'Race', IQ and the Underclass: Don't Believe The Hype

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INTRODUCTION

> It is well said in the old proverb,
> 'a lie will go round the world while truth is pulling its boots on'.
>
> C.H. Spurgeon
>
> (1859)

In the autumn of 1994 *'The Bell Curve: Intelligence and Class Structure in American Life'* (Herrnstein and Murray 1994) arrived at American bookstores; available only in hardback, running to 845 pages and featuring 44 tables and more than 90 figures. At first sight the book would not appear to fit the usual description of a best-seller. And yet, just two months after publication, some 400,000 copies were in print; the story made the front cover of *Newsweek* and the book featured on the *New York Times* best-seller list for 30 weeks (Banks 1995; Kamin 1995). The book's phenomenal success is more understandable in view of the issues it addresses and the arguments it proposes: put simply Herrnstein and Murray argue that low intelligence is largely a matter of genetic inheritance and underlies the majority of America's pressing social and economic problems (including poverty, educational failure, unemployment, illegitimacy, chronic welfare dependency and crime).

> 'Putting it all together, success and failure in the American economy, and all that goes with it, are increasingly a matter of the genes that people inherit.'
> (Herrnstein and Murray 1994: 91, original emphasis)

This analysis renders useless most of the current social policy initiatives in the US and suggests, first, the need to accept class and racial inequalities as inevitable; and second, the need to plan new policies accordingly. In general this means deregulating wherever possible (or, as Herrnstein and Murray put it 'simplifying rules': p. 541) except in the case of low IQ people where regulation is apparently more appropriate. They recommend, for example:

- increased adoption (across class and 'race' lines) as 'an inexpensive way to do some good for an expandable number of the most disadvantaged infants' (p. 416)
- ending affirmative action in higher education and shifting educational resources to concentrate more on 'gifted' students (p. 418; pp. 442-45)
- scrapping all anti-discrimination legislation in the job market (p. 505)
- promoting marriage by making legal rights over children dependent on it (p. 545)
- reducing birth rates among the low 'cognitive classes' by ending all welfare support for mothers, regardless of circumstance (p. 548-9)
- changing immigration law 'to serve America's interests' by making competency claims the dominant means of entry (p.549).

In this paper we examine *'The Bell Curve'* as a case study in the misuse of statistics. We consider the authors' core assumptions, their presentation of 'facts' and the statistical sleights of hand that underlie their entire analysis. This is necessary not only as an object lesson in the pseudo-science of 'race' and IQ, but also because the book is already being hailed in certain quarters as a courageous and insightful study with many direct consequences for economic, educational and social policy in this country (see Richardson 1994).

The 'facts' about intelligence

Before we consider Herrnstein and Murray's statistical work in *'The Bell Curve'* it is necessary to examine the principles upon which they build their analysis: these are the basic assumptions that underlie the whole of their work. Their presentation of these issues embodies all the pseudo-scientific posturing and misrepresentation that runs through the rest of their case.

The introduction to *'The Bell Curve'* offers a short and selective history of intelligence testing and theorising. They identify three broad schools of thought on intelligence; the Classicists, Revisionists and Radicals. They examine some of the main

differences between the schools, not least the issue about whether there are single, triple or multiple versions/types of intelligence. Having noted the positive contribution of each approach, however, they place themselves firmly among 'the Classicists'. In fact, they go on to adopt the most simple and unspecified version possible for the key concepts of 'intelligence', 'intelligence test' and 'IQ test'. They note the 'political baggage' associated with 'intelligence' but decide to stay with the term, reserving the right to substitute 'cognitive ability' whenever they choose. Crucial debates, about just what it is that IQ tests measure and the problems of constructing different tests (for different 'intelligences'), are quickly passed over. Indeed, the authors assert that for general purposes, 'intelligence' can simply be thought of as what Americans mean by being 'smart':

> '...high intelligence has earmarks that correspond to a first approximation to the commonly understood meaning of *smart* (...) to refer to qualities of mental quickness and complexity that do in fact show up in high test scores.' (Herrnstein and Murray 1994: 21, original emphasis).

> '*intelligence* carries with it undue affect and political baggage. It is still a useful word, but we shall subsequently employ the more neutral term *cognitive ability* as often as possible to refer to the concept that we have hitherto called *intelligence*, just as we will use *IQ* as a generic synonym for *intelligence test score*. Since *cognitive ability* is an uneuphonious phrase, we lapse often so as to make the text readable.' (Herrnstein and Murray 1994: 22, original emphasis).

Having set the scene in this way, Herrnstein and Murray go on to itemise 'six conclusions regarding tests of cognitive ability, drawn from the classical tradition, that are now beyond significant technical dispute' (p. 22). In effect, they assert the most crude notion of intelligence to be found within the literature:

> * *Intelligence is defined as a real thing inside each of us, it is not merely a useful 'construct' as is often argued (see Cizek 1995).*
> > 'There is such a thing as a general factor of cognitive ability on which human beings differ'. (p. 22)

> * *'Intelligence' equates with commonsense uses of the word.*
> > 'IQ scores match, to a first degree, whatever it is that people mean when they use the word intelligence or smart in ordinary language.' (p.22)

> * *Intelligence is accurately measured by IQ tests (regardless of social class or ethnicity).*
> > 'All standardised tests of academic aptitude or achievement measure this general factor to some degree, but IQ tests expressly designed for that purpose measure it most accurately.' (p. 22)
> > 'Properly administered IQ tests are not demonstrably biased against social, economic, ethnic, or racial groups.' (p. 23)

> * *Intelligence is relatively stable, fixed and genetically inherited.*
> > 'IQ scores are stable, although not perfectly so, over much of a person's life.' (p. 23)
> > 'Cognitive ability is substantially heritable, apparently no less than 40 percent and no more than 80 percent.' (p. 23)

Herrnstein and Murray describe these points as 'squarely in the middle of the scientific road' (p. 23): in fact, they are massively contested (see Gipps and Murphy 1994: Ch. 3; Kamin 1974; 1981). Even within the community of psychometric-testers these positions are seen as extreme and dubious. Robert Sternberg, of Yale, argues that in many key respects '*The Bell Curve*' is outside the consensus of contemporary work on intelligence. He argues that IQ is demonstrably not fixed; that many IQ tests are not generally useful; and that the significance of heritability is widely misrepresented. With regard to ethnic differences Sternberg says that 'Herrnstein and Murray invite the reader to conclude that race differences are due to genetics, even though they have no evidence of that, and they know it' (Sternberg 1995).

In their introduction (and before the first chapter of the book), therefore, Herrnstein and Murray have laid the foundations for the rest of the analysis: the key concepts for the study (intelligence; IQ; IQ tests) have been defined in a simplistic and dogmatic way that takes for granted the soundness of concepts and tests which traditionally produce analyses of working class and black people as cognitively unlike the rest of society, and not

equipped for equal treatment and reward. The ethnic differences in IQ obtained in 'The Bell Curve' are shown in Figure 1.

As we will show in the rest of this paper, however, even if we disregard all our criticisms to this point, Herrnstein and Murray's analysis still fails to deliver as a piece of serious scientific work.

RESPONSIBLE STATISTICAL CRITICISM

Careful statistical criticism is difficult. In a critique it is tempting to highlight any real error by the authors, even where the error has not in fact made a difference to the conclusions. For example, though it would be careless to publish a standard deviation in which a mistake has crept into the calculation, it would be irresponsible to condemn an entire piece of research on the basis of one wrongly calculated standard deviation. A further example of this could be the use of an inappropriate hypothesis test. Such an error might cast doubt on the statistical competence of the researchers but may not have made any substantial difference to the conclusions that would have been reached using the correct test.

There are a number of detailed questions which allow us to assess the quality of a piece of statistical research and gauge its strengths and weaknesses. All research will have some weaknesses. An honest writer will help us identify the weaknesses as well as the strengths in the analysis, although it is rare for researchers to be too forthcoming concerning the weaknesses of their work. Below is a list of questions that may usefully guide *responsible* statistical criticism; that is, criticism that focuses on key issues and seeks to advance understanding (not merely a list of quibbles or counter assertions).

(i) Model formulation   Is the model sound? How did the researchers draw on previous work in the area and models which had previously been used and found to fit the data well? Do the researchers explain how their work builds on previous research and, if it represents a radical departure from earlier research, have they provided a justification for their new approach? Have the researchers given a fair and comprehensive review of the relevant literature or is their review partial and incomplete, drawing only on research which gives support to their own standpoint?

(ii) Model adequacy   Have the researchers taken into account the effects of sampling error on their conclusion (statistical conclusion validity)?

(iii) Alternative models   Are there alternative explanations, involving third variables, that have not been controlled for?

(iv) Model inferences   Are there discrepancies between careful interpretations and qualifications in the main body of the text and sweeping claims in the conclusions?

There are a number of things (though not many) that are good about 'The Bell Curve'. The authors' confidence in their analysis (breathtaking arrogance might also describe it) has in some sense to be admired. They boldly go where others would fear to tread -or so they repeatedly tell us. Some of the statistical presentation is excellent and their argument and discussion is challenging. The statistical procedures are properly explained, sometimes in appendices, and we have no evidence that the data has been fabricated. Nevertheless, we have strong misgivings about the statistics in 'The Bell Curve' which we will now explain.

THE STATISTICAL MODELS IN 'THE BELL CURVE'

The majority of data in 'The Bell Curve' are taken from the National Longitudinal Survey of Labour Market Experiences of Youth (NLSY). The analysis includes 11,878 young people who were between 14 and 22 years of age when the continuing study began in 1979. At that time the respondents or their parents gave information about their education, occupation, income. They also answered further questions about themselves. Those reports are the basis for classifying the socioeconomic status of the respondents. The young people also took the Armed Forces Qualifications Test (AFQT), regarded by psychometricians as essentially an IQ test (Kamin 1995). As they have grown older, the respondents have provided more information about their own schooling, unemployment, poverty, marital status, childbearing, welfare dependency, criminality, parenting behaviour and so on.

The analysis by Herrnstein and Murray extended through the survey year, 1990, by which time the survey respondents were between 25 and 33 years of age. The key variables used in the analysis were IQ (the Armed Forces Qualifications Test, AFQT), socioeconomic status and age. The socioeconomic status variable was created using four indicators: mother's and father's education, the total net family income and an index of the

occupational status of the adults living with the subject at the age of 14. These four variables were summed and averaged (p. 574) and, for the regression, standardised to a mean of 0 and a standard deviation of 1. If only a subset of variables had valid scores that subset was summed and averaged. There was item non-response for 37 per cent of cases.

Logistic regression analyses were carried out for a whole set of binary dependent variables; being under the official poverty line in 1989, permanently dropping out of high school, receiving a bachelor's degree, being unemployed for four weeks or more in 1989, being divorced within the first five years of marriage, having the first birth out of wedlock, being on welfare by the first calendar year after the birth of a child, smoking during pregnancy, being interviewed in a correctional facility in one or more interviews from 1979 to 1990 and scoring 'yes' on the 'Middle Class Values Index' - a construct that Herrnstein and Murray claim identifies 'people who are doing everything right by conventional standards' (p.263).

The predictor variables used in the logistic regression analyses were the IQ (AFQT) score, socioeconomic status and age. In some cases other variables were added to the model. The analyses were usually conducted for particular subsets of the total sample, for example, the analysis of the unemployed was restricted to males who were not 'unable to work' or 'in school' and were in the labour market throughout 1989. In all cases a separate analysis of the high school sample and the college sample was carried out. The parameter estimates were provided for the 60 fitted models along with the analysis of log-likelihood and the coefficients of determination for each model.

(i)   Model formulation

There are within 'The Bell Curve' two major threads. One is to establish that intelligence, as measured by an IQ test, is the primary determinant of success in occupational attainment, parenting, citizenship and so on; the other is to establish the relationship between 'race' and intelligence. A considerable volume of history and academic research has shown the importance of 'race' and racial discrimination in determining job opportunity in the United States and elsewhere. The United States has a recent history of racial violence, racialized politics, racial segregation and racism almost unparalleled in the West. Within 'The Bell Curve', however, work on racism is almost

completely ignored, apart from a few grudging references to researchers such as W.J. Wilson (who has a particular view of the black underclass in the United States which is quite controversial; see Wilson 1987). In the section on ethnic differences in the labour market one of the few authors they cite is Linda Gottfredson, a sociologist who writes on the societal consequences of the g factor (general intelligence) in employment (Gottfredson 1986); this indicates a general orientation to a rather specific literature but not the mainstream literature on 'race', social class and gender. Great swathes of research on racial discrimination and ethnic wage differentials are not referenced, even in footnotes. The authors are either ignorant of this work or are aware of this literature and choose not to cite it. The research literature is normally thought to inform the model formulation process. The approach of Herrnstein and Murray is, therefore, at best ill informed, at worst, blinkered.

As has been described above the authors utilise a logistic regression approach using a binary outcome to model probabilities (say the probability of being unemployed) with, in most of their analyses, three predictor variables; IQ score, socioeconomic status and age. It is clear to us that the model would benefit substantially from the inclusion of ethnicity and gender. Ethnicity is a critical factor when it comes to employment opportunity in the United States, as is gender. It is now generally accepted, on both sides of the Atlantic, that differences in educational and occupational success should be analysed using three important social cleavages; ethnicity, gender and socioeconomic status - the interactions between these variables is also of importance. There is little discussion of gender differences in 'The Bell Curve' and neither is there discussion of ethnic, gender and social class *interactions*. This is clearly a grave weakness in the model formulation.

(ii)   Model adequacy

Within the space of 139 pages Herrnstein and Murray present and interpret the results of 60 logistic regression analyses in an attempt to demonstrate the importance of IQ. The analysis of deviance and the parameter estimates for these models are given in an appendix. By positioning the model details in an appendix the limitations of the model-building exercise are hidden from all but the most conscientious reader. There is much here about which the authors should be advising caution. The adequacy of the model fit is measured in the conventional way using the

coefficient of determination. In 18 models the coefficient of determination (R-Square) is above 0.10, in 32 models R-Square is between 0.02 and 0.10 and in 10 models R-Square is below 0.02. If a model has an R-Square of 0.10 this means that 10 per cent of the variability (or deviance) is explained by the model and 90 per cent of the variance is unexplained. Thus, according to their own calculations, the explanatory power of most of these models is extremely low.

The purpose of models in this context is twofold; first, to identify variables that have important explanatory power and, second, provided the model fit is good, to use the model for prediction. The models used here fail in both respects.

One of the areas Herrnstein and Murray tackle with enthusiasm is crime (Chapter 11). In a one-sided review of the literature on criminology they cite research in 1914 which reportedly indicated that a large fraction of convicts were intellectually subnormal. They then lament the attack on the IQ/crime link which began in the 1920s, blaming one particular American criminologist, Edwin Sutherland, for putting 'an end to the study of IQ and crime for half a century' (p 241). They then claim that 'leading criminologists' in the 1970s had resurrected the study of IQ and criminality and that the correlation between crime and intelligence is now routinely reported.

Their analysis of the probability of being in prison is based on a model with the three variables IQ, socioeconomic status and age. The coefficient of determination of this model is only about 9 per cent, leaving 91 per cent of the variance unexplained. Many factors, apart from the three used in this model, affect the chances of falling foul of the law. The inadequate model fit does not, however prevent Herrnstein and Murray from using the analysis. Their conclusion is that a low IQ is a significant risk factor in crime and that, after controlling for IQ, men's socioeconomic background status has little or nothing to do with crime. They fail to draw the reader's attention to the poor fit of the model. They continue to claim that IQ is the most important variable in the analysis and they use predictions from the model to make further inferences.

The same approach is used in the analysis of unemployment and the probability of being out of the labour force. The coefficients of determination for these models ranges from 0.02 to 0.11 which again leaves a considerable proportion of the variability

unexplained. They confidently conclude that IQ is more important than socioeconomic status in determining the probability of being unemployed and proceed to produce predicted probabilities from their model.

We are, of course, aware of the problem of obtaining a good fit with models of this kind. Physical laws about, for example, temperature, pressure and volume of a gas do not have counterparts in the social sciences. Humans are more complex than that. We are also aware that measures of goodness of fit are affected by the level of disaggregation of the data in the model. In a logistic model the outcome variable is binary but the predictor variables might be, at one extreme, categorial or at the other extreme ratio scale measures of continuous data. Thus if IQ, age and socioeconomic status are treated as continuous variables then there are potentially as many degrees of freedom as observations because there many possible IQ, age and socioeconomic status group combinations (about 1700 in the models of unemployment in 'The Bell Curve'). If the data were grouped into, say, three IQ groups, three age groups and three socioeconomic status groups the degrees of freedom are reduced to 27 because we are then fitting a model to a 3x3x3 table. Thus the R-Square for Herrnstein and Murray's models will be lower than those produced by researchers who have used grouped data.

Notwithstanding this, the model adequacy in these chapters of 'The Bell Curve' is poor and the readership needs to be reminded of this. Inferences from the model should have been made with extreme caution, if at all.

(iii)   Alternative models

It is not hard to understand why the above models fit so poorly. A model which only uses IQ, age and socioeconomic status is a very crude one and for anyone with a given IQ, age and socioeconomic status there is still considerable uncertainty about their chances of being in employment. As we have already said, wherever possible models of educational and occupational success should include ethnicity, gender and socioeconomic status as explanatory variables (Cheng and Heath 1993). A good measure of attainment is preferable, we believe, to an IQ test score for two reasons. In the first place the validity of IQ tests as a measure of general intelligence is in doubt, as we have already discussed. Second, a univariate notion of intelligence as a

variable is not as useful as a categorial notion of educational qualifications, some of which are academic and some of which are vocational. An individual's chances of being employed if they are an electrician, a heavy goods vehicle driver or a plumber can, in a changing labour market, be higher than the chances of someone in an occupation with higher status but for which there is little demand (see Drew, Gray and Sime 1992).

If educational qualifications can be carefully measured then a logit model of occupational success can show ethnic, gender and social class differences (Drew 1995; Heath and McMahon 1995). The ethnic parameter estimates in such models can be interpreted, if they are negative, as 'ethnic penalties' (Cheng and Heath 1993) that is they reflect the lower probability of success for, say, blacks after account has been taken of other factors. Analyses in the UK have shown these 'ethnic penalties' to be sizeable. For example, Afro-Caribbean young people, females and those coming from the manual social class groups have much higher probabilities of being unemployed than their white, male, middle class counterparts. This suggests that racism, along with other types of discrimination, have a continuing effect within the youth labour market; the causes of inequality, therefore, do not lie solely within the victims themselves. It is this quest for differences, once educational background (or IQ) is taken into account that is wholly absent in Herrnstein and Murray's analysis. For them the most important issue is the significance of IQ. Little else is of interest. For us the issue is what differences there are *after* controlling for educational background because we wish to explore discrimination on the basis of 'race', gender or social class.

The problem of explanatory power of the model is still there even with less crude variables than those used by Herrnstein and Murray but such a model would, we suspect, have greater explanatory power than the one used in *'The Bell Curve'*.

(iv) Model inferences

There are two ways in which we would criticise the interpretation of the models in *'The Bell Curve'*. First we criticise the authors for the way they present and interpret their results. Second, we criticise their rapid movement from a fairly technical interpretation of the models to quite remarkably wild generalisations - of the kind you might expect to see in a political tract but would not expect in a supposedly academic book.

Herrnstein and Murray sacrifice good analysis for the sake of getting their message across. They use graphs to good effect - with titles that often describe not what the graph is about but what the reader should conclude. This includes captions like 'IQ has a large effect on white illegitimate births independent of the mother's socioeconomic background' (p. 183) and 'For white youths, being smart is more important than being privileged in getting a college degree' (p. 152). The message comes pre-packaged without the reader having to work out the meaning for him/herself: simultaneously, of course, alternative interpretations are rendered less plausible.

Although Herrnstein and Murray do not include ethnicity in their model building, once they have asserted that IQ is the single most important variable, they proceed to examine ethnic differences controlling for IQ. They do this for unemployment in order to show that, once you control for IQ, ethnic differences in unemployment shrink (Fig 2). The black-white gap gets smaller whilst the Latino-white gap disappears altogether. If they could show that all such differences disappeared this would mean that, in their terms, blacks are more frequently out of work because more of them are 'dumb' (p. 160).

However, there seems to be some sleight of hand here. Herrnstein and Murray first present the raw differences for the three ethnic groups and then present the differences 'for a person of average age and average IQ (100)'. (These are actually predicted probabilities fitted for each ethnic group separately). This may not be a fair comparison, though. Even if the differences shrink for those of average IQ it does not mean that the differences shrink in a similar way for those with an IQ of, say, 85 or 135. It may be that amongst manual workers with low qualifications the ethnic differences persist or that amongst professionals with high IQs the ethnic differences are large. Although we cannot be certain that this is the case, we can think of a number of good reasons why this might to be true. We would like to see the data on it. Herrnstein and Murray use the same approach many times. They claim that controlling for IQ significantly reduces the black-white difference in the numbers in jail (Fig 3). They spend no time discussing why, after controlling for IQ, the black rate is still two and a half times the white rate.

When it comes to generalisations from the model Herrnstein and Murray are startling. There are many wild generalisations and unsubstantiated assertions in this book. Let us just take the labour market chapter as an example. The probability of men staying in the labour force is directly related to high IQ, in their model. This is not, according to 'The Bell Curve', because people with poor qualifications, in working class jobs are frequently made redundant and there is a high labour turnover. Characteristically, the problem is said to lie with the people themselves: '.....competence in the workplace is related to intelligence, and competent people more than incompetent people are likely to find the workplace a congenial and rewarding place. Hence, other things being equal, they are more likely than incompetent people to be in the labour force' (Herrnstein and Murray 1994: 159-60).

The authors have particular difficulty explaining the black-white gap in annual income which, they admit, is still sizeable even after controlling for IQ. Their overall comment in the chapter summary is:

> 'These inequalities must be explained by other factors
> in American life. Scholars have advanced many such
> explanations; we will not try to adjudicate among them
> here, except to suggest that in trying to understand the
> cultural, social and economic sources of these
> differences, understanding how cognitive ability plays
> into the mix of factors seems indispensable. The role of
> cognitive ability has seldom been considered in the
> past.' (Herrnstein and Murray 1994: 317 original
> emphasis).

This reticence on their part is very surprising given their willingness to speculate in many other parts of the book. Instead they cite research which suggests that there are six times as many black doctors as might be expected given the IQ group (above 112) from which physicians are recruited. The researcher, Linda Gottfredson, concludes that blacks are over-represented in almost every profession, given their IQs. This is equivalent to saying that there are too many professional blacks given that blacks are not as smart as whites.

Herrnstein and Murray are similarly reticent about racism being a possible cause of unemployment. They suggest that these poor job outcomes are difficult to explain but may again reflect human

(group) differences rather than structural/economic forces and inequalities:

> 'With the facts in hand, we cannot distinguish
> between the role of the usual historical factors that
> people discuss and the possibility of ethnic
> differences in whatever other personal attributes
> besides IQ determine a person's ability to do well in
> the job market. We do not know whether ethnic
> groups differ on the average in these other ways, let
> alone why they do so if they do'. (Herrnstein and
> Murray 1994: 328)

If Herrnstein and Murray had been referring to the literature in the UK they would have found that, despite the low expectations of some teachers, black young people are more likely than whites to stay on at school or college to improve their qualifications; they are given strong parental encouragement to do this; and they try desperately hard to find jobs (Drew 1995; Gillborn 1990 & 1995; Taylor 1984). They would also have found that evidence from the use of 'tester applications' (where identical application letters are sent by white and black applicants) shows that, at the application stage alone one third of employers discriminate against black applicants (see Brown and Gay 1985) In the US there is a literature just as large on the size and causes of black unemployment (see Lobo 1993). This does not fit Herrnstein and Murray's analysis, however, and it is given little attention in 'The Bell Curve'.

CONCLUSION

> '...the IQ test has served as an instrument of
> oppression against the poor - dressed in the
> trappings of science, rather than politics. The
> message of science is heard respectfully, particularly
> when the tidings it carries are soothing to the public
> conscience. There are few more soothing messages
> than those historically delivered by the IQ testers.
> The poor, the foreign-born, and racial minorities were
> shown to be stupid. They were shown to have been
> born that way. The under-privileged are today
> demonstrated to be ineducable, a message as
> soothing to the public purse as to the public
> conscience.' (Kamin 1974: 15-16).

Leon Kamin's verdict on the history of IQ testing is as appropriate today as it was twenty years ago. In this paper we have examined one example of this form of 'science'. 'The Bell Curve' is bad science. It trades on the hard, factual image of statistical data and peddles conclusions which threaten to exacerbate, not lessen, the social divisions and conflicts which lie at the heart of the 'race' and IQ debate.
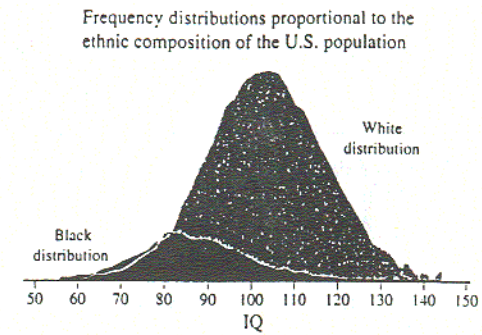
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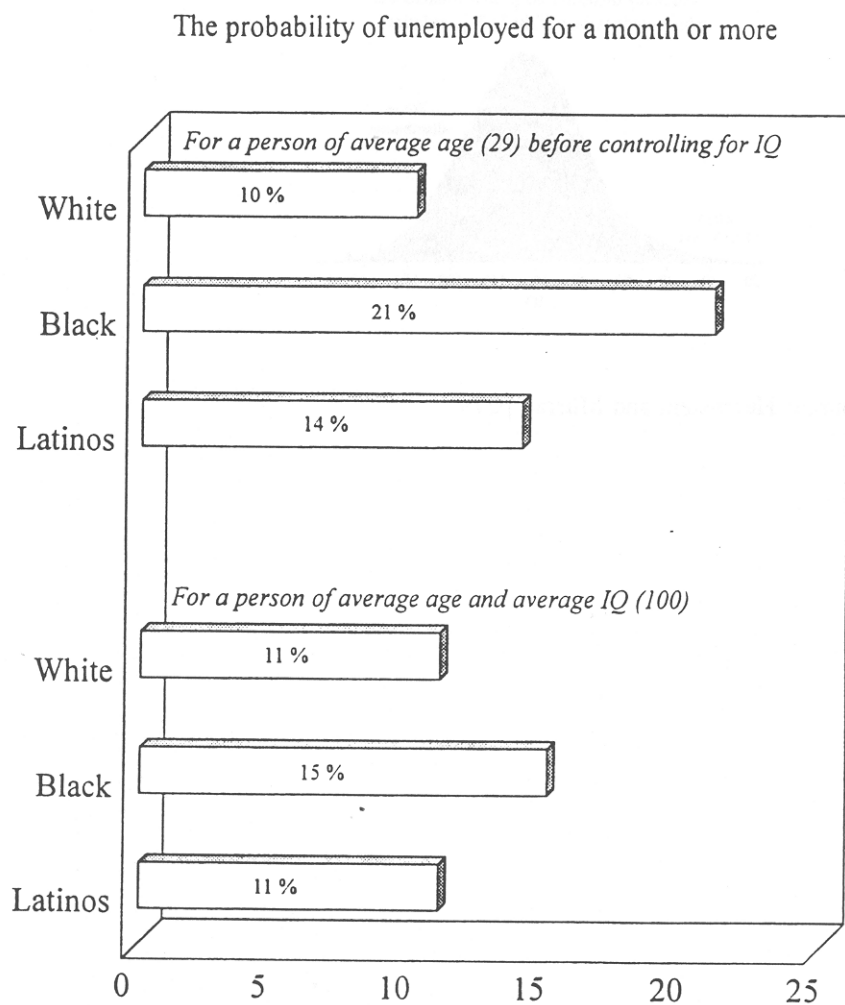
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Figure 1: The black and white IQ distributions in the NLSY.
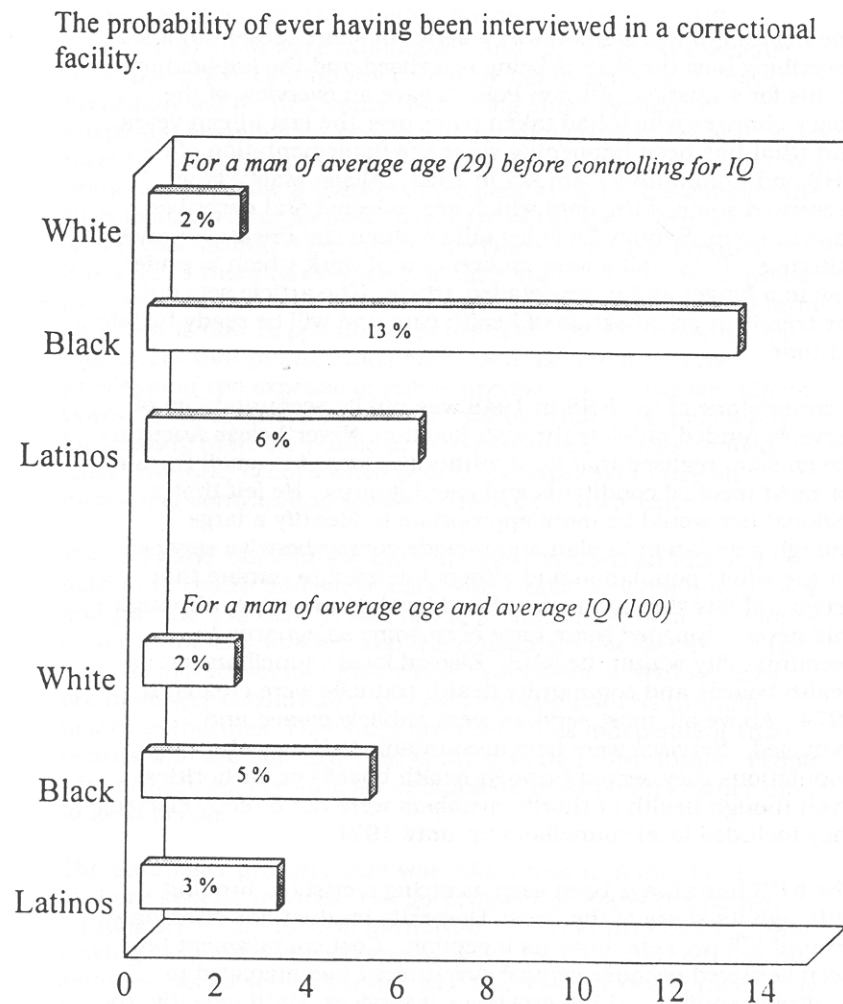

Frequency distributions proportional to the
ethnic composition of the U.S. population

White
distribution

Black
distribution

50   60   70   80   90   100 110 120 130 140 150
IQ

Source: Herrnstein and Murray p279

Figure 2: After controlling for IQ, the ethnic discrepancy in male unemployment shrinks by more than half for blacks and disappears for Latinos

The probability of unemployed for a month or more

For a person of average age (29) before controlling for IQ

White	10 %
Black	21 %
Latinos	14 %

For a person of average age and average IQ (100)

White	11 %
Black	15 %
Latinos	11 %

0 5 10 15 20 25

Source: Herrnstein and Murray p 328

Figure 3: Controlling for IQ cuts the black-white difference in incarceration by almost three-quarters

The probability of ever having been interviewed in a correctional facility.

For a man of average age (29) before controlling for IQ

White	2 %
Black	13 %
Latinos	6 %

For a man of average age and average IQ (100)

White	2 %
Black	5 %
Latinos	3 %

0 2 4 6 8 10 12 14

Source: Herrnstein and Murray p338