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# SSA DISABILITY DECISION MAKING

## Additional Steps Needed to Ensure Accuracy and Fairness of Decisions at the Hearings Level





Highlights of [GAO-04-14](#), a report to congressional requesters

## Why GAO Did This Study

Historically, the proportion of the Social Security Administration's (SSA) disability benefits claims that were approved has been lower for African-Americans than for whites. In 1992, GAO found that racial differences, largely at the Administrative Law Judge (ALJ) level, could not be completely explained by factors related to the decision-making process. This report examines how race and other factors influence ALJ decisions and assesses SSA's ability to ensure the accuracy and fairness of ALJ decisions.

## What GAO Recommends

GAO recommends that SSA enhance its ALJ quality assurance reviews by

- incorporating cases that are appealed to SSA's Appeals Council in the quality assurance review sample,
- conducting ongoing as well as in-depth analyses of ALJ decisions by race and other factors, and
- publishing these results in its biennial reports.

Further, GAO recommends that SSA

- take action, as needed, to correct and prevent unwarranted allowance differences; and
- establish an expert advisory panel to provide ongoing leadership, oversight, and technical assistance with respect to ALJ quality assurance reviews.

SSA agreed with GAO's recommendations.

[www.gao.gov/cgi-bin/getrpt?GAO-04-14](http://www.gao.gov/cgi-bin/getrpt?GAO-04-14).

To view the full product, including the scope and methodology, click on the link above. For more information, contact Robert E. Robertson at (202) 512-7215 or [RobertsonR@gao.gov](mailto:RobertsonR@gao.gov).

# SSA DISABILITY DECISION MAKING

## Additional Steps Needed to Ensure Accuracy and Fairness of Decisions at the Hearings Level

### What GAO Found

GAO controlled for factors that are related to the disability decision-making process at the Administrative Law Judge level and found:

- no statistically significant difference in the likelihood of being allowed benefits between white claimants and claimants from other, non-African-American racial/ethnic groups; and between white claimants and African-American claimants who were represented by attorneys;
- statistically significant differences between white and African-American claimants who were not represented by attorneys. Specifically, among claimants without attorneys, African-American claimants were significantly less likely to be awarded benefits than white claimants; and
- other factors—including sex, income, and the presence of a translator at a hearing—also had a statistically significant influence on the likelihood of benefits being allowed.

Due to the inherent limitations of statistical analysis, one cannot determine whether these differences by race, sex, and other factors are a result of discrimination, other forms of bias, or variations in currently unobservable claimant characteristics.

Analytical, sampling, and data weaknesses in SSA's approach to quality assurance reviews limit its ability to ensure the accuracy and fairness of ALJ decisions. For example:

- **Analytic weaknesses:** SSA analyzes ALJ decisions by various factors, such as SSA region, but not by the claimant's race.
- **Sampling weaknesses:** SSA currently excludes cases that have been appealed to the Appeals Council from the pool of ALJ cases that undergoes the quality assurance review. The exclusion of these cases could mean that the sample used by SSA in its quality assurance review is not representative of all ALJ decisions. While GAO did not find large differences in the sample of cases from 1997 to 2000 that it used for its analysis, the continued, systematic exclusion of cases that are under appeal could in the future result in an unrepresentative sample of all ALJ decisions.
- **Data limitations:** even if SSA wanted to conduct analyses by race/ethnicity, it would encounter difficulties doing so in the near future because, since 1990, SSA significantly scaled back its collection of race/ethnicity data. Although GAO had sufficient race data for its study, the scaled back collection of race/ethnicity data will impact SSA's future efforts to study ALJ benefit decisions by race. During GAO's review, however, SSA decided to collect race/ethnicity data for persons applying for Social Security benefits.

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## Background

DI and SSI are the two largest federal programs providing cash assistance to people with disabilities. Established in 1956, DI provides monthly payments to workers with disabilities (and their dependents or survivors) under the age of 65 who have enough work experience to qualify for disability benefits. Created in 1972, SSI is a means-tested income assistance program that provides monthly payments to adults or children who are blind or who have other disabilities and whose income and assets fall below a certain level.<sup>8</sup> To be considered eligible for either program as an adult, a person must be unable to perform any substantial gainful activity by reason of a medically determinable physical or mental impairment that is expected to result in death or that has lasted or can be expected to last for a continuous period of at least 12 months. Work activity is generally considered substantial and gainful if the person's earnings exceed a particular level established by statute and regulations.<sup>9</sup> In calendar year 2002, about 5.5 million disabled workers (age 18-64) received about \$55.5 billion in DI benefits, and about 3.8 million working-age individuals with disabilities received about \$18.6 billion in SSI federal benefits.<sup>10</sup>

To obtain disability benefits, a claimant must file an application online,<sup>11</sup> by telephone or mail, or in person at any Social Security office. If the claimant meets the nonmedical eligibility criteria, the field office staff forwards the claim to the appropriate state Disability Determination Service (DDS) office. DDS staff—generally a team comprised of disability examiners and medical consultants—review medical and other evidence provided by the claimant, obtaining additional evidence as needed to assess whether the claimant satisfies program requirements, and make the initial disability determination. If the claimant is not satisfied with this

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<sup>8</sup>SSI also provides income assistance to the aged who have income and assets below a certain level.

<sup>9</sup>The Social Security commissioner has the authority to set the substantial and gainful activities level for individuals who have disabilities other than blindness. In December 2000, SSA finalized a rule calling for the annual indexing of the nonblind level to the average wage index of all employees in the United States. The current nonblind level is set at \$800 per month. The level for individuals who are blind is set by statute and is also indexed to the average wage index. Currently, the level for blind individuals is \$1,330 of countable earnings.

<sup>10</sup>DI beneficiaries with low income and assets can also receive SSI benefits. Of the 5.5 million DI beneficiaries, about .8 million also received SSI in 2002. Thus, there was a total of 8.5 million working-age beneficiaries in 2002, with 9 percent receiving both DI and SSI.

<sup>11</sup>SSA permits DI, but not SSI, claimants to file for benefits on-line.

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determination, the claimant may request a reconsideration of the decision within the same DDS.<sup>12</sup> Another DDS team will review the documentation in the case file, as well as any new evidence the claimant may submit, and determine whether the claimant meets SSA's definition of disability. In 2002, the DDSs made 2.3 million initial disability determinations and over 484,000 reconsiderations.

If the claimant is not satisfied with the reconsideration, he or she may request a hearing before an ALJ. Within SSA's Office of Hearings and Appeals (OHA), there are approximately 1,150 ALJs who are located in 140 hearing offices across the country. The ALJ conducts a new review of the claimant's file, including any additional evidence the claimant submitted after the DDS determination. At a hearing, the ALJ may hear testimony from the claimant, medical experts on the claimant's medical condition, and vocational experts regarding whether the claimant could perform work he or she has done in the past or could perform other jobs currently available in the national economy.<sup>13</sup> ALJs have an obligation to initiate the development of evidence as needed and make every effort to obtain all necessary evidence before the hearing. The hearings are recorded, and the majority of claimants are represented at these hearings by an attorney or a nonattorney representative, such as a legal aide, parent, relative, or social worker. In addition, translators may be used for claimants with limited proficiency in English. In fiscal year 2002, ALJs made over 438,000 disability decisions.

If the claimant is not satisfied with the ALJ decision, the claimant may request a review by SSA's Appeals Council, which is the final administrative appeal within SSA. The Appeals Council may grant, deny, or dismiss a request for review. If it agrees to review the case, the Appeals Council may uphold, modify, or reverse the ALJ's action or it may remand the case back to the ALJ level for an ALJ to hold another hearing and issue

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<sup>12</sup>While most claimants may request a reconsideration, at the time of our study, SSA was testing an initiative that eliminates the reconsideration step from the DDS decision-making process. In her September 2003 testimony before Congress, SSA's Commissioner proposed eliminating reconsideration as part of a large set of revisions to the disability decision-making process.

<sup>13</sup>According to SSA's Hearings, Appeals and Litigation Law Manual (HALLEX), Sec. I-2-5-30, the ALJ decides whether the testimony of a medical or vocational expert is needed at a hearing.

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a new decision. In fiscal year 2002, the Appeals Council reviewed over 108,000 disability decisions, about 27,000 of which were remanded.<sup>14</sup>

SSA's Office of Quality Assurance and Performance Assessment (OQA) conducts quality assurance reviews of ALJ decisions to promote fair and accurate hearing decisions. These quality assurance reviews include an evaluation of ALJ adjudicative and procedural issues. The findings and information of these reviews are included in biennial reports and assist the OHA in its pursuit of quality by identifying specific areas of concern. These findings also support the "hearings decisional accuracy rate" measure in SSA's annual performance plans and reports.

To conduct its quality assurance review, OQA selects a random sample each month from the universe of ALJ decisions, stratifying the selection of cases by region and decisional outcome (approval or denial). Then, for each selected decision, SSA requests the case file and a recording of the hearing proceedings from hearing offices and storage facilities across the country.<sup>15</sup> To collect the data SSA uses in its review, SSA staff conducts a systematic review of each case, including: a review of the ALJ decision by another ALJ (i.e., a peer review), a review of the medical evidence provided at each level of adjudication performed by one or more medical consultants,<sup>16</sup> and a general review of the documentation and decision at each adjudicative level by a disability examiner.

The peer review of an ALJ decision includes a reviewing judge's assessment of whether the ALJ's ultimate decision to allow or deny

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<sup>14</sup>If the claimant is not satisfied with the Appeals Council decision, the claimant may appeal to a federal district court. The claimant can continue legal appeals to the U.S. Circuit Court of Appeals and ultimately to the Supreme Court of the United States.

<sup>15</sup>Obtaining this documentation is complicated by the fact that files are stored in different locations, depending on whether the case involved an SSI or DI claim, and whether the ALJ decision was an allowance or denial. For fiscal years 1999 and 2000, SSA obtained files and tapes for 48 percent of the 33,484 records sampled. The case file contains the application for benefits, disability information provided by the claimant, DDS determinations, claimant's appointment of an attorney/representative (if applicable), appeal request documentation, medical evidence furnished at each level of the appeal, and the ALJ decision. For ALJ allowance decisions, the file will also contain documentation of benefit computation and payment.

<sup>16</sup>The number of medical consultants used depends on the number and type of impairments alleged by the claimant.

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benefits is supported by substantial evidence.<sup>17</sup> These assessments are referred to in the quality assurance review as support or accuracy rates. The peer review also includes judgments about the fairness of the ALJ hearing, in which the reviewing judge evaluates a number of issues, including abuse of discretion<sup>18</sup> and error of law.<sup>19</sup> The results of the peer review, as well as the results of the medical and general reviews, comprise SSA's enhanced data.

Over the years, GAO and SSA have studied SSA's ability to administer its disability programs in a fair and unbiased manner. In our 1992 report,<sup>20</sup> we found that racial differences in ALJ allowance rates were not explained by other factors related to the disability decision-making process. We recommended, and SSA agreed, to further investigate the reasons for the racial differences at the hearings level and act to correct or prevent any unwarranted disparities. In response to our recommendations, SSA conducted its own study of ALJ allowance rates by race, using its enhanced data from 1992 to 1996. Although the results were never published, SSA officials told us that they found no evidence of unwarranted racial differences at the hearings level. In our 2002 report,<sup>21</sup> we assessed the steps SSA had taken to study allowance rates by race, and we found that methodological weakness precluded us from drawing conclusions on whether unwarranted racial differences in ALJ allowance rates existed.

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<sup>17</sup>In the peer review process, ALJs use the standard of substantial evidence that means that the ALJ should not overturn a decision if the relevant evidence is what a reasonable mind might accept as adequate to support a conclusion. In the original ALJ hearings process, ALJs use a higher standard of preponderance of evidence that means that more than half of the evidence must support a particular conclusion.

<sup>18</sup>According to SSA's HALLEX, Sec. I-3-3-2, abuse of discretion in a judgment or conclusion involves an ALJ acting in a manner that is imprudent, incautious, unwise, against precedent, and clearly against logic.

<sup>19</sup>According to SSA's HALLEX, Sec. I-3-3-3, error of law covers six broad issues: (1) misinterpretation of law or regulations; (2) misapplication of the law, regulations, or rulings to the facts; (3) failure to consider pertinent provisions of law, regulations, or rulings; (4) failure to make a finding of fact, or to give reasons for making a finding of fact, on an issue properly before the ALJ; (5) a procedural error that affects due process (e.g., improper notice of hearing, failure to notify the claimant of the right to question witnesses; and (6) failure to rule on an objection raised at the hearing.

<sup>20</sup>[GAO/HRD-92-56](#).

<sup>21</sup>[GAO-02-831](#).

SSA's enhanced data indicate that racial differences exist in overall allowance rates for disability benefits at the hearings level. As shown in table 2, these differences in allowance rates by race exist to varying degrees in almost every SSA region. However, differences in allowance rates by race do not necessarily point to racial discrimination because claimants from different racial/ethnic groups may have other differences that influence allowance decisions.

**Table 2: Percentage of Claimants Allowed Benefits at the Hearings Level by Race and Region, 1997 to 2000**

Region	Numbers in percent			
	All	White	African-American	Other race/ethnicity
All regions	59	63	49	51
Region 1 Boston	73	76	66	62
Region 2 New York	64	72	51	57
Region 3 Philadelphia	60	62	59	37
Region 4 Atlanta	60	65	51	61
Region 5 Chicago	55	59	46	45
Region 6 Dallas	54	61	39	52
Region 7 Kansas City	59	61	51	45
Region 8 Denver	59	61	66	48
Region 9 San Francisco	53	57	49	45
Region 10 Seattle	60	62	53	51

Source: GAO analysis of weighted enhanced data.

## Race and Other Factors Influence ALJ Decisions for Some Claimant Groups

When we controlled for a comprehensive range of factors that could affect disability decision making by ALJs, we identified a number of variables, including race, which influence the likelihood that a claimant is allowed benefits.<sup>22</sup> Specifically, we found that numerous variables representing medical and nonmedical criteria that are used in the disability decision-making process had a statistically significant influence on ALJ decisions. We also found that participants in the decision-making process, such as attorneys and translators, influenced ALJ decisions. In addition, our statistical model shows that a claimant's race affects ALJ decisions for some but not all groups of claimants. Finally, other factors that, like race,

<sup>22</sup>The complete results of our model are presented in appendix I.

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are not part of the hearings process also affect ALJ decision making. For example, male claimants and claimants with low incomes are less likely to be awarded benefits. However, as with almost all statistical analyses, we cannot be certain whether the differences we identified are due to unequal treatment, limitations in our data, or some combination of the two.

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### Medical and Nonmedical Criteria Affect ALJ Decision Making

Consistent with SSA's disability decision-making process, the results of our statistical model show that a number of variables representing key criteria used in the process have a statistically significant effect on the likelihood of allowance. For example, claimants with 3 or more impairments were more likely to be allowed than claimants with 1-2 impairments, and claimants with 1 or more severe impairments were more likely to be allowed than claimants with no severe impairments. Moreover, claimants with the physical capacity to perform light work, sedentary, and less than sedentary work were more likely to be allowed than claimants with the physical capacity to perform heavy work. Furthermore, claimants who did not have the mental capacity to perform unskilled work were more likely to be allowed than claimants with the mental capacity to perform such work. In addition, we found that claimants who were 50 years old or older were more likely to be allowed than claimants who were 18-24 years old. Finally, claimants with 10 or more years of employment were more likely to be allowed than claimants with less than 2 years of employment.

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### Participants in the Hearings Process also Influence ALJ Decisions

Our statistical analyses also show that the presence of various participants in the hearings process also affects ALJ allowances. For example, claimants who were present at the hearing were more likely to be allowed than claimants who were not present at the hearing. In addition, claimants were less likely to be awarded benefits if a vocational expert testified at their hearing than claimants who did not have a vocational expert testify at their hearing. Also, claimants who had translators at the hearing (i.e., for claimants who do not speak English proficiently) were less likely to be awarded benefits than claimants who did not have translators (i.e., who presumably do speak English proficiently). Finally, claimants who were represented by an attorney or a person who is not an attorney (such as a



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legal aide, relative, or friend) were more likely to be allowed than claimants who had no representative.<sup>23</sup>

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## Effect of Race on ALJ Decisions Varies among Claimant Groups

Our statistical analyses also show that, after controlling for a range of factors, a claimant's race also affects ALJ decisions for some groups of claimants. Specifically, we found no statistically significant difference in the likelihood of being awarded benefits between white claimants and claimants from other, non-African-American racial/ethnic groups. However, this result is likely due to our controlling for the presence of translators at hearings. Before controlling for the presence of translators, claimants from other racial/ethnic groups were less likely to be awarded benefits than white claimants. After controlling for the presence of translators, there is no statistically significant effect of the other race/ethnic claimants' category on the likelihood of allowance. The relatively high incidence of translators among claimants from other racial/ethnic backgrounds explains why we found no statistically significant differences in the likelihood of being awarded benefits between whites and claimants from other racial/ethnic groups.<sup>24</sup>

When we compared white claimants with African-American claimants, we found statistically significant differences in the likelihood of allowance, but only among claimants who had no representation.<sup>25</sup> For example, among claimants with no representation, the odds of being allowed benefits for African-Americans were about one-half the odds of being

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<sup>23</sup>The category for nonattorney may include representatives from legal aid organizations, which could include attorneys as well as nonattorneys.

<sup>24</sup>About 25 percent of the claimants from the other racial/ethnic group had translators at their hearings, and our analyses also show that claimants who had translators at the hearing were less likely to be awarded benefits than claimants who did not have translators.

<sup>25</sup>This discussion pertains only to claimants with no representation as compared with claimants with attorney representation, and does not pertain to claimants with nonattorney representatives such as legal aides, relatives, and friends. Additional analyses showed that among claimants with nonattorney representatives, African-Americans were less likely to be awarded benefits than whites. However, this result may be due to the low number of observations for claimants with nonattorneys.

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allowed for whites.<sup>26</sup> In contrast, among claimants with attorney representation, we found no statistically significant difference in the likelihood of allowances between whites and African-Americans.<sup>27</sup>

In addition, when we compared the effect of having attorney representation with the effect of not having attorney representation, we found that these effects also vary by race. That is, we found that the effect of attorney representation is larger for African-American claimants than it is for white claimants. Specifically, the odds of being allowed benefits for African-American claimants with attorney representation were more than 5 times higher than the odds of being allowed for African-American claimants without attorney representation. In comparison, the odds of being allowed benefits for white claimants with attorney representation were three times higher than the odds of being allowed benefits for white claimants with no representation.<sup>28</sup>

Finally, we used another statistical technique—the Oaxaca decomposition—to analyze differences in ALJ allowances between African-American and white claimants. Consistent with the results from our other analyses, we found that, among claimants with attorney representation, differences between African-Americans and whites can be explained largely by differences in other factors included in our model, whereas among claimants without attorney representation, differences between African-Americans and whites were explained to a lesser degree by differences in other factors in our model.<sup>29</sup> These results are particularly important because a larger percentage of African-American claimants do

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<sup>26</sup>The odds on claims being allowed are related to, but not quite the same as, the probability of claims being allowed. Suppose that among whites, 200 claims were allowed among a total of 300 filed. While the probability of claims being allowed is estimated by dividing the number of claims allowed by the number of all claims (i.e.,  $200/300 = 0.66$ ), odds are estimated by dividing the number of claims allowed by the number of claims not allowed (i.e.,  $200/100 = 2$ ). If we found that among African-Americans, 50 out of 100 claims were allowed, we would calculate the odds of allowance to be  $50/50 = 1.00$ , and the odds ratio of African-Americans to whites would be  $1.00/2.00 = 0.5$ . This implies that the odds for African-Americans were only one-half those of whites. While probabilities (P) and odds (O) are mathematically related ( $O = P/[1-P]$ ), odds have certain advantages over probabilities for these statistical purposes, which is why we employ them.

<sup>27</sup>See appendix I for an explanation as to why this interaction term was created and an explanation of how the specific result was calculated.

<sup>28</sup>The effect of attorney representation for other race/ethnicity claimants is not significantly different than for white claimants.

<sup>29</sup>See appendix I for a description and the results of our Oaxaca decomposition analysis.

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not have attorneys (39 percent) in comparison with white claimants (29 percent).

Although several possible explanations exist for why attorney representation increases a claimant's likelihood of being awarded benefits, we cannot empirically explain why the effect of attorney representation is greater for African-Americans. According to two attorneys affiliated with the National Organization of Social Security Claimant Representatives (NOSSCR), attorneys increase the claimant's likelihood of being awarded benefits by (1) providing assistance with the development of evidence over and above SSA's efforts to develop evidence<sup>30</sup> and (2) preparing claimants to improve their effectiveness and credibility as witnesses. Another possible explanation for why attorney representation influences the likelihood of being awarded benefits is that attorneys often screen cases to select claimants with strong cases.<sup>31</sup> However, given the data available to us, we cannot empirically explain why attorney representation has a stronger effect for African-American claimants than for white claimants.

As mentioned earlier, claimants who are represented by persons other than attorneys—such as legal aides, friends, or family—are also more likely to be allowed than claimants with no representation. When we conducted additional analyses on the effect these nonattorney representatives had on allowances by race, we found, regardless of race, claimants who were represented by nonattorneys had a greater likelihood of being awarded benefits than claimants who were not represented.

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<sup>30</sup>Attorneys' efforts to obtain medical evidence might result in better medical evidence than that obtained by SSA earlier in the decision-making process because, for example: (1) attorneys often use request forms that are tailored to the disability criteria and the claimant's impairments to solicit specific information on the claimant's medical history from medical providers and (2) attorneys pay more for medical records than SSA.

<sup>31</sup>We were told by attorneys affiliated with NOSSCR that attorneys typically screen their claimants to assess the strength of the claimant's case. If the attorney believes the evidence does not support an argument for the claimant's disability, as defined in SSA's guidelines, the attorney is not likely to take the case. This may mean that claimants with attorneys have stronger cases and are more likely to be approved for benefits regardless of the additional assistance provided by the attorney. Relatedly, ALJs—who may be aware that attorneys choose stronger cases—may be more likely to view a claimant with an attorney as having an impairment with such severity so as to qualify the claimant for benefits.

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Nevertheless, we also found that differences by race persisted after controlling for nonattorney representatives.<sup>32</sup>

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### Other Factors Not Part of the Decision-Making Process also Influence ALJ Allowances

Finally, our statistical analyses found that additional factors not part of the decision-making process—including the claimant’s earnings, geographical location, and sex—influence the ALJ allowance decision. For example, we found that claimants with higher levels of earnings were more likely to be awarded benefits than those who have low earnings levels. In particular, the odds of being allowed benefits for claimants who earned over \$20,000 per year were 3 times higher than the odds of being allowed benefits for claimants who earned less than \$5,000 per year, and the odds of being allowed for claimants who earn \$5,000-\$20,000 per year were 2 times higher than for claimants who earn less than \$5,000 per year. In addition, the odds of being allowed benefits for claimants whose hearings took place in the Boston Region were approximately 2 times higher than for claimants whose hearings took place in other regions, after controlling for other factors.<sup>33</sup> Finally, the odds of being allowed benefits for claimants who are men were approximately three-quarters as high as for female claimants.

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### Data Limitations Prevent Definitive Conclusions Regarding the Cause of Unexplained Racial Differences in ALJ Decisions

The existence of persistent, unexplained differences by race and other factors not used as criteria in the decision-making process—after we controlled for as many factors as the data allowed—means that we cannot rule out the possibility that claimant groups are being treated unequally. However, two limitations, common to almost all multivariate analyses, prevent us from definitively determining whether unexplained differences in allowance decisions by claimant groups are due to discrimination or other forms of bias in the decision-making process. First, differences between claimant groups may be a result of a lack of precision in some of the variables in the model. For example, when the severity of a claimant’s impairment is evaluated by the medical examiners, they are placed in one of five categories. However, the categories may not capture subtle

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<sup>32</sup>Additional analyses showed that among claimants with nonattorney representatives, African-Americans were less likely to be awarded benefits than whites. However, this result may be due to the low number of observations for claimants with nonattorneys.

<sup>33</sup>The current model compares claimants in the Boston Region with claimants in the New York Region (the reference category). However, when we use any other region as the reference category, claimants from the Boston Region are always significantly more likely to be awarded benefits than claimants from the reference region.

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differences in impairment severity. This is true for many of the categorical variables in the model.<sup>34</sup> With more detailed information on severity and other factors, we might have been able to better explain differences by race. Second, differences that we see in the likelihood of being awarded benefits between claimant groups may be the result of a lack of data on certain factors that are relevant for our analysis. For example, data on claimants' access to medical care are not available. In the past, SSA developed data on the source of the claimant's medical care—a proxy for the quality of the medical care and a factor that determines the weight that is placed on a given piece of evidence. However, SSA told us that it stopped developing these data due to resource constraints. Other factors such as these, if included in the model, might further explain some of the differences we found in ALJ decisions by race, as well as other differences we found, for example, by sex and income.

In addition, our model's results concerning the effect of attorney representation on ALJ decisions might be somewhat inflated due to SSA's systematic exclusion of certain cases—namely, the exclusion of denied ALJ decisions that were appealed to the Appeals Council—from the enhanced data we used for our study. An upward bias of this effect could occur because the denied cases that were appealed (and, therefore, excluded from our dataset) exhibited a higher rate of attorney representation than the denied cases that were not appealed. However, further analyses suggest that our estimates of the different effects of attorney representation by race (that is, the larger effect of attorney representation for African-Americans) are not likely to be inflated. (See appendix I for a detailed discussion of our analyses of this limitation.)

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<sup>34</sup>These variables include number of impairments, number of severe impairments, physical and mental capacity, type of impairment, occupational years, age, occupational categories, occupational skill level, education, literacy, and earnings.