The generalized function γ_g *is such that there exists a deterministic sequence of regular functions,* $\left(\gamma_g\right)_n$ *that converges to* γ_g *in* S^* *and such that support of* $\left(\gamma_g\right)_n$ *is in a compact set* Λ_{gn}*; there exists* $\zeta_0 > 0$ *such that* $\left|\left(\gamma_g\right)_n\right| > 2\zeta_0$ *and for* $\gamma_{L1} = Ft(g_{L1})$ *on* Λ_g $\left|\gamma_{L1} - \left(\gamma_g\right)_n\right| > \zeta_0$.

Assumptions 6(a) and 6(b) imply that $w.$ can be divided by f_z and any generalized function can be divided by ϕ. Requiring that ϕ be in O_M is sufficient to ensure that the model leads to equations (3) in S^*. More detailed conditions similar to those employed in Theorem 2 would allow relaxing the infinite differentiability assumption 6(a). In particular, if γ is a characteristic function Assumption 6(a) for ϕ is not needed.

Continuity of $w.$ in 6(b) would follow by properties of convolution if either g were continuously differentiable, or f were continuous.

In (b) using the same bound on growth, m, and the same V for all the functions simplifies exposition without loss of generality. The bounds could be liberal but are assumed known in the construction of estimators. The constraint on the ϕ^{-1} restricts the measurement error from being supersmooth and the constraint on f_z^{-1} does not permit fast decline to zero at infinity for the density of conditioning z; these would be automatically satisfied if supports were bounded.

Assumption (c) implies that γ and therefore ε_1 are continuous functions. Indeed an integrable function has a continuous Fourier transform, γ, and $\varepsilon_1 = \gamma\phi$ is continuous since ϕ is a characteristic function and thus continuous.

Assumption 6(c') holds more generally, e.g. if g is a sum of an integrable