Supplementary Table 1. Full-text articles excluded from the systematic review.

|  |  |
| --- | --- |
| **Reference** | **Reason for exclusion**\* |
| 1. Akiyama, H., Meyer, J. S., Mortel, K. F., Terayama, Y., Thornby, J. I., & Konno, S. (1997). Normal human aging: Factors contributing to cerebral atrophy. *Journal of the Neurological Sciences, 152*(1), 39-49. 2. Alexopoulos, P., Richter-Schmidinger, T., Horn, M., Maus, S., Reichel, M., Sidiropoulos, C., . . . Kornhuber, J. (2011). Hippocampal volume differences between healthy young apolipoprotein E epsilon2 and epsilon4 carriers. *Journal of Alzheimer's Disease : JAD, 26*(2), 207-210. 3. Anstey, K. J., Mack, H. A., Christensen, H., Li, S. C., Reglade-Meslin, C., Maller, J., . . . Sachdev, P. (2007). Corpus callosum size, reaction time speed and variability in mild cognitive disorders and in a normative sample. *Neuropsychologia, 45*(8), 1911-1920. 4. Arenaza-Urquijo, E. M., Bosch, B., Sala-Llonch, R., Sole-Padulles, C., Junque, C., Fernandez-Espejo, D., . . . Bartres-Faz, D. (2011). Specific anatomic associations between white matter integrity and cognitive reserve in normal and cognitively impaired elders. *The American Journal of Geriatric Psychiatry : Official Journal of the American Association for Geriatric Psychiatry, 19*(1), 33-42. 5. Arnold, S. E., Louneva, N., Cao, K., Wang, L. S., Han, L. Y., Wolk, D. A., . . . Bennett, D. A. (2013). Cellular, synaptic, and biochemical features of resilient cognition in alzheimer's disease. *Neurobiology of Aging, 34*(1), 157-168. 6. (Baker et al., 2010) Baker, L. D., Frank, L. L., Foster-Schubert, K., Green, P. S., Wilkinson, C. W., McTiernan, A., . . . Craft, S. (2010). Effects of aerobic exercise on mild cognitive impairment: A controlled trial. *Archives of Neurology, 67*(1), 71-79. 7. (Bartres-Faz et al., 2009) Bartres-Faz, D., Sole-Padulles, C., Junque, C., Rami, L., Bosch, B., Bargallo, N., . . . Molinuevo, J. L. (2009). Interactions of cognitive reserve with regional brain anatomy and brain function during a working memory task in healthy elders. *Biological Psychology, 80*(2), 256-259. 8. (Bastin et al., 2012) Bastin, C., Yakushev, I., Bahri, M. A., Fellgiebel, A., Eustache, F., Landeau, B., . . . Salmon, E. (2012). Cognitive reserve impacts on inter-individual variability in resting-state cerebral metabolism in normal aging. *NeuroImage, 63*(2), 713-722. 9. (Bigio, Hynan, Sontag, Satumtira, & White, 2002) Bigio, E. H., Hynan, L. S., Sontag, E., Satumtira, S., & White, C. L. (2002). Synapse loss is greater in presenile than senile onset alzheimer disease: Implications for the cognitive reserve hypothesis. *Neuropathology and Applied Neurobiology, 28*(3), 218-227. 10. (Bigler et al., 2002) Bigler, E. D., Tate, D. F., Miller, M. J., Rice, S. A., Hessel, C. D., Earl, H. D., . . . Welsh-Bohmer, K. A. (2002). Dementia, asymmetry of temporal lobe structures, and apolipoprotein E genotype: Relationships to cerebral atrophy and neuropsychological impairment. *Journal of the International Neuropsychological Society : JINS, 8*(7), 925-933. 11. (Bosch et al., 2010) Bosch, B., Bartres-Faz, D., Rami, L., Arenaza-Urquijo, E. M., Fernandez-Espejo, D., Junque, C., . . . Molinuevo, J. L. (2010). Cognitive reserve modulates task-induced activations and deactivations in healthy elders, amnestic mild cognitive impairment and mild alzheimer's disease. *Cortex; a Journal Devoted to the Study of the Nervous System and Behavior, 46*(4), 451-461. 12. (Boyle, Wilson, Schneider, Bienias, & Bennett, 2008) Boyle, P. A., Wilson, R. S., Schneider, J. A., Bienias, J. L., & Bennett, D. A. (2008). Processing resources reduce the effect of alzheimer pathology on other cognitive systems. *Neurology, 70*(17), 1534-1542. 13. Brickman, A. M., Siedlecki, K. L., Muraskin, J., Manly, J. J., Luchsinger, J. A., Yeung, L. K., . . . Stern, Y. (2011). White matter hyperintensities and cognition: Testing the reserve hypothesis. *Neurobiology of Aging, 32*(9), 1588-1598. doi:10.1016/j.neurobiolaging.2009.10.013 [doi] 14. (Chetelat et al., 2010) Chetelat, G., Villemagne, V. L., Pike, K. E., Baron, J. C., Bourgeat, P., Jones, G., . . . Australian Imaging Biomarkers and Lifestyle Study of Ageing (AIBL) Research Group. (2010). Larger temporal volume in elderly with high versus low beta-amyloid deposition. *Brain : A Journal of Neurology, 133*(11), 3349-3358. 15. (Choo et al., 2011) Choo, I. H., Lee, D. Y., Kim, J. W., Seo, E. H., Lee, D. S., Kim, Y. K., . . . Yoon, E. J. (2011). Relationship of amyloid-beta burden with age-at-onset in alzheimer disease. *The American Journal of Geriatric Psychiatry : Official Journal of the American Association for Geriatric Psychiatry, 19*(7), 627-634. 16. (Cockburn, Keene, Hope, & Smith, 2000) Cockburn, J., Keene, J., Hope, T., & Smith, P. (2000). Progressive decline in NART score with increasing dementia severity. *Journal of Clinical and Experimental Neuropsychology, 22*(4), 508-517. 17. (Coffey, Saxton, Ratcliff, Bryan, & Lucke, 1999) Coffey, C. E., Saxton, J. A., Ratcliff, G., Bryan, R. N., & Lucke, J. F. (1999). Relation of education to brain size in normal aging: Implications for the reserve hypothesis. *Neurology, 53*(1), 189-196. 18. (A. D. Cohen et al., 2009) Cohen, A. D., Price, J. C., Weissfeld, L. A., James, J., Rosario, B. L., Bi, W., . . . Klunk, W. E. (2009). Basal cerebral metabolism may modulate the cognitive effects of abeta in mild cognitive impairment: An example of brain reserve. *The Journal of Neuroscience : The Official Journal of the Society for Neuroscience, 29*(47), 14770-14778. 19. (C. I. COHEN, STRASHUN, ORTEGA, HORN, & MAGAI, 1996) COHEN, C. I., STRASHUN, A., ORTEGA, C., HORN, L., & MAGAI, C. (1996). THE EFFECTS OF POVERTY AND EDUCATION ON TEMPOROPARIETAL PERFUSION IN ALZHEIMER'S DISEASE: A RECONSIDERATION OF THE CEREBRAL RESERVE HYPOTHESIS. *International Journal of Geriatric Psychiatry, 11*(12), 1105-1110. 20. (Del Ser, Hachinski, Merskey, & Munoz, 1999) Del Ser, T., Hachinski, V., Merskey, H., & Munoz, D. G. (1999). An autopsy-verified study of the effect of education on degenerative dementia. *Brain : A Journal of Neurology, 122 ( Pt 12)*(Pt 12), 2309-2319. 21. (Edland et al., 2002) Edland, S. D., Xu, Y., Plevak, M., O'Brien, P., Tangalos, E. G., Petersen, R. C., & Jack, C. R.,Jr. (2002). Total intracranial volume: Normative values and lack of association with alzheimer's disease. *Neurology, 59*(2), 272-274. 22. (Elkins et al., 2006) Elkins, J. S., Longstreth, W. T.,Jr, Manolio, T. A., Newman, A. B., Bhadelia, R. A., & Johnston, S. C. (2006). Education and the cognitive decline associated with MRI-defined brain infarct. *Neurology, 67*(3), 435-440. 23. (Engvig et al., 2010) Engvig, A., Fjell, A. M., Westlye, L. T., Moberget, T., Sundseth, O., Larsen, V. A., & Walhovd, K. B. (2010). Effects of memory training on cortical thickness in the elderly. *NeuroImage, 52*(4), 1667-1676. 24. (Farias et al., 2012) Farias, S. T., Mungas, D., Reed, B., Carmichael, O., Beckett, L., Harvey, D., . . . Decarli, C. (2012). Maximal brain size remains an important predictor of cognition in old age, independent of current brain pathology. *Neurobiology of Aging, 33*(8), 1758-1768. 25. (Fotenos, Mintun, Snyder, Morris, & Buckner, 2008) Fotenos, A. F., Mintun, M. A., Snyder, A. Z., Morris, J. C., & Buckner, R. L. (2008). Brain volume decline in aging: Evidence for a relation between socioeconomic status, preclinical alzheimer disease, and reserve. *Archives of Neurology, 65*(1), 113-120. 26. (Foubert-Samier et al., 2012) Foubert-Samier, A., Catheline, G., Amieva, H., Dilharreguy, B., Helmer, C., Allard, M., & Dartigues, J. F. (2012). Education, occupation, leisure activities, and brain reserve: A population-based study. *Neurobiology of Aging, 33*(2), 423.e15-423.e25. 27. (Frisoni et al., 2009) Frisoni, G. B., Lorenzi, M., Caroli, A., Kemppainen, N., Nagren, K., & Rinne, J. O. (2009). In vivo mapping of amyloid toxicity in alzheimer disease. *Neurology, 72*(17), 1504-1511. 28. (Glodzik et al., 2012) Glodzik, L., Wu, W. E., Babb, J. S., Achtnichts, L., Amann, M., Sollberger, M., . . . Gonen, O. (2012). The whole-brain N-acetylaspartate correlates with education in normal adults. *Psychiatry Research, 204*(1), 49-54. 29. (Hanyu et al., 2008) Hanyu, H., Sato, T., Shimizu, S., Kanetaka, H., Iwamoto, T., & Koizumi, K. (2008). The effect of education on rCBF changes in alzheimer's disease: A longitudinal SPECT study. *European Journal of Nuclear Medicine and Molecular Imaging, 35*(12), 2182-2190.] 30. (Honer et al., 2012) Honer, W. G., Barr, A. M., Sawada, K., Thornton, A. E., Morris, M. C., Leurgans, S. E., . . . Bennett, D. A. (2012). Cognitive reserve, presynaptic proteins and dementia in the elderly. *Translational Psychiatry, 2*, e114. 31. Iacono, D., Markesbery, W. R., Gross, M., Pletnikova, O., Rudow, G., Zandi, P., & Troncoso, J. C. (2009). The nun study: Clinically silent AD, neuronal hypertrophy, and linguistic skills in early life. *Neurology, 73*(9), 665-673. doi:10.1212/WNL.0b013e3181b01077 [doi] 32. (Jenkins, Fox, Rossor, Harvey, & Rossor, 2000) Jenkins, R., Fox, N. C., Rossor, A. M., Harvey, R. J., & Rossor, M. N. (2000). Intracranial volume and alzheimer disease: Evidence against the cerebral reserve hypothesis. *Archives of Neurology, 57*(2), 220-224. 33. (Kaplan et al., 2009) Kaplan, R. F., Cohen, R. A., Moscufo, N., Guttmann, C., Chasman, J., Buttaro, M., . . . Wolfson, L. (2009). Demographic and biological influences on cognitive reserve. *Journal of Clinical and Experimental Neuropsychology, 31*(7), 868-876. 34. (Katzman et al., 1988) Katzman, R., Terry, R., DeTeresa, R., Brown, T., Davies, P., Fuld, P., . . . Peck, A. (1988). Clinical, pathological, and neurochemical changes in dementia: A subgroup with preserved mental status and numerous neocortical plaques. *Annals of Neurology, 23*(2), 138-144. 35. (Kim et al., 2005) Kim, E. J., Cho, S. S., Jeong, Y., Park, K. C., Kang, S. J., Kang, E., . . . Na, D. L. (2005). Glucose metabolism in early onset versus late onset alzheimer's disease: An SPM analysis of 120 patients. *Brain : A Journal of Neurology, 128*(Pt 8), 1790-1801. 36. (Liao et al., 2005) Liao, Y. C., Liu, R. S., Teng, E. L., Lee, Y. C., Wang, P. N., Lin, K. N., . . . Liu, H. C. (2005). Cognitive reserve: A SPECT study of 132 alzheimer's disease patients with an education range of 0-19 years. *Dementia and Geriatric Cognitive Disorders, 20*(1), 8-14. 37. (Liu et al., 2012) Liu, Y., Julkunen, V., Paajanen, T., Westman, E., Wahlund, L. O., Aitken, A., . . . AddNeuroMed Consortium. (2012). Education increases reserve against alzheimer's disease--evidence from structural MRI analysis. *Neuroradiology, 54*(9), 929-938. 38. (Malykhin, Bouchard, Camicioli, & Coupland, 2008) Malykhin, N. V., Bouchard, T. P., Camicioli, R., & Coupland, N. J. (2008). Aging hippocampus and amygdala. *Neuroreport, 19*(5), 543-547. 39. (Marshall, Fairbanks, Tekin, Vinters, & Cummings, 2007) Marshall, G. A., Fairbanks, L. A., Tekin, S., Vinters, H. V., & Cummings, J. L. (2007). Early-onset alzheimer's disease is associated with greater pathologic burden. *Journal of Geriatric Psychiatry and Neurology, 20*(1), 29-33. 40. (Minger et al., 2001) Minger, S. L., Honer, W. G., Esiri, M. M., McDonald, B., Keene, J., Nicoll, J. A., . . . Francis, P. T. (2001). Synaptic pathology in prefrontal cortex is present only with severe dementia in alzheimer disease. *Journal of Neuropathology and Experimental Neurology, 60*(10), 929-936. 41. (Mori et al., 1997) Mori, E., Hirono, N., Yamashita, H., Imamura, T., Ikejiri, Y., Ikeda, M., . . . Yoneda, Y. (1997). Premorbid brain size as a determinant of reserve capacity against intellectual decline in alzheimer's disease. *The American Journal of Psychiatry, 154*(1), 18-24. 42. (Mortimer, Snowdon, & Markesbery, 2003) Mortimer, J. A., Snowdon, D. A., & Markesbery, W. R. (2003). Head circumference, education and risk of dementia: Findings from the nun study. *Journal of Clinical and Experimental Neuropsychology, 25*(5), 671-679. 43. (Mosconi et al., 2005) Mosconi, L., Herholz, K., Prohovnik, I., Nacmias, B., De Cristofaro, M. T., Fayyaz, M., . . . Pupi, A. (2005). Metabolic interaction between ApoE genotype and onset age in alzheimer's disease: Implications for brain reserve. *Journal of Neurology, Neurosurgery, and Psychiatry, 76*(1), 15-23. 44. (Mukherjee et al., 2012) Mukherjee, S., Kim, S., Gibbons, L. E., Nho, K., Risacher, S. L., Glymour, M. M., . . . Alzheimer's Disease Neuroimaging Initiative. (2012). Genetic architecture of resilience of executive functioning. *Brain Imaging and Behavior, 6*(4), 621-633. 45. (Nebes et al., 2006) Nebes, R. D., Meltzer, C. C., Whyte, E. M., Scanlon, J. M., Halligan, E. M., Saxton, J. A., . . . Dekosky, S. T. (2006). The relation of white matter hyperintensities to cognitive performance in the normal old: Education matters. *Neuropsychology, Development, and Cognition.Section B, Aging, Neuropsychology and Cognition, 13*(3-4), 326-340. 46. (Perez-Nievas et al., 2013) Perez-Nievas, B. G., Stein, T. D., Tai, H. C., Dols-Icardo, O., Scotton, T. C., Barroeta-Espar, I., . . . Gomez-Isla, T. (2013). Dissecting phenotypic traits linked to human resilience to alzheimer's pathology. *Brain : A Journal of Neurology, 136*(Pt 8), 2510-2526. doi:10.1093/brain/awt171 [doi] 47. (Perneczky et al., 2010) Perneczky, R., Wagenpfeil, S., Lunetta, K. L., Cupples, L. A., Green, R. C., Decarli, C., . . . MIRAGE Study Group. (2010). Head circumference, atrophy, and cognition: Implications for brain reserve in alzheimer disease. *Neurology, 75*(2), 137-142. 48. (Perneczky, Diehl-Schmid, Forstl, Drzezga, & Kurz, 2007) Perneczky, R., Diehl-Schmid, J., Forstl, H., Drzezga, A., & Kurz, A. (2007). Male gender is associated with greater cerebral hypometabolism in frontotemporal dementia: Evidence for sex-related cognitive reserve. *International Journal of Geriatric Psychiatry, 22*(11), 1135-1140. 49. (Perneczky, Drzezga, Diehl-Schmid, Li, & Kurz, 2007) Perneczky, R., Drzezga, A., Diehl-Schmid, J., Li, Y., & Kurz, A. (2007). Gender differences in brain reserve : An (18)F-FDG PET study in alzheimer's disease. *Journal of Neurology, 254*(10), 1395-1400. 50. (Pillai et al., 2012) Pillai, J. A., McEvoy, L. K., Hagler, D. J.,Jr, Holland, D., Dale, A. M., Salmon, D. P., . . . Alzheimer's Disease Neuroimaging Initiative. (2012). Higher education is not associated with greater cortical thickness in brain areas related to literacy or intelligence in normal aging or mild cognitive impairment. *Journal of Clinical and Experimental Neuropsychology, 34*(9), 925-935. 51. (Piras, Cherubini, Caltagirone, & Spalletta, 2011)Piras, F., Cherubini, A., Caltagirone, C., & Spalletta, G. (2011). Education mediates microstructural changes in bilateral hippocampus. *Human Brain Mapping, 32*(2), 282-289. 52. (Premi et al., 2012) Premi, E., Garibotto, V., Alberici, A., Paghera, B., Giubbini, R., Padovani, A., & Borroni, B. (2012). Nature versus nurture in frontotemporal lobar degeneration: The interaction of genetic background and education on brain damage. *Dementia and Geriatric Cognitive Disorders, 33*(6), 372-378. 53. (Premkumar, Cohen, Hedera, Friedland, & Kalaria, 1996) Premkumar, D. R., Cohen, D. L., Hedera, P., Friedland, R. P., & Kalaria, R. N. (1996). Apolipoprotein E-epsilon4 alleles in cerebral amyloid angiopathy and cerebrovascular pathology associated with alzheimer's disease. *The American Journal of Pathology, 148*(6), 2083-2095. 54. (Querbes et al., 2009) Querbes, O., Aubry, F., Pariente, J., Lotterie, J. A., Demonet, J. F., Duret, V., . . . Alzheimer's Disease Neuroimaging Initiative. (2009). Early diagnosis of alzheimer's disease using cortical thickness: Impact of cognitive reserve. *Brain : A Journal of Neurology, 132*(Pt 8), 2036-2047. 55. (Reed et al., 2010) Reed, B. R., Mungas, D., Farias, S. T., Harvey, D., Beckett, L., Widaman, K., . . . DeCarli, C. (2010). Measuring cognitive reserve based on the decomposition of episodic memory variance. *Brain : A Journal of Neurology, 133*(Pt 8), 2196-2209. 56. (Rentz et al., 2007) Rentz, D. M., Huh, T. J., Sardinha, L. M., Moran, E. K., Becker, J. A., Daffner, K. R., . . . Johnson, K. A. (2007). Intelligence quotient-adjusted memory impairment is associated with abnormal single photon emission computed tomography perfusion. *Journal of the International Neuropsychological Society : JINS, 13*(5), 821-831. 57. Rentz, D. M., Locascio, J. J., Becker, J. A., Moran, E. K., Eng, E., Buckner, R. L., . . . Johnson, K. A. (2010). Cognition, reserve, and amyloid deposition in normal aging. *Annals of Neurology, 67*(3), 353-364. 58. (Roe et al., 2011) Roe, C. M., Fagan, A. M., Williams, M. M., Ghoshal, N., Aeschleman, M., Grant, E. A., . . . Morris, J. C. (2011). Improving CSF biomarker accuracy in predicting prevalent and incident alzheimer disease. *Neurology, 76*(6), 501-510. 59. (Roe et al., 2010) Roe, C. M., Mintun, M. A., Ghoshal, N., Williams, M. M., Grant, E. A., Marcus, D. S., & Morris, J. C. (2010). Alzheimer disease identification using amyloid imaging and reserve variables: Proof of concept. *Neurology, 75*(1), 42-48. 60. (Rolstad et al., 2010)Rolstad, S., Nordlund, A., Eckerstrom, C., Gustavsson, M. H., Blennow, K., Olesen, P. J., . . . Wallin, A. (2010). High education may offer protection against tauopathy in patients with mild cognitive impairment. *Journal of Alzheimer's Disease : JAD, 21*(1), 221-228. 61. (Rolstad, Nordlund, Eckerstrom, Gustavsson, Zetterberg, & Wallin, 2009b) Rolstad, S., Nordlund, A., Eckerstrom, C., Gustavsson, M. H., Zetterberg, H., & Wallin, A. (2009). Cognitive reserve in relation to abeta42 in patients converting from MCI to dementia - a follow-up report. *Dementia and Geriatric Cognitive Disorders, 28*(2), 110-115. 62. (Rolstad, Nordlund, Eckerstrom, Gustavsson, Zetterberg, & Wallin, 2009a) Rolstad, S., Nordlund, A., Eckerstrom, C., Gustavsson, M. H., Zetterberg, H., & Wallin, A. (2009a). Biomarkers in relation to cognitive reserve in patients with mild cognitive impairment--proof of concept. *Dementia and Geriatric Cognitive Disorders, 27*(2), 194-200. 63. (SantaCruz et al., 2011) SantaCruz, K. S., Sonnen, J. A., Pezhouh, M. K., Desrosiers, M. F., Nelson, P. T., & Tyas, S. L. (2011). Alzheimer disease pathology in subjects without dementia in 2 studies of aging: The nun study and the adult changes in thought study. *Journal of Neuropathology and Experimental Neurology, 70*(10), 832-840. 64. (Scarmeas et al., 2004) Scarmeas, N., Zarahn, E., Anderson, K. E., Honig, L. S., Park, A., Hilton, J., . . . Stern, Y. (2004). Cognitive reserve-mediated modulation of positron emission tomographic activations during memory tasks in alzheimer disease. *Archives of Neurology, 61*(1), 73-78. 65. (Scarmeas et al., 2003) Scarmeas, N., Zarahn, E., Anderson, K. E., Hilton, J., Flynn, J., Van Heertum, R. L., . . . Stern, Y. (2003). Cognitive reserve modulates functional brain responses during memory tasks: A PET study in healthy young and elderly subjects. *NeuroImage, 19*(3), 1215-1227. 66. (Seo et al., 2011) Seo, S. W., Im, K., Lee, J. M., Kim, S. T., Ahn, H. J., Go, S. M., . . . Na, D. L. (2011). Effects of demographic factors on cortical thickness in alzheimer's disease. *Neurobiology of Aging, 32*(2), 200-209. 67. (Serra et al., 2011) Serra, L., Cercignani, M., Petrosini, L., Basile, B., Perri, R., Fadda, L., . . . Bozzali, M. (2011). Neuroanatomical correlates of cognitive reserve in alzheimer disease. *Rejuvenation Research, 14*(2), 143-151. 68. (Silver, Newell, Brady, Hedley-White, & Perls, 2002) Silver, M. H., Newell, K., Brady, C., Hedley-White, E. T., & Perls, T. T. (2002). Distinguishing between neurodegenerative disease and disease-free aging: Correlating neuropsychological evaluations and neuropathological studies in centenarians. *Psychosomatic Medicine, 64*(3), 493-501. 69. (Sole-Padulles et al., 2011) Sole-Padulles, C., Llado, A., Bartres-Faz, D., Fortea, J., Sanchez-Valle, R., Bosch, B., . . . Rami, L. (2011). Association between cerebrospinal fluid tau and brain atrophy is not related to clinical severity in the alzheimer's disease continuum. *Psychiatry Research, 192*(3), 140-146. 70. (Sole-Padulles et al., 2009) Sole-Padulles, C., Bartres-Faz, D., Junque, C., Vendrell, P., Rami, L., Clemente, I. C., . . . Molinuevo, J. L. (2009). Brain structure and function related to cognitive reserve variables in normal aging, mild cognitive impairment and alzheimer's disease. *Neurobiology of Aging, 30*(7), 1114-1124. 71. (Spreng et al., 2010) Spreng, R. N., Rosen, H. J., Strother, S., Chow, T. W., Diehl-Schmid, J., Freedman, M., . . . Levine, B. (2010). Occupation attributes relate to location of atrophy in frontotemporal lobar degeneration. *Neuropsychologia, 48*(12), 3634-3641. 72. (Steffener, Reuben, Rakitin, & Stern, 2011) Steffener, J., Reuben, A., Rakitin, B. C., & Stern, Y. (2011). Supporting performance in the face of age-related neural changes: Testing mechanistic roles of cognitive reserve. *Brain Imaging and Behavior, 5*(3), 212-221. 73. (Stern et al., 2005) Stern, Y., Habeck, C., Moeller, J., Scarmeas, N., Anderson, K. E., Hilton, H. J., . . . van Heertum, R. (2005). Brain networks associated with cognitive reserve in healthy young and old adults. *Cerebral Cortex (New York, N.Y.: 1991), 15*(4), 394-402. 74. (Tate et al., 2011) Tate, D. F., Neeley, E. S., Norton, M. C., Tschanz, J. T., Miller, M. J., Wolfson, L., . . . Bigler, E. D. (2011). Intracranial volume and dementia: Some evidence in support of the cerebral reserve hypothesis. *Brain Research, 1385*, 151-162. 75. (Tupler et al., 2007) Tupler, L. A., Krishnan, K. R., Greenberg, D. L., Marcovina, S. M., Payne, M. E., MacFall, J. R., . . . Doraiswamy, P. M. (2007). Predicting memory decline in normal elderly: Genetics, MRI, and cognitive reserve. *Neurobiology of Aging, 28*(11), 1644-1656. 76. (Valenzuela et al., 2003) Valenzuela, M. J., Jones, M., Wen, W., Rae, C., Graham, S., Shnier, R., & Sachdev, P. (2003). Memory training alters hippocampal neurochemistry in healthy elderly. *Neuroreport, 14*(10), 1333-1337. 77. (van Veluw et al., 2012) van Veluw, S. J., Sawyer, E. K., Clover, L., Cousijn, H., De Jager, C., Esiri, M. M., & Chance, S. A. (2012). Prefrontal cortex cytoarchitecture in normal aging and alzheimer's disease: A relationship with IQ. *Brain Structure & Function, 217*(4), 797-808. 78. Vemuri, P., Weigand, S. D., Przybelski, S. A., Knopman, D. S., Smith, G. E., Trojanowski, J. Q., . . . Alzheimer's Disease Neuroimaging, I. (2011). Cognitive reserve and alzheimer's disease biomarkers are independent determinants of cognition. *Brain, 134*(Pt 5), 1479-1492. 79. (Villeneuve, Massoud, Bocti, Gauthier, & Belleville, 2011) Villeneuve, S., Massoud, F., Bocti, C., Gauthier, S., & Belleville, S. (2011). The nature of episodic memory deficits in MCI with and without vascular burden. *Neuropsychologia, 49*(11), 3027-3035. 80. Vuoksimaa, E., Panizzon, M. S., Chen, C. H., Eyler, L. T., Fennema-Notestine, C., Fiecas, M. J., . . . Kremen, W. S. (2013). Cognitive reserve moderates the association between hippocampal volume and episodic memory in middle age. *Neuropsychologia, 51*(6), 1124-1131. doi:10.1016/j.neuropsychologia.2013.02.022. 81. (Wilson et al., 2013) Wilson, R. S., Nag, S., Boyle, P. A., Hizel, L. P., Yu, L., Buchman, A. S., . . . Bennett, D. A. (2013). Neural reserve, neuronal density in the locus ceruleus, and cognitive decline. *Neurology, 80*(13), 1202-1208. 82. (Wolf, Julin, Gertz, Winblad, & Wahlund, 2004) Wolf, H., Julin, P., Gertz, H. J., Winblad, B., & Wahlund, L. O. (2004). Intracranial volume in mild cognitive impairment, alzheimer's disease and vascular dementia: Evidence for brain reserve? *International Journal of Geriatric Psychiatry, 19*(10), 995-1007. 83. (Wolf et al., 2004) Wolf, H., Hensel, A., Kruggel, F., Riedel-Heller, S. G., Arendt, T., Wahlund, L. O., & Gertz, H. J. (2004). Structural correlates of mild cognitive impairment. *Neurobiology of Aging, 25*(7), 913-924. 84. (Wolf et al., 2003)Wolf, H., Kruggel, F., Hensel, A., Wahlund, L. O., Arendt, T., & Gertz, H. J. (2003). The relationship between head size and intracranial volume in elderly subjects. *Brain Research, 973*(1), 74-80. 85. (Woodard et al., 2009) Woodard, J. L., Seidenberg, M., Nielson, K. A., Antuono, P., Guidotti, L., Durgerian, S., . . . Rao, S. M. (2009). Semantic memory activation in amnestic mild cognitive impairment. *Brain : A Journal of Neurology, 132*(Pt 8), 2068-2078.   \* Some studies were excluded for multiple reasons, only one reason is provided here | All three CR measures not stated *a priori.*  Biological determinants the primary focus  All three CR components not stated *a priori.*  Different objectives  Biological determinants the primary focus  Different objectives  Functional MRI the primary focus  All three CR components not stated *a priori.*  Different objectives  Biological determinants the primary focus  Functional MRI the primary focus  Biological determinants the primary focus  CR determinants directly associated with brain function  All three CR components not stated *a priori.*  Different objectives  Different model of CR  Different model of CR  Biological determinants the primary focus  Different model of CR  Different objectives  Different model of CR  Different population of interest  Different model of CR  Biological determinants the primary focus  All three CR components not stated *a priori.*  Different model of CR  Biological determinants the primary focus  Different objectives  Different objectives  Biological determinants the primary focus  CR determinants directly associated with brain function  Different objectives  Different model of CR  Biological determinants the primary focus  Different objectives  Different model of CR  Different objectives  Biological determinants the primary focus  Different objectives  Biological determinants the primary focus  Biological determinants the primary focus  Different objectives  Biological determinants the primary focus  Biological determinants the primary focus  Different objectives  Biological determinants the primary focus  Biological determinants the primary focus    Biological determinants the primary focus  Biological determinants the primary focus  Different objectives  Different objectives  Biological determinants the primary focus  Biological determinants the primary focus  Different model of CR  Different objectives  Different objectives  CR determinants directly associated with brain function  Different objectives  Different objectives  Different objectives  Biological determinants the primary focus  Different objectives  Biological determinants the primary focus  Different objectives  Different objectives  Different objectives  All three CR components not stated *a priori.*  Biological determinants the primary focus  Different objectives  Different objectives  Different model of CR  Different model of CR  Different objectives  Different objectives  Different model of CR  All three CR components not stated *a priori.*  Different objectives  CR determinants directly associated with brain function  Different objectives  CR determinants directly associated with brain function  Different objectives  Different objectives  Different objectives  Different objectives  Different objectives |