

886 F.2d 871 (1989)

**INTERNATIONAL UNION, UNITED AUTOMOBILE, AEROSPACE AND
AGRICULTURAL IMPLEMENT WORKERS OF AMERICA, UAW, et al.,
Plaintiffs-Appellants, and
Local 322, Allied Industrial Workers of America, AFL-CIO, Intervening
Plaintiff-Appellant,
v.
JOHNSON CONTROLS, INC., Defendant-Appellee.**

No. 88-1308.

United States Court of Appeals, Seventh Circuit.

Argued September 15, 1988.

Reargued June 15, 1989.

Decided September 26, 1989.

872*872 873*873 874*874 Miriam R. Horwitz, Zubrensky, Padden, Graf & Maloney, Milwaukee, Wis., Ralph O. Jones, Jordan Rossen, Detroit, Mich., Carin A. Clauss, University of Wisconsin Law School, Madison, Wis., for plaintiffs-appellants.

Stanley S. Jaspan, Susan R. Maisa, Foley & Lardner, Milwaukee, Wis., for defendant-appellee.

Kenneth R. Loebel, Habush, Habush & Davis, Milwaukee, Wis., for intervenor plaintiff-appellant.

Clifford Zimmerman, Singer & Stein, Chicago, Ill., Nadine Taub, Rutgers University School of Law, Newark, N.J., for amicus curiae American Public Health Ass'n; Nancy J. Koch, Ann G. Daniels, and Norma G. Formanek, Farella, Braun & Martel, San Francisco, Cal., and Patricia A. Shiu, San Francisco, Cal., for amici curiae Queen Elizabeth Foster and the Employment Law Center of the Legal Aid Society of San Francisco; Joan E. Bertin, New York City, for amicus curiae American Civil Liberties **Union** Foundation.

Before BAUER, Chief Judge, CUMMINGS, WOOD, Jr., CUDAHY, POSNER, COFFEY, FLAUM, EASTERBROOK, RIPPLE, MANION and KANNE, Circuit Judges.

Reargued En Banc June 15, 1989.

COFFEY, Circuit Judge.

Since 1982 **Johnson Controls**, Inc. (hereinafter "**Johnson Controls**" or "**Johnson**") has maintained a fetal protection policy designed to prevent unborn children and their mothers from suffering the adverse effects of lead exposure. **International Union**, United Automobile, Aerospace and Agricultural Implement Workers of America, UAW (hereinafter "UAW"), several UAW local unions and a group of individual employees brought suit alleging that this policy violated Title VII, 42 U.S.C. § 2000e, *et seq.*^[1] The district court granted summary judgment in favor of **Johnson Controls** and the plaintiffs appealed. This case was originally argued before a panel of this court and the panel's opinion was circulated among all the members of the court pursuant to Circuit Rule 40(f).^[2] Prior to publication 875*875 of the panel opinion, a majority of the members voted to hear the case before an *en banc* court and, following rehearing *en banc*, a majority of the court voted to affirm the decision of the district court.

I.

The Battery Division of **Johnson Controls**, Inc., was created upon **Johnson Controls'** 1978 purchase of Globe **Union**, Inc. (hereinafter "Globe" or "Globe **Union**").^[3] Globe **Union** was formed through the consolidation of two battery companies and had been in the battery business for almost fifty years before **Johnson's** purchase. Globe **Union** and **Johnson Controls** have maintained ongoing efforts to improve industrial safety through measures designed to minimize the risk lead poses to those directly involved in the manufacturing of batteries.^[4]

The steps that Globe **Union** and **Johnson Controls** have taken to regulate lead exposure have not been focused merely on complying with governmental safety regulations, but originate from their longstanding corporate concern for the danger lead poses to the health and welfare of their employees, their employees' families and the general public. During the period of the 1970's when OSHA's regulation of employee exposure to lead was virtually non-existent, **Johnson Controls'** predecessor, Globe **Union**, initiated a large number of innovative programs in an attempt to control and regulate industrial lead exposure. For example, in 1969, Dr. Charles Fishburn, M.D., who later became one of the primary proponents of **Johnson Controls'** fetal protection policy, instituted programs for monitoring employee blood lead levels.^[5] In an attempt to manage lead exposure, other safety programs were initiated at Globe and **Johnson** including a lead hygiene program, respirator program, biological monitoring program, medical surveillance program and a program regulating the type, use and disposal of employee work clothing and footwear to minimize lead exposure. Globe **Union** also transferred employees out of high lead environments whenever a physician's medical evaluation report established that the individual had a high blood lead level. In the case of such transfers, medical removal benefits were provided to the employee before OSHA required such compensation.^[6] Globe **Union** and **Johnson Controls** have continued to address their serious concern for industrial safety through efforts to design and regulate lead manufacturing areas to reduce employee lead exposure. For example, laminar flow pumps constantly supply a down draft of low velocity clean air to improve the environment of workstations where employees deal with lead. Central vacuum systems and powered floor scrubbers and sweepers are used to keep the manufacturing area as clear of lead dust as possible. Since **Johnson Controls'** purchase of Globe **Union** in 1978, it has spent approximately \$15 million on environmental engineering **controls** at its battery division plants.

Globe **Union**, **Johnson Controls'** predecessor, established its first policy regarding 876*876 fetal protection from lead exposure in 1977 as part of its comprehensive efforts to protect its employees from exposure to lead. Globe **Union's** announcement of the policy in a memorandum to battery plant and personnel managers stated:

"This change [the announced policy] has come about slowly as more and more medical opinion and evidence is persuasive of the risk to the unborn, developing child.

We have stopped short of excluding women capable of bearing children from lead exposure, but do feel strongly that those women who are working in lead exposure ... and those women who wish to be considered for employment be advised that there is risk, that we recommend *not* working in lead if they are considering a family, and further that we ask them to sign a statement that they have been advised of this risk."

(Emphasis in original). In its 1977 "Statement of Risks," Globe also observed that at that time scientific and medical evidence had not as yet conclusively established the risk lead exposure posed to the unborn. However, after noting possible risks the 1977 policy statement read:

"We would have to say that it is, medically speaking, just good sense not to run that risk [lead exposure] if you want children and do not wish to expose the unborn child to risk, however small, and so recommend that you counsel with your family doctor and advise us of your wishes to transfer."

Johnson adopted its current fetal protection program in 1982 following its determination, based upon scientific research, that it was medically necessary to bar women from working in high lead exposure positions in the battery manufacturing division. The fetal protection policy applies to work environments in which any current employee has recorded a blood lead level exceeding 30 µg/dl during the preceding year or in which the work site has yielded an air sample during the past year containing a lead level in excess of 30 µg per cubic meter.^[7] The policy recites that women with childbearing capacity will neither be hired for nor allowed to transfer into those jobs in which lead levels are defined as excessive.^[8] A grandfather clause in **Johnson's** fetal protection policy permits fertile women who were assigned to high lead exposure positions at the time of the adoption of the policy to remain in those job assignments if they are able to maintain blood lead levels below 30 µg/dl.^[9] Those employees who are removed from positions because of excessive lead levels are transferred to another job in **Johnson's** employ without suffering either a loss of pay or benefits.

The major reason **Johnson** adopted its current fetal protection policy was the inability of the previous voluntary policy to achieve the desired purpose: protecting pregnant women and their unborn children from dangerous blood lead levels. Between 1979 and 1983, at least six **Johnson 877*877 Controls** employees in high lead exposure positions became pregnant while maintaining blood lead levels in excess of 30 micrograms. In addition, at least one of the babies born to this group of employees later recorded an elevated blood lead level. Moreover, **Johnson Controls'** medical consultant, Dr. Fishburn, testified as follows concerning a specific lead-related incident:

"Q: Now, let's talk in terms of prior to 1983, at any of the other Globe plants, do you have any knowledge or do you have an opinion that in any instances the exposure of the mother — or the bloodlead level of the mother while she was pregnant had an effect on the fetus and, therefore, the child?

A: [Dr. Fishburn] Well, I'm not aware of any specific instances other than the one, which was in the early 80s, about 1981.

Q: And where was that?

A: Pardon?

Q: Where was that? What plant?

A: The Globe plant?

Q: Yes.

A: It was in Owosso.

Q: Where's the Owosso plant?

A: In Owosso, Michigan.

Q: In just simple terms, what was the nature of the problem?

A: The nature of the problem was hyperactivity and control of the child. And the child had elevated bloodleads and protoporphyrisis.

Q: In your medical judgment was the problem of the child affected in any way by the exposure of the mother during pregnancy?

A: In my opinion the history of the hyperactivity and the difficulty she was having with him could very well and probably was due to the lead that he had."^[10]

In announcing its new, more defined policy, **Johnson Controls** emphasized its continuing interest in the protection of employees and their families from occupational health hazards and was responding to the increased understanding of the risk of lead exposure that had developed in the five years since it established its former voluntary policy:

"We have over the years developed policies to protect the health of our employees whenever the nature of their duties may expose them to a health hazard and to prevent members of their families from being exposed to a health hazard because of their employment with Globe Battery Division.

Medical research has shown that a woman's exposure to lead can cause ill effects on the health of her unborn child because the lead absorbed in the mother's blood as the result of this exposure can cross the placenta and mix with the child's blood. This has been acknowledged by the Occupational Safety and Health Administration.

Medical research also shows that a risk to the unborn child's health is present at a much lower blood-lead level than an adult. The ill effects to the unborn child can occur during the early stage of pregnancy, before the mother is aware that she is pregnant, and can continue throughout the pregnancy.

Because of this, it is the Division's policy that women who are pregnant or who are capable of bearing children will not be placed into jobs involving lead exposure or which could expose them to lead through the exercise of job bidding, bumping, transfer or promotion rights. This policy is intended to reduce or eliminate the possible unhealthy effects of lead on the unborn children of pregnant employees and applicants. It does not apply to those women who have medical confirmation that they cannot bear children. 878*878 However, the policy is in no way intended to support or encourage women of childbearing capability to seek to change this status. Employees are strongly advised against any such action."

Prior to adopting its updated fetal protection policy, **Johnson** seriously considered alternatives to the exclusion of women with childbearing capacity from high lead exposure positions, but after research and consultation with medical and scientific experts found itself unable to structure and implement any alternatives which would adequately protect the unborn child from the risks associated with excessive lead exposure. **Johnson's** experience demonstrated that the voluntary exclusion program was ineffective. To date neither **Johnson** nor any other battery manufacturer has been able to produce a lead free battery, or to utilize engineering research and technology to implement a system or procedure capable of reducing the lead exposure of its employees to acceptable levels for fertile women. Limitation of the fetal protection policy to women actually pregnant was found ineffective because there is the very definite possibility that lead exposure will occur between conception and the time the woman discovers her pregnancy.^[11] Such a limitation is further inadequate because reduction of blood lead levels following removal from a lead exposure area requires a significant length of time that frequently extends well into the pregnancy term. Limitation of the policy to women planning pregnancy also was not found to be a suitable alternative because of one of the exigencies of life, the frequency of unplanned or undetected pregnancies. Permitting fertile female employees to attempt to maintain a blood lead level below 30 µg/dl or utilizing the mean or median blood lead levels of current workers as a measure of whether a woman should be permitted in a position would also not effectively protect the unborn child. The reason these actions would be inadequate is that an employee's risk of high lead levels is usually greatest immediately after commencement of work in a high lead environment.^[12]

Dr. Fishburn, **Johnson Controls'** medical consultant, noted that **Johnson** and other corporations manufacturing batteries accept and routinely follow these medical policies:

"Q: Now, you testified as to what other industries had done in the past with respect to women working — women capable of bearing children working in high lead areas. Are you familiar with other companies as to their practices?

A: [Dr. Fishburn] Yes.

Q: And which companies?

A: Well, I'm familiar with a good many companies that I've worked with here in the area in foundry industry. I'm familiar with General Motors, Dow Chemical, Ford Motor Company, Owens-Corning. There's a large number of large and small companies that I'm familiar with, and where there are occupational 879*879 standard programs within those companies I've exchanged the information with them.

Q: And what problems do they have in regard to this problem?

A: In regard to lead even the doctors — as I said Dr. Kehoe or Dr. Bellmap here — any doctor that has worked with lead, either in the mines as I did with Bellmap, or smelters, primary smelter we did not, and — and I was never taught to place a reproductive female in the average work exposure of lead. And furthermore, before the 60s, to my knowledge, no women were working in lead exposures. It was Kehoe's opinion at the time that any doctor that would allow this to happen was committing malpractice.

Q: Now this was — now my question was: Are you familiar with what other companies are doing now?

A: Yes.

Q: What are they doing?

A: They are restricting women from lead exposure who can have children."

In altering its fetal protection policy to more effectively protect the unborn child and its mother, **Johnson** responded to the most recent medical evidence which established that lead exposure *in utero* presents a substantial health risk to the unborn child, as well as its female employees, and believed that Title VII would allow it to address this risk.

II.

Proper analysis of the Title VII issues this case presents requires a thorough understanding of the following fundamental question: Does lead pose a health risk to the offspring of **Johnson's** female employees? In considering the evidence in the record on this subject it is important to note that *both* the UAW and **Johnson Controls** agree on appeal that a *substantial* health hazard to the unborn child in the womb has been established. The UAW admits in its brief that "it is clear that ... substantial risk of harm to the fetus ... has been established." UAW Brief at 33. Similarly, **Johnson Controls** states that "[t]he evidence in the record on [substantial risk of harm to the fetus] is overwhelming." **Johnson Controls** Brief at 22.

The record very clearly establishes that once lead is deposited in a mother's blood, it crosses the placenta and affects her unborn child. Because the fetus' blood system is nourished by the mother, the unborn child possesses approximately the same blood lead level as the mother.^[13] It is similarly undisputed that the unborn child "is medically judged to be at least as sensitive, and, indeed, is probably even more sensitive to lead than the young child." Affidavit of J. Julian Chisholm, M.D. (hereinafter Dr. Chisholm Aff.) at ¶ 6.^[14] See Affidavit of Dr. Anthony R. Scialli, M.D. (hereinafter Dr. Scialli Aff.) at ¶ 5 ("[B]ecause of the extremely rapid development of the central nervous system during gestation, the fetus may be even more sensitive to toxic effects of lead than the young child");^[15] Affidavit of M. Donald Whorton, M.D. (hereinafter Dr. Whorton Aff.), at ¶ 8 ("[Recent medical studies] suggest 880*880 that even relatively low levels of lead exposure to the fetus can cause damage to the higher brain function resulting in decreased neuro-behavioral development in the child");^[16] Deposition of Marvin S. Legator, Ph.D. (hereinafter Dr. Legator Dep.) at 49 (UAW witness) ("There is no question about the sensitivity of the fetus.... I don't think one could argue about the fact that lead affects the fetus");^[17] Deposition of Ellen Silbergeld, Ph.D. (hereinafter Dr. Silbergeld Dep.) at 21-23 (UAW witness) (Noting that in the area of central nervous system impairment a young child is probably more sensitive than an adult and that the consequences for the young child and the fetus are similar).^[18] The Centers for Disease Control summarized these basic facts in a document questioning the efficacy of current OSHA standards in protecting the unborn child and implying that an unborn child is adversely affected by lead levels lower than the 30 µg/dl reflected in **Johnson Controls'** fetal protection policy:

"In a pregnant woman, lead crosses the placenta and lead concentrations in umbilical cord blood are nearly equal to those in maternal blood. *Since the growing brain of the fetus is likely to be at least as sensitive to the neurologic balance of lead as the brain of a young child, umbilical cord blood levels should be at least below 25 µg/dl.* Therefore, the OSHA standard is probably not sufficiently strict to protect the fetus. Further study is needed to define acceptable lead levels among women of childbearing age.

* * * * *

"Ideally, engineering features should prevent workers from being exposed to lead dust and vapors. When workers are exposed, compliance with Occupational Safety and Health Administration (OSHA) regulations appears to be effective in preventing them from transporting lead home to children.... *The prevention of lead exposure to the fetus needs special emphasis. Women of childbearing age should be excluded from working at jobs where significant lead exposure occurs.*"^[19]

The chief reason why an unborn child's lead exposure is of such great concern is that it has been medically established that lead attacks the fetus' central nervous system and retards cognitive development. See Dr. Chisholm Aff. at ¶ 6 ("[H]arm [to the fetus] includes ... retarded cognitive development which may result in learning deficiencies and behavioral disorders"); Dr. Scialli Aff. at ¶ 7 ("The potential damage to the central nervous system of the fetus from lead exposure includes intellectual and motor retardation, behavioral abnormalities and deficiencies in learning abilities. It is my medical opinion that such damage may be permanent"); Dr. Whorton Aff. at ¶ 8 ("[Recent medical studies] suggest that even relatively low levels of lead exposure to the fetus can cause damage to the higher brain function resulting in decreased neurobehavioral development in the child"); Affidavit of Dr. Paul B. Hammond, Ph.D., Professor, Environmental Health, University of Cincinnati (hereinafter Dr. Hammond Aff.) at ¶ 3 ("[As] the director of a study that is currently being conducted in Cincinnati on the health effects of lead exposure on children ... [we] analyze[] the subsequent mental development of children who have been exposed to lead both in utero and postnatally. The initial results of this ongoing study ... 881*881 establish that exposure of the fetus to maternal blood lead levels in excess of 12 micrograms per deciliter of whole blood creates a significant risk of low birth weight and a clear decrement in the subsequent mental development of the infant"); Dr. Silbergeld Dep. at 64 (Describing studies of child exposure to lead, in which she participated, which are "highly consistent with reports of hyperactivity, decreased attention span, learning problems which have been described in [lead exposed] children"), and at 49-50 (Reporting that studies of prenatal lead exposure in which she participated found similar effects to post-natal lead exposure. These effects are "substantial irreversible cellular and functional damage to the brain").^[20]

Unlike physical birth defects, such as those associated with thalidomide,^[21] lead's sometimes subtle damaging effects may not fully manifest themselves until the child is diagnosed as having learning problems in a school setting some five to six years after birth:

"What we are worried about are very subtle things, the ability to really affect learning ability. And so far as impairing the child's progress, they really aren't evident until he gets into school. He discovers that he can't remember, that his brain cannot pay attention, what our psychologists here called deficits in auditory processing, which is a fancy way of saying they can't understand what they hear, can't process it, and use it effectively. And those things will impair a child perhaps toward the end of the first grade, particularly in the second grade."

Deposition of Dr. J. Julian Chisholm, Jr., M.D., Director, Lead Program, John F. Kennedy Institute and Associate Professor of Pediatrics, Johns Hopkins School of Medicine (hereinafter Chisholm Dep.), at 27.

Probably the worst aspect of lead's influence upon an unborn child's future intellectual development is that its effects have frequently been found to be irreversible.^[22] Further, the most recent research suggests that the unborn child may be affected at lead levels previously believed safe. See J.M. Davis & D. Svendsgaard, *Lead and Child Development*, 329 *Nature* 297 (1987) (Collecting results of recent studies in this area).

Lead exposure can also pose other physical threats to the unborn child such as reduction of the infant's birth weight, premature delivery, and stillbirth. See Dr. Chisholm Aff. ¶ 6. Lead may also affect the other vital fetal organs including, but not limited to, the liver and kidneys.^[23]

The danger resulting from lead exposure cannot simply be avoided through removing a pregnant woman from lead exposure promptly after the discovery of pregnancy. Dr. Chisholm, a recognized expert in the research field of treatment and prevention of lead poisoning in young children, observed that "excluding only woman who are actually pregnant from work areas where there are elevated blood lead levels would not sufficiently protect the health 882*882 and safety of the unborn child." Dr. Chisholm Aff. at ¶ 10. This is true because *lead continues to exert an effect upon the mother and her unborn child for a significant period of time after she has been removed from lead exposure*. Dr. Chisholm's uncontroverted affidavit explained:

"[S]ubstantial medical evidence ... establishes that lead remains in the body for a significant period of time after removal from a high lead environment. Lead builds up not only in the blood and soft tissues, but is also stored in the bones. Following removal from the high lead environment, as the lead built up in the blood and soft tissues leaves the body, the lead in the bone begins to turnover, thus maintaining high blood lead levels even long after removal. As a general rule of thumb, it takes approximately two or three times as long for the blood leads to decrease as it did for such blood levels to increase. Therefore, if a woman is exposed to blood lead levels in excess of 25 or 30 micrograms for any length of time, such levels will not decrease sufficiently to avoid damage to the fetus, even if she is removed when the pregnancy is discovered."

Dr. Chisholm Aff. at ¶ 10. See also Whorton, *supra* note 16, at 8 ("Since lead is an accumulative toxicant which is stored in the bone, with a half-life in the body of 5 to 7 years, a woman with a significant blood lead burden would pose a potential hazard to any conceptus *for many years after exposure*"); Dr. Silbergeld Dep. at 27-28 ("For all purposes there is continuing exposure to lead even after removal from sources of lead.... If it were possible to take a person into a lead-free environment after an episode of exposure, the turnover of lead is probably on the order of 100 days. So *within a year or so* there would be a reduction of lead. There is also, of course, a rapid removal of lead from the blood into the bones [and] soft tissue that is no longer available for circulation. But considering that most people are not removed to lead-free environments, even if they go from areas of relatively high exposure to lower exposures, there is continuing cyclic ... exposure to lead") (emphasis added). Furthermore, because lead is stored in the mother's bones, and "because the bones may decalcify during pregnancy in order to provide the fetus with calcium, there may be an additional danger of transfer of stored lead to the fetus." Dr. Chisholm Aff. at ¶ 10. See also Whorton, *supra* note 16, at 7-8 ("[Dr. W.] Manton [in a 1985 edition of the British Journal of Industrial Medicine] reported on a longitudinal study of blood lead levels in a woman before, during and after pregnancy. He reported a doubling of prepregnancy blood levels during pregnancy and suggest[ed] mobilization of lead from bone during pregnancy as the mechanism") (footnote omitted). These conclusions are consistent with research that OSHA relied upon and quoted in establishing its 1978 lead standard:

"The placenta also has considerable storage capacity, and during the first few months of pregnancy, it grows tremendously in size while the fetus remains relatively small. Calcium along with other substances is stored in the placenta to be used in the later months of pregnancy for growth by the fetus. It could be expected that lead would be similarly stored."

Occupational Health and Safety Administration, U.S. Department of Labor, Final Standard for Occupational Exposure to Lead: Attachments to Preamble, 43 Fed. Reg. 54,395 (1978) (quoting study of Dr. Vilma Hunt, Associate Professor of Environmental Health, Pennsylvania University, contained in OSHA's record).^[24]

883*883 The overwhelming evidence in this record establishes that an unborn child's exposure to lead creates a substantial health risk involving a danger of permanent harm. This evidence clearly approaches a "general consensus within the scientific community," and certainly "suffices to show that within that community there is [a] considerable body of opinion that significant risk exists to the unborn child from exposure to lead." *Wright v. Olin Corp.*, 697 F.2d 1172, 1191 (4th Cir.1982). Next we consider the proper legal standards to be applied when employees bring a Title VII sex discrimination action challenging an employer's response to this serious health risk.

III.

Having considered both the nature of the risk of harm that lead exposure presents to the unborn child and the mother and the policies **Johnson** implemented in response to this problem, we now turn to the question of the proper legal analysis to be applied to **Johnson's** fetal protection program under Title VII. The question presented is should we follow the lead of the Fourth Circuit, the Eleventh Circuit and the EEOC in determining that these policies can be justified with a "business necessity" defense or must we conclude that these policies may only be justified with a bona fide occupational qualification defense.

In approaching this issue we are cognizant of the mandates the United States Supreme Court has recited on two occasions concerning the necessity of avoiding rigid application of proof patterns to particular factual situations. The Court's concern was first set forth in [Furnco Construction Corp. v. Waters, 438 U.S. 567, 576, 98 S.Ct. 2943, 2849, 57 L.Ed.2d 957 \(1978\)](#), where the Court noted that the formula it had devised for demonstrating a prima facie case of disparate treatment in [McDonnell Douglas Corp. v. Green, 411 U.S. 792, 802, 93 S.Ct. 1817, 1824, 36 L.Ed.2d 668 \(1973\)](#) "was not intended to be an inflexible rule." The Court expanded on this same subject in [International Brotherhood of Teamsters v. United States, 431 U.S. 324, 358, 97 S.Ct. 1843, 1866, 52 L.Ed.2d 396 \(1977\)](#), when it observed:

"Our decision in [*McDonnell Douglas*] did not purport to create an inflexible formulation. We expressly noted that "[t]he facts necessarily will vary in Title VII cases, and the specification ... of the prima facie proof required from [a plaintiff] is not necessarily applicable in every respect to differing factual situations." [*McDonnell Douglas*, 411 U.S. at 802 n. 13, 93 S.Ct. at 1824 n. 13]."

(Footnote omitted). The thrust of these repeated Supreme Court pronouncements is that courts are required to avoid inflexible application of judicially devised proof patterns in cases that present factual circumstances different from those encountered previously. See also [Wright v. Olin Corp., 697 F.2d 1172, 1184 \(4th Cir.1982\)](#). Any proof scheme a federal court applies is useful only if it assists the court in properly identifying the employment practices Congress intended to prohibit under Title VII. These concerns are particularly important in a case of this nature where the interest in financial reward is balanced against a medically established risk of the birth of a medically or physically deprived baby and where the challenged distinction is based upon the reality that only the female of the human species is capable of childbearing.

Two other federal courts of appeals and the Equal Employment Opportunity Commission have addressed the question of the defenses available to an employer under Title VII in a case challenging a fetal protection program. The first court of appeals to address this question was the Fourth Circuit in [Wright v. Olin Corp., 697 F.2d 1172 \(4th Cir.1982\)](#). That case involved a fetal protection program very similar to the one **Johnson** instituted, in that it forbade any fertile woman from working in a job which "may require contact with and 884*884 exposure to known or suspected abortifacient or teratogenic agents." [Olin, 697 F.2d at 1182](#). In considering which of several possible theories of claim and defense should apply in a Title VII analysis of a fetal protection policy, the Fourth Circuit observed:

"We must start by conceding that the fact situation [the fetal protection policy] presents does not fit with absolute precision into any of the developed theories. It differs in some respects — either in its claim or defense elements — from each of the paradigmatic fact situations with which the different theories have been centrally concerned. This of course accounts for the conflict on the point between the parties.

"That there would be such fact situations in Title VII litigation has always been recognized by the Supreme Court as it has developed and applied the different theories. *The Court has continually admonished, and indeed demonstrated in its own decisions, that these theories were not expected nor intended to operate with rigid precision with respect to the infinite variety of factual patterns that would emerge in Title VII litigation.* So has this court."

[697 F.2d at 1184](#) (emphasis added, footnotes omitted).

The court applied the disparate impact/business necessity theory of claim and defense that normally is applied only in cases in which an employer's policy is "facially neutral." Even though the court recognized that the facial neutrality of a fetal protection policy "might be subject to logical dispute, the dispute would involve mere semantic quibbling having no relevance to the underlying principle that gave rise to this theory." [697 F.2d at 1186](#). Because a fetal protection policy involves motivations and consequences most closely resembling a disparate impact case, the Fourth Circuit felt it should be analyzed under the disparate impact/business necessity theory. See *id.* The Fourth Circuit defined the business necessity defense in the context of a fetal protection policy as requiring a demonstration that "significant risks of harm to the unborn children of women workers from their exposure during pregnancy to toxic hazards in the workplace make necessary, for the safety of the unborn children, that fertile women workers, though not men workers, be appropriately restricted from exposure to those hazards...." [697 F.2d at 1190](#) (footnote omitted). However, the Fourth Circuit permitted this evidentiary demonstration to be rebutted with proof that "there are `acceptable alternative policies or practices which would better accomplish the business purpose ... [or protect against the risk of harm], or accomplish it equally well with a lesser differential ... impact [between women and men workers].'"^[25]

The Eleventh Circuit utilized a similar analysis in [Hayes v. Shelby Memorial Hospital, 726 F.2d 1543 \(11th Cir.1984\) \(Tuttle, J.\)](#). In *Hayes* a hospital terminated a pregnant woman's employment upon discovering her pregnancy. In *Hayes* the Court 885*885 utilized the elements of the business necessity defense found in *Olin* to establish that the involved policy was not "facially discriminatory." The Eleventh Circuit stated: "In other words, the employer must show (1) that there is a substantial risk of harm to the fetus or potential offspring of women employees from the women's exposure, either during pregnancy or while fertile, to toxic hazards in the workplace and (2) that the hazard applies to fertile or pregnant women, but not to men." [726 F.2d at 1548](#) (footnote omitted). The theory underlying the facial neutrality analysis utilized in *Hayes* is that a policy meeting the above criteria "is neutral in the sense that it effectively and equally protects the offspring of all employees." [726 F.2d at 1548](#). If facial neutrality is established, the court proceeds to a disparate impact/business necessity analysis. [726 F.2d at 1552](#). Under the Eleventh Circuit's analysis, if facial neutrality is not established, the employer must present a bona fide occupational qualification defense to justify its fetal protection policy.

The Eleventh Circuit went on to set out the disparate impact/business necessity analysis it would apply in cases where facial neutrality was established. The court recognized that a fetal protection policy, even if "facially neutral," "clearly has a disproportionate impact on women since only they are affected by it." *Id.* However "the employer's business necessity defense applies automatically, just as the employee's prima facie case of disparate impact applies automatically. That is because to reach the disparate impact stage of analysis in a fetal protection case, the employer has *already* proved — to overcome the presumption of facial discrimination — that its policy is justified on a scientific basis and addresses a harm that does not affect men." *Id.* at 1553. As in *Olin*, "the employer's business necessity defense may be rebutted by proof that there are acceptable alternative policies that would better accomplish the purposes of promoting fetal health, or that would accomplish the purpose with less adverse impact on one sex." *Id.*

Although *Olin* and *Hayes* present somewhat different analyses, both cases, in essence, determine that a business necessity defense in a fetal protection policy case requires (1) a demonstration of the existence of a substantial health risk to the unborn child, and (2) establishment that transmission of the hazard to the unborn child occurs only through women. Both cases also allow the employee to present evidence of less discriminatory alternatives equally capable of preventing the health hazard to the unborn.

On October 3, 1988, the Equal Employment Opportunity Commission, the agency responsible for the administration of Title VII, issued a *Policy Statement on Reproductive and Fetal Hazards Under Title VII* that, in substance, endorsed the approaches that the Fourth and Eleventh Circuits have taken to fetal protection cases. Equal Employment Opportunity Commission, *Policy Statement on Reproductive and Fetal Hazards Under Title VII* (October 3, 1988) (found in Fair Empl. Prac. Manual (BNA) 401:6013). As the Supreme Court has recognized, while such EEOC pronouncements "do not have the force of law, ... still they ``constitute a body of experienced and informed judgment to which courts and litigants may resort for guidance.'" [Local No. 93, International Association of Fire Fighters v. City of Cleveland, 478](#)

[U.S. 501, 518, 106 S.Ct. 3063, 3073, 92 L.Ed.2d 405 \(1988\)](#) (quoting [General Electric Co. v. Gilbert, 429 U.S. 125, 142, 97 S.Ct. 401, 411, 50 L.Ed.2d 343 \(1976\)](#) which quoted, in turn, [Skidmore v. Swift & Co., 323 U.S. 134, 140, 65 S.Ct. 161, 164, 89 L.Ed. 124 \(1944\)](#)). A fair reading of the EEOC's Policy Statement reflects that the EEOC thoroughly considered the various interests under Title VII and followed earlier judicial decisions only after concluding that these decisions properly implemented Title VII policies. The EEOC noted that fetal protection "*cases do not fit neatly into the traditional Title VII analytical framework and, therefore, must be regarded as a class unto themselves.*" *Policy Statement* (found in Fair Empl. Prac. Manual (BNA) 401:6013, 6015 n. 11) (emphasis added). The EEOC then candidly 886*886 recognized that fetal protection policies that "exclude only women constitute *per se* violations of the Act." *Id.* at 401:6014 (footnote omitted). However, the EEOC went on to observe that

"[a]lthough the BFOQ defense is normally the only one available in cases of overt discrimination, *the Commission follows the lead of every court of appeals to have addressed the question [in determining] that the business necessity defense applies to these cases. While business necessity has traditionally been limited to disparate impact cases, there is an argument that in this narrow class of cases the defense should be flexibly applied.*"

Id. at 401:6014-15 (emphasis added, footnote omitted). The EEOC concluded that:

"The issues [in a fetal protection policy case to which the business necessity defense is applicable] are (1) whether there exists a substantial risk of harm to employees' offspring through the exposure of employees to a reproductive hazard in the workplace; (2) whether the harm to employees' offspring takes place through the exposure of employees of one sex but not employees of the opposite sex; and (3) whether the employer's policy effectively eliminates the risk of fetal or reproductive harm. Even if these elements are proved, the policy will not withstand scrutiny [if] it is shown that there exists a reasonable alternative policy that will protect employees' offspring from fetal or reproductive harm and that has a less discriminatory impact on employees of the restricted sex. Thus, an employer's reproductive or fetal protection policy must be neutrally designed to protect all employees' offspring from hazards existing in the workplace. Where substantial evidence exists that the risk of harm to employees' offspring takes place only through the exposure of one sex to a hazard existing in the workplace, an employer may exclude from the workplace employees of that sex, but only to the extent necessary to protect employees' offspring from reproductive or fetal hazards."

Id. at 401:6015-16 (footnotes omitted).

We agree with the Fourth Circuit, the Eleventh Circuit and the EEOC in their conclusion that a business necessity defense may be utilized in a fetal protection policy case. It is interesting to note that neither the text of Title VII nor Supreme Court pronouncements mandate a holding that all forms of facial discrimination are justifiable only with a bona fide occupational qualification defense. See [Olin, 697 F.2d at 1186 n. 21](#) ("While the loose equation — overt discrimination/only B.F.O.Q. defense — is ... properly descriptive of a paradigmatic litigation pattern, it is not an accurate statement of any inherent constraints in Title VII doctrine"). See also [Scherr v. Woodland School Community Consolidated District, No. 50, 867 F.2d 974, 977-81 \(7th Cir.1988\)](#) (Permitting business necessity defense to be utilized under Pregnancy Discrimination Act).

We are convinced that the components of the business necessity defense the courts of appeals and the EEOC have utilized in fetal protection cases balance the interests of the employer, the employee and the unborn child in a manner consistent with Title VII. The requirement of a substantial health risk to the unborn child effectively distinguishes between the legitimate risk of harm to health and safety which Title VII permits employers to consider and the "[m]yths or purely habitual assumptions"^[26] that employers sometimes attempt to impermissibly utilize to support the exclusion of women from employment opportunities. Likewise, the requirement that the risk of harm to offspring be substantially confined to female employees means that a fetal protection policy applying only to women recognizes the basic physical fact of human reproduction, that only women are capable of bearing children. Finally, the employee's option of presenting less discriminatory alternatives to a fetal protection policy assures that

these policies 887*887 are only as restrictive as necessary to prevent the serious risk of harm to the unborn child. Accordingly, we agree with the Fourth Circuit, Eleventh Circuit and EEOC that the business necessity defense can be appropriately applied to fetal protection policy cases under Title VII. We now proceed to determine whether this defense can be utilized to sustain **Johnson Controls'** fetal protection policy.

IV.

In [*Wards Cove Packing Co. v. Atonio*, ___ U.S. ___, 109 S.Ct. 2115, 2125-26, 104 L.Ed.2d 733 \(1989\)](#), the Supreme Court recently described the general policies underlying the business necessity defense that we utilize in considering **Johnson Controls'** fetal protection policy:

"Though we have phrased the query differently in different cases, it is generally well-established that at the justification stage of ... a disparate impact case, the dispositive issue is whether a challenged practice serves, in a significant way, the legitimate employment goals of the employer. The touchstone of this inquiry is a reasoned review of the employer's justification for his use of the challenged practice. A mere insubstantial justification in this regard will not suffice, because such a low standard of review would permit discrimination to be practiced through the use of spurious, seemingly neutral employment practices. At the same time, though, there is no requirement that the challenged practice be 'essential' or 'indispensable' to the employer's business for it to pass muster: this degree of scrutiny would be almost impossible for most employers to meet, and would result in a host of evils...."

(Citations omitted).

In *Wards Cove* the Court also clarified the proof burdens to be applied in addressing an employer's business necessity defense:

"[T]he employer carries the burden of producing evidence of a business justification for his employment practice. *The burden of persuasion, however, remains with the disparate-impact plaintiff.* To the extent that the Ninth Circuit held otherwise in its en banc decision in this case, or in the panel's decision on remand — suggesting that the persuasion burden should shift to the [defendants] once the [plaintiffs] establish a prima facie case of disparate impact — its decisions were erroneous. '[T]he ultimate burden of proving that discrimination against a protected group has been caused by a specific employment practice remains with the plaintiff *at all times.*' [*Watson v. Fort Worth Bank & Trust Co.*, ___ U.S. ___, 108 S.Ct. 2777, 2790, 101 L.Ed.2d 827 \(1988\)](#) (O'Connor, J.) (emphasis added). This rule conforms with the usual method for allocating persuasion and production burdens in the federal courts, and more specifically, it conforms to the rule in disparate treatment cases that the plaintiff bears the burden of disproving an employer's assertion that the adverse employment action or practice was based solely on a legitimate neutral consideration. We acknowledge that some of our earlier decisions can be read as suggesting otherwise. But to the extent that those cases speak of an employers' (sic) 'burden of proof' with respect to a legitimate business justification defense, they should have been understood to mean an employer's production — but not persuasion — burden. The persuasion burden here must remain with the plaintiff, for it is he who must prove that it was 'because of such individual's race, color,' etc., that he was denied a desired employment opportunity. See 42 U.S.C. § 2000e-2(a)."

[*Wards Cove*, 109 S.Ct. at 2126](#) (citations omitted, emphasis added).

The allocation of the burden of proof under substantive Title VII law outlined in *Wards Cove* plays a significant role in summary judgment proceedings of this nature. We have previously recognized that: "Summary judgment is properly entered in favor of a party when the opposing party is unable to make a showing sufficient to prove an essential element of a case on which the opposing party bears the burden of proof." 888*888 [*Common v. Williams*, 859 F.2d 467, 469 \(7th Cir.1988\)](#). The Supreme Court explained

the reasons for this rule in [Celotex Corp. v. Catrett](#), 477 U.S. 317, 322-23, 106 S.Ct. 2548, 2552-53, 91 L.Ed.2d 265 (1986):

"In our view, the plain language of Rule 56(c) mandates the entry of summary judgment, after adequate time for discovery and upon motion, against a party who fails to make a showing sufficient to establish the existence of an element essential to that party's case, and on which the party will bear the burden the proof at trial. In such a situation, there can be 'no genuine issue as to any material fact,' since a complete failure of proof concerning an essential element of the nonmoving party's case necessarily renders all other facts immaterial. The moving party is 'entitled to judgment as a matter of law' because the nonmoving party has failed to make a sufficient showing on an essential element of her case with respect to which she has the burden of proof."

"Where the record taken as a whole could not lead a rational trier of fact to find for the non-moving party, there is no 'genuine issue for trial.'" [Matsushita Electric Industrial Co. v. Zenith Radio Corp.](#), 475 U.S. 574, 587, 106 S.Ct. 1348, 1356, 89 L.Ed.2d 538 (1986) (quoting [First National Bank of Arizona v. Cities Service Co.](#), 391 U.S. 253, 288-89, 88 S.Ct. 1575, 1592-93, 20 L.Ed.2d 569 (1968)). Thus, the question we must address is whether the UAW, which bears the burden of persuasion, has presented evidence sufficient to permit the district court to conclude that **Johnson Controls'** business necessity defense cannot be factually supported.

Our inquiry must be based on the underlying premise that the creation of a record adequate to meet legal challenges is the responsibility of the parties litigating the case. We may neither add nor subtract from the record; we must accept it as it is. Thus, "[w]hen confronted with a motion for summary judgment, a party who bears the burden of proof on a particular issue, may not rest on its pleadings, but must affirmatively demonstrate by specific factual allegations, that there is a *genuine* issue of material fact which requires trial." [Beard v. Whitley County, REMC](#), 840 F.2d 405, 410 (7th Cir.1988) (emphasis in original). As we have also noted: "A district court need not scour the record to make the case of a party who does nothing.... [C]ourts will not discover that the movants slighted contrary information if opposing lawyers sit on their haunches; judges may let the adversary system take its course." [Herman v. City of Chicago](#), 870 F.2d 400, 404 (7th Cir.1989). We now turn to whether the UAW has established a genuine issue of material fact concerning any of the elements of the business necessity defense upon which it bears the burden of persuasion.

A. Substantial Risk of Harm to the Unborn Child

Both the UAW and **Johnson Controls** agree on appeal that the significant evidence of risks to the health of the fetus contained in the record establishes a *substantial* health risk to the unborn child. The UAW in its brief admits that "it is clear that ... substantial risk of harm to the fetus ... has been established." UAW Brief at 33. Similarly, **Johnson** states that "[t]he evidence in the record on [substantial risk of harm to the fetus] is overwhelming." **Johnson Controls** Brief at 22. In light of the parties' agreement on the question of substantial risk of harm to the unborn child, this issue is not before this court on appeal.

Although the parties do not contest this question on appeal, the evidence in the record that we recounted in Section II, *supra*, conclusively supports the accepted medical and scientific finding that lead creates a substantial risk of harm to unborn children. In order to present the risk of harm necessary to sustain a fetal protection policy "it is not necessary to prove the existence of a general consensus on the [question of risk of harm to the unborn child] within the qualified scientific community. It suffices to show that within that community there is so considerable a body of opinion that significant risk exists ... that an informed employer could not responsibly 889*889 fail to act on the assumption that this opinion might be the accurate one." [Olin](#), 697 F.2d at 1191. The overwhelming medical and scientific research data demonstrating a substantial risk to the unborn child from lead exposure, found in the record and set forth in Section II, *supra*, approaches a "general consensus within the qualified scientific community," and certainly "suffices to show that within that community there is [a] considerable body of opinion that

significant risk exists."^[27] Accordingly, we are convinced that there is no genuine issue of material fact with respect to this component of **Johnson Controls'** business necessity defense.^[28]

B. Exposure Through a Single Sex

The UAW's efforts in this case have primarily been devoted toward negating the second element of **Johnson's** business necessity defense, that the risk of transmission of potentially harmful lead exposure to unborn children is substantially confined to fertile female employees. On this issue, as with the question of substantial risk of harm to the unborn child, "it is not necessary to prove the existence of a general consensus on the [issue] within the qualified scientific community." [Olin, 697 F.2d at 1191](#).

In this case **Johnson Controls'** experts, without exception, testified that a male worker's exposure to lead at levels within the 50 µg/dl maximum set forth in OSHA's current (1978) lead exposure guidelines did not pose a substantial risk of genetically transmitted harm from the male to the unborn child. Moreover, **Johnson's** experts took the position that because this data dealt exclusively with animals, the results of these studies were not scientifically established as being applicable to humans. In contrast, the UAW witnesses posited that animal studies had demonstrated that there was a possible risk of genetic damage to human offspring as a result of male lead exposure. The UAW witnesses attempt to bridge the wide chasm between the results of animal studies and a conclusion of genetic harm allegedly transmitted through the male human being with human studies merely establishing a correlation between male lead exposure and changes in sperm shape. It is interesting to note that the UAW has not presented any medical evidence in the record of any human study scientifically documenting genetic defects in human beings resulting from male lead exposure. It is this lack of convincing scientific data that the plaintiffs attempt to gloss over and cast aside in ignoring the differences between the effect of lead on the human and animal reproductive systems.^[29]

As noted previously, when the Title VII disparate impact/business necessity proof scheme is applied at the summary judgment phase of litigation, the UAW is required to present facts sufficient for the trier of fact to conclude that transmission of the significant risk of harm lead presents to the unborn child is not substantially confined to female employees. Unlike the recorded evidence of a substantial risk of harm resulting to an unborn child from exposure to lead through the mother's blood stream and placenta, the evidence of risk to the unborn child resulting from exposure of the father to the lead levels currently present in **Johnson Controls'** battery manufacturing factories is, at best, speculative and unconvincing. The UAW's animal research evidence does not present the type of solid scientific data necessary for a reasonable factfinder to reach a non-speculative conclusion that a father's exposure to lead presents the same danger to the unborn child as that resulting 890*890 from a female employee's exposure to lead. The facts the UAW posits do not negate the conclusion that the harm lead exposure causes to the unborn child is "substantially confined to female employees."^[30] Accordingly, we are convinced that the UAW has failed to present facts sufficient to carry its burden of demonstrating the absence of the second element of **Johnson Controls'** business necessity defense, application of the risk of transmitting lead exposure to unborn children only through females.

This recognition of the physical differences between the human sexes creates a distinction between men and women that accords with our previous recognition that Title VII permits distinctions based upon the real sex-based differences between men and women, especially those related to child birth. As we observed in [Torres v. Wisconsin Dept. of Health and Human Social Services, 859 F.2d 1523, 1527-28 \(7th Cir.1988\) \(en banc\)](#):

"Myths and purely habitual assumptions about a woman's [or a man's] inability to perform certain kinds of work are no longer acceptable reasons for refusing to employ qualified individuals, or for paying them less.' [City of Los Angeles Department of Water and Power v. Manhart, 435 U.S. 702, 707 \[98 S.Ct. 1370, 1374, 55 L.Ed.2d 657\] \(1978\)](#). On the other hand, there are real as well as fictional differences between men and women. *Id.* For instance, the Supreme Court has never hesitated to recognize sex-based differences, particularly in cases involving physiology, marriage, childbirth, or sexuality. See [Michael M. v.](#)

[Superior Court of Sonoma County, 450 U.S. 464, 469 \[101 S.Ct. 1200, 1204, 67 L.Ed.2d 437\] \(1981\)](#) ('[T]his Court has consistently upheld statutes where the gender classification is not invidious, but rather realistically reflects the fact that the sexes are not similarly situated in certain circumstances.');

id. at 481 [101 S.Ct. at 1210] (Blackmun, J., concurring) ('The Constitution surely does not require a State to pretend that demonstrable differences between men and women do not really exist.')

See generally [Parham v. Hughes, 441 U.S. 347, 354 \[99 S.Ct. 1742, 1747, 60 L.Ed.2d 269\] \(1979\)](#) (opinion of Stewart, J.) ('In cases where men and women are not similarly situated, however, and a statutory classification is realistically based upon the differences in their situations, this Court has upheld its validity.');

[Schlesinger v. Ballard, 419 U.S. 498, 508 \[95 S.Ct. 572, 577, 42 L.Ed.2d 610\] \(1975\)](#) ('The different treatment of men and women ... reflects, not archaic and overbroad generalizations, but, instead, the demonstrable fact that male and female line officers in the Navy are *not* similarly situated with respect to opportunities for professional service.' (emphasis in original)). This same principle has been recognized in the Title VII area. See, e.g., [Backus v. Baptist Medical Center, 510 F.Supp. 1191, 1195 \(E.D. Ark.1981\)](#), vacated [because of mootness, 671 F.2d 1100 \(8th Cir.1982\)](#) (recognizing the need to have female registered nurses care for obstetrical patients); see also I.A. Larson & L. Larson, *Employment Discrimination — Sex* § 14.30 (1987) ('[G]iving respect to deep-seated feelings of personal privacy involving one's own genital area is quite a different matter from catering to the desire of some male airline passengers to have ... an attractive stewardess.')

Because scientific data available as of this date reflects that the risk of transmission of harm to unborn children is confined to fertile female employees, the sex-based distinction present in **Johnson Controls'** fetal protection policy is based upon real physical differences between men and women relating to childbearing capacity and is consistent with Title VII.

C. Adequate But Less Discriminatory Alternatives

We are cognizant of the fact that **Johnson's** fetal protection policy might very well not have been sustainable had the UAW presented facts and reasoning sufficient 891*891 for the trier of fact to conclude that "there are `acceptable alternative policies or practices which would better accomplish the business purpose ... [of protecting against the risk of harm], or accomplish equally well with a lesser differential ... impact [between women and men workers].'" [Olin, 697 F.2d at 1191](#) (quoting [Robinson v. Lorillard Corp., 444 F.2d 791, 798 \(4th Cir.\)](#), cert. dismissed, [404 U.S. 1006](#), 92 S.Ct. 573, 30 L.Ed.2d 655 (1971)).

As an initial matter, we must determine whether the UAW has preserved this issue for appeal. The UAW's brief explicitly admits that "the plaintiffs did not respond to the defendant's allegations that it had considered a number of alternatives [to its fetal protection policy]," UAW Brief at 37 n. 14, and fails to present any of its own alternatives. Federal Rule of Appellate Procedure 28(a)(4) provides, in relevant part, that: "The brief of the appellant shall contain under appropriate headings and in the order here indicated: ... (4) an argument.... The argument shall contain the contentions of the appellant with respect to the issues presented, and the reasons therefor, with citations to the authorities, statutes and parts of the record relied on." In [Zelazny v. Lyng, 853 F.2d 540, 542 n. 1 \(7th Cir.1988\)](#), we observed that:

"We have said that an appellant is required by Rule 28(a)(4) of the Federal Rules of Appellate Procedure to present in his brief to the appellate court the issues that he desires to litigate and to support his arguments on those issues with appropriate judicial authority. See [Beard v. Whitley County REMC, 840 F.2d 405, 408 \(7th Cir.1988\)](#). "It is not the obligation of this court to research and construct the legal arguments open to parties especially when they are represented by counsel." *Id.* at 408-09 (quoting [Sanchez v. Miller, 792 F.2d 694, 703 \(7th Cir.1986\)](#), cert. denied, [479 U.S. 1056, 107 S.Ct. 933, 93 L.Ed.2d 984 \(1987\)](#)). Mr. Zelazny's conclusory remarks about his lack of diligence without any further argument on the issue and without any attempt to offer a justification for his delay do not comply with the strictures of Rule 28(a)(4). Therefore, even if Mr. Zelazny disputes the district court's determination of inexcusable delay, he has waived any argument on that issue."

The UAW's failure to specifically articulate a less discriminatory alternative argument in the manner required in Federal Rule of Appellate Procedure 28(a)(4) means that it has failed to adequately present this issue to this court.

Even were we to conclude that the UAW had preserved this issue for appeal, we would be constrained to hold that the UAW failed to present facts sufficient for a trier of fact to conclude that less discriminatory alternatives would equally effectively achieve an employer's legitimate purpose of protecting unborn children from the substantial risk of harm lead exposure creates. In [*Wards Cove Packing Co. v. Atonio*, ___ U.S. ___, 109 S.Ct. 2115, 2126-27, 104 L.Ed.2d 733 \(1989\)](#), the Supreme Court recently explained the burden a Title VII plaintiff must carry in order to establish that an employer's policy is invalid on the basis of the availability of less discriminatory alternatives:

"[I]f ... [plaintiffs] cannot persuade the trier of fact on the question of [the employer's] business necessity defense, [plaintiffs] may still be able to prevail. To do so, [plaintiffs] will have to persuade the factfinder that 'other tests or selection devices, without a similarly undesirable racial effect, would also serve the employer's legitimate [hiring] interest[s],' by so demonstrating, [plaintiffs] would prove that '[the employers were] using [their] test merely as a "pretext" for discrimination.' [*Albemarle Paper Co. \[v. Moody\]*, 422 U.S. 405, 425, 95 S.Ct. 2362, 2375, 45 L.Ed.2d 280 \[\(1975\)\]](#); see also *Watson*, 487 U.S. at ___ [108 S.Ct. at 2780] (O'Connor, J.); *Id.*, at ___ [108 S.Ct. at 2781] (Blackmun, J.). If [plaintiffs], having established a prima facie case, come forward with alternatives to [the employers'] hiring practices that reduce the racially-disparate impact of practices currently being used, and [the employers] refuse to adopt these alternatives, such a refusal would belie a 892*892 claim by [plaintiffs] that their incumbent practices are being employed for nondiscriminatory reasons.

Of course, any alternative practices which [plaintiffs] offer up in this respect must be equally effective as [the employers'] chosen hiring procedures in achieving [the employers'] legitimate employment goals. Moreover, '[f]actors such as the cost or other burdens of proposed alternative selection devices are relevant in determining whether they would be equally as effective as the challenged practices in serving the employer's legitimate business goals.' [*Watson \[v. Fort Worth Bank & Trust\]*, ___ U.S. ___, 108 S.Ct. 2777, 2790, 101 L.Ed.2d 827 \(1988\)](#) (O'Connor, J.). 'Courts are generally less competent than employers to restructure business practices,' [*Furnco Construction Corp. v. Waters*, 438 U.S. 567, 578 \[98 S.Ct. 2943, 2950, 57 L.Ed.2d 957\] \(1978\)](#); consequently, the judiciary should proceed with care before mandating that an employer must adopt a plaintiff's alternate selection or hiring process in response to a Title VII suit."

The above passage from *Wards Cove* makes clear (1) that the UAW bears the burden of presenting specific economically and technologically feasible alternatives to **Johnson Controls'** fetal protection policy; (2) that if the UAW presents such alternatives, the UAW also bears the burden of demonstrating that its proposed alternative policy is "equally effective [as **Johnson Controls'** fetal protection policy] in achieving [**Johnson's**] legitimate employment goals," [*Wards Cove*, 109 S.Ct. at 2127](#) (emphasis added); and (3) that this inquiry is to be undertaken with the recognition that "'[f]actors such as the cost or other burdens of proposed alternative selection devices are relevant in determining whether they would be equally as effective as the challenged practices in serving the employer's legitimate business goals,'" *Id.* at 2127 (quoting [*Watson v. Fort Worth Bank & Trust*, ___ U.S. ___, 108 S.Ct. 2777, 2790, 101 L.Ed.2d 827 \(1988\)](#) (O'Connor, J.)), and that "'[c]ourts are generally less competent than employers to restructure business practices'...." *Id.* (quoting [*Furnco Construction Corp.*, 438 U.S. at 578, 98 S.Ct. at 2950](#)). In our case the inquiry is terminated at the first stage. The UAW, in its briefs and argument, has failed to present even one specific alternative to **Johnson's** fetal protection policy, much less a demonstration of how any particular economically and technologically feasible alternative would effectively achieve **Johnson's** purpose of preventing the risk of fetal harm associated with the exposure to lead of fertile female employees.

The record also demonstrates that viable alternatives to the fetal protection program were not presented to the court that would equally effectively further **Johnson's** legitimate interests. As detailed in Section I, *supra*, **Johnson Controls** itself considered various possible less discriminatory alternatives prior to its adoption of the current fetal protection policy in 1982. In considering these alternatives, **Johnson** realized

that lead could not be eliminated as a battery component. Furthermore, technically and economically feasible alternatives in the manufacturing process are incapable of reducing lead exposure to acceptable levels for pregnant women.^[31] Limitation of the exclusion from high lead positions to women actually pregnant or planning pregnancy 893*893 was inadequate because lead exposure frequently takes place during the time period before the woman or her doctor determine her pregnancy. In addition, reduction of blood lead levels following removal of a pregnant female employee from lead exposure requires a significant period of time that can extend well into the pregnancy term. Although the Supreme Court has noted that "there is no requirement that the challenged practice be `essential' or `indispensable' to the employer's business for it to pass muster"^[32] under the business necessity defense, **Johnson's** policy could well have met this exacting standard.

Finally, in resolving this issue we must act with an awareness of the Supreme Court's warnings that "[c]ourts are generally less competent than employers to restructure business practices,"^[33] and that "the judiciary should proceed with care before mandating that an employer must adopt a plaintiff's [proposed alternative employment policy] in response to a Title VII suit."^[34] In light of these policies, the UAW has not met its evidentiary burden at the summary judgment phase of presenting facts from which a trier of fact could determine that an alternative policy would be equally as effective as **Johnson Controls'** fetal protection policy in preventing risk of harm to unborn children from lead exposure.

V.

Having just held that the business necessity defense shields an employer from liability for sex discrimination under Title VII in a fetal protection policy involving the type of facts present herein, we are also convinced that **Johnson Controls'** fetal protection policy could be upheld under the bona fide occupational qualification defense.

In addressing the bona fide occupational qualification question, we have observed that: "It is universally recognized that this exception to Title VII was `meant to be an extremely narrow exception to the general prohibition of discrimination....'" [*Torres v. Wisconsin Dept. of Health & Social Services*, 859 F.2d 1523, 1527 \(7th Cir.1988\)](#) (quoting [*Dothard v. Rawlinson*, 433 U.S. 321, 334, 97 S.Ct. 2720, 2729, 53 L.Ed.2d 786 \(1977\)](#)). Nonetheless, this formulation should not be treated as inviting a black letter conclusion that the employer automatically loses in a case in which it is required to demonstrate a bona fide occupational qualification. The bona fide occupational qualification defense, like other Title VII defenses, must be construed in a manner which gives meaningful and thoughtful consideration to the *interests of all those affected by a company's policy, in this case the employer, the employee and the unborn child*. Indeed, the fact that **Johnson's** fetal protection policy applies exclusively to the high lead exposure areas of its battery division demonstrates why the policy is drafted with sufficiently definite terminology as to constitute a "narrow exception to the general prohibition of discrimination...."^[35]

In the context of the Pregnancy Discrimination Act,^[36] application of the bona fide occupational qualification defense requires a court to consider the special concerns which pregnancy poses. A proposed BFOQ relating to capacity for pregnancy (or actual pregnancy) will exclude fewer employees than a BFOQ excluding all women. The court must also consider the physical changes caused by pregnancy, i.e., the presence of the unborn child, in determining whether the employee's continuance in a particular employment assignment 894*894 will endanger the health of her unborn child. These concerns are in many ways quite similar to those a court should address in a business necessity defense analysis. Indeed, in considering a BFOQ defense in a case involving pregnancy, the Eighth Circuit recently stated:

"[T]he district court's finding of business necessity itself is persuasive as to the existence of a bfoq. This court has noted that the analysis of a bfoq `is similar to and overlaps with the judicially created "business necessity" test.' [*Gunther v. Iowa State Men's Reformatory*, 612 F.2d 1079, 1086 n. 8 \(8th Cir.\), cert. denied, 446 U.S. 966, 100 S.Ct. 2942, 64 L.Ed.2d 825 \(1980\)](#)]. The various standards for establishing business necessity are quite similar to those for determining a bfoq."

[Chambers v. Omaha Girls Clubs, Inc., 834 F.2d 697, 704 \(8th Cir.1987\)](#) (decision discussed favorably in [Torres v. Wisconsin Dept. of Health & Social Services, 859 F.2d 1523, 1531 \(7th Cir.1988\) \(en banc\)](#)).

Sitting *en banc*, this court recently considered the bona fide occupational qualification defense in [Torres v. Wisconsin Dept. of Health & Social Services, 859 F.2d 1523 \(7th Cir.1988\) \(en banc\)](#). At issue in *Torres* was the question of whether the Wisconsin Department of Health and Social Services could pursue its legitimate goal in furthering prisoner rehabilitation through a policy excluding men from nineteen of twenty-seven guard positions in the living and hygiene areas of an exclusively women's prison institution. We noted with approval the traditional formulations of the business necessity defense. [859 F.2d at 1527](#). These formulations are that "'discrimination based on sex is valid only when the essence of the business operation would be undermined by not hiring members of one sex exclusively,'" [Dothard v. Rawlinson, 433 U.S. 321, 333, 97 S.Ct. 2720, 2728, 53 L.Ed.2d 786 \(1977\)](#) (quoting [Diaz v. Pan American World Airways, 442 F.2d 385, 388 \(5th Cir.\), cert. denied, 404 U.S. 950, 92 S.Ct. 275, 30 L.Ed.2d 267 \(1971\)](#) (emphasis in original)), and that "an employer [can] rely on the BFOQ exception only by proving 'that he had reason to believe, that is, a factual basis for believing, that all or substantially all women would be unable to perform safely and efficiently the duties of the job involved.'" *Id.* (quoting [Weeks v. Southern Bell Telephone & Telegraph Co., 408 F.2d 228, 235 \(5th Cir.1969\)](#)).

We next discussed the need for courts conducting BFOQ analyses to avoid either using traditional stereotypes or falling into the equally unsatisfactory alternative of ignoring the real differences between men and women. We stated:

"It is also well established that a BFOQ may not be based on 'stereotyped characterizations of the sexes.' [Dothard, 433 U.S. at 333 \[97 S.Ct. at 2728\]](#). ... Nevertheless, while recognizing that sex-based differences may justify a limited number of distinctions between men and women, we must discipline our inquiry to ensure that our tolerance for such distinctions is not widened artificially by — as the district court aptly put it — our 'own culturally induced proclivities.' *Torres [v. Wisconsin Dept. of Health and Social Services]*, 639 F.Supp. [271] at 278 [E.D.Wis.1986]. Nor, of course, can we tolerate the same preconceptions or predilections on the part of employers. Rather, we must ask whether, given the reasonable objectives of the employer, the very womanhood or very manhood of the employee undermines his or her capacity to perform a job satisfactorily. [Dothard, 433 U.S. at 336 \[97 S.Ct. at 2730\]](#)."

[Torres, 859 F.2d at 1527-28](#).

Torres' conclusion that Congress intended the bona fide occupational qualification defense as a recognition of the real differences between men and women accords with Congress' approach in both Title VII and other contexts concerning matters involving distinctions based upon realistic physical differences between men and women. For example, in [Rostker v. Goldberg, 453 U.S. 57, 101 S.Ct. 2646, 69 L.Ed.2d 478 \(1981\)](#), the Supreme Court affirmed the exclusion of women from the military draft based upon a congressional determination that women were not suited for combat. The Court noted that

895*895 "Congress specifically recognized and endorsed the exclusion of women from combat in exempting women from registration. In the words of the Senate Report:

'The principle that women should not intentionally and routinely engage in combat is fundamental, and enjoys wide support among our people. It is universally supported by military leaders who have testified before the Committee.... Current law and policy exclude women from being assigned to combat in our military forces, and the Committee reaffirms this policy.'"

[453 U.S. at 76-77, 101 S.Ct. at 2658](#) (quoting S.Rep. No. 96-826 at 157, U.S.Code Cong. & Adm.News 1980, pp. 2612, 2647). Likewise, in [California Federal Savings & Loan Association v. Guerra, 479 U.S. 272, 107 S.Ct. 683, 694, 93 L.Ed.2d 613 \(1987\)](#), the Supreme Court recognized that in enacting Title VII Congress did not intend to preclude state pregnancy leave legislation which recognized "*actual physical disability* on account of pregnancy," (emphasis in original), and that did "not reflect archaic or

stereotypical notions about pregnancy and the abilities of pregnant workers." Finally, Title IX requirements with respect to equality between men and women in athletic programs have been administratively interpreted to allow separate male and female teams and to permit exclusion of women from contact sports. See 7 C.F.R. § 15a.41(b), 10 C.F.R. § 1040.44(b), 34 C.F.R. § 106.41(b), 45 C.F.R. § 86.41(b). The risk of injury to women from contact sports is based upon the recognized innate physical differences between men and women, matters analogous to **Johnson's** fetal protection policy's concern with the differences between men and women relating to childbearing capacity. Thus, as *Torres* holds, the Title VII bona fide occupational qualification defense is another legitimate congressional recognition that real physical differences between men and women can and do justify differences in their treatment.

After establishing the general policies underlying the BFOQ defense, *Torres* set forth a method for ascertaining the validity of a BFOQ.

"The validity of a BFOQ can only be ascertained when it is assessed in relationship to the business of the employer. Our first step, therefore, *must be to come to an understanding of the employer's business* — its mission and the methodologies necessary to fulfill that mission. *In accomplishing this task, we cannot deal in generalities. Rather, we must focus on the 'particular business' of the employer in which the protected employee worked.* Oftentimes, this task requires that a court recognize factors that make a particular operation of an employer unique or at least substantially different from other operations in the same general business or profession. See [Pime v. Loyola Univ., 803 F.2d 351, 353-54 \(7th Cir.1986\)](#) (upholding the maintenance of a Jesuit 'presence' as 'important to the successful operation of the University,' when there was evidence that it was 'significant to the educational tradition and character of the institution that students be assured a degree of contact with teachers who have received the training and accepted the obligations which are essential to membership in the Society of Jesus')."

Id. at 1528-29 (citations omitted, emphasis added). In the context of the administration of a state prison, we considered how a specific definition of a business could permit a bona fide occupational qualification in a case where a general definition of the business might not permit such a qualification:

"Here ... the broadest description of the 'business' of the defendants is to say that they are in the business of governance at the state level. This general description, standing alone, gives them no special license with respect to Title VII.... A more precise definition of the 'business' of the defendants is to recognize that they are in the business of administering a penal institution. Few tasks are more challenging.

* * * * *

896*896 This general description of the task of prison administrators is still too general to permit us to assess accurately the claims of the parties.... [W]e must ... refine our focus. The defendants are charged with the administration of a distinct type of penal institution — a women's maximum security facility.... [T]he same historical and empirical evidence that might guide the administrator of a similar institution for males simply is not available with respect to this environment. Therefore, *the administrators ... were obliged, to a greater degree than their counterparts in male institutions, to innovate in achieving one of the tasks mandated by the Wisconsin legislature — rehabilitation.* The defendants' 'business' explicitly included — by legislative mandate — the task of rehabilitation."

[Torres, 859 F.2d at 1529-30](#) (emphasis added, citations omitted).

Torres bears particular relevance to our discussion of the description of **Johnson Controls'** business. At a broad level, **Johnson's** business, insofar as relevant to this case, is the manufacture of batteries.^[37] **Johnson's** business is "unique" because it requires the use of lead, an extremely toxic substance that has been scientifically established to pose very serious dangers to young children and, in particular, to the offspring of female employees. In order to respond to the problems accompanying its unique battery manufacturing operation, **Johnson Controls** has properly made it part of its business to attempt to manufacture batteries in as safe a manner as possible. This safety interest is every bit as critical to the mission of **Johnson's** battery manufacturing business as rehabilitation of prisoners is to the mission of

the prison facility at issue in *Torres*. Furthermore, like the prison in *Torres*, **Johnson** has found it necessary to "innovate" to achieve its essential goal of manufacturing batteries safely through the adoption of a fetal protection policy that would address the health/safety problems related to its female employees significantly more effectively than the alternative policies it had considered. See Sections II and IV-C, *supra*.

Having established that industrial safety (preventing hazards to health) is legitimately part of the "essence" of the "business" of a battery manufacturer, as it is of any manufacturing enterprise, the next inquiry under *Torres* is whether **Johnson Controls'** fetal protection policy is "directly related" to industrial safety. See [Torres, 859 F.2d at 1530](#). Certainly a policy is directly related to industrial safety when it protects unborn children from a substantial risk of devastating and permanent impairment or loss of intellectual ability or injury to vital organs resulting from exposure to a toxic industrial chemical.

As in *Torres*, "[t]he more difficult question is whether the proposed BFOQ [is] 'reasonably necessary' to furthering the objective of [industrial safety]." [Torres, 859 F.2d at 1530](#). In "unique" businesses, like the living areas of the women's prison in *Torres* or **Johnson Controls'** battery manufacturing operation, where an employer adopts an employment policy designed to address a difficult societal problem, *Torres* requires that courts reviewing such a determination under Title VII give some deference to the employer's decisions. As we noted in *Torres*:

"We believe ... that the defendants were required to meet an unrealistic, and therefore unfair burden when they were required to produce 'objective evidence, either from empirical studies or otherwise, displaying the validity of their theory.' [Torres \[v. Wisconsin Dept. of Health and Social Services, 639 F.Supp. 271, 280 \(E.D.Wis.1986\)\]](#). Given the nature of their 'business' — administering a prison for female felons — the defendants, of necessity, had to innovate. Therefore, their efforts ought to be evaluated on the basis of the totality of the circumstances as contained in the entire record. In the Title VII context, the decision of penal administrators need not 897*897 be given as much deference as accorded their decisions in constitutional cases. However, their judgments still are entitled to substantial weight when they are the product of a reasoned decision-making process, based on available information and experience."

[859 F.2d at 1532](#) (citations omitted). Cf. [Wards Cove, 109 S.Ct. at 2127](#) ("Courts are generally less competent than employers to restructure business practices," [Furnco Construction Corp. v. Waters, 438 U.S. 567, 578, 98 S.Ct. 2943, 2950, 57 L.Ed.2d 957 \(1978\)](#)); consequently, the judiciary should proceed with care before mandating that an employer must adopt a plaintiff's alternate [employment practice] in response to a Title VII suit.").

In resolving the question of whether **Johnson Controls'** BFOQ is reasonably necessary to industrial safety, we recognize that Title VII establishes the general propositions that a determination of whether a proposed BFOQ is "reasonably necessary" to furthering the objective of industrial safety requires that **Johnson Controls'** "had reasonable cause to believe, that is, a factual basis for believing that all or substantially all [women capable of pregnancy] would be unable to perform safely and efficiently the duties of the job involved," [Dothard v. Rawlinson, 433 U.S. 321, 333, 97 S.Ct. 2720, 2728, 53 L.Ed.2d 786 \(1977\)](#) (quoting [Weeks v. Southern Bell Telephone & Telegraph Co., 408 F.2d 228, 235 \(5th Cir.1969\)](#)), and that "[i]n the usual case, the argument that a particular job is too dangerous for women may appropriately be met by the rejoinder that it is the purpose of Title VII to allow the individual woman to make that choice for herself." [Dothard, 433 U.S. at 335, 97 S.Ct. at 2729](#) (footnote omitted, emphasis added). *It is important to remember, however, that while Dothard established these propositions as general rules, the Supreme Court determined that Dothard was an unusual case justifying a departure from this general maxim.* The Court stated: "More is at stake in this case, however, than an individual woman's decision to weigh and accept the risks of employment in a 'contact' position in a maximum security male prison." *Id.* The Court concluded that a bona fide occupational qualification excluding women from such positions was justified because a woman's sex could create a risk of sexual assaults which would undermine prison security. See *Id.* at 335-37, [97 S.Ct. at 2729-31](#).

Similarly, "[m]ore is at stake in this case ... than an individual woman's decision to weigh and accept the risks of employment." *Id.* at 335, [97 S.Ct. at 2730](#). A female's decision to work in a high lead exposure job risks the intellectual and physical development of the baby she may carry. The status of women in America has changed both in the family and in the economic system. Since they have become a force in the workplace as well as in the home because of their desire to better the family's station in life, it would not be improbable that a female employee might somehow rationally discount this clear risk in her hope and belief that her infant would not be adversely affected from lead exposure. The unborn child has no opportunity to avoid this grave danger, but bears the definite risk of suffering permanent consequences. This situation is much like that involved in blood transfusion cases. There courts have held that individuals may choose for themselves whether to refuse to personally acquiesce in a blood transfusion that had been established as medically necessary, but that parents may not always rely upon parental rights or religious liberty rights to similarly refuse to consent to such a medically necessary transfusion for their minor children.^[38] The risks to the unborn child from lead are also shared by society in the form of government financed programs to train or maintain a handicapped child in non-institutional or institutional environments and to provide the 898*898 child with the training necessary to overcome the mental and physical harm attributable to lead exposure.^[39] Thus, since "more is at stake" than the individual woman's decision to risk her own safety, *Dothard* supports, rather than bars, a conclusion that an employer's fetal protection policy constitutes a bona fide occupational qualification. In such circumstances, "given the reasonable objectives of the employer, the very womanhood ... of the employee undermines ... her capacity to perform a job satisfactorily." [Torres, 859 F.2d at 1528](#) (citing [Dothard, 433 U.S. at 336, 97 S.Ct. at 2730](#)).

Against this substantive background, we hold that **Johnson** has carried its burden of demonstrating that its fetal protection plan is reasonably necessary to further industrial safety, a matter we have determined to be part of the essence of **Johnson Controls'** business. Initially, there can be no doubt that the exclusion of women who are actually pregnant from positions involving high levels of lead exposure sets forth a bona fide occupational qualification. As established in section II, *supra*, there is clear and unrefuted evidence in the record of a substantial and irreversible risk to the unborn child's mental development from lead exposure in the womb. This danger is "hardly a '[m]yth or purely habitually assumption.'" [Torres, 859 F.2d at 1531](#) (quoting [Los Angeles Dept. of Water & Power v. Manhart, 435 U.S. 702, 707, 98 S.Ct. 1370, 1374, 55 L.Ed.2d 657 \(1978\)](#)). The convincing scientific evidence of this risk and the very serious consequences of this danger combine to make this health risk quite different from the concerns in [Muller v. Oregon, 208 U.S. 412, 421-22, 28 S.Ct. 324, 326-27, 52 L.Ed. 551 \(1908\)](#), which we would currently characterize as stereotypical rather than real. Compare [Dothard, 433 U.S. at 333, 97 S.Ct. at 2728](#) (noting "that it is impermissible under Title VII to refuse to hire an individual woman or man on the basis of stereotyped characterizations of the sexes"); [Torres, 859 F.2d at 1527-28](#) (distinguishing between "stereotyped characterizations of the sexes" and "real ... differences between men and women").

We are also of the opinion that **Johnson Controls'** well reasoned and scientifically documented decision to apply this policy to all fertile women employed in high lead exposure positions constitutes a bona fide occupational qualification. The evidence presented concerning the lingering effects of lead in a woman's body, combined with the magnitude of medical difficulties in detecting and diagnosing early pregnancy, lead us to agree with **Johnson Controls** that there exists a reasonable basis in fact to conclude that an extension of this policy to all fertile women is proper and reasonably necessary to further the industrial safety 899*899 concern of preventing the unborn child's exposure to lead.

Based upon the current status of research into lead's hazardous effects, we also agree that **Johnson Controls** has demonstrated to our satisfaction that exclusion of fertile women from positions in any area of its battery plant in which an employee has reported a blood lead level in excess of 30 µg/dl or where an air lead measurement has been in excess of 30 is reasonably necessary to the industrial safety-based concern of protecting the unborn child from lead exposure. At the time **Johnson Controls** adopted its policy, the 30 µg/dl lead exposure level coincided with the Centers for Disease Control's determination of acceptable blood lead levels for children. See n. 7, *supra*. However, it is becoming increasingly clear that the 30 µg/dl lead exposure level once believed to be safe for unborn children is no longer medically

accepted as risk free. As mentioned previously, the Centers for Disease Control, in 1985, based upon "current knowledge concerning screening, diagnosis, treatment, followup, and environmental intervention for children with elevated blood levels," revised the level of elevated lead exposure from 30 to 25 µg/dl and suggested that an unborn child's blood lead level remain below 25 µg/dl. As also noted previously, recent lead studies suggest that harm may be present at levels even lower than those earlier believed to be safe.^[40] Thus, lead absorption levels such as those mandated by OSHA, which were thought to have been sufficiently protective of the unborn child when they were enacted over ten years ago, are now considered insufficient. Medical knowledge is, indeed, a rapidly changing field as was noted in an early opinion:

"Surgical techniques have changed rapidly over the years.... Advances such as the transplanting of a heart and kidneys in the 1950's and 1960's or the reattachment of a severed hand or arm were unthought of many years ago. Future advances, particularly, in teaching hospitals, will be too extraordinary to even predict."

[Rod v. Farrell, 96 Wis.2d 349, 359, 291 N.W.2d 568, 573 \(1980\) \(Coffey, J., concurring\)](#). Recent advances in scientific knowledge demonstrate that **Johnson Controls'** cautious approach has been consistent with the emerging knowledge that the unborn child may be adversely affected by lead levels below those permitted by OSHA standards. An example of a similar practice found in everyday experience is the medical and dental professions' extreme care and caution in the use of X-ray procedures on pregnant women. These procedures are generally avoided during pregnancy and, when absolutely necessary, are performed in manners designed to minimize any possible danger to the unborn child.

The analysis that we have conducted under the bona fide occupational qualification standards of Title VII is analogous to the approach the Supreme Court took in the First Amendment context in [Sable Communications v. F.C.C., ___ U.S. ___, 109 S.Ct. 2829, 106 L.Ed.2d 93 \(1989\)](#). There the Supreme Court dealt with the question of whether Congress' ban on "dial-a-porn" services was narrowly tailored to serve a compelling governmental interest "in protecting the physical and psychological well-being of minors,"^[41] very similar to **Johnson's** interest in protecting the health of the unborn through the female employee. In the constitutional context, as in the bona fide occupational qualification context, when an entity attempts to further this type of interest it must be accomplished with "narrowly drawn regulations designed to serve those interests without unnecessarily interfering with First Amendment freedoms,"^[42] or, in this case, Title VII rights. The Court went on to apply this analysis in considering the 900*900 same type of question at issue in this case, whether the current status of technology requires a "total ban" or whether there are alternatives which would less comprehensively restrict the involved rights while still effectively furthering the relevant institutional interests. The Court determined that Congress' enactment was improper based upon its conclusion that "the congressional record contains no legislative findings that would justify us in concluding that there is no constitutionally acceptable less restrictive means, short of a total ban, to achieve the Government's interest in protecting minors." [Sable, 109 S.Ct. at 2838](#). The Court's analysis began:

"The Government ... argues that the total ban on indecent commercial telephone communications is justified because nothing less could prevent children from gaining access to such messages. We find the argument quite unpersuasive. The FCC, after lengthy proceedings, determined that its credit card, access code, and scrambling rules were a satisfactory solution to the problem of keeping indecent dial-a-porn messages out of the reach of minors. The Court of Appeals, after careful consideration, agreed that these rules represented a 'feasible and effective' way to serve the Government's compelling interest in protecting children. [[Carlin Communications, Inc. v. FCC, 837 F.2d 546, 555 \(2d Cir.\) \(Carlin III\), cert. denied, ___ U.S. ___, 109 S.Ct. 305, 102 L.Ed.2d 324 \(1988\)](#)]."

[Sable, 109 S.Ct. at 2837](#). The Supreme Court went on to note that it disagreed with the government's assertion that it had determined that there was not a technologically feasible means to further its interests other than through a complete ban. The Court set forth the government's position:

"The Government now insists that the rules would not be effective — that enterprising youngsters could and would evade the rules and gain access to communications from which they should be shielded. There is no evidence in the record before us to that effect nor could there be since the FCC's implementation of § 223(b) prior to its 1988 amendment has never been tested over time. In this respect, the Government asserts that in amending § 223(b) in 1988, Congress expressed its view that there was not a sufficiently effective way to protect minors short of the total ban that it enacted. The Government claims that we must give deference to that judgment."

Id. The Court in its rejection of this position stated:

"[T]he congressional record contains no legislative findings that would justify us in concluding that there is no constitutionally acceptable less restrictive means, short of a total ban, to achieve the Government's interest in protecting minors.

There is no doubt Congress enacted a total ban on both obscene and indecent telephone communications. But aside from conclusory statements during the debate by proponents of the bill, as well as similar assertions in hearings on a substantially identical bill the year before, that under the FCC regulations minors could still have access to dial-a-porn messages, the Congressional record presented to us contains no evidence as to *how* effective or ineffective the FCC's most recent regulations were or might prove to be. It may well be that there is no fail-safe method of guaranteeing that never will a minor be able to access a dial-a-porn system.... No Congressman or Senator purported to present a considered judgment with respect to how often or to what extent minors could or would circumvent the rules and have access to dial-a-porn messages. On the other hand, in the hearings on H.R. 1786, the Committee heard testimony from the FCC and other witnesses that the FCC rules would be effective and should be tried out in practice....

For all we know from the record, the FCC's technological approach to restricting dial-a-porn messages to adults who seek them would be extremely effective, and only a few of the most enterprising and disobedient young people will manage to secure access to such messages. If this is the case it seems to us 901*901 that § 223(b) [the total ban] is not a narrowly tailored effort to serve the compelling interest of preventing minors from being exposed to indecent telephone messages."

Id. at 2838-39 (citations and footnotes omitted, emphasis in original). In contrast to the government in *Sable*, as noted above, **Johnson Controls** researched, innovated and spent at least \$15 million in lead control policies and has been unable to devise a policy other than the exclusion of fertile women from high lead exposure positions that would be capable of adequately serving **Johnson's** legitimate interest in protecting the health of the unborn. There has been no convincing exposition in the record of any suitable alternative or of scientific, medical or technical evidence supporting the efficacy of such an alternative. We believe that in a bona fide occupational qualification case, as in a business necessity case, we are constrained by the maxim that: "'Courts are generally less competent than employers to restructure business practices,' [Fumco Construction Corp. v. Waters](#), 438 U.S. 567, 578, 98 S.Ct. 2943, 2950, 57 L.Ed.2d 957 (1978); consequently, the judiciary should proceed with care before mandating that an employer must adopt [an alternative employment practice] in response to a Title VII suit." [Wards Cove](#), 109 S.Ct. at 2127. Accordingly, the absence of economically and technologically feasible alternatives to **Johnson Controls'** fetal protection policy also supports a bona fide occupational qualification determination.

There is a reasonable basis in fact, grounded in medical and scientific research data, for concluding that **Johnson Controls'** has met its burden of establishing that the fetal protection policy is reasonably necessary to industrial safety.^[43] Thus, the fetal protection policy should be recognized as establishing a bona fide occupational qualification protecting the policy against claims of sex discrimination.

VI.

A business necessity defense should be applied to a challenge to a fetal protection policy under Title VII. **Johnson Controls** has produced facts which would demonstrate the availability of such a defense and the UAW has failed to carry its burden of persuasion through exposition of facts necessary to present a genuine issue of material fact with respect to the absence of such a defense. Even if the bona fide occupational qualification defense is applied to this matter, **Johnson Controls** has demonstrated that its fetal protection policy is reasonably necessary to industrial safety. Thus, the district court's entry of summary judgment in favor of **Johnson Controls** is

AFFIRMED.

CUDAHY, Circuit Judge, dissenting:

I respectfully dissent from the majority opinion. I would be pleased to join almost all of Judge Easterbrook's eloquent dissent except for its disposition of the case. Here I join Judge Posner's equally cogent statement, which adopts the BFOQ standard but advocates remand for a full trial on that basis. It may (and should) be difficult to establish a BFOQ here but I would afford the defendant an opportunity to try.⁴¹ I 902*902 agree with Judge Easterbrook that this "is likely the most important sex-discrimination case in any court since 1964 ..." and its painful complexities are manifestly unsuited for summary judgment. In any event, the BFOQ defense is clearly the only one the statute allows in this disparate treatment case. It is unfortunate that the majority gives a new life of sorts to the result-oriented gimmickery of [Wright v. Olson Corp., 697 F.2d 1172 \(4th Cir.1982\)](#).

It is a matter of some interest that, of the twelve federal judges to have considered this case to date, none has been female. This may be quite significant because this case, like other controversies of great potential consequence, demands, in addition to command of the disembodied rules, some insight into social reality. What is the situation of the pregnant woman, unemployed or working for the minimum wage and unprotected by health insurance, in relation to her pregnant sister, exposed to an indeterminate lead risk but well-fed, housed and doctored? Whose fetus is at greater risk? Whose decision is this to make? We, who are unfortunately all male, must address these and other equally complex questions through the clumsy vehicle of litigation. At least let it be complete litigation focusing on the right standard.

POSNER, Circuit Judge, dissenting.

Johnson Controls refuses to employ any woman to make batteries unless she presents medical evidence of sterility. Today this court holds the refusal lawful under Title VII. A reader of the majority opinion might be excused for thinking that the case had been fully tried — and before this court — rather than decided by a district judge on a motion for summary judgment. I think it a mistake to suppose that we can decide this case once and for all on so meager a record. It is a mistake whether we affirm, on the ground that the evidence of danger to the fetus of a woman working in an environment dense with airborne lead, combined with evidence of the difficulty of reducing the amount of lead any further, conclusively establishes the lawfulness of **Johnson Controls'** policy; or reverse, with directions to enter judgment for the plaintiffs, on the ground that Title VII outlaws all fetal protection policies because all bear more heavily on female than on male workers.

Title VII forbids an employer deliberately to exclude a worker from a particular job because of the worker's sex unless sex is a "bona fide occupational qualification reasonably necessary to the normal operation of that particular business or enterprise." 42 U.S.C. § 2000e-2(e)(1). This defense is central to the appeal and we should attend carefully to its scope and meaning. It is written narrowly and has been read narrowly. See, e.g., [Dothard v. Rawlinson, 433 U.S. 321, 332-37, 97 S.Ct. 2720, 2728-31, 53 L.Ed.2d 786 \(1977\)](#); [Torres v. Wisconsin Dept. of Health & Social Services, 859 F.2d 1523, 1527-28 \(7th Cir.1988\)](#). There is no useful legislative history concerning the defense, and — no doubt because the prohibition of sex discrimination was added to Title VII at the last minute — 903*903 no reference at all to the application of the defense to sex discrimination. A narrow reading is, nevertheless, inevitable. A broad reading would gut the statute. For it is unlikely that most employment discrimination in the private sector is

irrational. Few private employers discriminate without having some reason for doing so; competition tends to drive from the market firms that behave irrationally. See Becker, *The Economics of Discrimination* (2d ed. 1971). If the defense of bona fide occupational qualification were broadly construed — for example, to excuse all sex discrimination that the employer could show was cost-justified — very little sex discrimination in employment, as well as very little employment discrimination based on religion or national origin (forms of discrimination that, like sex discrimination but unlike discrimination based on race or color, are also excused if a bona fide occupational qualification is established), would be forbidden. Title VII's reach would be shortened drastically.

Two courts of appeals faced with challenges under Title VII to fetal protection policies have concluded that such policies can never satisfy the stringent requirements of the occupational qualification defense. See [Wright v. Olin Corp.](#), 697 F.2d 1172, 1185 (4th Cir.1982); [Hayes v. Shelby Memorial Hospital](#), 726 F.2d 1543, 1549 (11th Cir.1984). But this conclusion, rather than resulting in instant victory for the plaintiffs, led those courts to stitch a new defense expressly for fetal protection cases. See 697 F.2d at 1183-92; 726 F.2d at 1548-54. I am not myself deeply shocked that courts sometimes rewrite statutes to address problems that the legislators did not foresee — a notable but not isolated example being the judicial interpolation of the word "reasonable" into section 1 of the Sherman Act to prevent that atomization of society that Justice Holmes so feared. See [National Society of Professional Engineers v. United States](#), 435 U.S. 679, 687-88, 98 S.Ct. 1355, 1363-64, 55 L.Ed.2d 637 (1978); [Northern Securities Co. v. United States](#), 193 U.S. 197, 410, 24 S.Ct. 436, 471, 48 L.Ed. 679 (1904) (Holmes, J., dissenting). Speaking of Holmes, he wrote a splendid opinion holding that a requirement in the Massachusetts constitution of a "written vote" could be satisfied by a voting machine that involved no writing. See [In re House Bill No. 1,291](#), 178 Mass. 605, 60 N.E. 129 (1901). And in the famous "murdering heir" case, [Riggs v. Palmer](#), 115 N.Y. 506, 22 N.E. 188 (1889), the court in effect inserted the words "unless the legatee murdered his testator" into a statute that entitled legatees to inherit under wills executed with the proper formalities. (Notice the age of these last two cases; they were not the work of newfangled judicial activists.) Recently the First Circuit struck two words from a federal statute to make it make sense. See [United States v. Colon-Ortiz](#), 866 F.2d 6, 11 (1st Cir.1989). There are many similar examples. I do not think judges must or should ratify absurd results by sticking doggedly to the plain meaning of statutory language.

But we do not need to bite this bullet here, because the wording of the occupational qualification provision is not so cramped that it has to be stretched to bring (some) fetal protection policies within its scope. Cf. [Pime v. Loyola University](#), 803 F.2d 351, 356-57 (7th Cir.1986) (concurring opinion). Nor is a defensible way of stretching it to recast what is plainly a disparate treatment case — that is, a case of intentional discrimination against a protected group — as a disparate impact case, and then invoke the recent decision in which the Supreme Court expanded the "business necessity" defense. See [Wards Cove Packing Co. v. Atonio](#), U.S. , 109 S.Ct. 2115, 104 L.Ed.2d 733 (1989); also [Allen v. Seidman](#), 881 F.2d 733 (1989). This legerdemain is as unnecessary as it is questionable. "[R]easonably necessary," one of the key terms of the occupational qualification defense, means more than just reasonable but less than absolutely necessary. On the way to concluding that the defense is unavailable in fetal protection cases the court in [Wright](#) misquoted the provision by leaving out the word "reasonably," see 697 F.2d at 1185 n. 21, and the misquotation is faithfully repeated in [Hayes](#), see 726 F.2d at 1549. The other key words of the defense, 904*904 "normal operation" (emphasis added), should dispel concern that consideration of all interests other than the employer's interest in selling a quality product at the lowest possible price is precluded. It is possible to make batteries without considering the possible consequences for people who might be injured in the manufacturing process, just as it would be possible to make batteries with slave laborers, but neither mode of operation would be normal. To confine the occupational qualification defense to concerns with price and product quality would deny a defense to **Johnson Controls** even if the company excluded only pregnant women, as distinct from all women who might become pregnant, from making batteries. I do not understand the plaintiffs to be arguing that Title VII requires **Johnson Controls** to permit women known to be pregnant to continue working in an atmosphere dense with lead. If on the other hand a fetal protection policy that excludes women from a given job classification cannot be said to be reasonably necessary to the employer's normal operation, I do not see why we should want to save it from condemnation under Title VII.

I have described what I conceive to be the scope of the bona fide occupational qualification defense, and its application to sex discrimination, as of the original enactment of Title VII. I must now consider the bearing of the Pregnancy Discrimination Act of 1982, which amended Title VII by defining sex discrimination to include discrimination on the basis of pregnancy. The only section amended was the definition section, 42 U.S.C. § 2000e(k). The prima facie case of sex discrimination was broadened; the defenses remained unchanged. [Maybe *Scherr v. Woodland School Community Consolidated District No. 50*, 867 F.2d 974, 978 \(7th Cir.1988\)](#), goes too far in saying that "as a definition amendment, the PDA provides no substantive rule to govern pregnancy discrimination." For one thing, the amendment shows that the present case really is a disparate treatment case, that is, a case of intentional discrimination that can be excused only if the defendant establishes a bona fide occupational qualification; the amendment makes fertile women, the group that **Johnson Controls** deliberately excluded from a job classification, a group protected by Title VII. The amendment also helps us understand that the occupational qualification defense could not be merely a cost justification or reasonable relation defense, for if it were, the amendment would be ineffectual. Any employer can prove that it costs *something* to make an accommodation for pregnant or potentially pregnant workers and therefore that it is rational not to make the accommodation. But we already knew the defense was a narrow one.

The defense is applicable to this case and although it is of limited scope it is not the proverbial eye of a needle. In particular, the "normal operation" of a business encompasses ethical, legal, and business concerns about the effects of an employer's activities on third parties. An employer might be validly concerned on a variety of grounds both practical and ethical with the hazards of his workplace to the children of his employees. A pregnant employee exposed to heavy concentrations of lead in the air may absorb the lead into her bloodstream and from there transmit it to her fetus through the placenta, causing, years later, mental retardation or other injury to the child. The parties agree that there is a solid medical basis for concern with fetal injury from airborne lead in the concentration found in battery plants, and this concern could in turn cause the employer to worry about being sued by injured children of his employees. Such a suit would not be preempted by workers' compensation law, because the plaintiff would not be the worker. The employer would therefore be exposed to full common law damages, punitive as well as compensatory. The mother's own negligence — for if she had been clearly warned of the hazard, but voluntarily became pregnant anyway and continued to work making batteries, she would be acting negligently with regard to the fetus — would not be imputed to the child and therefore would not reduce the employer's liability. See, e.g., [Collins v. Eli Lilly Co.](#), 116 Wis.2d 166, 200 n. 14, 342 N.W.2d 37, 53 n. 14 (1984); [In re Estate of Infant](#) 905*905 *Fontaine*, 128 N.H. 695, 519 A.2d 227, 230 (1986); [Fabianke v. Weaver](#), 527 So.2d 1253, 1258 (Ala.1988). It would merely make the mother a joint tortfeasor with the employer. Moreover, she might not be negligent; the pregnancy might be involuntary, and lead can injure the fetus before the mother knows she is pregnant.

Some courts have said that to create liability, the injury to the fetus must occur after the fetus has become viable (able to survive outside the mother's body). And as I just noted, lead in the mother's bloodstream can enter the fetus very early in the pregnancy — this presumably is the reason that **Johnson Controls'** fetal protection policy is so strict. But the distinction between injury to the fetus before it becomes viable and injury after makes no sense with regard to tort liability — since the plaintiff is the child, not the fetus — and has generally and correctly been rejected. See, e.g., [Renslow v. Mennonite Hospital](#), 67 Ill.2d 348, 10 Ill.Dec. 484, 367 N.E.2d 1250 (1977); [Bergstreser v. Mitchell](#), 577 F.2d 22 (8th Cir.1978); Prosser and Keeton on the Law of Torts § 55, at pp. 368-69 (5th ed. 1984).

Other questions concerning tort liability remain unanswered — in particular whether the standard of liability is negligence or strict liability and whether compliance with OSHA's rules on safe levels of airborne lead is a defense. As a result it is difficult to estimate **Johnson Controls'** exposure to tort liability, but it would be premature, in this age of mass-tort suits (which for example drove the asbestos industry into bankruptcy), to dismiss it as trivial. The possibility of tort suits against battery manufacturers for lead injury to the child of a female employee is not merely a theoretical one. There has already been one reported case; the plaintiff got to a jury, but lost. See [Security National Bank v. Chloride, Inc.](#), 602 F.Supp. 294 (D.Kan.1985). It is true that **Johnson Controls** has not yet attempted to document its liability concerns (one can understand the company's reluctance, by drawing public attention to its exposure to

tort liability, to invite suits). But in moving for summary judgment the company was not required to present all its evidence to the district judge on pain of being barred from presenting it at the trial that I believe should be held to determine whether sex is a bona fide occupational qualification for making batteries.

We should not dismiss the concern over tort liability as a narrow, selfish "bottom line" concern irrelevant to the purposes of Title VII. The potential cost of tort liability to **Johnson Controls** is an approximation of the potential cost to the children who have suffered prenatal injury from the airborne lead absorbed into their mothers' bloodstreams. That is a social cost that Title VII does not require a company to ignore. At some point it may become large enough to affect the company's normal method of operation and supply the ground for a bona fide occupational qualification of infertility.

A related point is that an employer might have moral qualms about endangering children or might fear the effect on his public relations. The ethical concern cannot be wholly dismissed, as could an ethical conviction that a woman's place is in the home. We know from the controversy over abortion that many people are passionately protective of fetal welfare, and they cannot all be expected — perhaps they cannot be required — to park their passions at the company gate. That "strong [state] interest in protecting the potential life of the fetus" of which the Supreme Court spoke in [Maher v. Roe, 432 U.S. 464, 478, 97 S.Ct. 2376, 2385, 53 L.Ed.2d 484 \(1977\)](#), and other cases is not a judicial invention; it is the product of a groundswell of powerful emotion by a significant part of the community, and is only indirectly, although possibly substantially, in conflict with women's workplace aspirations. Granted, in [Doe v. First National Bank, 865 F.2d 864, 873 \(7th Cir.1989\)](#), we assumed that the Pregnancy Discrimination Act forbids an employer to fire a woman for having an abortion, and although the point had not been argued our assumption may well have been correct. See H.Conf.Rep. No. 1786, 95th Cong., 2d Sess. 4 (1978), U.S.Code Cong. & Adm.News 1978, pp. 4749, 4766 ("no employer may, for example, fire or refuse to hire a woman simply because she has exercised 906*906 her right to have an abortion"). If so, the result is to place a limitation on an employer's effort to protect fetal life. But the Pregnancy Discrimination Act affects only the prima facie case of sex discrimination. The defenses are untouched. No defense of bona fide occupational qualification was pleaded in *Doe*.

If the hazard to the fetus from airborne lead in the mother's workplace is sufficiently great, if the amount of lead in the environment cannot be reduced without discontinuing the production of batteries, and if experience demonstrates that some women will become pregnant even after being clearly warned of the hazards to which the fetus would be exposed (there are many careless pregnancies, as is shown by the frequency of abortion and of illegitimate birth), I can find nothing in the text of the statute, or in its history or purpose, to prevent an employer from defending his refusal to allow fertile women to work in jobs in which they are exposed to dangerous concentrations of airborne lead on the ground that such refusal is reasonably necessary to the normal (civilized, humane, prudent, ethical) operation of his particular business. It is a matter of degree, and this we cannot assess on a summary judgment record. Of course the acceptance of the defense might be a hardship for those women who, though fertile, would not become pregnant. But hardship for the plaintiff is a possibility whenever a defense is sustained. It is no more than a possibility here, as we shall see.

Let us not be deceived by superficial historical analogies or facile invocations of "paternalistic." It is true that laws discriminating against women were once defended on the basis of a compelling social interest in protecting their fitness to bear and raise children, see, e.g., [Muller v. Oregon, 208 U.S. 412, 421-22, 28 S.Ct. 324, 326-27, 52 L.Ed. 551 \(1908\)](#), that this ground may have masked a desire to prevent women from competing with men for jobs (in any event this may have been the effect, see Landes, *The Effect of State Maximum Hours Laws on the Employment of Women in 1920*, 88 J.Pol.Econ. 476 (1980)), and that many modern American women resent the suggestion that women have a special responsibility for perpetuating the human race. But we do not have a discriminatory law here. A law that commands all employers in a given line of business to treat women specially cannot be equated to a decision by a firm in a competitive market to treat them specially, if only because in the latter case other firms are free to follow a different course. There is also a difference between protecting women against themselves as well as protecting children, and protecting an employer and his employees' unborn children. A paternalistic measure is one that protects a person against himself, and insofar as **Johnson Controls** was motivated

in adopting its fetal protection policy by concern with tort liability or adverse public relations, it was acting to protect its own interests. A fetus, moreover, is a different person (or proto-person) from its mother, and not all pregnant women fully internalize the welfare of their fetus, infant, or child. There are plenty of selfish and irresponsible parents, not all of whom are male. A fetal protection policy is less paternalistic than a maximum-hours law.

I conclude that Title VII even as amended by the Pregnancy Discrimination Act does not outlaw all fetal protection policies. Whether a particular policy is lawful is a question of fact, and since the burden of proof is on the defendant it will be the rare case where the lawfulness of such a policy can be decided on the defendant's motion for summary judgment. This is not that rare case. Even if we accept that the amount of airborne lead in **Johnson Controls'** battery-making operation is dangerous to the fetuses of female employees and that the company cannot reduce the danger further without shutting down the operation, a host of unanswered questions remains. The first concerns the feasibility of warnings as a substitute for a blanket exclusion of all fertile women. Before **Johnson Controls** adopted the blanket exclusion, eight women employed in the battery operation had become pregnant in three years. But we do not know what fraction of women employed in the operation this was, because 907*907 — remarkably — the record does not reveal the number of women employed in the operation. And the only warning that was in effect during that period was one more likely to allay than to arouse concern. It compared the fetal hazards of airborne lead to those of cigarette smoking, and many women do not believe that smoking is highly hazardous to the fetus. The plaintiffs believe that a real "scare" warning would have deterred those eight pregnancies; maybe they are right.

We do not know what other manufacturers of batteries do about the hazards of airborne lead to the fetus — whether they are content to rely on warnings, for example, and if so of what kind and with what effect. Apparently General Motors once had a fetal-protection policy identical to that of **Johnson Controls**, see Sirota, *Sex Discrimination: Title VII and the Bona Fide Occupational Qualification*, 55 Tex. L.Rev. 1025, 1058 n. 198 (1977); I have no idea whether it still does. The evidence of record concerning the potential hazard to the fetus through a father exposed to airborne lead is fragmentary and stale, yet if that hazard is significant the fact that **Johnson Controls** does nothing about it undermines the company's argument that its fetal protection policy is motivated by concern for the fetus and reasonably necessary to the operation of the battery business. See [Levin v. Delta Air Lines, Inc., 730 F.2d 994, 998-99 \(5th Cir.1984\)](#). The evidentiary gap is due in part to the fact that the record on which the district judge based his grant of summary judgment was closed two and half years ago. A further consequence of the aging of the record is that we lack up-to-date information on the hazards of airborne lead to the fetus even through the mother. The record is also blank on the wages and alternative employment opportunities of the women employed in **Johnson Control's** battery operation. These data would be pertinent to the plaintiffs' ingenious although speculative argument that by depriving women of high-paying jobs, fetal protection may reduce women's expenditures on fetal and child care, possibly harming the fetus and child as much as do the environmental hazards against which those policies are directed.

We also do not know how profitable the business of manufacturing batteries is, and therefore how vulnerable it is to fears, as yet speculative, of litigation arising from fetal damage. (The case at this stage is a tissue of speculation.) Apparently a vaccine was once withdrawn temporarily from the market because of fears of possible litigation, see H.R.Rep. No. 908, 99th Cong., 2d Sess. 6 (1986); see generally Gaskins, *Environmental Accidents: Personal Injury and Public Responsibility* 161-62 (1989), and the lower the profit margin in making batteries the more plausible a concern with possible litigation becomes. The plaintiffs would have won a Pyrrhic victory if as a result of their winning this suit **Johnson Controls** shut down its battery operation, or if, as has happened with so many products formerly manufactured in this country, production shifted overseas and American automobile makers — which already use plenty of imported components — imported batteries made by companies that may have no regard either for fetal safety or for women's welfare. If **Johnson Controls** terminated its battery operation as a result of this suit, the plaintiffs would be in the same position as if the occupational qualification defense had prevailed except that they might — which is to say, realistically, that their lawyers might — recover attorney's fees. A "failing company" or "failing division" component of the occupational qualification defense makes at least as much sense as the counterpart provision in antitrust law.

Even on the limited record before us, however, it is clear that the defendant's fetal protection policy is excessively cautious in two regards: first in presuming that any woman under the age of 70 is fertile, and second in excluding a presumptively fertile woman from any job from which she might ultimately be promoted into battery making, even if her present job does not expose her to lead. Since these aspects of the policy are severable from the rest of it I do not think their deficiencies need condemn the entire policy, especially since the first is harmless because a woman 90*90 too old to bear children has only to submit a letter to that effect from her doctor to be permitted to work in the battery plant. But these deficiencies do underscore the precipitancy of deciding this case in the defendant's favor on the basis of the present record. It is not enough that an employer has *some* reason for adopting a policy that discriminates against women. [Otherwise Los Angeles Dept. of Water & Power v. Manhart, 435 U.S. 702, 98 S.Ct. 1370, 55 L.Ed.2d 657 \(1978\)](#), which struck down gendered annuity tables, would have come out the other way. Yet it would be a mistake to infer from *Manhart* that policies that lump all (or most) women into a class for unfavorable treatment are therefore unlawful per se. They are discriminatory, but this just means that the employer must shoulder the burden of establishing that the classification which excludes women is reasonably necessary to the normal operation of his business. That the occupational qualification defense remains available in such cases is implicit in the Court's discussion of the defense in *Manhart*. See *id.* at 716 n. 30, 98 S.Ct. at 1379 n. 30.

The issue of the legality of fetal protection is as novel and difficult as it is contentious and the most sensible way to approach it at this early stage is on a case-by-case basis, involving careful examination of the facts as developed by the full adversary process of a trial. The record in this case is too sparse. The district judge jumped the gun. By affirming on this scanty basis we may be encouraging incautious employers to adopt fetal protection policies that could endanger the jobs of millions of women for minor gains in fetal safety and health.

But although the defendant did not present enough evidence to warrant the grant of summary judgment in its favor, there is no ground for barring it from presenting additional evidence at trial. Therefore it would be equally precipitate for us to direct the entry of judgment in the plaintiffs' favor — something that the plaintiffs in the conclusion of their brief do not ask us to do, even though Rule 28(a)(5) of the Federal Rules of Appellate Procedure requires the appellant to place at the end of his brief "a short conclusion stating the precise relief sought." They do argue earlier in the brief that **Johnson Controls'** fetal protection policy is invalid, and if accepted this argument would obviate the need for a trial. But it is premature to accept it, as the plaintiffs themselves may have realized in formulating their request for relief. We should be as hesitant to endanger the health of children by condemning all fetal protection policies as we should be hesitant to endanger the jobs of women by placing our imprimatur on such policies. We should vacate the district court's judgment and remand for further proceedings to enable the compilation of an adequate evidentiary record.

EASTERBROOK, Circuit Judge, with whom FLAUM, Circuit Judge, joins, dissenting.

Whether employers should restrain adults from engaging in acts hazardous to their children is an ethical, medical, economic, and political problem of great complexity. But this is a statutory case, and we must implement the law rather than give our own answer. **Johnson's** policy is sex discrimination, forbidden unless sex is a "bona fide occupational qualification" — which it is not.

I

Title VII of the Civil Rights Act of 1964 forbids employers "to discriminate against any individual ... because of such individual's ... sex", 42 U.S.C. § 2000e-2(a)(1), unless sex is a "bona fide occupational qualification reasonably necessary to the normal operation of that particular business or enterprise", 42 U.S.C. § 2000e-2(e)(1). Both the district court and the majority believe that the fetal protection policy may be lawful despite the absence of a BFOQ.

A

Johnson uses sex as a ground of decision. The fetal protection policy applies to all women and no men. It is not written without reference to gender, having an unwelcome 909*909 side effect. Cf. [Personnel Administrator of Massachusetts v. Feeney](#), 442 U.S. 256, 99 S.Ct. 2282, 60 L.Ed.2d 870 (1979). Differences between the sexes are its stated rationale. Only women transmit lead to children during pregnancy. Because a few women become pregnant with elevated levels of lead in the blood (in four years, eight out of an unknown number), **Johnson** excludes all women from the danger zone. This treats an employee not as an individual but as a woman. A plan using sex as a criterion and justified by arguments referring to sex is "discriminat[ion] ... because of ... sex". [Los Angeles Department of Water & Power v. Manhart](#), 435 U.S. 702, 98 S.Ct. 1370, 55 L.Ed.2d 657 (1978).

[General Electric Co. v. Gilbert](#), 429 U.S. 125, 97 S.Ct. 401, 50 L.Ed.2d 343 (1976), held that a rule distinguishing on account of pregnancy is not sex discrimination, because women are in both the "pregnant" and "non-pregnant" groups. See also [Geduldig v. Aiello](#), 417 U.S. 484, 94 S.Ct. 2485, 41 L.Ed.2d 256 (1974). The Court saw the line as one between pregnant employees and all others, a line based on something other than sex (or at least something in addition to sex). **Johnson's** line based on *ability* to become pregnant, however, is assuredly based on sex. That would be ground for distinguishing *Gilbert*, but Congress interred *Gilbert* in 1978 by enacting the Pregnancy Discrimination Act, 42 U.S.C. § 2000e(k) (the PDA), which provides:

The terms "because of sex" or "on the basis of sex" [in Title VII] include, but are not limited to, because of or on the basis of pregnancy, childbirth, or related medical conditions; and women affected by pregnancy, childbirth, or related medical conditions shall be treated the same for all employment-related purposes ... as other persons not so affected but similar in their ability or inability to work....

This amendment to Title VII makes distinctions based on women's ability to bear children sex discrimination. It also has a built-in BFOQ standard: unless pregnant employees differ from others "in their ability or inability to work", they must be treated "the same" as other employees "for all employment-related purposes". Although located in a definitional provision, the language after the semicolon is substantive and governs **Johnson's** plan.

[Wright v. Olin Corp.](#), 697 F.2d 1172 (4th Cir.1982), the only other appellate decision that has dealt with a fetal protection policy similar to **Johnson's**, took a different view.^[1] *Wright* observed that a policy using sex as a ground of decision may cause women no more injury than a policy neutral with regard to sex, yet having a disparate impact. A policy designed to promote the health of offspring of both sexes is neutral in objective. A sex-neutral policy is judged under an approach more lenient than the BFOQ standard. Believing that a fetal protection policy rests on strong justifications, *Wright* treated the policy as sex-neutral so that it could sustain a rule functionally identical to **Johnson's**. [697 F.2d at 1184-92](#).

This makes things turn not on whether the employer uses sex as a ground of decision but on whether the employer uses sex to serve a "good" policy. If the policy is beneficent and the injury to women "tolerable" in light of the interests served, the court changes the standard of inquiry. Yet whether a policy is "good" is a statutory question, governed by the BFOQ test stated in § 2000e-2(e)(1) and the supplemental rule of the PDA that women and men who are "similar in their ability or inability to work" must be treated the same. A court's belief that a good end is in view does not justify departure from the statutory framework; it is an occasion for applying the statutory framework. *Wright* ignored 910*910 the PDA and inverted ordinary rules of statutory interpretation when stating (with echoes in the majority's opinion today): "The inappropriateness of applying the overt discrimination/b.f.o.q. theory of claim and defense ... is that, properly applied, it would prevent the employer from asserting a justification defense which under developed Title VII [disparate impact] doctrine it is entitled to present." [697 F.2d at 1182 n. 21](#). In other words, this *must* be a disparate impact case because an employer couldn't win it as a disparate treatment case. If the rigors of the BFOQ suggest the need for a fresh approach, that is a job for another branch. See [TVA v. Hill](#), 437 U.S. 153, 98 S.Ct. 2279, 57 L.Ed.2d 117 (1978). Cf. [Richmond v. J.A. Croson Co.](#),

[U.S. _____, 109 S.Ct. 706, 720-23, 102 L.Ed.2d 854 \(1989\)](#) (the standard for reviewing decisions based on race does not depend on the strength of the justification or on who gains from its use).

In principle a court could make the legal standard turn on what the authors of a rule are trying to accomplish, rather than on the criteria they use to get there. Whether to do so was the nub of the debate in *Manhart*. Los Angeles adopted a pension plan that collected more per month from women during employment and paid retired women the same per month as men. The city defended the policy by observing that the sums collected matched the actuarial value of the payments over the retired employees' lives, because the average woman lives longer than the average man and so receives more monthly checks. Was it sex discrimination prohibited by Title VII? The women said yes, on the ground that every woman paid more per month than every man. The difference was based on sex and justified by an effect (longevity) linked with sex. The employer said no, on the ground that the pension was worth the contributions *ex ante* to men and women equally, and the groups therefore were treated equally. Only by using sex as a ground of decision, the employer pointed out, could it achieve actuarial equality. The Court held that the policy was sex discrimination, because the city used sex as the basis of decision. That this criterion produced equal outcomes for groups was irrelevant in the Court's view, because Title VII requires employees to be treated *as individuals*. To say that sex had been considered in order to achieve equal group averages, the Court believed, was to confess a violation of the law. See also [Arizona Governing Committee v. Norris, 463 U.S. 1073, 103 S.Ct. 3492, 77 L.Ed.2d 1236 \(1983\)](#).

Manhart establishes two propositions that together are fatal to **Johnson's** position. First, Title VII requires equal treatment of employees as persons rather than equal treatment of groups defined by sex (or race, or any other criterion listed in the statute). Observing that the average member of one group does as well as the average member of another does not support the use of any given ground of decision; indeed, resorting to notions of group equality begs the question how a statute presumptively forbidding the use of these criteria could permit them to be used to justify conduct. Second, that equal treatment of employees as persons will lead to higher costs of employing persons of a given sex is no defense. An obligation to pay men and women equal amounts per month after retirement and deduct from pay the same amount per month during employment means that the employer must contribute greater sums per month during women's working years. That incremental cost of female employees is, as the Court construed the statute, no reason to treat women differently. Again this is part of the idea of an anti-discrimination law. Women may have higher pension costs, or higher medical insurance costs (because of pregnancy), or take more days off because of sickness, or have shorter careers (again because of children). Title VII excludes these as reasons for preferring men, e.g., [Orzel v. City of Wauwatosa, 697 F.2d 743, 755 \(7th Cir.1983\)](#). The PDA, requiring equal treatment of employees "similar in their ability or inability to work", reinforces this conclusion.

Manhart's approach is the norm in antidiscrimination law. Consider, for example, the Supreme Court's first important sex 911*911 discrimination case under [Title VII, Phillips v. Martin Marietta Corp., 400 U.S. 542, 91 S.Ct. 496, 27 L.Ed.2d 613 \(1971\)](#). The employer refused to hire women with preschool-age children. Such a rule might have had benefits for the children, neutral with respect to sex, but the policy was not neutral. The Court brusquely held that the policy is disparate treatment, unlawful unless supported by a BFOQ. Next consider the "bottom line" defense rejected in [Connecticut v. Teal, 457 U.S. 440, 102 S.Ct. 2525, 73 L.Ed.2d 130 \(1982\)](#). The employer contended that so long as it hired persons in a mixture reflecting the applicants or population (the "bottom line"), it did not matter that steps along the way appeared to filter out members of one or another group. The Court disagreed, because an argument based on the bottom line treats persons as members of a group defined by sex (race, etc.) and proceeds as if the groups (rather than the applicants and employees) held the right to equal treatment. Title VII, as the Court saw it, requires the employer to treat the applicant as a person without regard to race, sex, etc., on every occasion. These cases, and others like them, dispatch arguments of the sort that because the employer pursues an end, children's welfare, defined without regard to sex, a rule of decision that uses sex as a criterion should be treated as if sex-neutral. Cf. [Palmore v. Sidoti, 466 U.S. 429, 104 S.Ct. 1879, 80 L.Ed.2d 421 \(1984\)](#) (same approach in constitutional law).

When the employer engages in sex, race, or age discrimination in an effort to protect customers or members of the public, courts regularly see this as disparate treatment, for which a BFOQ is essential. See [Johnson v. Mayor and City Council of Baltimore](#), 472 U.S. 353, 105 S.Ct. 2717, 86 L.Ed.2d 286 (1985); [Western Air Lines, Inc. v. Criswell](#), 472 U.S. 400, 422-23, 105 S.Ct. 2743, 2755-56, 86 L.Ed.2d 321 (1985); [Hahn v. City of Buffalo](#), 770 F.2d 12 (2d Cir.1985); [Heiar v. Crawford County](#), 746 F.2d 1190 (7th Cir.1984). There is no reason why things should be different when fetuses, rather than adult bystanders, are the object of the employer's protection.

[Furnco Construction Corp. v. Waters](#), 438 U.S. 567, 576, 98 S.Ct. 2943, 2949, 57 L.Ed.2d 957 (1978), says that the details of the "prima facie case" of discrimination, and the order of proof and rebuttal at trial, are flexible and should be adjusted to the circumstances. See also [Price Waterhouse v. Hopkins](#), ___ U.S. ___, 109 S.Ct. 1775, 104 L.Ed.2d 268 (1989). Our case does not concern the order of proof and methods of inference; **Johnson** expressly uses sex to make decisions. When Wisconsin excluded male guards from a women's prison, we saw this as disparate treatment and searched for a BFOQ. [Torres v. Wisconsin Department of Health and Social Services](#), 859 F.2d 1523, 1526-28 (7th Cir.1988) (en banc). Here, too, there is disparate treatment. Fetal protection policies therefore may be justified, if at all, as BFOQs.

A word about the enforcement policy of the Equal Employment Opportunity Commission. The Commission told its staff to use *Wright* and the elaboration of its approach in [Hayes v. Shelby Memorial Hospital](#), 726 F.2d 1543 (11th Cir.1984), when investigating fetal protection policies. Ordinarily the EEOC's views about the meaning of Title VII are entitled to deference. This policy, however, does not so much interpret Title VII as adopt guidelines for prosecution. Prosecutorial guidelines reflect limitations on the agency's resources and existing judicial interpretations; they do not define the meaning of the law. The Commission told its staff to follow the courts.¹² The guidelines do not discuss the PDA or *Manhart* and give no reason for adopting the *Wright-Hayes* approach as opposed to the BFOQ standard. This may be sound from a prosecutorial perspective but does not address the question in our case. If the EEOC's statement is designed as an interpretive rule, it is neither reasoned 912*912 nor consistent with Title VII. See [Public Employees Retirement System of Ohio v. Betts](#), ___ U.S. ___, 109 S.Ct. 2854, 2863, 106 L.Ed.2d 134 (1989).

B

The statute allows an employer to show that consideration of sex is "reasonably necessary to the normal operation of that particular business". [Dothard v. Rawlinson](#), 433 U.S. 321, 332-37, 97 S.Ct. 2720, 2728-30, 53 L.Ed.2d 786 (1977); [Criswell](#), 472 U.S. at 422-23, 105 S.Ct. at 2755-56; [Torres](#), 859 F.2d at 1527. The plaintiffs argue that "the sex based practice involved here should ... be held invalid" (Br. 44) because the reasons **Johnson** offers cannot establish a BFOQ even if factually supported. The Fourth Circuit (unlike the majority of this court) believes that as a matter of law a fetal protection policy does not satisfy the standards for a BFOQ, see [Wright](#), 697 F.2d at 1185 n. 21, and I think it has this much correct for two reasons: **Johnson's** stated objectives are insufficient, and even if sufficient do not apply to all women.

Johnson defends its fetal protection policy on the basis of concern for the welfare of the next generation, an objective unrelated to its ability to make batteries (§ 2000e-2(e)(1) speaks of the "operation of the business") or to any woman's "ability or inability to work" (the standard of the PDA). **Johnson** allowed women to work until 1982, without ill effects on its business; for all we know (the record is silent), other firms in the same business employ women in the kinds of jobs from which **Johnson** excludes them. The majority does not mention the PDA, which, added to the BFOQ rule, puts out of bounds the justifications **Johnson** offers.

At oral argument before the panel counsel offered a new defense of **Johnson's** policy: that it is morally required to protect children from their parents' mistakes. This justification is redolent of [Muller v. Oregon](#), 208 U.S. 412, 28 S.Ct. 324, 52 L.Ed. 551 (1908), which sustained a statute curtailing women's hours of work on the ground that maternal functions unsuited women for long hours. The Court wrote:

[B]y abundant testimony of the medical fraternity continuance for a long time on her feet at work, repeating this from day to day, tends to injurious effects upon the body, and as healthy mothers are essential to vigorous offspring, the physical well-being of woman becomes an object of public interest and care in order to preserve the strength and vigor of the race.... [H]er physical structure and a proper discharge of her maternal functions — having in view not merely her own health, but the well-being of the race — justify legislation to protect her from the greed as well as the passion of man. The limitations which this statute places upon her contractual powers ... are not imposed solely for her benefit, but also largely for the benefit of all.

[208 U.S. at 421-22](#), [28 S.Ct. at 326-27](#). The "abundant testimony of the medical fraternity" turned out to be the triumph of imagination over data. Dangers decried in *Muller* are today perceived as chimerical, excuses for blockading women as effective competitors of men in the labor force. Legislation of the sort allowed by *Muller* "protected" women out of their jobs by making women less attractive as employees. An employer that needed flexibility in assigning hours of work had to hire men; women were consigned to jobs with regular hours but lower wages. See Elisabeth M. Landes, *The Effect of State Maximum Hours Laws on the Employment of Women in 1920*, 88 J.Pol.Econ. 476 (1980) (finding that "protective" legislation reduced women's hours, hourly wages, and annual income). Such laws also treat women in a stereotypical way. State laws requiring or allowing employers to treat women differently, on the assumption that women are less able than men to take the precautions essential for healthy children, are preempted by Title VII — not because of an express preemption clause, but because no state law may require or excuse a violation of federal law. [Rosenfeld v. Southern Pacific Co.](#), 444 F.2d 1219, 1225-27 (9th Cir. 1971). Statutes of the sort sustained in *Muller*, supported by the justifications advanced 913*913 in *Muller*, are museum pieces, reminders of wrong turns in the law. It is not enough to say that **Johnson** is a private employer while *Muller* dealt with state laws. Title VII is addressed to private employers. The question is whether a justification of a particular kind is an acceptable defense of sex discrimination. This justification is not. No legal or ethical principle compels or allows **Johnson** to assume that women are less able than men to make intelligent decisions about the welfare of the next generation, that the interests of the next generation always trump the interests of living woman, and that the only acceptable level of risk is zero. "[T]he purpose of Title VII is to allow the individual woman to make that choice for herself." [Dothard](#), 433 U.S. at 335, 97 S.Ct. at 2730.

Although some women may become pregnant, and a subset of their children might suffer, **Johnson** cannot exclude all fertile women from its labor force on their account. Most women in an industrial labor force do not become pregnant,^[3] most of these will have blood lead levels under 30 µg/dl (only about 1/3 of the employees exposed to lead at **Johnson's** plants have higher levels); most of those who become pregnant with levels exceeding 30 µg/dl will bear normal children (**Johnson** reports no birth defects or other abnormalities in the eight pregnancies among its employees).^[4] Concerns about a tiny minority of women cannot set the standard by which all are judged. An employer establishes a BFOQ only if there is "a factual basis for believing that all or substantially all women would be unable to perform safely and efficiently the duties of the job involved." [Weeks v. Southern Bell Telephone & Telegraph Co.](#), 408 F.2d 228, 235 (5th Cir. 1969), quoted with approval in [Dothard](#), 433 U.S. at 333, 97 S.Ct. at 2728, and adopted as the law of this circuit in [Torres](#), 859 F.2d at 1527, 1530. Fear of prenatal injury (which has not happened in the history of the employer) is a far cry from something that prevents "all or substantially all" women from doing their jobs.

To meet the "all or almost all" requirement, **Johnson** relies on an elaboration of the BFOQ for age discrimination offered in customer-safety cases: if all persons over a certain age are unsafe pilots (drivers, police officers, etc.), or if it is impossible to tell which of the older employees is unsafe, then age may be a BFOQ for employment. E.g., [EEOC v. Mississippi State Tax Commission](#), 873 F.2d 97, 98 (5th Cir.1989) (en banc). The genesis of the "impossible to tell" branch of the BFOQ in age cases is that an unsafe employee can't do the job the employer demands. It is word play to say that "the job" at **Johnson** is to make batteries without risk to fetuses in the same way "the job" at Western Air Lines is to fly planes without crashing. When an employer genuinely can't tell which employees are unfit, and when unfitness for work is a serious problem, it may use a proxy that otherwise would be off limits. **Johnson** is not using sex to avert harm to customers. To repeat the statutory language: sex is a BFOQ when its use is

"reasonably necessary to the normal operation of [the employer's] particular business" (the BFOQ rule), and employers must treat men and pregnant women equally with respect to their "ability or inability to work" (the PDA). Risk to fetuses falls outside these rules.

Johnson might be concerned about cost. It could have argued that the only alternative to the fetal protection policy is a much cleaner workplace, so that no employee's 914*914 blood lead level exceeds 30 µg/dl, which would be prohibitively expensive and lead it to close the business. **Johnson** does not make that argument, so the majority properly does not decide whether it would be a BFOQ. Another potential cost comes from tort law. Perhaps **Johnson** anticipated litigation filed by children injured by lead. The firm does not make this argument either, and so far as I know no child has recovered a judgment on account of parents' occupational exposure to lead. [Security National Bank v. Chloride, Inc., 602 F.Supp. 294 \(D.Kan.1985\)](#), the only reported case, ended in a jury verdict for the employer even though the child argued that the employer violated OSHA's maximum exposure rules. (**Johnson** says that it complies with OSHA's rules.) Anyway, the prospect of tort judgments means only that female employees' average cost to **Johnson** exceeds that of male employees. Title VII requires employers to deal with individual employees rather than with group averages. No firm could exclude women from its work force by saying that higher costs of pensions and health care made them too costly.^[6] If these costs do not establish a BFOQ, could not establish it even in principle, how may the prospect of tort judgments do so? Title VII applies even when — *especially* when — discrimination is rational as the employer sees things.

All of this is not to say where wisdom lies. An employer is better situated than its workers to gather and interpret scientific data, for medical studies are hard to evaluate, and the need to earn a living may induce employees to give too little weight to the interests of their offspring. A recent poll showing that more than 20% of American adults do not know that the Earth orbits the Sun does not lend confidence in the ability of the populace to make decisions that depend on scientific or medical data.^[6] If any given employer errs, the forces of competition open opportunities elsewhere. No one can treat lightly the possibility of injury to future children, who cannot protect themselves or participate in the decisions that will govern their lives. Trying to find the "right" accommodation would rob many a person of sleep — for rigorous implementation of fetal protection policies could close more than 20 million jobs to women,^[7] while failure to do anything 915*915 causes injury to unknown numbers. Under the PDA neither the employer nor the court is authorized to essay an answer to this social puzzle. The disparate treatment — BFOQ approach governs, and it resolves today's dispute. Title VII gives parents the power to make occupational decisions affecting their families. A legislative forum is available to those who believe that such decisions should be made elsewhere.^[8]

II

Having adopted the *Wright-Hayes* approach, we still should not affirm the district court's judgment. *Hayes* opined that a fetal protection policy applicable only to women violates Title VII

unless the employer shows (1) that a substantial risk of harm exists and (2) that the risk is borne only by members of one sex; and (3) the employee fails to show that there are acceptable alternative policies that would have a lesser impact on the affected sex.

[726 F.2d at 1554](#). At the time *Wright* and *Hayes* were decided, and when the EEOC issued its policy statement, courts believed that "business necessity" in a disparate impact case is a *defense*. "Business necessity" and "BFOQ" were not so distinct. We know from [Wards Cove Packing Co. v. Atonio, U.S. 109 S.Ct. 2115, 104 L.Ed.2d 733 \(1989\)](#), however, that the plaintiff bears the burden of persuasion on all questions in every disparate impact case, as the majority today emphasizes. So the *Wright-Hayes* standard has been watered down. The court's "adoption" of *Wright, Hayes*, and the EEOC's policy statement is thus in practice more favorable to employers than the Fourth and Eleventh Circuits (and the EEOC) anticipated their approach would be. The plaintiff won in *Hayes*; she would lose under the majority's approach.

Even on the majority's un-demanding standard, however, there are material disputes. The EEOC's policy statement properly criticized the district court for granting summary judgment despite evidentiary disputes material to the application of the *Wright-Hayes* standard. *Notice* n915.034 at 9 n. 22.

Substantial Risk. Is there a substantial risk of harm to the offspring of female employees? That lead in the blood is dangerous no one doubts, although experts dispute how much is too much and whether lead is more risky to the fetus and developing infants than to adults.^[9] The extent to which lead in a mother's blood, at levels to which **Johnson** exposes its employees, endangers the fetus is a subject on which there is additional dispute. Showing great injury at 100 µg/dl is one thing; showing risks when no one has levels over 50 µg/dl (and, per OSHA's rules, anyone wanting to get below 30 µg/dl is entitled to a respirator) is another. The record does not quantify the risks at the levels OSHA permits. It also does not reveal the extent to which lead crosses the placenta. **Johnson's** chief medical consultant, Dr. Fishburn, believes that risk is greatest in the first weeks of pregnancy, before women can withdraw to lead-free environments. Experts take the contrary view that lead does not cross the placenta until late in pregnancy,^[10] and that because lead levels in the blood fall substantially 916*916 within 12 weeks of the last exposure,^[11] the danger is reduced if women are removed from contact with lead promptly on becoming pregnant.

It is painful to see conflicts of this kind settled by litigation; judges cannot unravel medical mysteries by observing scientists' demeanor on the stand. This is not how scientists resolve disputes among themselves. Demeanor tells the judge only whether the scientist *believes* what he says, something almost irrelevant to a scientific dispute. Scientists formulate hypotheses, collect data, and apply statistical methods to assess them; judges and jurors find this process alien. Yet so long as the substantive rule of law requires a court to resolve scientific disagreements — which the *Wright-Hayes* standard does, though the BFOQ standard avoids the problem — the judge must follow the rules, which means that material disputes must be resolved at trial.

A small risk, even if compellingly documented, is not enough to exclude women from employment. How great is too great? Most women do not become pregnant in any given year, and most female employees do not have blood lead levels exceeding 30 µg/dl, so average risk to the employee population may be small. If a woman becomes pregnant with a blood lead level of 40 µg/dl, is the risk one learning disability in two pregnancies? One in two thousand? One in two million? These figures imply different policies, yet we do not know which is correct. How risky is a blood lead level exceeding 30 µg/dl compared with other hazards? Most comparisons show that smoking and drinking are quite dangerous to fetuses, more so than many contaminants found in the workplace.^[12] Some 2,500 children under the age of one die every year because of their parents' smoking; others never make it to birth.^[13] The hazards created by occupational chemicals span many orders of magnitude: some are safer than the sweeteners we wolf down, some are dangerous indeed.^[14] Where does lead fit on that spectrum? I cannot believe that **Johnson** would 917*917 be entitled to fire female employees who smoke or drink during pregnancy — let alone to fire all female employees because some might smoke or drink — which makes it hard to exclude women to curtail risk from other substances.

How does the risk attributable to lead compare, say, to the risk to the next generation created by driving a taxi? A female bus or taxi driver is exposed to noxious fumes and the risk of accidents, all hazardous to a child she carries. Would it follow that taxi and bus companies can decline to hire women? That an employer could forbid pregnant employees to drive cars, because of the risk accidents pose to fetuses? For all we can tell, accepting **Johnson's** argument compels us to answer "yes" to these questions, which simply points up the need to quantify the hazard. It also points up the political nature of the dispute. How much risk is too much is a moral or economic or political question, one ill suited to the processes of litigation and not the sort of question Title VII puts to a judge.^[15]

The most concerted effort to estimate the risks lead poses to offspring was conducted by OSHA in the course of promulgating its lead rules. OSHA considered and rejected a proposal to exclude women capable of bearing children from jobs in which blood lead levels may exceed 30 µg/100 g. It stated:

Industry testimony further suggests that women of childbearing potential could be "protected" by excluding them from employment in many parts of the lead industry.... The record in this rulemaking is clear that male workers may be adversely effected [sic] by lead as well as women. Male workers may be rendered infertile or impotent, and both men and women are subject to genetic damage which may affect both the course and outcome of pregnancy. Given the data in this record, OSHA believes there is no basis whatsoever for the claim that women of childbearing age should be excluded from the workplace in order to protect the fetus or the course of pregnancy. Effective compliance with all aspects of these standards will minimize risk to all persons and should therefore insure equal employment for both men and women.

43 Fed.Reg. 52953, 52966 (1978). OSHA's regulations require employers to make respirators available, so that both men and women desiring children can reduce their blood lead levels. 29 C.F.R. § 1910.1025(f)(1)(iii). They also require employers to conduct annual educational programs "with particular attention to the adverse reproductive effects on both males and females", § 1910.1025(l)(1)(v)(D). In order to say that the risk to offspring at firms complying with OSHA's rules (as **Johnson** says it does) is so "substantial" that a woman should not be allowed to work at any job where there is the slightest chance of a blood lead level exceeding 30 µg/dl, a court must disagree with the judgment of OSHA that the 50 µg/100 g limit, plus the availability of respirators to employees seeking to attain a level of 30 µg/100 g, is enough. My colleagues essentially take judicial notice that OSHA is wrong, majority op. 899-900, an extraordinary step. The record does not contain evidence sufficient to contradict OSHA's conclusion, let alone evidence so lopsided that summary judgment is appropriate.

One more observation. "Substantial risk" must mean substantial *net* risk. Excluding 918*918 women from industrial jobs at **Johnson** may reduce risk attributable to lead at the cost of increasing other hazards. There is a strong correlation between the health of the infant and prenatal medical care; there is also a powerful link between the parents' income and infants' health, for higher income means better nutrition, among other things. See Aaron Wildavsky, *Searching for Safety* 59-72 (1988); Victor R. Fuchs, *How We Live* 31-40 (1983). Removing women from well-paying jobs (and the attendant health insurance), or denying women access to these jobs, may reduce the risk from lead while also reducing levels of medical care and the quality of nutrition. The net effect of lower income and less medical care could be a reduction in infants' prospects.¹⁶ Mary E. Becker, *From Muller v. Oregon to Fetal Vulnerability Policies*, 53 U.Chi.L.Rev. 1219, 1229-31 (1986).

Nothing in the record shows the net risks. When asked at oral argument whether **Johnson** attempted to determine net effects before adopting its policy, counsel said no. He continued, in effect: "If there is a greater risk, that's not our concern." A "not on *our* watch" position is the bureaucrat's shelter and not becoming if, as **Johnson** so earnestly maintains, it is concerned about the welfare of unborn children. These helpless beings do not know or care about the source of risk; they would care only about its aggregate level. Surely Title VII does not allow an employer to adopt a policy that simultaneously makes both women and their children worse off.

Mediation through a Single Sex. Is the risk to the child transmitted by one sex only? If "the risk" is defined as risk caused by lead entering the fetus's blood via the placenta, it is by definition confined to one sex. But if we ask instead "Does the presence of lead in a parent's blood pose a risk to the fetus?", then the evidence conflicts. The broader perspective is the correct one when aggregate levels of risk are the proper concern.

Three affidavits in the record, and papers in medical journals, maintain that lead in the blood creates risks for offspring of both male and female employees. The American Public Health Association and other medical groups have filed a brief as *amici curiae* marshaling an impressive array of studies linking lead with injury to the male reproductive system, and thence to offspring. E.g., Christopher Winder, *Reproductive Effects of Occupational Exposures to Lead: Policy Considerations*, 8 NeuroToxicology 411 (1987); Herbert L. Needleman & David Bellinger, *Commentary*, Environmental Research (1988). Most of the data come from animal studies, but some human studies suggest that the effects occur in our species

too. OSHA concluded that lead in men as well as women is hazardous to the unborn. The medical surveillance guidelines published as an appendix to the agency's lead control regulations state:

Exposure to lead can have serious effects on reproductive function in both males and females. In male workers exposed to lead there can be a decrease in sexual drive, impotence, decreased ability to produce healthy sperm, and sterility. Malformed sperm (teratospermia), decreased number of sperm (hypospermia), and sperm with decreased motility (asthenospermia) can all occur. Teratospermia has been noted at mean blood levels of 53 $\mu\text{g}/100\text{ g}$ and hypospermia and asthenospermia at 41 $\mu\text{g}/100\text{ g}$. Furthermore, there appears to be a doseresponse relationship for teratospermia in lead exposed workers.... [B]ecause of the demonstrated adverse effects of lead on reproductive function in both the male and female as well as the risk of genetic damage of lead on both the ovum and sperm, OSHA recommends a 30 $\mu\text{g}/100\text{ g}$ maximum permissible blood lead level in both males and females who wish to bear children.

919*919 29 C.F.R. Part 1910, pp. 833-34 (1987). Perhaps OSHA is wrong; its findings do not bind **Johnson** in this litigation. But its view has been sustained once after rigorous attention. [United Steelworkers of America v. Marshall, 647 F.2d 1189, 1256-58 \(D.C.Cir.1980\)](#) (describing as "abundant" the evidence supporting the belief that lead injures the reproductive systems of both sexes and sustaining as rational OSHA's decision that the evidence does not justify excluding women from the workplace). Affidavits and professional articles describing the latest evidence also support OSHA's judgment. The district court could not properly reject it without holding a trial.

Least of all could a court reject it, as my colleagues do, on the ground that as a matter of law animal studies are not "solid scientific data", majority op. 889. The District of Columbia Circuit concluded that "virtually undisputed evidence [shows] that at 30 $\mu\text{g}/100\text{ g}$ and above, men suffer ... interference with their ability to produce normal sperm", [647 F.2d at 1249](#). The medical profession, like the Food and Drug Administration, will be stunned to discover that animal studies are too "speculative", majority op. 889, to be the basis of conclusions about risks. Often animal studies are the best foundation for decision. The Supreme Court has concluded that they may be used, e.g., [Industrial Union Department v. American Petroleum Institute, 448 U.S. 607, 657 n. 64, 100 S.Ct. 2844, 2871 n. 64, 65 L.Ed.2d 1010 \(1980\)](#) (plurality opinion). OSHA relied on these very animal studies when establishing its lead rules, as the D.C.Circuit held it may. [647 F.2d at 1257 & n. 97](#). See also, e.g., [Simpson v. Young, 854 F.2d 1429 \(D.C.Cir. 1988\)](#); [Public Citizen Health Research Group v. Tyson, 796 F.2d 1479, 1489-90, 1492 \(D.C.Cir.1986\)](#), sustaining risk assessments based on animal studies. Indeed, on occasion animal studies *compel* responsible agencies to act. [Public Citizen v. Young, 831 F.2d 1108 \(D.C.Cir.1987\)](#).

Less Restrictive Alternatives. An employer cannot close employment opportunities to women in order to protect the next generation if some more modest alternative would do (nearly) as well at protecting the unborn. **Johnson's** policy has a striking sweep: *no* fertile woman can be hired for a job in which *any* employee has had a blood lead level exceeding 30 $\mu\text{g}/\text{dl}$ *anytime* during the last year, or in *any* job that might lead to a promotion to such a job. As a practical matter, this means every industrial job at **Johnson's** battery plants. The firm advised its hiring offices to tell women that "we have no openings for women capable of bearing children". To state the policy is to reveal many less stringent options that might be almost as good at protecting the interests of children.

Women over 40 rarely have children. Why are they forbidden to work? (One of the plaintiffs, 50 years old and divorced when the suit was filed, had nonetheless been excluded from jobs covered by the policy.) Covering them reduces the lead risk to zero, but "zero" is not the only acceptable level.

Many workers in jobs in which some employee has a level exceeding 30 $\mu\text{g}/\text{dl}$ have levels less than that. Only 1/3 of **Johnson's** industrial employees exceed the 30 $\mu\text{g}/\text{dl}$ figure. The levels of lead in the blood depend not only on lead in the air but also on personal hygiene. Some workers allow particles to remain on their clothes or person, staging points from which they can be swallowed. Why not allow a woman to enter jobs in which significant fractions of workers sustain levels less than 30 $\mu\text{g}/\text{dl}$, to see whether she can too? Why treat all women as unable to follow good industrial hygiene, or as unwilling to use a

respirator, just because 1/3 of men have elevated levels of lead in the blood? **Johnson** replies that lead levels usually are greatest shortly after entering a new job, before the employee learns how to reduce the level; the women might become pregnant during these initial weeks or months. True enough, but again this answer assumes that the only acceptable level of risk is zero.

Some workers who start at entry-level jobs with low exposure to lead will be promoted to higher-lead jobs; others will not (or will leave before then). **Johnson** excludes women even from these safer jobs, although they pose no appreciable risk to offspring. Doubtless **Johnson** believes that unimpeded lines of progression make 920*920 its operation more efficient, since it can invest more in training women in skills that are transferrable to new jobs within the firm. Yet this form of savings does not count under Title VII. Let us suppose that **Johnson** had light-lifting and heavy-lifting jobs, joined in a line of progression. Would the inability of many or even all women to perform the heavy-lifting job permit **Johnson** to exclude all women from the light-lifting job? The exclusion might be desirable from the perspective of business efficiency, but Title VII would not allow it. So, too, Title VII forbids a firm to exclude all women from a line of progression on the ground that some will drop out to have children, rendering their training worthless to the firm. Women have less attachment to the work force than men, making it privately rational for firms to invest less in training them for high-skill jobs; Title VII just as clearly forbids firms to do this. What **Johnson** has done is little different, and at some cost to itself it can change the fetal protection plan to enlarge women's opportunities at no cost whatever in risk to the unborn.

III

The *Wright-Hayes* standard is the wrong one. **Johnson** needed to, and did not, establish that sex is a BFOQ for employment at its battery plants. Yet even given the majority's decision to adopt the *Wright-Hayes* standard, the plaintiffs are entitled to a trial. Seven judges of this court have analyzed the conflicting medical evidence and reached their own conclusions about its significance, conclusions at variance with those drawn by the American Public Health Association and the Occupational Safety and Health Administration from the same kind of evidence.^[17] Judges may be astute students of medical findings, but the presence of thoughtful persons on the other side suggests caution — and at all events appellate judges should not be resolving scientific disputes.

This is the most important sex-discrimination case this circuit has ever decided. It is likely the most important sex-discrimination case in any court since 1964, when Congress enacted Title VII. If the majority is right, then by one estimate 20 million industrial jobs could be closed to women, for many substances in addition to lead pose fetal risks. See note 7 above. Whether that would happen is of course a separate question; legal entitlements need not translate to action. But the law would allow employers to consign more women to "women's work" while reserving better-paying but more hazardous jobs for men. Title VII was designed to eliminate rather than perpetuate such matching of sexes to jobs.

Title VII requires employers to evaluate applicants and employees as individuals rather than as members of a group defined by sex. The statute has its costs; prenatal injuries are among these. Appeals to the "flexibility" with which the Supreme Court has allocated burdens of proof and persuasion get us nowhere. No amount of "flexibility" justifies sex discrimination without a BFOQ, unless by "flexibility" we mean a prerogative to disregard the statute when it requires decisions antithetical to our beliefs. Although my colleagues refer to many constitutional cases, such as [Rostker v. Goldberg, 453 U.S. 57, 101 S.Ct. 2646, 69 L.Ed.2d 478 \(1981\)](#), for the proposition that sex discrimination sometimes is permissible, cases showing that Congress *may* authorize sex-based decisions hardly shows that in this instance it *did*. Title VII forbids rather than requires resort to sex as a basis of decision.

Risk to the next generation is incident to all activity, starting with getting out of bed. (Staying in bed all day has its own hazards.) To insist on *zero* risk, which the 921*921 court says **Johnson** may do, is to exclude women from the industrial jobs that have been a male preserve. By all means let society bend its energies to improving the prospects of those who come after us. Demanding zero risk produces not progress but paralysis. Defining tolerable risk, and seeking to reduce that limit, is more useful — but it is a

job for Congress or OSHA in conjunction with medical and other sciences. Laudable though its objective be, **Johnson** may not reach its goal at the expense of women.

[1] More than two years later, Local 322 of the Allied Industrial Workers of America attempted to intervene under Fed.R.Civ.P. 24(a)(2). The district court denied the motion, and Local 322 has appealed. We affirm the district court's decision on the basis of the motion's untimeliness. See *Schultz v. Connery*, 863 F.2d 551, 552-55 (7th Cir.1988).

[2] Circuit Rule 40(f) reads in pertinent part:

"*Rehearing Sua Sponte Before Decision.* A proposed opinion approved by a panel of this court adopting a position which would overrule a prior decision of this court or create a conflict between or among circuits shall not be published unless it is first circulated among the active members of this court and a majority of them do not vote to rehear in banc the issue of whether the position should be adopted. In the discretion of the panel, a proposed opinion which would establish a new rule or procedure may be similarly circulated before it is issued...."

[3] Following the purchase, Globe **Union** operated for some two years as a wholly-owned subsidiary of **Johnson Controls**, after which time it became a division of **Johnson Controls**, Inc.

[4] In fact, the Battery Division of **Johnson Controls** employs fourteen people in its department that implements its corporate health and safety program that includes the fetal protection policy at issue in this case.

[5] Dr. Fishburn is a board-certified specialist in occupational medicine, maintains a private practice and also has worked as Assistant Clinical Professor at the University of Wisconsin Medical School, Department of Preventive Medicine. Since 1963, Dr. Fishburn has evaluated between 25,000 and 50,000 employees for lead exposure.

[6] These benefits provide compensation for transfer from a position for medical reasons.

[7] These lead levels coincided with the Centers for Disease Control's standard in effect at that time which concluded that blood lead levels in excess of 30 µg/dl were excessive for children. (As will be noted later in this opinion, the Centers for Disease Control have since revised downward the acceptable blood lead levels for children). We note that, because of **Johnson's** concern for the mother and the unborn baby, the lead levels **Johnson** established in its fetal protection policy are below the 50 µg/m³ airborne lead levels and 50 µg/100g blood lead levels permitted under OSHA's lead exposure regulations for all employees. 29 C.F.R. § 1910.1025(c)(1) and (k)(1)(i)(D). While OSHA blood lead regulations utilized the measure of ug per 100 grams and **Johnson Controls'** standard uses the measure of ug per deciliter, the parties have treated these measures as equivalent and we shall also treat them in this manner.

[8] The fetal protection policy defines women of childbearing capacity as: "All women except those whose inability to bear children is medically documented."

[9] Under the fetal protection policy an incumbent female employee with a blood lead level reading above 30 µg/dl is permitted a period of time to reduce her blood lead level to 30 µg/dl. If the blood level of a fertile female employee is in excess of 40 µg/dl, she is transferred at the earliest possible date. The record does not disclose the number, if any, of female employees who remain in high lead exposure positions or who were transferred as a result of the fetal protection policy.

[10] In response to questioning concerning incidents of adverse effects upon fetuses or children resulting from maternal lead exposure, Dr. Fishburn also stated that among employees at **Johnson Controls'** Milwaukee, Wisconsin, battery plant (covered by a contract with the AIW): "Mothers who have had children ... have gone to the City Health Department." However, obviously because of the confidentiality of such visits, Dr. Fishburn also stated that: "I don't have the data on all of the individuals that did that."

[11] There will normally be some delay in diagnosis of pregnancy:

"The first sign of pregnancy and the first reason most pregnant women see a physician is absence of an expected menstrual period. If a patient's periods are usually regular, absence of menses for 1 wk or more is presumptive evidence of pregnancy. Pregnancies are usually dated in weeks, starting from the first day of the last menstrual period. Thus, if the patient's menses were regular and if ovulation did occur on day 14 of the cycle, obstetric dates are about 2 wk longer than embryologic dates. If the patient's periods are irregular, the difference will be greater or less than 2 wk. Usually, 2 wk after missing a period the patient is considered to be six wk pregnant and the uterus is correspondingly enlarged."

R. Berkow, *The Merck Manual of Diagnosis and Therapy*, 1744-45 (14th ed. 1987). Thus, even in ideal cases, there is normally some time lag between pregnancy's onset and diagnosis. In other cases, a mother's failure to perceive a pregnancy or a delay in receiving prompt medical care can result in a pregnancy diagnosis later in pregnancy. Under a policy requiring removal only on discovery of pregnancy, the unborn child would be subject to lead exposure throughout the period prior to diagnosis of pregnancy.

[12] This conclusion was based upon **Johnson's** experience recounted in the testimony of Jean Beaudoin, Manager of Health, Safety and Environmental Control for the Battery Division.

[13] See Affidavit of J. Julian Chisholm, M.D., Director, Lead Program, J.F. Kennedy Institute and Associate Professor of Pediatrics, Johns Hopkins School of Medicine (hereinafter Dr. Chisholm Aff.) at ¶ 6 ("During pregnancy the lead in the mother's blood transfers across the placenta to the fetal circulation"); Affidavit of Dr. Anthony R. Scialli, M.D., Director, Reproductive Toxicology Center (hereinafter Dr. Scialli Aff.) at ¶ 6 ("During pregnancy the mother's blood lead passes through the placenta to the fetus. Therefore, the fetus' blood lead level is approximately the same as that of the mother"). See also Occupational Safety and Health Administration, U.S. Department of Labor, Final Standard for Occupational Exposure to Lead: Attachments to the Preamble, 43 Fed.Reg. 54,395 (1978) ("There is conclusive evidence that lead crosses the placenta of pregnant women and enters the fetal tissues; lead levels in the mother's blood are comparable to concentrations of lead in the umbilical cord at birth").

[14] Director, Lead Program, John F. Kennedy Institute and Associate Professor of Pediatrics, Johns Hopkins School of Medicine.

[15] Director, Reproductive Toxicology Center.

[16] Senior Occupational Physician/Epidemiologist, Environmental Health Associates, Inc., Oakland, California.

[17] Professor and Director of the Division of Environmental Toxicology, University of Texas Medical Branch.

[18] Senior Scientist, Toxic Program, Environmental Defense Fund.

[19] Centers for Disease Control, U.S. Department of Health and Human Services, *Preventing Lead Poisoning in Young Children* 7, 20, 21 (1985) (emphasis added). In this same document the Centers for Disease Control announced that based upon "current knowledge concerning screening, diagnosis, treatment, followup, and environmental intervention for children with elevated blood lead levels," it was lowering its definition of an elevated blood lead level from 30 to 25 µg/dl. *Id.* at 1. Elevated blood level, according to the CDC, "reflects excessive absorption of lead." *Id.*

[20] Indeed, as noted in section 1, *supra*, **Johnson Controls** experienced an incident of hyperactivity in a child of a woman in the work force of its Owosso, Michigan, battery plant.

[21] Thalidomide is "[a] sedative and hypnotic [drug] commonly used in Europe in the late 1950's and early 1960's. Its use was discontinued because it was discovered to cause serious congenital anomalies in the fetus, notably amelia [absence of limbs] and phocomelia [absence of the proximal portion of a limb], when taken by a woman during early pregnancy." *Dorland's Illustrated Medical Dictionary* 1353 (26th ed. 1981).

[22] See Dr. Chisholm Aff. at ¶ 6 ("Medical studies released in the last year or two ... suggest that exposure to the fetus of blood lead levels as low as 10 micrograms presents grave risk of permanent harm to the central nervous system of the fetus"); Dr. Scialli Aff. at ¶ 7 ("It is my medical opinion that [the damage lead causes to the fetus' central nervous system] may be permanent"); Dr. Silbergeld Dep. at 49-50 (Reporting that studies of prenatal lead exposure in which she participated found similar effects to post-natal lead exposure. These effects are "substantial irreversible cellular and functional damage to the brain").

[23] See Dr. Silbergeld Dep. at 50-52. Early in pregnancy, lead's effect upon the mother's secretion of the hormone progesterone can prevent implantation of the fertilized ovum, resulting in the loss of pregnancy. See Dr. Chisholm Dep. at 33.

[24] OSHA went on to observe that

"Dr. Hunt would not exclude the potential for lead-induced effects on the initial trimester of pregnancy. She maintains that the presence of lead in fetal tissue does not necessarily indicate that the observed effects occurred during the second and third trimester; they may, in fact, be the result of earlier accumulations of lead in the first trimester of pregnancy.... [T]he fetus [can be] directly affected by lead which is absorbed during the first trimester of pregnancy. As the placenta is maturing, and the placental barrier is thinning, it is storing calcium necessary for later fetal skeletal production. Concomitant with the first evidence of fetal skeletal calcification, lead is observed present in the fetus. Like calcium, lead may be stored in the placenta during the early stages of pregnancy to be released when the placenta becomes functional."

Id. (citations omitted).

[25] *Id.* at 1191 (quoting *Robinson v. Lorillard Corp.*, 444 F.2d 791 (4th Cir.), cert. dismissed, 404 U.S. 1006, 92 S.Ct. 573, 30 L.Ed.2d 655 (1971)). **Johnson Controls'** primary interest in this case is protecting the development and health of female employees and their unborn children. In construing the business necessity defense the Fourth Circuit in *Olin* cogently observed:

"We do not think that a general basis for the 'business necessity' asserted here need be sought in other considerations than the general societal interest — reflected in many national laws imposing legal obligations upon business enterprises — and having those enterprises operate in ways protective of the health of workers and their families, consumers, and environmental neighbors.

For this reason it is irrelevant that, as claimants point out, the mere purpose to avoid potential liability and consequent economic loss may not suffice, standing alone, to establish a business necessity defense. See *Los Angeles Dept. of Water & Power v. Manhart*, 435 U.S. 702, 716-17, 98 S.Ct. 1370, 1379-80, 55 L.Ed.2d 657 (1978)."

[697 F.2d at 1190 n. 26.](#)

Although costs from tort judgments are merely a secondary consideration, they are still an important and legitimate additional consideration for an employer when lead safety policies may very well affect the development of the child in its most critical stage in the mother's womb.

[26] [Los Angeles Department of Water and Power v. Manhart](#), 435 U.S. 702, 707, 98 S.Ct. 1370, 1374, 55 L.Ed.2d 657 (1978).

[27] [Olin](#), 697 F.2d at 1191.

[28] There might be a suggestion that the unborn child would be harmed if his or her mother were deprived of insurance benefits or wages that could be utilized for prenatal care as a result of the application of **Johnson Controls'** fetal protection policy. This issue bears no relevance to **Johnson Controls'** employment practices for any female employees deprived of jobs in high lead environments under **Johnson's** fetal protection policy, instituted in 1982, are transferred to other positions in **Johnson Controls'** employ without any loss of either wages or benefits.

[29] See Dr. Scialli Aff. at ¶ 9, Dr. Hammond Aff. at ¶ 7, Dr. Chisholm Dep. at 30-32.

[30] [Olin](#), 697 F.2d at 1191.

[31] Cf. [Sable Communications v. FCC](#), ___ U.S. ___, 109 S.Ct. 2829, 2837-39, 106 L.Ed.2d 93 (1989). This case was a First Amendment challenge to federal legislation outlawing dial-a-porn telephone services. In passing upon the constitutionality of this proscription, the Supreme Court observed that: "For all we know from the record, the FCC's technological approach to restricting dial-a-porn messages to adults who seek them would be extremely effective, and only a few of the most enterprising and disobedient young people will manage to secure access to such messages." [Sable](#), 109 S.Ct. at 2838. Thus, the Court concluded that "the congressional record contains no legislative findings that would justify us in concluding that there is no constitutionally less restrictive means, short of a total ban, to achieve the government's interest in protecting minors." *Id.* In contrast, our case involves uncontroverted scientific and medical data supporting determinations that available technology would not adequately prevent hazards accompanying lead exposure. *Sable* is considered in more detail in Section V, *infra*.

[32] [Wards Cove](#), 109 S.Ct. at 2126.

[33] [Wards Cove](#), 109 S.Ct. at 2127 (quoting [Fumco Construction Corp. v. Waters](#), 438 U.S. at 578, 98 S.Ct. at 2950).

[34] [Wards Cove](#), 109 S.Ct. at 2127.

[35] [Torres](#), 859 F.2d at 1527 (quoting [Dothard](#), 433 U.S. at 334, 97 S.Ct. at 2729). The battery division is only a small segment of **Johnson Controls'** entire business operation. **Johnson Controls** employs 25,700 employees, only 425 of whom work in its battery division. See *Dan's Marketing Services, Inc.*, 1 *America's Corporate Families* 694 (1988).

[36] 42 U.S.C. § 2000e(k).

[37] As noted in footnote 34, *supra*, **Johnson Controls'** battery division is only a small segment of its entire business operation.

[38] In these cases a court will commonly appoint a guardian *ad litem* with the authority to consent for the child to the required transfusion and will hold a hearing to determine whether the child has been medically neglected as a result of the denial of the transfusion. See generally [In re E.G.](#), 161 Ill.App.3d 765, 113 Ill.Dec. 477, 478, 515 N.E.2d 286, 287 (1987), *appeal allowed*, 118 Ill.2d 543, 117 Ill.Dec. 224, 520 N.E.2d 385 (1988).

[39] Cf. [State v. Acker](#), 26 Utah 2d 104, 485 P.2d 1038, 1039 (1971); [Love v. Bell](#), 171 Colo. 27, 465 P.2d 118, 121 (1970) (Costs to society from caring for motorcycle accident victims support mandatory motorcycle helmet laws in states that have these laws). As the Supreme Court of Washington, sitting *en banc* observed:

"The legislature could also reasonably assume — and legislate on such assumption — that the public welfare and safety is substantially affected by the dangers arising from motorcycle riding. The public has already assumed many burdens and responsibilities in helping ameliorate the effects of accidents. It has at public expense substantially provided emergency ambulance, medical and hospital care for persons injured on the public highways and supplied medical, surgical and hospital services for indigent persons so injured. The public has undertaken the basic responsibility of policing the public highways and regulating traffic thereon both in the interests of safety and efficiency, and has utilized the state and its political subdivisions to carry these burdens. The greater the number of serious injuries to the head and upper spine suffered by motorcycle riders, the greater the burdens it can reasonably be said are imposed on the publicly supplied or regulated medical, hospital, ambulance and police services. There thus exists a reasonably manifest connection between the use of protective helmets by motorcycle riders and the public health, welfare and safety. Accordingly, requiring motorcycle riders to wear protective helmets of a type approved by the state commission on equipment when riding upon the public highways is a legitimate and reasonable exercise of the police power, and RCW 46.37-530(3) is a constitutional declaration thereof."

[State v. Laitinen](#), 77 Wash.2d 130, 459 P.2d 789, 791-92 (1969), cert. denied, 397 U.S. 1055, 90 S.Ct. 1397, 25 L.Ed.2d 671 (1970).

[40] See J.N. Davis and D. Svendsgaard, *Lead and Child Development*, 329 *Nature* 297 (1987) (collecting results of recent studies in this area).

[41] [Sable](#), 109 S.Ct. at 2836.

[42] *Id.* (quoting [Schaumburg v. Citizens for a Better Environment](#), 444 U.S. 620, 637, 100 S.Ct. 826, 836, 63 L.Ed.2d 73 (1980) (citations omitted)).

[43] Judge Easterbrook suggests that "by one estimate 20 million industrial jobs could be closed to women," if "the majority is right," "for many substances in addition to lead pose fetal risks." Easterbrook Dissent at 96. This assertion is based upon the following language in Bureau of National Affairs' Special Report, *Pregnancy and Employment* p. 57 (1987): "One government source estimates that 15 million to 20 million jobs in the United States expose workers to chemicals that *may* cause reproductive injury." (Emphasis supplied). This speculative statement, taken at its face value, merely suggests a possibility of reproductive injury from unidentified and undefined toxic substances. Before our decision could be applied to any of these unidentified substances, obviously they would have to be subjected to the myriad tests and research that have conclusively established the grave risk from lead substances. Thus, an employer presenting a business necessity or bona fide occupational qualification defense would have to establish that the substance had undergone the same rigid testing and research. In addition, if ever a lead-free battery were developed, the problems in this case would fall by the wayside. We hope that this is achieved tomorrow.

[1] On this issue, I disagree with Judge Easterbrook's conclusion that the BFOQ standard could *never* be satisfied in a case such as this. As Judge Posner's dissent suggests, the BFOQ defense need not be narrowly limited to matters of worker productivity, product quality and occupational safety. The employer may permissibly consider the possible risks to (even potential) third parties in the normal course of business decisionmaking. However, the employer must demonstrate "a factual basis for believing that all or substantially all women would be unable to perform safely [i.e., without inordinate risk to third parties, including fetuses] and efficiently the duties of the job involved." [Weeks v. Southern Bell Tel. & Tel. Co.](#), 408 F.2d 228, 235 (5th Cir.1969). As Judge Easterbrook notes in discussing the disposition of this case under the *Wright-Hayes* standard, substantial factual questions remain concerning whether occupational exposure to lead presents a substantial risk to the fetus, whether this risk is transmitted only through the pregnant woman and whether less restrictive alternatives would adequately safeguard the employer's interest in fetal health and safety. So long as it is understood that the burden to prove these matters rests on the employer, and that this burden may not be met by unsubstantiated hypotheses or claims of scientific uncertainty, see [Torres v. Wisconsin Dep't of Health & Social Servs.](#), 859 F.2d 1523, 1533-34 (7th Cir.1988) (en banc) (Cudahy, J., dissenting), I am comfortable with allowing the employer at least the opportunity to attempt to meet this demanding standard.

[1] Two other cases often are treated as bearing on the validity of such policies: [Hayes v. Shelby Memorial Hospital](#), 726 F.2d 1543 (11th Cir. 1984); [Zuniga v. Kleberg County Hospital](#), 692 F.2d 986 (5th Cir.1982). Both involved x-ray technicians fired immediately after their employers discovered that they had become pregnant, and not policies that disqualified women generally. I therefore put *Hayes* and *Zuniga* to one side for the time being, although they return in Part II.

[2] The policy statement, Notice No. n915.034 (Oct. 7, 1988), says at p. 1 n. 1: "three courts of appeals have considered cases involving fetal hazards ..., thereby helping in the development of an analytical framework for deciding such cases. This policy statement is an elaboration of that framework...." See also p. 4: "the Commission follows the lead of every court of appeals to have addressed the question".

[3] Although some 9% of all fertile women become pregnant each year, the birth rate for blue collar women over 30 is about 2%, and of working women 45-49 only 1 in 5,000 becomes pregnant in a given year. The data are collected in Mary E. Becker, *From Muller v. Oregon to Fetal Vulnerability Policies*, 53 U.Chi.L.Rev. 1219, 1233 (1986). The record does not reveal the birth rate for **Johnson's** female laborers, but it must be lower given **Johnson's** strenuous efforts to discourage pregnancy among those exposed to lead.

[4] One of the children has an elevated level of lead in the blood, but this has not produced an identifiable problem. It is hard, however, to link outcomes such as learning disabilities to lead, since learning disabilities could have many other causes, and it is therefore hard to show in an individual case (as opposed to statistically) that lead injured the child.

[5] Health care expenses for women are substantially higher than those for men even before taking into account the costs of pregnancy. Department of Health and Human Services, *A Summary of Expenditures and Sources of Payment for Personal Health Services From the National Medical Care Expenditure Survey, Data Preview 24* at 11 (May 1987). The PDA requires employers to pick up these higher medical costs, plus the medical costs of pregnancy, if they offer health care to male employees. And after *Manhart* employers that offer pensions must contribute more per month per female employee than per male employee.

[6] The survey concluded that 93-95% of the adult population is scientifically illiterate. "Asked whether the Earth goes around the Sun or the Sun around the Earth, 21 percent replied incorrectly; 7 percent said they did not know.... On other questions, the survey found that 43 percent said correctly that electrons, which are components of atoms, are smaller than atoms; 20 percent said they were larger and 37 percent said they did not know which was larger.... Of those surveyed, 76 percent answered correctly that light travels faster than sound; 19 percent mistakenly said that sound moves faster." *New York Times*, Oct. 25, 1988, § C p. 10 col. 4. The state of knowledge may be even worse in the United Kingdom: "Only 34% of Britons know that the earth goes around the sun (rather than vice versa) and that it takes a year to do so. Almost one-fifth are presumably busy nailing their furniture to the floor as they imagine themselves hurtling around the sun once a day. And they are confused about what the universe is: given a list comprising solar system, galaxy, earth, universe, and sun, only 53% thought that the universe was the largest item. Some 7% thought that the earth was. Asked if nuclear-power stations cause acid rain, almost

half the respondents said yes, and only 34% knew that they did not.... So much for environmental awareness.... Some people seem unworried by radiation: 13% think that radioactive milk can be made safe by boiling it." *The Economist*, July 15, 1989, p. 84 col. 2.

[7] Fifteen to twenty million jobs is the estimate of the Bureau of National Affairs in *Pregnancy and Employment* 57 (1987), limited to injury caused by chemicals. Cases such as *Hayes* and *Zuniga* show that many additional women are affected by restrictions placed on other jobs, such as the x-ray technician jobs that exposed embryos to radiation. Concern about emissions from computers and their terminals has led to proposals that could restrict access even to traditional office jobs.

[8] The EPA, which administers the Toxic Substances Control Act, 15 U.S.C. §§ 2601-54, also may have authority over the subject. See Note, *Getting Beyond Discrimination: A Regulatory Solution to the Problem of Fetal Hazards in the Workplace*, 95 Yale L.J. 577, 592-98 (1986).

[9] For a review of the evidence see William L. Marcus & C. Richard Cothorn, *The Characteristics of an Adverse Effect: Using the Example of Developing a Standard for Lead*, 16(4) Drug Metabolism Reviews 423 (1985-86). Dr. Michael Silverstein, a board certified specialist in occupational medicine, testified in a deposition that the risks of a given level of lead in the blood are no greater to the fetus and children than to adults. He supported this position with an affidavit to which he attached three scientific studies. Dr. Marvin S. Legator, Director of the Division of Environmental Toxicology at the University of Texas, gave a deposition agreeing with this view, as did Dr. Ellen Silbergeld, a Senior Scientist in the Toxic Program of the Environmental Defense Fund.

[10] Dr. J. Julian Chisolm, Director of the Lead Program at the John F. Kennedy Institute in Baltimore, one of **Johnson's** witnesses, testified in a deposition that lead does not cross the placenta until late in the pregnancy and that the adverse effect of lead in a mother's blood does not begin until the last half of the third trimester. Dr. Silbergeld took a similar view.

[11] According to National Research Council Committee on Lead in the Human Environment 59-60 (1980), almost all lead stored in the body outside of bones is eliminated within four to six weeks of exposure. Dr. Silbergeld used the higher figure of 100 days for the elimination of lead from blood and soft tissues. Lead is released from bones much more slowly, but lead-207, the most common form they contain, is less active biologically. National Research Council on Biologic Effects of Atmospheric Pollutants 68 (1972). Even persons who have no occupational exposure ingest or inhale lead from other sources (paint, leaded gasoline, etc.), so that the actual blood lead level may drop slowly, but these sources of lead threaten offspring whether or not the mother works in **Johnson's** plants. It is possible that lead builds up in the placenta during early pregnancy, while the mother's blood lead level is highest, but the extent of this effect is unknown. The net effects of these offsetting processes are not quantified in this record.

[12] E.g., Surgeon General, *The Health Consequences of Smoking for Women* 191-239 (1980) (carbon monoxide, nicotine, and hydrogen cyanide from smoking cross the placenta, leading to miscarriages, reduction in fetal weight, reduced cognitive development, and Sudden Infant Death Syndrome); Alcohol, Drug Abuse, and Mental Health Administration, *Fetal Alcohol Syndrome and Other Effects of Alcohol on Pregnancy Outcome* (Sixth Special Report to the U.S. Congress on Alcohol and Health) (1987) (maternal drinking is associated with miscarriage, mental retardation of the child, low birth weight, and a characteristic set of birth defects known as "fetal alcohol syndrome"; collecting sources); Ernest L. Abel, *Fetal Alcohol Syndrome and Fetal Alcohol Effects* (1984) (collecting data on the effect of maternal drinking on the fetus); Richard B. Everson et al., *Quantitative Associations Between DNA Damage in Human Placenta and Maternal Smoking and Birth Weight*, 80 J.Nat.Cancer Inst. 567 (1988) (maternal smoking damages DNA of fetus); Steven H. Fox et al., *Perceptions of Risks of Smoking and Heavy Drinking during Pregnancy: 1985 NHIS Findings*, 102 Public Health Reports 73 (1987). Miscarriages, low birth weight, and retarded cognitive development, common consequences of maternal smoking and drinking, resemble the consequences of maternal lead but appear to be more common.

[13] Centers for Disease Control, *Smoking-Attributable Mortality and Years of Potential Life Lost — United States, 1984*, 36 Morbidity and Mortality Weekly Report 694 (Oct. 30, 1987).

[14] See Edmund A.C. Crouch & Richard Wilson, *Risk/Benefit Analysis* 173-83 (1982); Bruce N. Ames, Renae Magaw & Lois Swirsky Gold, *Ranking Possible Carcinogenic Hazards*, 236 Science 271 (1987); John Tierney, *Not To Worry*, *Hippocrates* 29 (Jan/Feb 1988); John F. Morrall III, *A Review of the Record*, Regulation 25 (Nov/Dec 1986).

[15] There is a tradition in public health of resolving doubts by assuming that risks exist until they can be disproved. As the uncertainties are substantial, this process often produces measures of risk that appear to be substantial. Yet whether to assume that the maximum likely hazard will come to pass — a process known as "conservative risk assessment" — is itself a political question. A court would be obliged to try to produce the most accurate, rather than the most conservative, assessment, for resolving doubts in one direction only produces inaccurate comparisons of poorly-understood risks (which will be overstated) against well-understood risks (which would be accurately stated). See Albert L. Nichols & Richard J. Zeckhauser, *The Perils of Prudence: How Conservative Risk Assessments Distort Regulation*, Regulation 13 (Nov/Dec 1986). Yet in an effort to measure risk accurately a court would get little aid from existing studies, often tailored to fulfilling regulatory demands for a "conservative" bias.

[16] The majority says that "[t]his issue bears no relevance to **Johnson Controls'** employment practices", majority op. 889 n. 28, because **Johnson** protected the salary and benefits of women transferred out of jobs in 1982. But **Johnson** does not offer women *excluded* from these jobs in 1983 or later the salary and benefits they could have earned in them, and it also does not protect the income and benefits of employees who because of the policy cannot exercise their seniority (bumping) rights to avoid layoffs.

[17] The *amici curiae* whose view of the evidence differs from that of the majority include the American Public Health Association, the American Society of Law and Medicine, the Planned Parenthood Federation of America, several toxicologists and physicians who have published scholarly papers on the subject (some of which **Johnson** relied on, to the consternation of the authors who appear before us to denounce its interpretation of their research), and Eula Bingham, a professor of environmental health who was also the Assistant Secretary

of Labor for OSHA at the time that agency published its lead regulations. Whether we think these persons and groups right or wrong, we should not suspect them of insufficient devotion to the health and welfare of the next generation.