In a fire ant hybrid zone between *Solenopsis xyloni* and *Solenopsis geminata* colonies headed by *S. xyloni* queens show genotypic patterns consistent with hybrid offspring constrained solely to the non-reproductive worker caste while pure lineage offspring are maintained in the reproductive caste. Allopatrically distributed *S. xyloni* do not show this pattern. I investigated potential mechanisms underlying caste determination in the hybrid zone by placing *S. xyloni* queens collected from the hybrid zone with either with hybrid workers (n=37), or *S. xyloni* workers (n=36), and *S. xyloni* queens from outside the hybrid zone either with hybrid workers (n=14) or *S. xyloni* workers (n=15). Worker fragments consisted of ~50 workers; under conditions queens are expected to maximize worker production. To ensure fostered workers were not confused with workers produced by the queen I recorded the number of worker pupae each queen produced at 4 weeks. I found no statistical difference in worker production between hybrid zone and allopatric queens regardless of worker type (X^2 test, $p>0.05$), but worker production was statistically different between allopatric queens with allopatric workers and hybrid zone queens with hybrid workers (X^2 test, $p<0.01$). These suggest that social environment (worker type) does not underlie caste determination in the hybrid zone, and hybrid zone *S. xyloni* queens are not capable of producing worker offspring even under conditions in which it should be favored. They are most not facultatively biasing their offspring's developmental trajectory. In the hybrid zone offspring development is most likely constrained by genotype. This genetic caste determination may represent local adaptation in the hybrid zone such that only pure lineage offspring are reproductively capable while hybrids are constrained to the sterile worker caste.