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The Impact of Economic Freedom on the Black/White Income Gap†

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One of the more vexing issues facing economists and policymakers is the racial gap in incomes between blacks and whites in the United States. No economy will reach the frontier of its productivity without full engagement of all of its citizens and the persistence of this income gap suggests that a sizable proportion of the American population has not been fully engaged in the economy. While researchers continue to study this issue, there is no clear consensus as to what is driving the income gap, nor a consensus for policy prescriptions to resolve the gap.

Economic freedom is one policy tool touted by a number of researchers as a way to increase economic growth for an economy as a whole. This paper examines the relationship between economic freedom and the racial income gap. More specifically we use economic freedom measures from the Economic Freedom of North America Index in a panel data setting to examine the effect of economic freedom on black household income, white household income, and the black/white income gap.

I. Black/White Income Gap

The racial income gap has existed in varying degrees in the United States for an extended period of time. Sakano (2002), for example, finds that from 1947 until the late 1960s, the absolute income distributions of the two groups exhibited convergence along with a closing of the gap of the two steady states. Since the late 1960s, however, the two income growth steady states began to diverge and blacks have increasingly lagged behind whites.

Yitzhaki and Lerman (1991) argue that between-group income inequality accounts for little of the total difference in mean incomes. Their work, which employed the idea of "stratification" shows that whites were more segmented from other groups in the income distribution. The authors create a stratification index to capture "the extent to which population subgroups occupy distinct strata within an overall distribution" (Yitzhaki and Lerman 1991, p. 313). They find that once population size is controlled for, fewer black incomes overlapped with the white income distribution and they did so lower in the white distribution. Median black income would have placed in the thirty-second percentile of the white income distribution.

Racial discrimination has been suggested as one cause of the income gap, however, the large mean income differentials by race are primarily the result of disparities in the acquisition of human capital. Loury (1977), for example, argues that even with the total removal of racial discrimination, income differences would remain without properly accounting for family and community background in the acquisition of human capital enhancing skills.

Bhattacharya and Mazumder (2011) measure the intergenerational mobility (IGM) of both blacks and whites. They find that, using standard transition probabilities, blacks were 26 percent less likely to move out of the bottom income quartile than their white counterparts. However, the gap was smaller based on a more advanced measure the authors create. They conclude that "Our most striking finding, however, is that when we (nonparametrically) control for AFQT scores, most of the racial gap in IGM disappears—whether measured via transition

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probability or upward mobility" (Bhattacharya and Mazumder 2011, p. 338).

Despite the attention of academics and policy makers, the problem of closing the racial income gap remains difficult to solve. It is important, therefore, for researchers to continue to explore factors that may ameliorate or exacerbate this gap.

II. Economic Freedom

Over the past several decades there has been increasing attention paid to the potential benefits of economic freedom as a policy tool. Gwartney, Lawson, and Block (1996) define economic freedom as occurring for individuals "when (i) property they acquire without the use of force, fraud, or theft is protected from physical invasions by others and (ii) they are free to use, exchange, or give away their property as long as their actions do not violate the identical rights of others" (Gwartney, Lawson, and Block 1996, p. 7).

Academics have explored the relationship between economic freedom and a number of economic variables. Most related to our current study is economic freedom and its relationship to income inequality. Berggren (1999) and Scully (2002) find, with various levels of confidence, that economic freedom does not increase income inequality and, in fact, helps to reduce it. Other work, such as Carter (2007), however, suggests the opposite to be true. Despite the interest in economic freedom's effect on inequality, there has, of yet, been no consideration as to whether economic freedom is positively, negatively, or unrelated to the racial income gap.

III. Data

We use state-level data for 1980–2010 census years to investigate whether the ratio of real median income for black households to real median income for white households may be partially explained by economic freedom.

Our data for household income represent the total pretax money income of all adult members of the household. We also include in our analysis a number of control variables including: the percent of households led by a female, the average age of the head of household, the percent of head of households that graduated from high school, and the percent of households located in urban areas. These data come from the IPUMS 5 percent sample of the 1980, 1990, and 2000 censuses and IPUMS 1 percent sample of the 2010 American Community Survey.

To quantify economic freedom, we use Bueno et al.'s (2012) index of economic freedom.[1] Higher economic freedom scores in the index indicate lower levels of government involvement in the economy. The overall index of economic freedom is based on three equally-weighted indices[2]: *Size of Government*, which is intended to reflect the notion that government expenditures (beyond those necessary for the protection of private property and the provision of essential public goods) and transfers between taxpayers result in a reduction of economic freedom; *Takings and Discriminatory Taxes*, which addresses the idea that taxes restrict private choices and consequently lower economic freedom; and *Labor Market Freedom*, which is based on the concept that government restrictions in the labor market reduce economic freedom.

These three component indices are themselves comprised of equally-weighted subcomponents. *Size of Government* is determined by three subcomponents: *Government Consumption Expenditures, Transfers and Subsidies,* and *Social Security Payments* (all as a percentage of gross state product). *Takings and Discriminatory Taxes* is made up of *Total Tax Revenue, Indirect Tax Revenue, Sales Taxes Collected* (all as a percent of gross state product), and the *Top Marginal Income Tax Rate and the Income Threshold at Which It Applies. Labor Market Freedom* is based upon *Minimum Wage Legislation, Government Employment as a Percent of Total State Employment,* and *Union Density*. Each component and subcomponent is a ranking that can have a minimum value of zero or a maximum of ten.

IV. Empirical Approach

Our empirical approach is based on a standard panel model,

$$(1)\quad y_{it} = \alpha + \beta_1 F_{it} + \gamma' X_{it} + \eta_i + \tau_t + \varepsilon_{it},$$

[1] Because the index for economic freedom is not available for years prior to 1981, we use the freedom data from 1981 as a proxy for economic freedom in 1980.

[2] We use the "all-government" index which takes into account the impact of all levels of government (federal, state, and local) involvement in the economy.

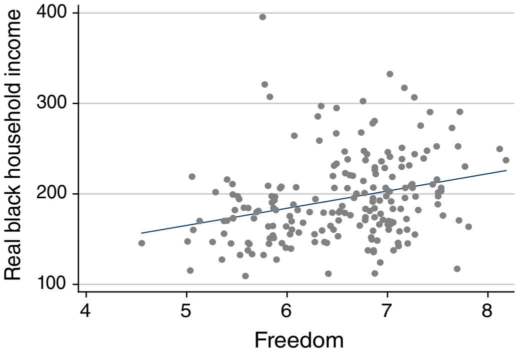

FIGURE 1. BLACK HOUSEHOLD MEDIAN INCOME AND ECONOMIC FREEDOM

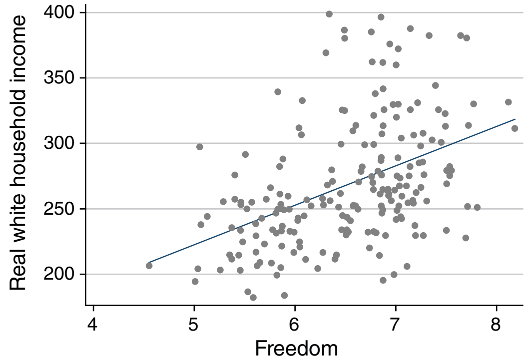

FIGURE 2. WHITE HOUSEHOLD MEDIAN INCOME AND ECONOMIC FREEDOM

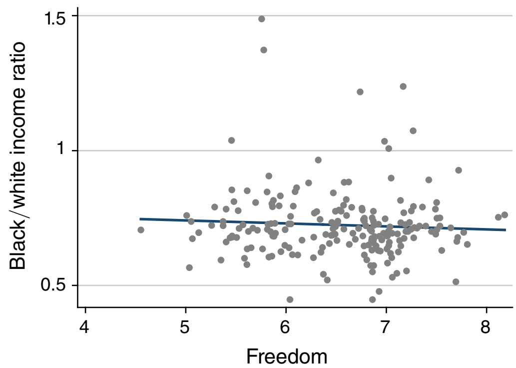

FIGURE 3. BLACK/WHITE INCOME RATIO AND ECONOMIC FREEDOM

where for state i at time t (where $t = 1980$, 1990, 2000, or 2010), y_{it} is a real median income measure, F_{it} is our economic freedom measure, X_{it} is the set of control variables, η_i is an unobserved state-specific fixed-effect, τ_t are time dummies, and ε_{it} is the error term.

For this study we consider three income measures: the log of black household real median income, the log of white household real median income, and the ratio of the logs of the two. When considering black households, the control variables in the regressions (percent of households led by a female, average age of the head of household, percent of head of households that graduated from high school, and percent of households located in urban areas) are expressed in terms of the black sample. Similarly, when examining white households, the controls are expressed in terms of the white sample. Lastly, when considering the ratio of black and white household income, the controls are expressed as black/white ratios.

V. Results

As a precursor to the econometric results, Figures 1–3 provide scatter plots of economic freedom and our three income measures (black, white, black/white income ratio) to provide a sense of what we might expect the relationship to be between economic freedom and our income measures. We find that higher values of economic freedom appear to be associated with higher income levels for black (Figure 1) as well as white (Figure 2) households. Figure 3 indicates that higher values of economic freedom are negatively correlated with the black/white income ratio.

While Figures 1–3 yield some insight, Table 1 provides the results of our primary empirical analysis. Column 1 is based on the log of black real household income as the dependent variable. We see economic freedom has a positive point estimate (0.012), however it lacks significance, suggesting that economic freedom does not affect black household income. Column 2 is based on the log of white real household income as our dependent variable and shows the economic freedom variable is positive and statistically significant with a point estimate of 0.085. This can be interpreted as a 1 unit increase in economic freedom is associated with approximately an 8.5 percent increase in real white

Table 1—Income and Economic Freedom

	All states			Excluding states with low black populations		
	Black household income (1)	White household income (2)	Ratio of black to white income (3)	Black household income (4)	White household income (5)	Ratio of black to white income (6)
Freedom	0.012	0.085***	−0.020***	0.026	0.076***	−0.014**
	(0.028)	(0.012)	(0.005)	(0.030)	(0.015)	(.006)
Percent urban	0.042	0.071	0.033**	0.463*	0.227**	0.036***
	(0.194)	(0.090)	(0.015)	(0.269)	(0.100)	(0.011)
Percent high school grad	−0.312	0.175	0.086**	1.221	0.163	0.176***
	(0.455)	(0.193)	(0.041)	(0.522)	(0.200)	(0.047)
Percent female head	−0.565	−3.090***	−0.004	−0.983	−2.053*	−0.005
	(0.505)	(0.719)	(0.007)	(0.555)	(0.781)	(0.006)
Average age	−0.106	0.046	−3.289*	0.283	0.084	0.463
	(0.181)	(0.053)	(1.99)	(0.216)	(0.0641)	(2.551)
Average age^2	0.002	−0.001	1.937*	−0.003	−0.001	−0.218
	(0.002)	(0.001)	(1.124)	(0.003)	(0.139)	(1.402)
State fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year effects	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.78	0.95	0.67	0.88	0.96	0.78
Observations	200	200	186	156	156	154

Note: Clustered standard errors reported.
***Significant at the 1 percent level.
**Significant at the 5 percent level.
*Significant at the 10 percent level.

household income. Based on columns 1 and 2, economic freedom appears to be positively and significantly associated with white household income and positively but not significantly associated with black household income.

The primary focus of this study is the income ratio between black and white households. This ratio is interpreted such that a value of 1 indicates black and white real household income is equal. A value above 1 indicates higher black household income than white household income, and a value below 1 indicates lower black household income relative to white households. Column 3 then is based on the ratio of the log of real black household income to the log of real white household income as the dependent variable, while our control variables are expressed as the ratio of black to white values, and economic freedom continues to be expressed as in the previous columns. Our variable of interest, economic freedom, has a negative point estimate of −0.020 and is significant at the 1 percent significance level, suggesting that an increase in economic freedom is associated with a worsening of the black/white income gap.

To address the possibility that our results might be influenced by states with very low black populations, we dropped observations in which the black population was less than two percent of the total state population (resulting in 11 states being dropped). Columns 4–6 of Table 1 present the results of these additional regressions. The results are not qualitatively different from our initial regressions for our primary variables of interest.

To more fully explore how the various components of economic freedom may affect the income measures, we also ran regressions that incorporated the components and subcomponents of economic freedom as explanatory variables. These results, given in Table 2, indicate that the incomes of white households are generally more positively affected by economic freedom than the incomes of black households and that higher levels of economic freedom were generally associated with lower ratios of black incomes to white incomes. It is especially worth noting that for none of the components or subcomponents was an increase in economic freedom associated with an increase in black

Table 2—Summary of Results from Components of Economic Freedom Regressions

Freedom measure	Black	White	Black/white
Economic freedom index	(0)	(+)***	(−)***
1. Size of government	(0)	(+)***	(−)***
1a. Government consumption expenditure	(−)*	(+)***	(−)***
1b. Transfers and subsidies	(0)	(+)***	(−)***
1c. Social security payments	(−)*	(+)***	(−)***
2. Takings and discriminatory taxation	(0)	(+)**	(−)*
2a. Total tax revenue	(0)	(+)*	(−)***
2b. Top marginal tax rate	(0)	(0)	(0)
2c. Indirect tax revenue	(0)	(0)	(0)
2d. Sales tax collected	(−)*	(0)	(−)*
3. Labor market freedom	(0)	(+)***	(0)
3a. Minimum wage legislation	(+)**	(+)***	(−)**
3b. Government employment	(0)	(+)*	(0)
3c. Union density	(0)	(−)**	(0)

Notes: Dependent variables are the log of income for black households, white households, and the ratio of logged incomes for black and white households. Results are based on the full set of controls using clustered standard errors. (+) indicates a significantly positive freedom coefficient, (−) indicates a significantly negative freedom coefficient, (0) indicates the freedom coefficient is not statistically significantly different from zero.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

household income relative to white household income.

VI. Conclusions

The income gap between black and white Americans has been a long standing source of public policy concern and academic research focus. A growing literature has shown that economic freedom can have real benefits for an economy. In this study, we have investigated whether economic freedom has had any impact in altering the ratio of income for black households to the income of white households. Our results generally suggest no relationship between economic freedom and black household income, and a positive relationship between economic freedom and white household income. Not surprisingly based on these findings, higher levels of economic freedom are shown to be positively related to the black/white income gap.

These findings are consistent with Compton, Giedeman, and Hoover (2014) whose distributional analysis shows that the bottom quintile of the income distribution is unaffected by economic freedom. If blacks systematically occupy lower quintiles of the income distribution, as suggested by Yitzhaki and Lerman (1991), it is not unexpected that economic freedom is associated with a widening of the racial income gap.

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