SOCREL=6]	0.024	(0.049)	-0.095*	(0.041)
[SOCREL=7]				
Spend evenings with neighbours				
[SOCOMMUN=1]	-0.031	(0.078)	0.062	(0.06)
[SOCOMMUN=2]	-0.025	(0.085)	0.02	(0.067)
[SOCOMMUN=3]	-0.017	(0.081)	0.039	(0.068)
[SOCOMMUN=4]	-0.007	(0.079)	0.037	(0.064)
[SOCOMMUN=5]	-0.01	(0.083)	-0.003	(0.064)
[SOCOMMUN=6]	0	(0.081)	0.085	(0.061)
[SOCOMMUN=7]				
Spend evenings with friends				
[SOCFREND=1]	-0.119*	(0.096)	-0.051	(0.077)
[SOCFREND=2]	-0.211*	(0.097)	-0.079	(0.076)
[SOCFREND=3]	-0.233**	(0.085)	0.006	(0.066)
[SOCFREND=4]	-0.22**	(0.085)	-0.02	(0.063)
[SOCFREND=5]	-0.248**	(0.083)	-0.013	(0.063)
[SOCFREND=6]	-0.183*	(0.089)	-0.002	(0.064)
[SOCFREND=7]				
Spent evenings at bar				
[SOCBAR=1]	0.179	(0.096)	-0.11	(0.09)
[SOCBAR=2]	0.162	(0.098)	-0.128	(0.089)
[SOCBAR=3]	0.152	(0.098)	-0.076	(0.094)
[SOCBAR=4]	0.189	(0.104)	-0.147	(0.092)
[SOCBAR=5]	0.196	(0.106)	-0.161	(0.095)
[SOCBAR=6]	0.046	(0.105)	-0.161	(0.094)
[SOCBAR=7]				

Respondent Sex				
[Gender_M=.00]	-0.033	(0.027)	0.011	(0.023)
[Gender_M=1.00]				
Repondent is Black				
[Race_B=.00]	-0.248	(0.042)	-0.258***	(0.024)
[Race_B=1.00]				
Respondent is "Other"				
[Race_O=.00]	-0.085*	(0.044)	-0.043	(0.036)
[Race_O=1.00]				
Respondent Highest Degree				
[EDUCATION=0]	0.011	(0.072)	0.099	(0.052)
[EDUCATION=1]	-0.136**	(0.044)	0.066	(0.04)
[EDUCATION=2]	-0.098	(0.053)	0.069	(0.054)
[EDUCATION=3]	-0.094*	(0.042)	-0.04	(0.041)
[EDUCATION=4]				
Respondents political view				
[POLVIEWS=1]	0.578***	(0.096)	0.589***	(0.083)
[POLVIEWS=2]	0.582***	(0.076)	0.611***	(0.075)
[POLVIEWS=3]	0.444***	(0.073)	0.501***	(0.075)
[POLVIEWS=4]	0.326***	(0.064)	0.417***	(0.073)
[POLVIEWS=5]	0.245***	(0.07)	0.324***	(0.075)
[POLVIEWS=6]	0.099	(0.064)	0.236**	(0.078)
[POLVIEWS=7]				
Respondent income				
[RINCOME=1]	0.307***	(0.093)	0.123*	(0.056)
[RINCOME=2]	0.264**	(0.085)	0.102	(0.056)
[RINCOME=3]	0.239*	(0.095)	0.069	(0.062)
[RINCOME=4]	0.211*	(0.105)	0.117	(0.074)
[RINCOME=5]	0.38***	(0.09)	0.057	(0.094)
[RINCOME=6]	0.098	(0.116)	0.105	(0.1)
[RINCOME=7]	0.193	(0.132)	-0.112	(0.104)
[RINCOME=8]	0.262***	(0.082)	0.172**	(0.058)
[RINCOME=9]	0.107*	(0.045)	0.098*	(0.047)
[RINCOME=10]	0.133*	(0.056)	0.094*	(0.045)
[RINCOME=11]	0.189***	(0.043)	0.109**	(0.038)
[RINCOME=12]				
Year of survey				
[YEAR_1996=.00]	0.019	(0.06)	0.183*	(0.058)
[YEAR_1996=1.00]				
[YEAR_1998=.00]	-0.164**	(0.057)	0.034	(0.05)
[YEAR_1998=1.00]				
[YEAR_2000=.00]	-0.265***	(0.061)	0.017	(0.05)
[YEAR_2000=1.00]				
[YEAR_2002=.00]	-0.187**	(0.065)	0.023	(0.064)
[YEAR_2002=1.00]				

[YEAR_2004=.00]	-0.283***	(0.066)	-0.201***	(0.055)
[YEAR_2004=1.00]				
[YEAR_2006=.00]	-0.39***	(0.059)	-0.111*	(0.047)
[YEAR_2006=1.00]				
[YEAR_2008=.00]	-0.415***	(0.072)	-0.125	(0.071)
[YEAR_2008=1.00]				
[YEAR_2010=.00]	-0.275***	(0.058)	-0.061	(0.058)
[YEAR_2010=1.00]				
[YEAR_2012=.00]	-0.202**	(0.073)	0.065	(0.068)
[YEAR_2012=1.00]				
[YEAR_2014=.00]	-0.213***	(0.061)	0.006	(0.055)
[YEAR_2014=1.00]				
[YEAR_2016=.00]	-0.304***	(0.062)	-0.079	(0.054)
[YEAR_2016=1.00]				
[YEAR_2018=.00]	-0.439***]	(0.07)	-0.166**	(0.055)
[YEAR_2018=1.00]				
[YEAR_2020=.00]				
[YEAR_2022=.00]	-0.601***	(0.088)	-0.285***	(0.052)
[YEAR_2022=1.00]				
Respondent age category				
[AGECAT=1.00]	0.059	(0.074)	0.14*	(0.067)
[AGECAT=2.00]	0.114	(0.06)	0.082	(0.056)
[AGECAT=3.00]	0.088	(0.059)	0.126*	(0.057)
[AGECAT=4.00]	0.083	(0.059)	0.135*	(0.057)
[AGECAT=5.00]	0.079	(0.064)	0.085	(0.058)
[AGECAT=7.00]				
R Squared	0.14		0.118	
N	3380		3445	

Note: CSGLM regression coefficients with standard errors in brackets
*** p < 0.001,** p < 0.01,*p<0.05

Appendix D:

F test

	Model 1		Model 2	
	F	sig	F	sig
TRUST	6.085	0.002	1.162	0.314
SOCREL	1.049	0.393	1.794	0.098
SOCOMMUN	0.123	0.994	0.961	0.451

SOCFREND	2.052	0.057	0.577	0.749
SOCBAR	1.703	0.118	1.386	0.218